

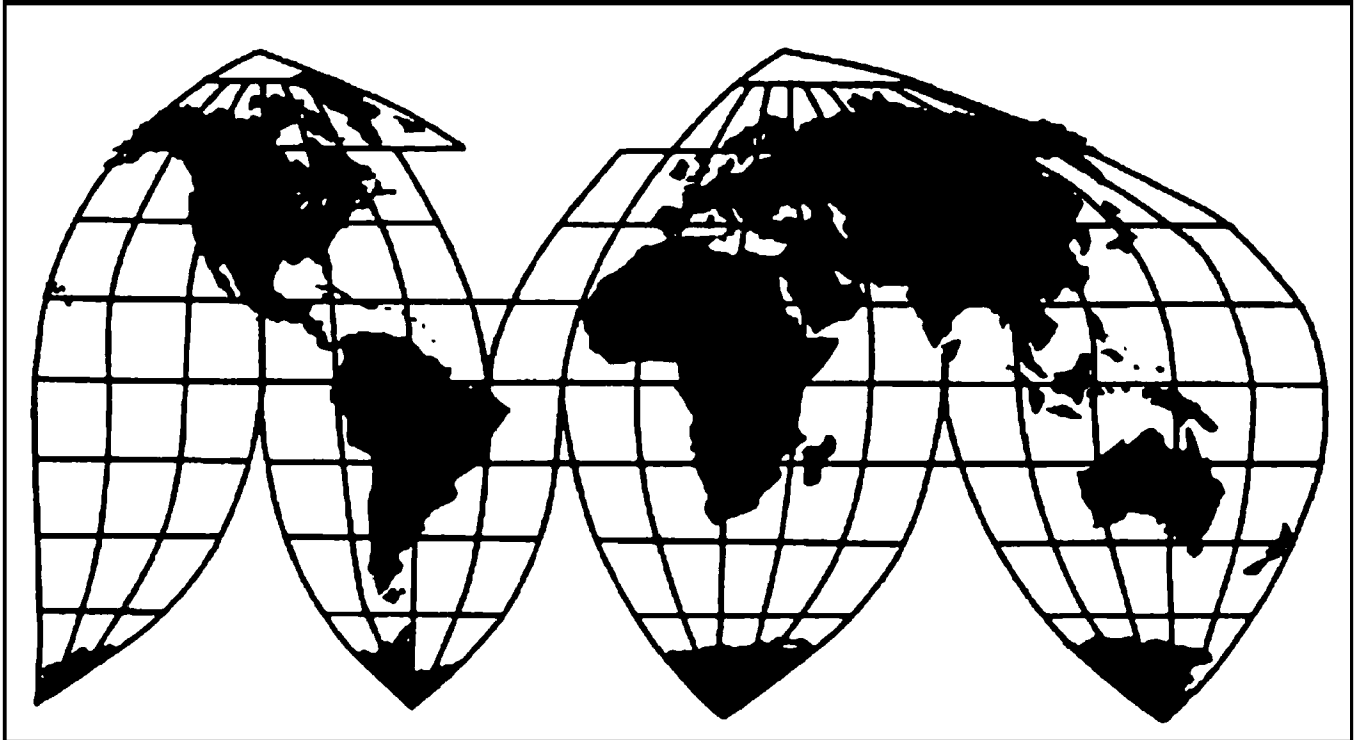
Certain Mobile Access Equipment and Subassemblies Thereof from China

Investigation No. 701-TA-665 (Final)

Publication 5242

December 2021

U.S. International Trade Commission



Washington, DC 20436

U.S. International Trade Commission

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UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation No. 701-TA-665 (Final)

Certain Mobile Access Equipment and Subassemblies Thereof from China

DETERMINATION

On the basis of the record¹ developed in the subject investigation, the United States International Trade Commission (“Commission”) determines, pursuant to the Tariff Act of 1930 (“the Act”), that an industry in the United States is threatened with material injury by reason of imports of certain mobile access equipment and subassemblies thereof (“mobile access equipment”) from China, provided for in subheadings 8427.10.80, 8427.20.80, 8427.90.00, and 8431.20.00 of the Harmonized Tariff Schedule of the United States, that have been found by the U.S. Department of Commerce (“Commerce”) to be subsidized by the government of China.²

BACKGROUND

The Commission instituted this investigation effective February 26, 2021, following receipt of a petition filed with the Commission and Commerce by the Coalition of American Manufacturers of Mobile Access Equipment (“CAMMAE” or “the Coalition”).³ The Commission scheduled the final phase of the investigation following notification of a preliminary determination by Commerce that imports of mobile access equipment from China were being subsidized within the meaning of section 703(b) of the Act (19 U.S.C. 1671b(b)). Notice of the scheduling of the final phase of the Commission’s investigation and of a public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice

¹ The record is defined in § 207.2(f) of the Commission’s Rules of Practice and Procedure (19 CFR 207.2(f)).

² 86 FR 57809 (October 19, 2021).

³ The Coalition is composed of JLG Industries, Inc. (“JLG”), Hagerstown, Maryland and Terex Corporation (“Terex”), Redmond, Washington.

in the *Federal Register* of August 12, 2021 (86 FR 44402). In light of the restrictions on access to the Commission building due to the COVID-19 pandemic, the Commission conducted its hearing through written testimony and video conference on October 12, 2021. All persons who requested the opportunity were permitted to participate.

Views of the Commission

Based on the record in the final phase of this investigation, we determine that an industry in the United States is threatened with material injury by reason of imports of certain mobile access equipment and subassemblies thereof (“MAE”) from China found by the U.S. Department of Commerce (“Commerce”) to be subsidized by the government of China.

I. Background

The Coalition of American Manufacturers of Mobile Access Equipment (“petitioner”), a trade association comprising JLG Industries, Inc. (“JLG”) and Terex Corp. (“Terex”), domestic producers of MAE, filed antidumping and countervailing duty petitions in these investigations on February 26, 2021.¹ The investigation schedules became staggered when Commerce did not align its countervailing duty investigation with its antidumping duty investigation.² As a result, the Commission must make an earlier determination in the countervailing duty investigation than in the antidumping duty investigation. Pursuant to the statutory provision on staggered investigations, the record for each of these investigations will be the same except that prior to the Commission’s determination in the antidumping duty investigation, the Commission shall include in the record the final Commerce dumping determination and the parties’ final comments concerning that determination.³

¹ Confidential Report, Memorandum INV-TT-124 (Oct. 29, 2021) as revised by Memorandum INV-TT-125 (Nov. 3, 2021) (“CR”) at I-1 and n.1; Public Report, *Certain Mobile Access Equipment and Subassemblies Thereof from China*, Inv. No. 701-TA-665 (Final), USITC Pub. 5242 (Dec. 2021) (“PR”) at I-1 and n.1.

² See *Certain Mobile Access Equipment and Subassemblies Thereof From the People’s Republic of China: Preliminary Affirmative Countervailing Duty Determination*, 86 Fed. Reg. 41013 (July 30, 2021). Commerce will align antidumping and countervailing duty investigations filed on the same day and for the same product where the petitioner requests such an alignment. See 19 U.S.C. § 1671d (a)(1); see also 19 C.F.R. § 351.210(b)(4)(i). Petitioner did not request an alignment of the investigations on MAE from China.

³ See 19 U.S.C. § 1677(7)(G)(iii). Commerce is currently scheduled to issue its final antidumping duty determination no later than February 14, 2022. *Certain Mobile Access Equipment and Subassemblies Thereof From the People’s Republic of China: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Postponement of Final Determination, and Extension of Provisional Measures*, 86 Fed. Reg. 54164 (Sept. 30, 2021).

Petitioner appeared at the hearing represented by counsel and filed prehearing and posthearing briefs and final comments.⁴ Domestic producer and purchaser Pettibone Traverse Lift, LLC (“Pettibone”) also filed prehearing and posthearing briefs and final comments.⁵

Several respondent entities participated in these proceedings. The China Chamber of Commerce for Import and Export of Machinery and Electronic Products Subcommittee, five foreign producers/exporters of MAE in China, and an affiliated U.S. importer of MAE from China (collectively, “Chinese respondents”) appeared at the hearing represented by counsel and jointly filed prehearing and posthearing briefs and final comments.⁶ SANY America Inc. (“SANY”) and domestic producer California Manufacturing and Engineering Co. (“MEC”), importers of subject merchandise, each appeared at the hearing represented by counsel and filed separate prehearing and posthearing briefs and final comments.⁷ Skyjack Inc. (“Skyjack”), a Canadian producer/exporter and U.S. importer of MAE with Chinese subassemblies, appeared at the hearing represented by counsel and filed prehearing and posthearing briefs and final comments.⁸

Except where noted, U.S. industry data for the January 1, 2018, to June 30, 2021, period of investigation (“POI”) are based on questionnaire responses of eight firms that accounted for

⁴ Hearing transcript (“Hearing Tr.”) at 3; Petitioner’s Prehearing Brief, Oct. 5, 2021 (“Petitioner’s Prehear. Br.”); Petitioner’s Posthearing Brief, Oct. 19, 2021 (“Petitioner’s Posthear. Br.”); Petitioner’s Final Comments, Nov. 5, 2021. In light of the restrictions on access to the Commission building due to the COVID-19 pandemic, the Commission conducted its hearing in these investigations through videoconference held on October 12, 2021, as set forth in procedures provided to the parties. *Certain Mobile Access Equipment and Subassemblies Thereof From China; Scheduling of the Final Phase of Countervailing Duty and Anti-Dumping Duty Investigations*, 86 Fed. Reg. 44402 (Aug. 12, 2021).

⁵ Pettibone’s Prehearing Brief, Oct. 5, 2021 (“Pettibone’s Prehear. Br.”); Pettibone’s Posthearing Brief, Oct. 19, 2021 (“Pettibone’s Posthear. Br.”); Pettibone’s Final Comments, Nov. 5, 2021. Pettibone ***. CR/PR at Table III-1.

⁶ Hearing Tr. at 4; Chinese Respondents’ Prehearing Brief, Oct. 5, 2021 (“Chinese Respondents’ Prehear. Br.”); Chinese Respondents’ Posthearing Brief, Oct. 19, 2021 (“Chinese Respondents’ Posthear. Br.”); Chinese Respondents’ Final Comments, Nov. 5, 2021. The five foreign producers/exporters are Zhejiang Dingli Machinery Co. Ltd. (“Dingli”); Zoomlion Heavy Industry Science and Technology Co., Ltd.; XCMG Import & Export Co., Ltd.; SANY Marine Heavy Industry Co., Ltd.; and Lingong Group Jinan Heavy Machinery Co., Ltd. Chinese Respondents’ Prehear. Br. at 1. The U.S. affiliate to Lingong Group Jinan Heavy Machinery Co., Ltd. and importer of subject merchandise is LGMG North America Inc. *Id.*

⁷ Hearing Tr. at 4–5; SANY’s Prehearing Brief, Oct. 5, 2021 (“SANY’s Prehear. Br.”); SANY’s Posthearing Brief, Oct. 19, 2021 (“SANY’s Posthear. Br.”); SANY’s Final Comments, Nov. 5, 2021; MEC’s Prehearing Brief, Oct. 5, 2021 (“MEC’s Prehear. Br.”); MEC’s Posthearing Brief, Oct. 19, 2021 (“MEC’s Posthear. Br.”); MEC’s Final Comments, Nov. 5, 2021.

⁸ Hearing Tr. at 5; Skyjack’s Prehearing Brief, Oct. 5, 2021 (“Skyjack’s Prehear. Br.”); Skyjack’s Posthearing Brief, Oct. 19, 2021 (“Skyjack’s Posthear. Br.”); Skyjack’s Final Comments, Nov. 5, 2021.

the vast majority of U.S. production of MAE during 2020.⁹ U.S. imports are based on questionnaire responses from 17 U.S. importers that accounted for the vast majority of U.S. imports from subject and nonsubject sources in 2020.¹⁰ The Commission received responses to its questionnaires from 10 foreign producers of subject merchandise, accounting for *** percent of reported U.S. imports of MAE from China and *** percent of estimated production of MAE in China in 2020.¹¹

II. Domestic Like Product

A. In General

In determining whether an industry in the United States is materially injured or threatened with material injury by reason of imports of subject merchandise, the Commission first defines the “domestic like product” and the “industry.”¹² Section 771(4)(A) of the Tariff Act of 1930, as amended (“the Tariff Act”), defines the relevant domestic industry as the “producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product.”¹³ In turn, the Tariff Act defines “domestic like product” as “a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation.”¹⁴

By statute, the Commission’s “domestic like product” analysis begins with the “article subject to an investigation,” *i.e.*, the subject merchandise as determined by Commerce.¹⁵ Therefore, Commerce’s determination as to the scope of the imported merchandise that is subsidized and/or sold at less than fair value is “necessarily the starting point of the

⁹ CR/PR at I-5.

¹⁰ CR/PR at I-5.

¹¹ CR/PR at VII-3.

¹² 19 U.S.C. § 1677(4)(A).

¹³ 19 U.S.C. § 1677(4)(A).

¹⁴ 19 U.S.C. § 1677(10).

¹⁵ 19 U.S.C. § 1677(10). The Commission must accept Commerce’s determination as to the scope of the imported merchandise that is subsidized and/or sold at less than fair value. *See, e.g., USEC, Inc. v. United States*, 34 Fed. App’x 725, 730 (Fed. Cir. 2002) (“The ITC may not modify the class or kind of imported merchandise examined by Commerce.”); *Algoma Steel Corp. v. United States*, 688 F. Supp. 639, 644 (Ct. Int’l Trade 1988), *aff’d*, 865 F.3d 240 (Fed. Cir.), *cert. denied*, 492 U.S. 919 (1989).

Commission’s like product analysis.”¹⁶ The Commission then defines the domestic like product in light of the imported articles Commerce has identified.¹⁷ The decision regarding the appropriate domestic like product(s) in an investigation is a factual determination, and the Commission has applied the statutory standard of “like” or “most similar in characteristics and uses” on a case-by-case basis.^{18 19} No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.²⁰ The

¹⁶ *Cleo Inc. v. United States*, 501 F.3d 1291, 1298 (Fed. Cir. 2007); see also *Hitachi Metals, Ltd. v. United States*, Case No. 19-1289, slip op. at 8–9 (Fed. Cir. Feb. 7, 2020) (the statute requires the Commission to start with Commerce’s subject merchandise in reaching its own like product determination).

¹⁷ *Cleo*, 501 F.3d at 1298 n.1 (“Commerce’s {scope} finding does not control the Commission’s {like product} determination.”); *Hosiden Corp. v. Advanced Display Mfrs.*, 85 F.3d 1561, 1568 (Fed. Cir. 1996) (the Commission may find a single like product corresponding to several different classes or kinds defined by Commerce); *Torrington Co. v. United States*, 747 F. Supp. 744, 748–52 (Ct. Int’l Trade 1990), *aff’d*, 938 F.2d 1278 (Fed. Cir. 1991) (affirming the Commission’s determination defining six like products in investigations where Commerce found five classes or kinds).

¹⁸ See, e.g., *Cleo Inc. v. United States*, 501 F.3d 1291, 1299 (Fed. Cir. 2007); *NEC Corp. v. Department of Commerce*, 36 F. Supp. 2d 380, 383 (Ct. Int’l Trade 1998); *Nippon Steel Corp. v. United States*, 19 CIT 450, 455 (1995); *Torrington Co. v. United States*, 747 F. Supp. 744, 749 n.3 (Ct. Int’l Trade 1990), *aff’d*, 938 F.2d 1278 (Fed. Cir. 1991) (“every like product determination ‘must be made on the particular record at issue’ and the ‘unique facts of each case’”). The Commission generally considers a number of factors, including the following: (1) physical characteristics and uses; (2) interchangeability; (3) channels of distribution; (4) customer and producer perceptions of the products; (5) common manufacturing facilities, production processes, and production employees; and, where appropriate, (6) price. See *Nippon*, 19 CIT at 455 n.4; *Timken Co. v. United States*, 913 F. Supp. 580, 584 (Ct. Int’l Trade 1996).

¹⁹ In a semifinished products analysis, the Commission examines the following: (1) the significance and extent of the processes used to transform the upstream into the downstream articles; (2) whether the upstream article is dedicated to the production of the downstream article or has independent uses; (3) differences in the physical characteristics and functions of the upstream and downstream articles; (4) whether there are perceived to be separate markets for the upstream and downstream articles; and (5) differences in the costs or value of the vertically differentiated articles. See, e.g., *Fluid End Blocks from China, Germany, India, and Italy*, Inv. Nos. 701-TA-632–635 and 731-TA-1466–1468 (Preliminary), USITC Pub. 5017 (Feb. 2020) at 10–12; *Steel Trailer Wheels from China*, Inv. Nos. 701-TA-609 and 731-TA-1421 (Preliminary), USITC Pub. 4830 (Oct. 2018) at 8–10; *Glycine from India, Japan, and Korea*, Inv. Nos. 731-TA-1111–1113 (Preliminary), USITC Pub. No. 3921 (May 2007) at 7; *Artists’ Canvas from China*, Inv. No. 731-TA-1091 (Final), USITC Pub. No. 3853 (May 2006) at 6.

²⁰ See, e.g., S. Rep. No. 96-249 at 90–91 (1979).

Commission looks for clear dividing lines among possible like products and disregards minor variations.²¹

B. Product Description

In its final countervailing duty determination, Commerce defined the imported merchandise within the scope of these investigations as:

certain mobile access equipment, which consists primarily of boom lifts, scissor lifts, and material telehandlers, and subassemblies thereof. Mobile access equipment combines a mobile (self-propelled or towed) chassis, with a lifting device (e.g., scissor arms, boom assemblies) for mechanically lifting persons, tools and/or materials capable of reaching a working height of ten feet or more, and a coupler that provides an attachment point for the lifting device, in addition to other components. The scope of this investigation covers mobile access equipment and subassemblies thereof whether finished or unfinished, whether assembled or unassembled, and whether the equipment contains any additional features that provide for functions beyond the primary lifting function.

Subject merchandise includes, but is not limited to, the following subassemblies:

- Scissor arm assemblies, or scissor arm sections, for connection to chassis and platform assemblies. These assemblies include: (1) pin assemblies that connect sections to form scissor arm assemblies, and (2) actuators that power the arm assemblies to extend and retract. These assemblies may or may not also include blocks that allow sliding of end sections in relation to frame and platform, hydraulic hoses, electrical cables, and/or other components;
- boom assemblies, or boom sections, for connection to the boom turntable, or to the chassis assembly, or to a platform assembly or to a lifting device. Boom assemblies include telescoping sections where the smallest section (or tube) can be nested in the next larger section (or tube) and can slide out for extension and/or articulated sections joined by pins. These assemblies may or may not include pins,

²¹ *Nippon*, 19 CIT at 455; *Torrington*, 747 F. Supp. at 748–49; *see also* S. Rep. No. 96-249 at 90–91 (Congress has indicated that the like product standard should not be interpreted in “such a narrow fashion as to permit minor differences in physical characteristics or uses to lead to the conclusion that the product and article are not ‘like’ each other, nor should the definition of ‘like product’ be interpreted in such a fashion as to prevent consideration of an industry adversely affected by the imports under consideration.”).

hydraulic cylinders, hydraulic hoses, electrical cables, and/or other components;

- chassis assemblies, for connection to scissor arm assemblies, or to boom assemblies, or to boom turntable assemblies. Chassis assemblies include: (1) chassis frames, and/or (2) frame sections. Chassis assemblies may or may not include axles, wheel end components, steering cylinders, engine assembly, transmission, drive shafts, tires and wheels, crawler tracks and wheels, fuel tank, hydraulic oil tanks, battery assemblies, and/or other components;
- boom turntable assemblies, for connection to chassis assemblies, or to boom assemblies. Boom turntable assemblies include turntable frames. Boom turntable assemblies may or may not include engine assembly, slewing rings, fuel tank, hydraulic oil tank, battery assemblies, counterweights, hoods (enclosures), and/or other components.

Importation of any of these subassemblies, whether assembled or unassembled, constitutes unfinished mobile access equipment for purposes of this investigation.

Processing of finished and unfinished mobile access equipment and subassemblies such as trimming, cutting, grinding, notching, punching, slitting, drilling, welding, joining, bolting, bending, beveling, riveting, minor fabrication, galvanizing, painting, coating, finishing, assembly, or any other processing either in the country of manufacture of the in-scope product or in a third country does not remove the product from the scope. Inclusion of other components not identified as comprising the finished or unfinished mobile access equipment does not remove the product from the scope.

The scope excludes forklifts, vertical mast lifts, mobile self-propelled cranes and motor vehicles that incorporate a scissor arm assembly or boom assembly. Forklifts are material handling vehicles with a working attachment, usually a fork, lifted along a vertical guide rail with the operator seated or standing on the chassis behind the vertical mast. Vertical mast lifts are person and material lifting vehicles with a working attachment, usually a platform, lifted along a vertical guide rail with an operator standing on the platform. Mobile self-propelled cranes are material handling vehicles with a boom attachment for lifting loads of tools or materials that are suspended on ropes, cables, and/or chains, and which contain winches mounted on or near the base of the boom with ropes, cables, and/or chains managed along the boom structure. The scope also excludes motor vehicles (defined as a vehicle driven or drawn by mechanical power and manufactured primarily for use on public streets, roads, and highways, but does not include a vehicle operated only on a rail line pursuant to 49 U.S.C. § 30102(a)(7)) that incorporate a scissor arm assembly or boom assembly. The

scope further excludes vehicles driven or drawn by mechanical power operated only on a rail line that incorporate a scissor arm assembly or boom assembly. The scope also excludes: (1) rail line vehicles, defined as vehicles with hi-rail gear or track wheels, and a fixed (non-telescopic) main boom, which perform operations on rail lines, such as laying rails, setting ties, or other rail maintenance jobs; and (2) certain rail line vehicle subassemblies, defined as chassis subassemblies and boom turntable subassemblies for rail line vehicles with a fixed (non-telescopic) main boom.²²

On October 12, 2021, Commerce clarified that subassemblies of Chinese origin are included within the scope when imported into the United States from a country other than China, with or without additional processing (*i.e.*, whether or not incorporated as part of a finished MAE assembled outside of China and imported into the United States).²³ This means that any Chinese subassemblies incorporated into finished MAE imported from nonsubject countries, such as Canada, are within the scope of these investigations.²⁴

MAE is machinery that combines a self-propelled mobile chassis with a direct lifting device for the purpose of lifting people, tools, or materials, primarily in construction environments.²⁵ MAE covered by the scope have a minimum working height of 10 feet or more and include MAE subassemblies, which are unassembled or unfinished MAE such as scissor arm sections, boom sections, MAE chassis assemblies, and boom turntable assemblies.²⁶

²² *Certain Mobile Access Equipment and Subassemblies Thereof from the People's Republic of China: Final Affirmative Countervailing Duty Determination*, 86 Fed. Reg. 57809 (Oct. 19, 2021). In its final countervailing duty determination, Commerce stated that it modified the scope language as it appeared in its preliminary determination, but the lone modification was minor. *See id.* at 57811 (modifying “chassis frames, and ... frame sections” to “chassis frames, and/or ... frame sections”); *Certain Mobile Access Equipment and Subassemblies Thereof from the People's Republic of China: Preliminary Affirmative Countervailing Duty Determination*, 86 Fed. Reg. 41013, 41014–41015 (July 30, 2021).

²³ *Certain Mobile Access Equipment and Subassemblies Thereof from the People's Republic of China: Scope Comments Decision Memorandum for the Final Determination*, October 12, 2021, at 7–10.

²⁴ In applicable tables in the Commission report, quantity and value data on imports into the United States of subassemblies of Chinese origin that have been incorporated into finished MAE in nonsubject countries (*e.g.*, Canada) are presented as subject imports labeled as “China indirect.” CR/PR at IV-3, n.4. Subject imports that were shipped directly from China to the United States are labeled as “China direct.” *Id.* Summations of data on imports shipped directly and indirectly from China are labeled as “China.” *Id.*

²⁵ CR/PR at I-12, I-23. MAE can also be called aerial lifts, aerial work platforms, and/or mobile elevating work platforms. *Id.* at I-12 n.16.

²⁶ CR/PR at I-12, I-13, I-18. The scope of these investigations excludes forklifts, mobile self-propelled cranes, and motor vehicles that incorporate scissor arm attachments or boom attachments. *Id.* at I-12.

There are three main MAE product categories included within the scope of these investigations: scissor lifts, boom lifts, and telehandlers.²⁷ Differences exist between each product category, each of which contains various submodels, although there is overlap regarding lifting, extension, and surface use capacities.²⁸

Scissor lifts are hydraulic platforms that are designed to raise people or materials vertically.²⁹ The three main types of scissor lifts possess overlapping and intersecting functional characteristics, such as maximum weight capacities of 300 to 1,500 pounds, maximum height capacities of 17 to 59 feet, power use types such as electric, and designated use on smooth and flat surfaces.³⁰

Boom lifts are aerial work platforms that consist of a base with an attached hydraulic lift system that powers a crane as well as a platform or “bucket” that is primarily used to lift a single worker.³¹ The two main types of boom lifts (straight and articulating) possess certain identical or overlapping functional characteristics, such as maximum weight capacities of 500 to 1,000 pounds, maximum height capacities of 30 to 185 feet, power use types such as electric, and designated use on smooth and flat surfaces.³²

Telehandlers are machines with a telescopically extensible boom that can be fitted with various devices for lifting loads.³³ They are mostly used for rough terrain in construction and agricultural environments and are often equipped with four-wheel drive.³⁴ The two main types of telehandlers (telescopic and rotating) possess certain identical functional characteristics, such as maximum weight capacities of 5,500 to 12,000 pounds, maximum height capacities of 18 to 55 feet, and designated use on both smooth and rough surfaces.³⁵

MAE are comprised primarily of fabricated steel parts and subassemblies, which are engine powered or electric powered, with mobile lifting devices, among other parts.³⁶ In the MAE manufacturing process, manufacturers typically weld and shape steel into critical structural components (subassemblies) such as the frame/chassis, boom subassemblies, boom

²⁷ CR/PR at I-14.

²⁸ CR/PR at I-14 to I-17.

²⁹ CR/PR at I-14.

³⁰ CR/PR at I-14, Table I-4. SANY states that the maximum weight capacity of a scissor lift may reach 2,500 pounds. SANY’s Prehear. Br. at 4 n.6.

³¹ CR/PR at I-15.

³² CR/PR at I-16, Table I-5.

³³ CR/PR at I-17.

³⁴ CR/PR at I-17.

³⁵ CR/PR at I-17, Table I-6. SANY states that JLG telehandlers have a maximum weight capacity of 26,600 pounds. SANY’s Prehear. Br. at 4, Exh. 5.

³⁶ CR/PR at I-18.

tubes, and turntable assemblies.³⁷ After painting, the subassemblies are fitted with electrical connections, tubing, and hoses, then assembled into a boom assembly or scissor lift chassis.³⁸ This chassis or assembly is then pinned and connected hydraulically and electrically to the turntable.³⁹ Control boxes and their components undergo a similar assembly process until they are fitted to the entire assembly.⁴⁰ Once the individual fabrications are fully made, they undergo a final assembly process to be made into a complete MAE.⁴¹

C. Arguments of the Parties

Petitioner's Arguments. Petitioner argues that the Commission should define a single domestic like product consisting of all finished MAE and MAE subassemblies, coextensive with Commerce's scope.⁴² It maintains that the three major types of domestically produced finished MAE—scissor lifts, boom lifts, and telehandlers—are all part of a single domestic like product based on the six traditional factors that the Commission considers in its domestic like product analysis.⁴³ Pettibone also argues that the Commission should define a single domestic like product consisting of all finished MAE and MAE subassemblies, coextensive with Commerce's scope.⁴⁴

³⁷ CR/PR at I-20.

³⁸ CR/PR at I-20.

³⁹ CR/PR at I-20.

⁴⁰ CR/PR at I-20.

⁴¹ CR/PR at I-20.

⁴² Petitioner's Prehear. Br. at 6; Petitioner's Posthear. Br. at 3 and Exh. 1, pp. 52–62.

⁴³ Petitioner's Prehear. Br. at 6–8; Petitioner's Posthear. Br. at 3 and Exh. 1, pp. 50–62.

According to petitioner, all domestically produced finished MAE within the scope have similar physical characteristics and uses, channels of distribution, production processes and employees, and customer and producer perceptions; have common manufacturing facilities; are generally interchangeable; and have “extremely similar” sales average unit values (“AUVs”). Petitioner's Prehear. Br. at 6–8. During the preliminary phase of these investigations, petitioner contended that in-scope domestically produced MAE subassemblies are not a separate domestic like product from in-scope domestically produced finished MAE. *Certain Mobile Access Equipment and Subassemblies Thereof from China*, Inv. Nos. 701-TA-665 and 731-TA-1557 (Preliminary), USITC Pub. 5186 (April 2021) (“Preliminary Determinations”) at 9. Petitioner noted that unfinished and unassembled MAE in the form of subassemblies are upstream products that are suitable for use only in producing downstream finished MAE, subassemblies are dedicated exclusively to the production of finished MAE, there is no separate market for subassemblies, and subassemblies generally share the same physical characteristics as in-scope finished MAE. *Id.* Petitioner also maintained that subassemblies account for the vast majority of the total cost of goods sold (“COGS”) for finished MAE and that the processes used to transform subassemblies into finished MAE are relatively minor. *Id.*

⁴⁴ Pettibone's Prehear. Br. at 1–8; Pettibone's Posthear. Br. at 1–2.

Respondents' Arguments. In the final phase of these investigations, Skyjack was the only party to argue that the Commission should define subassemblies as a separate like product from finished MAE.⁴⁵ It contends that “significant processing is required to transform” subassemblies into finished MAE and that there are some uses for subassemblies beyond the production of finished MAE, such as refurbishing or repairing finished MAE.⁴⁶ It maintains that there is a separate merchant market for subassemblies, although it concedes that it “does not appear to be particularly large” compared to the market for finished MAE.⁴⁷ It argues that the physical characteristics and functions of subassemblies change considerably when processed into MAE due to the “significant manufacturing required.”⁴⁸ It contends that the conversion of subassemblies into finished MAE is “particularly labor or capital intensive” because the “mandatory elements” of an unfinished subassembly are a “small fraction” of the cost of a finished MAE, and that there is a significant difference in the value of subassemblies compared to finished MAE.⁴⁹

SANY and Skyjack argue that the Commission should define telehandlers as a separate domestic like product from boom lifts and scissor lifts (“all other MAE”).⁵⁰ They contend that telehandlers, which generally possess a loading fork to lift cargo, have distinct physical, design, and safety differences and end uses from boom and scissor lifts, which generally have platform assemblies to lift people.⁵¹ They assert that telehandlers can lift greater weights and travel faster than all other MAE.⁵² They argue that telehandlers are not interchangeable with all other

⁴⁵ Skyjack’s Prehear. Br. at 2; Skyjack’s Posthear. Br. at 1. SANY took no position on this issue because it “only imports finished telehandlers from China.” SANY’s Prehear. Br. at 2 n.2.

⁴⁶ Skyjack’s Prehear. Br. at 5–6; Skyjack’s Posthear. Br. at 2–3.

⁴⁷ Skyjack’s Prehear. Br. at 6; Skyjack’s Posthear. Br. at 3–4.

⁴⁸ Skyjack’s Prehear. Br. at 7–8; Skyjack’s Posthear. Br. at 4.

⁴⁹ Skyjack’s Prehear. Br. at 8–9; Skyjack’s Posthear. Br. at 5–6.

⁵⁰ Skyjack’s Prehear. Br. at 19–28; Skyjack’s Posthear. Br. at 14 and n.49; SANY’s Prehear. Br. at 2–24; SANY’s Posthear. Br. at 2–5. Chinese respondents support SANY’s position on the definition of telehandlers as a separate like product from all other MAE. Chinese Respondents’ Prehear. Br. at 7; Chinese Respondents’ Posthear. Br. at 1.

Skyjack refers to telehandlers and telehandler subassemblies together and argues that the Commission should define them as a separate like product from all other MAE. Skyjack’s Prehear. Br. at 20–28. Skyjack also urges the Commission to define telehandlers as a separate like product from subassemblies of telehandlers if the Commission defines MAE subassemblies as a separate like product from finished MAE. Skyjack’s Posthear. Br. at 14 n.49.

⁵¹ Skyjack’s Prehear. Br. at 20–21; SANY’s Prehear. Br. at 2–6. SANY also argues that telehandlers are more analogous to forklifts than all other MAE. SANY’s Prehear. Br. at 2.

⁵² Skyjack’s Prehear. Br. at 21–22; SANY’s Prehear. Br. at 4, 6.

MAE because of different training certifications, product standards, and attachment parts.⁵³ They concede that finished MAE are generally sold through the same or similar channels of distribution, but contend that telehandlers and all other MAE are not produced on the same production lines.⁵⁴ They maintain that MAE producers and customers perceive telehandlers differently from all other MAE, highlighting advertising by domestic producers in which each product is directed to industries with materials lifting requirements (telehandlers) or a need to lift people (all other MAE).⁵⁵ They argue that telehandlers have higher-cost components than those of all other MAE and that the prices of all other MAE are usually related to height capacity while the prices of telehandlers relate to lift capacity.⁵⁶ Skyjack maintains that the prices for all other MAE generally range from \$7,000 to \$142,000 and that the prices for telehandlers range from \$42,000 to \$300,000.⁵⁷

D. Analysis

Based on the record, we define a single domestic like product that is coextensive with the scope of these investigations.

In its preliminary determinations, the Commission defined a single domestic like product consisting of all MAE and subassemblies, coextensive with the scope.⁵⁸ In applying the semifinished products analysis, the Commission concluded that the majority of U.S. producers and importers reported that subassemblies are used to produce finished MAE, that there is no separate market for MAE subassemblies, and that there are no differences in physical characteristics and functions between subassemblies and finished MAE.⁵⁹ The Commission found that the responses of producers and importers were mixed concerning differences in cost or value between subassemblies and finished MAE and the extent of processes used to transform subassemblies into finished MAE.⁶⁰

In applying the traditional domestic like product analysis, the Commission concluded that all domestically produced MAE within the scope is made primarily of the same raw

⁵³ Skyjack's Prehear. Br. at 23–24; SANY's Prehear. Br. at 2–4, 6–7, 9–12.

⁵⁴ Skyjack's Prehear. Br. at 25; SANY's Prehear. Br. at 12–13, 19–21.

⁵⁵ Skyjack's Prehear. Br. at 26; SANY's Prehear. Br. at 13–19.

⁵⁶ Skyjack's Prehear. Br. at 27; SANY's Prehear. Br. at 22–23.

⁵⁷ Skyjack's Prehear. Br. at 27. See SANY's Prehear. Br. at 21–23.

⁵⁸ Preliminary Determinations at 14.

⁵⁹ Preliminary Determinations at 13.

⁶⁰ Preliminary Determinations at 13.

material (*i.e.*, steel and fabricated steel parts).⁶¹ It found that although there are differences in size, design, and lifting capacity among scissor lifts, boom lifts, and telehandlers, all domestically produced MAE constitute mobile structures and share certain other physical characteristics, including a chassis base with an attached lifting assembly.⁶² It concluded that all domestically produced MAE within the scope generally is produced through the same general production process, used primarily to lift cargo and/or workers on construction sites, and sold overwhelmingly through the same channels of distribution to end users.⁶³ Although the Commission found that there is limited interchangeability and a range of prices for different types of in-scope domestically produced MAE, it stated that it could not conclude that differences in the type of MAE constitute a clear dividing line such that it should define separate domestic like products.⁶⁴

Two issues with respect to the definition of the domestic like product arise in the final phase of these investigations: (1) whether, under a semifinished products analysis, subassemblies should be a separate domestic like product from finished MAE; and (2) whether, under the Commission's traditional domestic like product analysis, telehandlers and all other MAE should be separate domestic like products. We address these domestic like product issues below.

1. Whether Subassemblies Should Be a Separate Domestic Like Product from Finished MAE

As discussed above, the scope of these investigations includes finished MAE and subassemblies. Because subassemblies are an intermediate product whose ultimate use is to undergo finishing operations and become finished MAE, we use the semifinished products analysis to examine whether they should be a separate domestic like product. Based on the record, we find that subassemblies and finished MAE should be defined as a single domestic like product.

Extent of Processes Used to Transform Downstream Product into Upstream Product. Five of eight responding domestic producers and seven of 10 responding U.S. importers described the processes used to transform MAE subassemblies into finished MAE as significant

⁶¹ Preliminary Determinations at 11.

⁶² Preliminary Determinations at 11.

⁶³ Preliminary Determinations at 11–12.

⁶⁴ Preliminary Determinations at 12.

and particularly labor or capital intensive.⁶⁵ Responses by U.S. purchasers were mixed, with four of nine describing the processes in that manner.⁶⁶

Dedication for Use. All responding domestic producers (eight), seven of 10 responding U.S. importers, and eight of nine responding U.S. purchasers reported that there are no uses for MAE subassemblies other than the production of finished MAE.⁶⁷

Differences in Physical Characteristics and Functions of the Upstream and Downstream Articles. Five of eight responding domestic producers and six of nine responding U.S. purchasers reported no differences in the physical characteristics and functions of MAE subassemblies and finished MAE.⁶⁸ Seven of 10 responding U.S. importers reported that there were differences.⁶⁹

Separate Markets. Six of eight responding domestic producers and six of nine responding U.S. purchasers reported that there is no separate market for MAE subassemblies that is distinct from the market for finished MAE.⁷⁰ Six of 10 responding U.S. importers reported that there was a separate and distinct market for MAE subassemblies.⁷¹

Differences in Costs or Value. Five of eight responding U.S. producers and seven of 10 responding U.S. importers reported that there was a significant difference in the costs or value between MAE subassemblies and finished MAE.⁷² Responses by U.S. purchasers were mixed, with four of nine reporting a significant difference.⁷³

Conclusion. The evidence on the record in the final phase of these investigations continues to support our preliminary finding that MAE subassemblies and finished MAEs do not constitute separate domestic like products. The majority of U.S. producers, importers, and purchasers reported that there are no uses for MAE subassemblies other than the production of finished MAE. The majority of U.S. producers and purchasers reported that there is no separate market for MAE subassemblies and that there are no differences in physical characteristics and functions between MAE subassemblies and finished MAE. We recognize that a majority of U.S. producers and importers reported that there are significant differences in costs or value between MAE subassemblies and finished MAE and the extent of processes

⁶⁵ CR/PR at Table I-8. *** *Id.* at app. E. *See also id.* (responses of *** and ***).

⁶⁶ CR/PR at Table I-8.

⁶⁷ CR/PR at Table I-8.

⁶⁸ CR/PR at Table I-8.

⁶⁹ CR/PR at Table I-8.

⁷⁰ CR/PR at Table I-8.

⁷¹ CR/PR at Table I-8.

⁷² CR/PR at Table I-8. ***. *Id.* at app. E. *See also id.* (responses of ***, ***, and ***).

⁷³ CR/PR at Table I-8.

used to transform MAE subassemblies into finished MAE is significant and particularly labor or capital intensive. On balance, we conclude that the record supports defining finished MAE and MAE subassemblies as a single domestic like product.

2. Whether Telehandlers and All Other MAE Should Be Separate Domestic Like Products

We use the traditional six-factor domestic like product analysis to examine whether telehandlers and all other MAE should be separate domestic like products because they are products at the same level of processing. Based on the record, we find that telehandlers and all other MAE are a single domestic like product.

Physical Characteristics and Uses. All domestically produced MAE within the scope are mobile structures made primarily of fabricated steel.⁷⁴ There are some variations in size, design, and lifting capacity among domestically produced MAE within the scope, but all share certain common physical characteristics, including a chassis base with an attached lifting assembly.⁷⁵ All domestically produced MAE within the scope is used to lift people or material to various heights, usually in construction applications, with variations among MAE in lift capacity, height, and primary carriage use.⁷⁶ There are differences in capacity among scissor lifts, boom lifts, and telehandlers in that certain MAE have a greater maximum lift capacity, while other MAE have a greater maximum lift height, but all domestically produced MAE have

⁷⁴ CR/PR at I-18.

⁷⁵ CR/PR at I-12; *see generally id.* at app. D. Some differences in design reflect different industry design standards applicable to telehandlers, as opposed to boom lifts and scissor lifts. *Id.* at I-23 n.49.

⁷⁶ CR/PR at I-23, app. D. Scissor lifts and boom lifts primarily raise people, while telehandlers primarily raise cargo, but all scissor and boom lifts can also raise material while telehandlers can be approved by their manufacturers to lift people. *Id.* at I-13 (scissor lifts raising people or materials), I-15 to I-16 (boom lifts lifting primarily a person), I-17 (telehandlers primarily lifting materials), II-16 (work platform attachments for telehandlers). *See also* Hearing Tr. at 165 (“{T}here’s an attachment that’s available for telehandlers. It attaches to the boom head that actually has a platform. On scissor lifts, there’s a pipe rack and other material devices to lift materials. If you look at boom lifts, we have glazer kits to lift glass and wallboard.”), 167 (“{I}f you look at our booms and you look at our scissors, they all have attachments that facilitate lifting materials to heights.”), 203 (boom and scissor lift attachments), 262–263. *See also* Petitioner’s Posthear. Br. at Ex. 1, pp. 56–57.

MEC provides details on an MAE serving the role of a boom lift and a telehandler simultaneously. It argues that its Titan Booms “effectively can replace applications that use both a Telehandler to support heavy loads and a Boom Lift working alongside as construction workers pick material off the Telehandler load to use on a job. These {Titan Booms} enhance productivity and safety in scenarios where previously two pieces of heavy equipment {boom lifts and telehandlers} were needed in close proximity.” MEC’s Posthear. Br. at 10–11.

overlapping lift capacities and heights and are used primarily to lift cargo and/or workers mostly on construction sites.⁷⁷

Four of six U.S. producers reported that telehandlers and all other MAE were mostly or somewhat comparable regarding physical characteristics and uses.⁷⁸ Conversely, six of 10 importers and six of 11 purchasers reported that telehandlers and all other MAE are never comparable regarding this factor.⁷⁹

Interchangeability. Four of six U.S. producers reported that telehandlers and all other MAE were mostly or somewhat comparable regarding interchangeability.⁸⁰ By contrast, five of nine importers and seven of 11 purchasers reported that telehandlers and all other MAE are never interchangeable.⁸¹

Channels of Distribution. All responding U.S. producers (seven), importers (10), and purchasers (12) reported that the channels of distribution for telehandlers and all other MAE are fully, mostly, or somewhat comparable.⁸² The record indicates that all domestically produced MAE are sold primarily to end users, typically rental companies that rent all types of MAE to construction companies for use on construction sites.⁸³

Producer and Customer Perceptions. Five of seven U.S. producers and eight of 10 U.S. purchasers reported that producers and customers perceive telehandlers and all other MAE to be fully, mostly, or somewhat comparable.⁸⁴ By contrast, the majority of importers (six of nine) reported that producers and customers perceive telehandlers and all other MAE never to be comparable.⁸⁵

Manufacturing Facilities, Production Processes, and Employees. All domestically produced MAE within the scope is manufactured using the same general production process, which includes four major steps: (1) fabrication, (2) wet and dry paint application, (3) subassembly, and (4) final assembly.⁸⁶ Telehandlers and all other MAE are also produced in the same production facilities and with the same production employees. JLG produces the

⁷⁷ CR/PR at I-12 to I-19, I-25, Tables I-4 to I-6.

⁷⁸ CR/PR at Table I-7.

⁷⁹ CR/PR at Table I-7.

⁸⁰ CR/PR at Table I-7.

⁸¹ CR/PR at Table I-7; *see also id.* at Table D-1 (Importer ***.)

⁸² CR/PR at Table I-7.

⁸³ CR/PR at I-19, I-25, Table D-3 (***). During 2018–2020, domestically produced MAE of all types was sold mainly to end users (ranging from *** percent to *** percent annually) with the remainder sold to distributors. *Id.* at Table II-1.

⁸⁴ CR/PR at Table I-7; *see id.* at Tables D-1, D-3 (Domestic producer ***, purchaser ***).

⁸⁵ CR/PR at Table I-7.

⁸⁶ CR/PR at I-20.

boom sections for its boom lifts and telehandlers on the same machinery and with the same employees, and can switch production and employees between the products.⁸⁷ *** produces *** and reports that telehandlers and all other MAE ***.⁸⁸ *** reports that ***.⁸⁹

All responding U.S. producers (seven), nine of 10 responding importers, and eight of nine responding purchasers reported that telehandlers and all other MAE are fully, mostly, or somewhat manufactured in the same facilities, from the same inputs, on the same equipment, and by the same employees.⁹⁰

Price. Four of seven U.S. producers and six of nine U.S. purchasers reported that prices are fully, mostly, or somewhat comparable between telehandlers and all other MAE.⁹¹ By contrast, five of nine importers reported that prices are never comparable between telehandlers and all other MAE.⁹² The pricing data in the record indicate broad differences in price ranges among all different types of domestically produced MAE.⁹³

Conclusion. Evidence in the record in the final phase of these investigations indicates that all domestically produced MAE within the scope is made primarily of the same raw material (*i.e.*, steel and fabricated steel parts), produced generally through the same general production process and in the same facilities, and sold overwhelmingly through the same channels of distribution to end users. All domestically produced MAE are mobile structures and share certain physical characteristics, including a chassis base with an attached lifting assembly, regardless of other differences in design and capacity, and have the same general end use of lifting people and/or materials to heights. We recognize that there are some limitations in interchangeability, some differences in producer and consumer perceptions, and a range of prices for all different types of domestically produced MAE. On balance, we find that the differences do not constitute a clear dividing line to define telehandlers and all other MAE as

⁸⁷ ***; Hearing Tr. at 38–39, 164 (“The telehandlers, scissor lifts, and boom lifts . . . have a chassis, they have an elevating mechanism, whether it be a boom or scissor lift, arm stack, they have a platform or a carriage. . . . We make them in the same factories. They’re interchangeable. On the plant tour, we actually physically showed the boom lower that makes telehandler booms, as well as booms for boom lifts. It’s made on the exact same machine. If we have an increase in demand for telehandlers, we can transition people from the scissor lift line or boom line to the telehandlers and vice versa.”).

⁸⁸ CR/PR at Table D-2. *See also* Petitioner’s Prehear. Br. at Exh. 10.

⁸⁹ CR/PR at Table D-2.

⁹⁰ CR/PR at Table I-7.

⁹¹ CR/PR at Table I-7.

⁹² CR/PR at Table I-7.

⁹³ CR/PR at Tables V-4 to V-9, H-1. Certain models of boom lifts and scissor lifts manufactured by domestic producers have a higher AUV than certain models of telehandlers. *Id.* at Table H-1.

separate domestic like products. Accordingly, we define a single domestic like product that is coextensive with the scope of these investigations.

III. Domestic Industry

The domestic industry is defined as the domestic “producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product.”⁹⁴ In defining the domestic industry, the Commission’s general practice has been to include in the industry producers of all domestic production of the like product, whether toll-produced, captively consumed, or sold in the domestic merchant market.

These investigations raise two domestic industry issues: (1) whether the assembly of MAE subassemblies into finished MAE is sufficient to constitute domestic production; and (2) whether appropriate circumstances exist to exclude any domestic producer from the domestic industry as a related party.

A. Sufficient Production-Related Activities

1. Legal Standards

In deciding whether a firm qualifies as a domestic producer of the domestic like product, the Commission generally analyzes the overall nature of a firm’s production-related activities in the United States, although production-related activity at minimum levels could be insufficient to constitute domestic production.⁹⁵

*** purchased or imported subject subassemblies during the POI for use in the production of finished MAE; neither produced subassemblies domestically.⁹⁶ *** purchased or

⁹⁴ 19 U.S.C. § 1677(4)(A).

⁹⁵ The Commission generally considers six factors: (1) source and extent of the firm’s capital investment; (2) technical expertise involved in U.S. production activities; (3) value added to the product in the United States; (4) employment levels; (5) quantity and type of parts sourced in the United States; and (6) any other costs and activities in the United States directly leading to production of the like product. No single factor is determinative and the Commission may consider any other factors it deems relevant in light of the specific facts of any investigation. *Crystalline Silica Photovoltaic Cells and Modules from China*, Inv. Nos. 701-TA-481 and 731-TA-1190 (Final), USITC Pub. 4360 (Nov. 2012) at 12–13; *Forged Steel Fittings from India and Korea*, Inv. Nos. 701-TA-631 and 731-TA-1463–1464 (Preliminary), USITC Pub. 5006 (Dec. 2019) at 11–13.

⁹⁶ CR/PR at Tables ***.

imported subject subassemblies during the POI for use in the production of finished MAE and also produced subassemblies domestically.⁹⁷

2. Arguments of the Parties

Petitioner's Arguments. Petitioner argues that MEC's *** does not qualify as sufficient production-related activities to warrant MEC's inclusion in the domestic industry as it involves minimal capital investment and technical expertise.⁹⁸ It argues that the value added by MEC's activities in the United States are small compared to the value added by production processes in China.⁹⁹ It contends that MEC has few employees involved in its domestic processes and that MEC's subject imports are primarily of finished MAE.¹⁰⁰

Pettibone argues that ***.¹⁰¹

Respondents' Arguments. MEC addresses this issue in its discussion of the domestic industry's imports of subject merchandise, contending that its activities should be considered the same as those of ***.¹⁰² Chinese respondents argue that MEC "adds U.S. value to all of its Subject Imports" sufficient to constitute domestic production and be included in the domestic industry.¹⁰³

3. Analysis

Source and Extent of the Firms' Capital Investments. ***.¹⁰⁴ ***.¹⁰⁵ ***.¹⁰⁶ By comparison, although ***.¹⁰⁷

The total net assets of *** were ***.¹⁰⁸ The total net assets of *** were ***.¹⁰⁹ The total net assets of *** were ***.¹¹⁰ These figures were considerably smaller than ***, each of which had annual assets ranging from \$*** to \$***.¹¹¹

⁹⁷ CR/PR at Table ***.

⁹⁸ Petitioner's Prehear. Br. at 11–12.

⁹⁹ Petitioner's Prehear. Br. at 12–13.

¹⁰⁰ Petitioner's Prehear. Br. at 13–14; Petitioner's Posthear. Br. at Exh. 1, p. 63.

¹⁰¹ Pettibone's Posthear. Br. at 2–8.

¹⁰² MEC's Posthear. Br. at Exh. 2 ("If the *** does not disqualify them as members of the domestic industry, then *** should also be discounted when considering MEC's position as a member of the domestic industry – especially in light of the significant U.S. design and manufacturing activity that occurs in Kerman.")

¹⁰³ Chinese Respondents' Prehear. Br. at 8. *See also* Chinese Respondents' Posthear. Br. at 2 n.6.

¹⁰⁴ CR/PR at Table III-7.

¹⁰⁵ CR/PR at Table III-7.

¹⁰⁶ CR/PR at Table III-7.

¹⁰⁷ CR/PR at Table III-7.

Technical Expertise. ***.¹¹² ***.¹¹³ ***.¹¹⁴ By comparison, ***.¹¹⁵

*** assigned the highest rating (5, on a scale of 1 to 5) to the complexity, intensity, and importance of their converting activities as they related to transforming MAE subassemblies into complete MAE.¹¹⁶ *** rated the complexity, intensity, and importance of its converting activities as a 3.¹¹⁷ Of the other five responding U.S. producers, four rated the complexity, intensity, and importance of their converting activities as a 3, and one rated them as a 5.¹¹⁸

Value Added. As calculated by the aggregate annual total conversion costs divided by total cost of goods sold (“COGS”) percentages, the value added by ***.¹¹⁹ The value added by ***.¹²⁰ The value added by ***.¹²¹ By comparison, the value added by ***.¹²²

Employment Levels. The number of production-related workers (“PRWs”) for these activities annually ranged from ***.¹²³ By comparison, the number of PRWs for these activities annually ranged from ***.¹²⁴

Quantity and Type of Parts Sourced in the United States. As calculated by the aggregate annual domestic raw materials costs, the costs for ***.¹²⁵ The costs for ***.¹²⁶ By comparison, the costs for ***.¹²⁷

Conclusion. Evidence in the record in the final phase of these investigations indicates that the activities involved in the assembly of MAE subassemblies into finished MAE are

(...Continued)

¹⁰⁸ CR/PR at Table VI-12.

¹⁰⁹ CR/PR at Table VI-12.

¹¹⁰ CR/PR at Table VI-12.

¹¹¹ CR/PR at Table VI-12. For this factor and several others, the much larger figures for *** are explained in part by their significantly larger production quantities. See *id.* at Table III-8.

¹¹² CR/PR at Table III-7.

¹¹³ CR/PR at Table III-7.

¹¹⁴ CR/PR at Table III-7.

¹¹⁵ CR/PR at Table III-7.

¹¹⁶ CR/PR at Table III-6.

¹¹⁷ CR/PR at Table III-6.

¹¹⁸ CR/PR at Table III-6.

¹¹⁹ CR/PR at Table III-7.

¹²⁰ CR/PR at Table III-7.

¹²¹ CR/PR at Table III-7.

¹²² CR/PR at Table III-7.

¹²³ CR/PR at Table III-7.

¹²⁴ CR/PR at Table III-7.

¹²⁵ CR/PR at Table III-7.

¹²⁶ CR/PR at Table III-7.

¹²⁷ CR/PR at Table III-7. ***. *Id.* at note. ***. *Id.*

sufficient to qualify as domestic production under the factors the Commission generally considers. Substantial technical expertise is required to perform assembly activities, as several domestic producers rated the expertise required as 5 on a scale of 1 to 5, and no domestic producer rated these activities below 3. MAE subassemblies are unsuitable for use as finished MAE until all necessary assembly activities are completed. Moreover, responding domestic assemblers made appreciable capital investments, incurred substantial domestic raw materials costs, and employed a number of personnel in their assembly activities during the POI, although their capital investments and asset values were generally considerably lower than the largest integrated domestic producers. In light of these considerations, we conclude that firms that conduct activities involved in the assembly of MAE subassemblies into finished MAE engage in sufficient production-related activities in the United States to qualify as domestic producers of MAE.

B. Related Parties

1. Legal Standards

We must determine whether any producer of the domestic like product should be excluded from the domestic industry pursuant to section 771(4)(B) of the Tariff Act. This provision allows the Commission, if appropriate circumstances exist, to exclude from the domestic industry producers that are related to an exporter or importer of subject merchandise or which are themselves importers.¹²⁸ Exclusion of such a producer is within the Commission's discretion based upon the facts presented in each investigation.¹²⁹

¹²⁸ See *Torrington Co. v. United States*, 790 F. Supp. 1161, 1168 (Ct. Int'l Trade 1992), *aff'd without opinion*, 991 F.2d 809 (Fed. Cir. 1993); *Sandvik AB v. United States*, 721 F. Supp. 1322, 1331–32 (Ct. Int'l Trade 1989), *aff'd mem.*, 904 F.2d 46 (Fed. Cir. 1990); *Empire Plow Co. v. United States*, 675 F. Supp. 1348, 1352 (Ct. Int'l Trade 1987).

¹²⁹ The primary factors the Commission has examined in deciding whether appropriate circumstances exist to exclude a related party include the following:

- (1) the percentage of domestic production attributable to the importing producer;
- (2) the reason the U.S. producer has decided to import the product subject to investigation (whether the firm benefits from the LTFV sales or subsidies or whether the firm must import in order to enable it to continue production and compete in the U.S. market);
- (3) whether inclusion or exclusion of the related party will skew the data for the rest of the industry;
- (4) the ratio of import shipments to U.S. production for the imported product; and
- (5) whether the primary interest of the importing producer lies in domestic production or importation. *Changzhou Trina Solar Energy Co. v. USITC*, 100 F. Supp.3d 1314, 1326–31 (Ct. Int'l Trade 2015); *see also Torrington*, 790 F. Supp. at 1168.

The record indicates that several domestic producers are subject to possible exclusion from the domestic industry under the related parties provision in the final phase of these investigations because they each imported subject merchandise during the POI: ***.¹³⁰ Some of these firms, as well as ***, also are subject to the related parties provision by virtue of their corporate relationships, including their affiliations with producers and exporters of subject merchandise from China and U.S. importers of subject merchandise.¹³¹

2. Arguments of the Parties

Petitioner argues that the Commission should exclude MEC from the domestic industry as a related party.¹³² Pettibone asserts that no domestic producer should be excluded from the domestic industry as a related party.¹³³ Chinese respondents contend that MEC should not be excluded from the domestic industry as a related party.¹³⁴ MEC did not submit any analysis of

¹³⁰ CR/PR at Tables III-14 to III-20. ***. *Id.* at Table III-18. The Commission has concluded that a domestic producer that does not itself import subject merchandise may nonetheless be deemed a related party if it controls large volumes of imports and has found such control to exist where the domestic producer's purchases were responsible for a predominant proportion of an importer's subject imports and that importer's imports were substantial. *See Iron Construction Castings from Brazil, Canada, and China*, Inv. Nos. 701-TA-249, 731-TA-262–263 and 265 (Fourth Review), USITC Pub. 4655 (Dec. 2016) at 11; *Chlorinated Isocyanurates from China and Spain*, Inv. Nos. 731-TA-1082–1083 (Second Review), USITC Pub. 4646 (Nov. 2016) at 12; *Foundry Coke from China*, Inv. No. 731-TA-891 (Final), USITC Pub. 3449 (Sept. 2001) at 8–9. *Compare Seamless Carbon and Alloy Steel Standard, Line, and Pressure Pipe from Czech Republic (Czechia)*, Inv. No. 731-TA-1529 (Final), USITC Pub. 5183 (Apr. 2021) at 15–16.

***. *** importers' questionnaire response at III-21. As ***, we find that *** is not subject to the related parties provision on the basis of its purchases of subject imports.

¹³¹ CR/PR at Table III-2. *** is ***, which was a U.S. importer of subject merchandise during the POI. *Id.*; *** importers' questionnaire response at Q. I-5. *** is affiliated with and imported from a subject producer in China, ***, during the POI. CR/PR at VII-3 n.6, Table III-2; *** importers' questionnaire response at Q. I-3 to I-5.

***, a subject producer in China that exported subject merchandise to the U.S. market during the POI. CR/PR at VII-3 n.4, Table III-2.

*** is owned in part by ***, a subject producer in China that exported subject merchandise to the U.S. market during the POI. *Id.* at III-2, VII-3, Table III-2.

*** is affiliated with a subject producer in China, but there is no information in the current record indicating that *** affiliate in China exported subject merchandise to the U.S. market during the POI. *Id.* at Table III-2.

***, which is a subject producer in China that exported subject merchandise to the U.S. market during the POI. *Id.* at VII-3, Table III-2.

¹³² Petitioner's Prehear. Br. at 14–17.

¹³³ Pettibone's Prehear. Br. at 8 n.38.

¹³⁴ Chinese Respondents' Prehear. Br. at 7–8.

the primary factors the Commission examines or other argument on this issue, but refers to itself as a domestic producer in its submissions.¹³⁵

3. Analysis

During the preliminary phase, the Commission found a single domestic industry consisting of all domestic producers of MAE, with the exception of ***, which the Commission excluded under the related party provision of the statute.¹³⁶ We analyze below whether appropriate circumstances exist to exclude any of the above-named producers in the final phase.

***. *** is subject to possible exclusion under the related parties provision because it ***.¹³⁷ *** accounted for *** percent of domestic production of MAE in 2020.¹³⁸ During the POI, *** reportedly imported *** short tons in 2018, *** short tons in 2019, and *** short tons in 2020; it imported *** short tons in January–June (“interim”) 2020 and *** short tons in interim 2021.¹³⁹ Based on the reported imports and domestic production, the ratio of its *** to its domestic production was *** percent in ***.¹⁴⁰ However, based on *** explanation of its production operations and reason for ***, it appears to be engaging in substantial domestic

¹³⁵ See MEC’s Prehear. Br. at 1; MEC’s Posthear. Br. at 1. See also MEC’s Prehear. Br. at 17 (“MEC fully produces the low-volume, specialized products in California and partners with manufacturers in China, South Korea and Turkey for the higher volume base models.”), 18 (“MEC’s imports are only base parts and models that are essentially unfinished and are not customer ready. Once imported, models are assembled and finished on an assembly line by MEC in California, using American workers, including to add options, patented features, and any customer-specific requirements.”); 21 (“However, the welded parts {of the Titan Boom model} made from high strength steel and those that require specialist skills, such as the boom sections, are manufactured in-house in Kerman, California. Only lower value parts are sourced from China.”); MEC’s Posthear. Br. at 3; Hearing Tr. at 191.

¹³⁶ Preliminary Determinations at 19; Confidential Preliminary Determinations, EDIS Doc. 740542 (Apr. 19, 2021), at 25.

¹³⁷ CR/PR at Table III-14.

¹³⁸ CR/PR at Table III-1.

¹³⁹ CR/PR at Table III-14.

¹⁴⁰ CR/PR at Table III-14. ***. *Id.* at Table ***. ***. See 86 Fed. Reg. 57809. Its reported imports *** were *** percent ***. CR/PR at Table ***.

manufacturing and production.¹⁴¹ It also stated ***.¹⁴² *** the petitions.¹⁴³ Its operating income to net sales ratios were *** than the domestic industry average during the POI.¹⁴⁴

While *** imports of subject merchandise relative to its domestic production is substantial, its principal interest appears to be in domestic production. No party has argued for its exclusion from the domestic industry. For these reasons, we find that appropriate circumstances do not exist to exclude *** from the domestic industry under the related parties provision.¹⁴⁵

***. *** is subject to possible exclusion under the related parties provision because it ***.¹⁴⁶ *** accounted for *** percent of domestic production of MAE in 2020.¹⁴⁷ The ratio of its *** subject imports to *** domestic production was *** percent in 2019, ***.¹⁴⁸ *** explained that it ***.¹⁴⁹ *** on the petitions.¹⁵⁰

In view of the fact that imports of subject merchandise by *** were small in relation to *** domestic production, its principal interest appears to be in domestic production. No party has argued for its exclusion from the domestic industry. For these reasons, we find that appropriate circumstances do not exist to exclude *** from the domestic industry under the related parties provision.

***. *** is subject to possible exclusion under the related parties provision because it ***.¹⁵¹ *** is *** percent of domestic production of MAE in 2020.¹⁵² The ratio of its subject

¹⁴¹ CR/PR at Table III-21; *** producers' questionnaire response, EDIS Doc. ***, at Q. II-15a, II-5b, III-9f.

¹⁴² CR/PR at Table III-21.

¹⁴³ CR/PR at Table III-1.

¹⁴⁴ CR/PR at Table VI-3. *** ratio of operating income to net sales was *** percent in 2018, *** percent in 2019, and *** percent in 2020; it was *** percent in interim 2020 and *** percent in interim 2021. *Id.*

¹⁴⁵ As explained below in a note following the discussion of ***, Chair Kearns and Commissioner Karpel find that appropriate circumstances exist to exclude *** from the domestic industry as a related party.

¹⁴⁶ CR/PR at VII-3 n.6, Table III-2; *** importers' questionnaire response at Q. I-3 to I-5.

¹⁴⁷ CR/PR at Table III-1.

¹⁴⁸ CR/PR at Table III-15. ***. *Id.* During the POI, ***. *Id.* at Table ***. ***. *Id.* at Table III-15. The record in the final phase of these investigations does not contain information ***. *** purchases of subject imports in *** of U.S. shipments of subject imports, and therefore its purchases did not account for a substantial share of subject imports. Calculated from *id.* at Tables III-15 and IV-5.

¹⁴⁹ CR/PR at Table III-21.

¹⁵⁰ CR/PR at Table III-1.

¹⁵¹ CR/PR at VII-3 n.4, Table III-2.

¹⁵² CR/PR at Table III-1.

imports to its domestic production was *** percent in 2018, *** percent in 2019, and *** percent in 2020; it ***.¹⁵³ ***.¹⁵⁴ *** the petitions.¹⁵⁵

In view of the fact that imports of subject merchandise by *** were very small relative to its domestic production, its principal interest appears to be in domestic production. No party has argued for its exclusion from the domestic industry. For these reasons, we find that appropriate circumstances do not exist to exclude *** from the domestic industry under the related parties provision.

. *** is subject to possible exclusion under the related parties provision because it ***.¹⁵⁶ *** accounted for *** percent of domestic production of MAE in 2020.¹⁵⁷ During the POI, *** imported *** short tons in 2018, *** short tons in 2019, and *** short tons in 2020; it imported *** short tons in interim 2020 and *** short tons in interim 2021.¹⁵⁸ The ratio of its *** to its domestic production was *** percent in 2018, *** percent in 2019, and *** percent in 2020; it was *** percent in interim 2020 and *** percent in interim 2021.¹⁵⁹ *** explained that it ***.¹⁶⁰ *** reported capital investment between \$ and \$*** from 2018 to 2020.¹⁶¹ *** the petitions.¹⁶² Its operating income to net sales ratios grew steadily over the POI, and were *** than the domestic industry average during 2018 and 2019, but *** in 2020 and interim 2021.¹⁶³

*** was the *** domestic producer of MAE by capacity and production quantity ***, or for most of the POI.¹⁶⁴ *** its U.S. capacity over the POI and *** its U.S. production ***; its U.S. production ***.¹⁶⁵ Imports of subject merchandise by *** were less than its domestic

¹⁵³ CR/PR at Table III-16. During the POI, ***. *Id.* at Table ***.

¹⁵⁴ CR/PR at Table III-21.

¹⁵⁵ CR/PR at Table III-1.

¹⁵⁶ CR/PR at Tables III-2, III-17. ***. *Id.* at Table III-2.

¹⁵⁷ CR/PR at Table III-1.

¹⁵⁸ CR/PR at Table III-17.

¹⁵⁹ CR/PR at Table III-17. Each year from 2018 to 2020 and in interim 2021, ***. *Id.* at Table ***. Its imports of subject subassemblies as a share of all its input subassemblies were *** percent in 2018, *** percent in 2019, and *** percent in 2020; they were *** percent in interim 2020 and *** percent in interim 2021. *Id.*

¹⁶⁰ CR/PR at Table III-21.

¹⁶¹ CR/PR at Table III-7.

¹⁶² CR/PR at Table III-1.

¹⁶³ CR/PR at Table VI-3. *** ratio of operating income to net sales was *** percent in 2018, *** percent in 2019, and *** percent in 2020; it was *** percent in interim 2020 and *** percent in interim 2021. *Id.*

¹⁶⁴ CR/PR at Table III-8.

¹⁶⁵ CR/PR at Table III-8.

production during 2019 and 2020 and in interim 2021.¹⁶⁶ On balance, we find that appropriate circumstances do not exist to exclude *** from the domestic industry under the related parties provision.¹⁶⁷

¹⁶⁶ CR/PR at Table III-17.

¹⁶⁷ Chair Kearns and Commissioner Karpel find that appropriate circumstances exist to exclude *** from the domestic industry pursuant to the related parties provision, section 771(4)(B) of the Tariff Act. It is well settled that exclusion of a producer pursuant to that provision is within the Commission's discretion based upon the facts presented in each investigation.

*** is subject to the related parties provision by virtue of its relationship to a subject producer/exporter (***) and its importation of subject merchandise. *** performs ***, mostly from China, and produces *** number of units wholly in the United States. Over the POI, *** subject imports of subassemblies accounted for between *** percent of the content of its finished MAE in short tons, while the volume of its domestically produced subassemblies accounted for only *** percent of all the subassemblies it utilized to produce finished MAE in the United States. CR/PR at Table ***. As a percentage of its domestic production, its subject imports thus exceeded *** percent in each year and interim period within the POI. Therefore, although *** has significant domestic production operations, its business model relies heavily on subject imports. Consistent with these tonnage data, *** reported value added to imported "unfinished" MAE of only *** percent, *** of all domestic producers. *Id.* at Table III-7.

They find that such a high percentage of subject imports to domestic production indicates that *** primary focus is on importation. Indeed, the company's production structure is strongly reliant on importation *** of subject merchandise, on which *** are performed. In that manner, *** not only benefits from its subject imports but operates a business model that largely revolves around the importation of low-priced subject imports. Furthermore, it is notable that *** is the only domestic producer to experience *** over the POI, with its ratio *** in interim 2021 when its ratio of subject imports to domestic production was highest. *Id.* at Tables VI-3, ***. Given *** size as the *** domestic producer and these *** results, inclusion of data from ***, which has benefited from subject imports as described, could skew the data on domestic producers' performance.

Domestic producer *** is subject to the related parties provision since it is an importer of subject merchandise. Imported subject subassemblies accounted for *** percent of *** domestic production (they note that *** is among the *** of the domestic MAE producers, and accounted for just *** percent of domestic production in 2020). *Id.* at Tables III-1, ***. Its domestic operations are *** reliant on subject imports ***, and they therefore exclude it from the domestic industry.

They find that Table III-14 and Table III-17 mask the extent of *** reliance on subject imports because the domestic production reported in those tables reflects both the tonnage of MAE they produce using domestically produced subassemblies and the tonnage of MAE that these firms produce with imported subassemblies. Thus, the tonnage these firms import to produce finished MAE is credited as domestic production. Under this methodology, a producer that performs finishing operations on imports would by definition have an import-to-production ratio that was not much if at all in excess of 100 percent, giving the impression that its U.S. operations were at least as important as what it imports. Rather, for purposes of their analysis, they rely on Tables ***, which delineate that portion of "U.S. production" attributable to internal production and that portion attributable to purchased or imported subassemblies.

***. *** is subject to exclusion pursuant to the related parties provision because it imported subject merchandise during the POI and is related to a subject foreign producer.¹⁶⁸ *** accounted for *** percent of domestic production of MAE in 2020.¹⁶⁹ During the POI, *** imported *** short tons in 2018, *** short tons in 2019, and *** short tons in 2020; it imported *** short tons in interim 2020 and *** short tons in interim 2021.¹⁷⁰ The ratio of these subject imports to its domestic production was *** percent in 2018, *** percent in 2019, and *** percent in 2020; it was *** percent in interim 2020 and *** percent in interim 2021.¹⁷¹ *** explained that it imported subject merchandise because subject foreign producers had ***.¹⁷² *** the petitions.¹⁷³ Its operating income to net sales ratios were *** than the domestic industry average during the POI.¹⁷⁴

The record in these investigations indicates that *** primary interest is in domestic production rather than importation. Its volume of subject imports and ratio of subject imports to domestic production decreased from 2018 to 2020. No party has argued for its exclusion from the domestic industry. For these reasons, we find that appropriate circumstances do not exist to exclude *** from the domestic industry under the related parties provision.

(...Continued)

Chair Kearns and Commissioner Karpel note that they agree with the Commission's finding that the domestic industry is threatened with material injury by reason of subject imports, and would have made the same determination if the domestic industry was defined as including ***.

Furthermore, Chair Kearns and Commissioner Karpel do not intend by their finding in these investigations to foreclose a contrary conclusion in a future investigation involving a high degree of reliance on subject imports if other circumstances in that investigation warrant.

¹⁶⁸ CR/PR at Table III-2.

¹⁶⁹ CR/PR at Table III-1.

¹⁷⁰ CR/PR at Table III-19. ***. *Id.* The record in the final phase of these investigations does not contain ***. *** producers' questionnaire response, EDIS Doc. ***, at Q. II-16b. *** purchases of subject imports in 2020 were responsible for only *** percent of total subject imports, and therefore its purchases did not account for a substantial share of subject imports to be ***.

¹⁷¹ CR/PR at Table III-19. Each year from 2018 to 2020 and in interim 2021, ***. *Id.* at Table ***. Its purchases or imports of subject subassemblies as a share of all its input subassemblies were *** percent in 2018, 2019, and 2020 and in interim 2021. *Id.*

¹⁷² CR/PR at Table III-21.

¹⁷³ CR/PR at Table III-1.

¹⁷⁴ CR/PR at Table VI-3. *** ratio of operating income to net sales was *** percent in 2018, *** percent in 2019, and *** percent in 2020; it was *** percent in interim 2020 and *** percent in interim 2021. *Id.*

***. *** is subject to possible exclusion under the related parties provision because it ***.¹⁷⁵ *** is *** percent of domestic production of MAE in 2020.¹⁷⁶ The ratio of its subject imports to its domestic production was *** percent in 2018, *** percent in 2019, and *** percent in 2020; it was *** percent in interim 2020 and *** percent in interim 2021.¹⁷⁷ ***.¹⁷⁸ *** the petitions.¹⁷⁹

In view of the fact that imports of subject merchandise by *** were small relative to its domestic production, its principal interest appears to be in domestic production. No party has argued for its exclusion from the domestic industry. For these reasons, we find that appropriate circumstances do not exist to exclude *** from the domestic industry under the related parties provision.

In sum, we find that appropriate circumstances do not exist to exclude *** from the domestic industry under the related parties provision.¹⁸⁰ Accordingly, based on our definition of the domestic like product, we define the domestic industry to include all domestic producers of MAE and subassemblies thereof.

¹⁷⁵ CR/PR at VII-3, Table III-2. ***. *Id.* at Table III-20. The record in the final phase of these investigations does not contain ***. *** producers' questionnaire response, EDIS Doc. ***, at Q. II-16b. *** purchases of subject imports in 2020 were responsible for only *** percent of total subject imports, and therefore its purchases did not account for a substantial share of subject imports to be ***.

¹⁷⁶ CR/PR at Table III-1.

¹⁷⁷ CR/PR at Table III-20. During the POI, ***. *** producers' questionnaire response at Q. II-3a.

¹⁷⁸ CR/PR at Table III-21.

¹⁷⁹ CR/PR at Table III-1.

¹⁸⁰ As explained above, Chair Kearns and Commissioner Karpel find that appropriate circumstances exist to exclude *** from the domestic industry pursuant to the related parties provision.

IV. Threat of Material Injury by Reason of Subject Imports

A. Legal Standards

In the final phase of antidumping and countervailing duty investigations, the Commission determines whether an industry in the United States is materially injured or threatened with material injury by reason of the imports under investigation.¹⁸¹ In making this determination, the Commission must consider the volume of subject imports, their effect on prices for the domestic like product, and their impact on domestic producers of the domestic like product, but only in the context of U.S. production operations.¹⁸² The statute defines “material injury” as “harm which is not inconsequential, immaterial, or unimportant.”¹⁸³ In assessing whether the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States.¹⁸⁴ No single factor is dispositive, and all relevant factors are considered “within the context of the business cycle and conditions of competition that are distinctive to the affected industry.”¹⁸⁵

Although the statute requires the Commission to determine whether the domestic industry is “materially injured or threatened with material injury by reason of” unfairly traded imports,¹⁸⁶ it does not define the phrase “by reason of,” indicating that this aspect of the injury

¹⁸¹ 19 U.S.C. §§ 1671d(b), 1673d(b). The statute states in relevant part:

The Commission shall make a final determination of whether—

- (A) an industry in the United States—
 - (i) is materially injured, or
 - (ii) is threatened with material injury ...

by reason of imports, or sales (or the likelihood of sales) for importation, of the merchandise with respect to which the administering authority has made an affirmative determination under subsection (a)(1) of this section.

19 U.S.C. § 1673d(b)(1).

¹⁸² 19 U.S.C. § 1677(7)(B). The Commission “may consider such other economic factors as are relevant to the determination” but shall “identify each {such} factor ... and explain in full its relevance to the determination.” 19 U.S.C. § 1677(7)(B). While we consider or evaluate the volume, price, and impact factors in our final determination, whether based on material injury or threat thereof, the statute does not require us to make findings on any of these factors. *Id.*

¹⁸³ 19 U.S.C. § 1677(7)(A).

¹⁸⁴ 19 U.S.C. § 1677(7)(C)(iii).

¹⁸⁵ 19 U.S.C. § 1677(7)(C)(iii).

¹⁸⁶ 19 U.S.C. §§ 1671d(b), 1673d(b).

analysis is left to the Commission's reasonable exercise of its discretion.¹⁸⁷ In identifying a causal link, if any, between subject imports and material injury to the domestic industry, the Commission examines the facts of record that relate to the significance of the volume and price effects of the subject imports and any impact of those imports on the condition of the domestic industry. This evaluation under the "by reason of" standard must ensure that subject imports are more than a minimal or tangential cause of injury and that there is a sufficient causal, not merely a temporal, nexus between subject imports and material injury.¹⁸⁸

In many investigations, there are other economic factors at work, some or all of which may also be having adverse effects on the domestic industry. Such economic factors might include nonsubject imports; changes in technology, demand, or consumer tastes; competition among domestic producers; or management decisions by domestic producers. The legislative history explains that the Commission must examine factors other than subject imports to ensure that it is not attributing injury from other factors to the subject imports, thereby inflating an otherwise tangential cause of injury into one that satisfies the statutory material injury threshold.¹⁸⁹ In performing its examination, however, the Commission need not isolate

¹⁸⁷ *Angus Chemical Co. v. United States*, 140 F.3d 1478, 1484–85 (Fed. Cir. 1998) (“{T}he statute does not ‘compel the commissioners’ to employ {a particular methodology}.”), *aff’g*, 944 F. Supp. 943, 951 (Ct. Int’l Trade 1996).

¹⁸⁸ The Federal Circuit, in addressing the causation standard of the statute, observed that “{a} long as its effects are not merely incidental, tangential, or trivial, the foreign product sold at less than fair value meets the causation requirement.” *Nippon Steel Corp. v. USITC*, 345 F.3d 1379, 1384 (Fed. Cir. 2003). This was further ratified in *Mittal Steel Point Lisas Ltd. v. United States*, 542 F.3d 867, 873 (Fed. Cir. 2008), where the Federal Circuit, quoting *Gerald Metals, Inc. v. United States*, 132 F.3d 716, 722 (Fed. Cir. 1997), stated that “this court requires evidence in the record ‘to show that the harm occurred “by reason of” the LTFV imports, not by reason of a minimal or tangential contribution to material harm caused by LTFV goods.’” *See also Nippon Steel Corp. v. United States*, 458 F.3d 1345, 1357 (Fed. Cir. 2006); *Taiwan Semiconductor Industry Ass’n v. USITC*, 266 F.3d 1339, 1345 (Fed. Cir. 2001).

¹⁸⁹ Uruguay Round Agreements Act Statement of Administrative Action, H.R. Rep. 103-316, vol. I (“SAA”) at 851–52 (1994) (“{T}he Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports.”); S. Rep. 96-249 at 75 (1979) (the Commission “will consider information which indicates that harm is caused by factors other than less-than-fair-value imports.”); H.R. Rep. 96-317 at 47 (1979) (“in examining the overall injury being experienced by a domestic industry, the ITC will take into account evidence presented to it which demonstrates that the harm attributed by the petitioner to the subsidized or dumped imports is attributable to such other factors;” those factors include “the volume and prices of nonsubsidized imports or imports sold at fair value, contraction in demand or changes in patterns of consumption, trade restrictive practices of and competition between the foreign and domestic producers, developments in technology and the export performance and productivity of the domestic industry”); *accord Mittal Steel*, 542 F.3d at 877.

the injury caused by other factors from injury caused by unfairly traded imports.¹⁹⁰ Nor does the “by reason of” standard require that unfairly traded imports be the “principal” cause of injury or contemplate that injury from unfairly traded imports be weighed against other factors, such as nonsubject imports, which may be contributing to overall injury to an industry.¹⁹¹ It is clear that the existence of injury caused by other factors does not compel a negative determination.¹⁹²

Assessment of whether material injury or threat thereof to the domestic industry is “by reason of” subject imports “does not require the Commission to address the causation issue in any particular way” as long as “the injury to the domestic industry can reasonably be attributed to the subject imports.”¹⁹³ The Commission ensures that it has “evidence in the record” to “show that the harm occurred ‘by reason of’ the LTFV imports,” and that it is “not attributing

¹⁹⁰ SAA at 851–52 (“{T}he Commission need not isolate the injury caused by other factors from injury caused by unfair imports.”); *Taiwan Semiconductor Industry Ass’n*, 266 F.3d at 1345 (“{T}he Commission need not isolate the injury caused by other factors from injury caused by unfair imports Rather, the Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports.” (emphasis in original)); *Asociacion de Productores de Salmon y Trucha de Chile AG v. United States*, 180 F. Supp. 2d 1360, 1375 (Ct. Int’l Trade 2002) (“{t}he Commission is not required to isolate the effects of subject imports from other factors contributing to injury” or make “bright-line distinctions” between the effects of subject imports and other causes.); see also *Softwood Lumber from Canada*, Inv. Nos. 701-TA-414 and 731-TA-928 (Remand), USITC Pub. 3658 (Dec. 2003) at 100–01 (Commission recognized that “{i}f an alleged other factor is found not to have or threaten to have injurious effects to the domestic industry, *i.e.*, it is not an ‘other causal factor,’ then there is nothing to further examine regarding attribution to injury”), citing *Gerald Metals*, 132 F.3d at 722 (the statute “does not suggest that an importer of LTFV goods can escape countervailing duties by finding some tangential or minor cause unrelated to the LTFV goods that contributed to the harmful effects on domestic market prices.”).

¹⁹¹ S. Rep. 96-249 at 74–75; H.R. Rep. 96-317 at 47.

¹⁹² See *Nippon Steel Corp.*, 345 F.3d at 1381 (“an affirmative material-injury determination under the statute requires no more than a substantial-factor showing. That is, the ‘dumping’ need not be the sole or principal cause of injury.”).

¹⁹³ *Mittal Steel*, 542 F.3d at 876, 878; see also *id.* at 873 (“While the Commission may not enter an affirmative determination unless it finds that a domestic industry is materially injured ‘by reason of’ subject imports, the Commission is not required to follow a single methodology for making that determination ... {and has} broad discretion with respect to its choice of methodology.”) citing *United States Steel Group v. United States*, 96 F.3d 1352, 1362 (Fed. Cir. 1996) and S. Rep. 96-249 at 75. In its decision in *Swiff-Train v. United States*, 793 F.3d 1355 (Fed. Cir. 2015), the Federal Circuit affirmed the Commission’s causation analysis as comporting with the Court’s guidance in *Mittal*.

injury from other sources to the subject imports.”¹⁹⁴ The Federal Circuit has examined and affirmed various Commission methodologies and has disavowed “rigid adherence to a specific formula.”¹⁹⁵

The question of whether the material injury or threat thereof threshold for subject imports is satisfied notwithstanding any injury from other factors is factual, subject to review under the substantial evidence standard.¹⁹⁶ Congress has delegated this factual finding to the Commission because of the agency’s institutional expertise in resolving injury issues.¹⁹⁷

1. Legal Standard for Material Injury by Reason of Subject Imports

The statute explicitly sets forth the relevant volume, price, and impact factors to be considered in the Commission’s analysis. Section 771(7)(C)(i) of the Tariff Act provides that the “Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States, is significant.”¹⁹⁸

Section 771(7)(C)(ii) of the Tariff Act provides that, in evaluating the price effects of the subject imports, the Commission shall consider whether

- (I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and
- (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.¹⁹⁹

¹⁹⁴ *Mittal Steel*, 542 F.3d at 873 (quoting from *Gerald Metals*, 132 F.3d at 722), 877–79. We note that one relevant “other factor” may involve the presence of significant volumes of price-competitive nonsubject imports in the U.S. market, particularly when a commodity product is at issue. In appropriate cases, the Commission collects information regarding nonsubject imports and producers in nonsubject countries in order to conduct its analysis.

¹⁹⁵ *Nucor Corp. v. United States*, 414 F.3d 1331, 1336, 1341 (Fed. Cir. 2005); see also *Mittal Steel*, 542 F.3d at 879 (“*Bratsk* did not read into the antidumping statute a Procrustean formula for determining whether a domestic injury was ‘by reason’ of subject imports.”).

¹⁹⁶ We provide in our discussion below a full analysis of other factors alleged to have caused any material injury experienced by the domestic industry.

¹⁹⁷ *Mittal Steel*, 542 F.3d at 873; *Nippon Steel Corp.*, 458 F.3d at 1350, citing *U.S. Steel Group*, 96 F.3d at 1357; S. Rep. 96-249 at 75 (“The determination of the ITC with respect to causation is ... complex and difficult, and is a matter for the judgment of the ITC.”).

¹⁹⁸ 19 U.S.C. § 1677(7)(C)(i).

¹⁹⁹ 19 U.S.C. § 1677(7)(C)(ii).

Section 771(7)(C)(iii) of the Tariff Act provides that examining the impact of subject imports, the Commission “shall evaluate all relevant economic factors which have a bearing on the state of the industry.”²⁰⁰ These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, gross profits, net profits, operating profits, cash flow, return on investment, return on capital, ability to raise capital, ability to service debts, research and development, and factors affecting domestic prices. No single factor is dispositive and all relevant factors are considered “within the context of the business cycle and conditions of competition that are distinctive to the affected industry.”²⁰¹

2. Legal Standard for Threat of Material Injury by Reason of Subject Imports

Section 771(7)(F) of the Tariff Act directs the Commission to determine whether the U.S. industry is threatened with material injury by reason of the subject imports by analyzing whether “further dumped or subsidized imports are imminent and whether material injury by reason of imports would occur unless an order is issued or a suspension agreement is accepted.”²⁰² The Commission may not make such a determination “on the basis of mere conjecture or supposition,” and considers the threat factors “as a whole” in making its determination whether dumped or subsidized imports are imminent and whether material injury by reason of subject imports would occur unless an order is issued.²⁰³ In making our

²⁰⁰ 19 U.S.C. § 1677(7)(C)(iii); *see also* SAA at 851 and 885 (“In material injury determinations, the Commission considers, in addition to imports, other factors that may be contributing to overall injury. While these factors, in some cases, may account for the injury to the domestic industry, they also may demonstrate that an industry is facing difficulties from a variety of sources and is vulnerable to dumped or subsidized imports.”).

²⁰¹ 19 U.S.C. § 1677(7)(C)(iii). This provision was amended by the Trade Preferences Extension Act of 2015, Pub. L. 114-27.

²⁰² 19 U.S.C. § 1677(7)(F)(ii).

²⁰³ 19 U.S.C. § 1677(7)(F)(ii).

determination, we consider all statutory threat factors that are relevant to this investigation.²⁰⁴

B. Data Issues

As discussed above, the scope of these investigations includes both MAE subassemblies and complete MAE, which is the fully assembled downstream product. There are substantial differences in terms of size and weight between and among MAE subassemblies and complete MAE. In the final phase of these investigations, the Commission collected data on complete MAE in terms of units, and on complete MAE and MAE subassemblies combined in terms of units, short tons, and value. We recognize the benefits and limitations of these different

²⁰⁴ These factors are as follows:

(I) if a countervailable subsidy is involved, such information as may be presented to it by the administering authority as to the nature of the subsidy (particularly as to whether the countervailable subsidy is a subsidy described in Article 3 or 6.1 of the Subsidies Agreement), and whether imports of the subject merchandise are likely to increase,

(II) any existing unused production capacity or imminent, substantial increase in production capacity in the exporting country indicating the likelihood of substantially increased imports of the subject merchandise into the United States, taking into account the availability of other export markets to absorb any additional exports,

(III) a significant rate of increase of the volume or market penetration of imports of the subject merchandise indicating the likelihood of substantially increased imports,

(IV) whether imports of the subject merchandise are entering at prices that are likely to have a significant depressing or suppressing effect on domestic prices and are likely to increase demand for further imports,

(V) inventories of the subject merchandise,

(VI) the potential for product-shifting if production facilities in the foreign country, which can be used to produce the subject merchandise, are currently being used to produce other products,

...

(VIII) the actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and

(IX) any other demonstrable adverse trends that indicate the probability that there is likely to be material injury by reason of imports (or sale for importation) of the subject merchandise (whether or not it is actually being imported at the time).

19 U.S.C. § 1677(7)(F)(i). To organize our analysis, we discuss the applicable statutory threat factors using the same volume/price/impact framework that applies to our material injury analysis. Statutory threat factor (I) is discussed concerning countervailable subsidies. Statutory threat factors (II), (III), (V), and (VI) are discussed in the analysis of subject import volume. Statutory threat factor (IV) is discussed in the analysis of subject import price effects. Statutory factors (VIII) and (IX) are discussed in the analysis of impact. Statutory factor (VII) concerning processed agricultural products is inapplicable to these investigations.

measures.²⁰⁵ As discussed below, in evaluating volume and market share, we have mainly considered short tons for complete MAE and subassemblies combined and units for complete MAE.

C. Conditions of Competition and the Business Cycle²⁰⁶

The following conditions of competition inform our analysis of whether there is material injury or threat of material injury by reason of subject imports.

1. Demand Considerations

MAE is machinery primarily used on construction sites for the purpose of lifting people, tools, and materials.²⁰⁷ Reported end users for finished MAE products include equipment rental agencies for agricultural and construction applications.²⁰⁸

Petitioner and respondents agree, and the record indicates, that demand for MAE is generally tied to construction trends and that demand contracted considerably in early 2020

²⁰⁵ For example, the measures that combine units of MAE subassemblies and complete (finished and unfinished) MAE may have double-counting issues because those measures encompass the upstream and downstream products. The measures based on short tons and value account for size and unit value differences, but would not account for product mix issues. Furthermore, a measure based on units treats items equally that may differ substantially in terms of size and unit value. Finally, measures that include only complete MAE avoid the issues of double-counting and of equal treatment of disparate categories of complete units and subassemblies, but could omit a portion of the domestic like product and subject imports.

²⁰⁶ Pursuant to section 771(24) of the Tariff Act, imports from a subject country of merchandise corresponding to the domestic like product that account for less than 3 percent of all such merchandise imported into the United States in the most recent 12-month period for which data are available preceding the filing of the petition shall generally be deemed negligible. 19 U.S.C. § 1677(24)(A)(i).

Negligibility is not an issue in these investigations. Subject imports from China subject to the countervailing duty investigation accounted for 21.3 percent of total U.S. imports of MAE from February 2020 to January 2021, the 12-month period preceding filing of the petition. CR/PR at Table IV-4.

²⁰⁷ CR/PR at I-12, I-23, I-27.

²⁰⁸ CR/PR at II-13.

due to the effects of the COVID-19 pandemic, but has since recovered to some extent.²⁰⁹ *** domestic producers, all U.S. purchasers, and nine of 12 responding U.S. importers reported that demand for MAE since 2018 increased or fluctuated.²¹⁰ Chinese respondents argue that demand is primarily driven by large national companies that rent construction equipment, known as consolidators; regional rental firms; and local rental firms.²¹¹

Most U.S. producers (five of seven) and some importers (five of 15) reported changes in product mix since 2018.²¹² Reported shifts in purchases included demand for a new class of scissor lifts and “significant changes” to product ranges; demand for lifts with higher heights, longer run times, less emissions, and more safety features; and changes due to new American National Standards Institute (“ANSI”) standards.²¹³

Apparent U.S. consumption for MAE decreased from *** short tons in 2018 to *** short tons in 2019 and to *** short tons in 2020; it was *** short tons in interim 2020 and *** short tons in interim 2021.²¹⁴

2. Supply Considerations

The domestic industry was the largest source of supply to the MAE market in the United States over the POI.²¹⁵ Its market share decreased from *** percent in 2018 to *** percent in 2019, then increased to *** percent in 2020, a level *** percentage points lower than in

²⁰⁹ CR/PR at III-6, Tables III-4, III-5, IV-6, and VI-7; Petitioner’s Prehear. Br. at 20; Chinese Respondents’ Prehear. Br. at 14, 19–23; Chinese Respondents’ Posthear. Br. at 1. Demand for MAE is generally tied to construction trends, particularly nonresidential construction. CR/PR at II-14. Seasonally adjusted nonresidential construction spending increased 16.1 percent between January 2018 and January 2020, then decreased 11.3 percent through June 2021, with the first large drop in April 2020 associated with the economic slowdown due to the COVID-19 pandemic. *Id.* For example, JLG stated that while its facilities were deemed essential and thus it did not close due to the pandemic, many large construction projects using JLG’s MAE were shut down. *Id.* at II-15. Petitioner’s testimony at the hearing indicated that some large U.S. rental companies deferred some purchases of new MAE in 2020 due to the uncertain economic climate. Hearing Tr. at 134. *** responding domestic producers, 13 of 15 responding importers, and seven of 13 responding purchasers indicated that the market was subject to business cycles or conditions of competition. CR/PR at II-13.

²¹⁰ CR/PR at Table II-5.

²¹¹ Chinese Respondents’ Prehear. Br. at 17; Chinese Respondents’ Posthear. Br. at 1.

²¹² CR/PR at II-16.

²¹³ CR/PR at II-15 to II-16.

²¹⁴ CR/PR at Table IV-5. U.S. shipments of complete MAE were *** units in 2018, *** units in 2019, and *** units in 2020; they were *** units in interim 2020 and *** units in interim 2021. Calculated from *id.* at Table J-11.

²¹⁵ CR/PR at Table IV-6.

2018.²¹⁶ Its market share was *** percent in interim 2020 and lower, at *** percent, in interim 2021.²¹⁷ The domestic industry's production capacity was *** short tons in 2018, *** short tons in 2019, and *** short tons in 2020; it was *** short tons in interim 2020 and *** short tons in interim 2021.²¹⁸ The domestic industry's capacity utilization decreased from *** percent in 2018 to *** percent in 2019 and to *** percent in 2020; it was *** percent in interim 2020 and *** percent in interim 2021.²¹⁹ During the POI, domestic producers reported ***, among other changes in operations.²²⁰ Domestic producers noted that the decline in demand resulting from the COVID-19 pandemic resulted in reduced employee hours, furloughs and staff reductions, and extended plant closures.²²¹

Subject imports were the third-largest source of supply during the POI.²²² Subject imports' market share increased steadily from *** percent in 2018 to *** percent in 2019 and to *** percent in 2020, a level *** percentage points higher than in 2018.²²³ Their market share was *** percent in interim 2020 and higher, at *** percent, in interim 2021.²²⁴

Nonsubject imports were the second-largest source of supply over the POI.²²⁵ Their market share increased from *** percent in 2018 to *** percent in 2019, then declined to ***

²¹⁶ CR/PR at Tables IV-6, C-1. Measured by units, the domestic industry's market share of U.S. shipments of complete MAE was *** percent in 2018, *** percent in 2019, and *** percent in 2020. Calculated from *id.* at Tables J-7 and J-11.

²¹⁷ CR/PR at Table IV-6. Measured by units, domestic producers' market share of U.S. shipments of complete MAE was *** percent in interim 2020 and *** percent in interim 2021. Calculated from *id.* at Tables J-7 and J-11.

²¹⁸ CR/PR at Table III-8.

²¹⁹ CR/PR at Table III-8.

²²⁰ CR/PR at Table III-3. *** reported that it shuttered *** a manufacturing facility in *** due to ***. *Id.* It reported that it ***. *Id.* *** reported that in *** it closed its manufacturing plant in ***. *Id.*

²²¹ CR/PR at III-6, Table III-4; Hearing Tr. at 43, 150.

²²² CR/PR at Table IV-6.

²²³ CR/PR at Table IV-6. Measured by units of complete MAE, the market share of U.S. importers' U.S. shipments of subject imports shipped directly from China was *** percent in 2018, *** percent in 2019, and *** percent in 2020. Calculated from *id.* at Tables J-8 and J-11.

²²⁴ CR/PR at Table IV-6. Measured by units of complete MAE, the market share of U.S. importers' U.S. shipments of subject imports shipped directly from China was also higher, at *** percent in interim 2020 and *** percent in interim 2021. Calculated from *id.* at Tables J-8 and J-11.

²²⁵ CR/PR at Table IV-6.

percent in 2020, a level *** percentage points lower than in 2018.²²⁶ Their market share was *** percent in interim 2020 and *** percent in interim 2021.^{227 228}

Firms in the MAE market indicated that there have been considerable supply constraints since 2018, and market participants' perceptions of supply constraints were more prevalent following the filing of the petitions on February 26, 2021.²²⁹ Supply constraints were predominantly attributed to the effects of the pandemic.²³⁰ Domestic producers, importers, and purchasers noted global supply chain constraints resulting from the pandemic as affecting MAE production and supply.²³¹ Most responding purchasers noted availability issues with domestically produced MAE and MAE imported from China, generally due to the effects of the

²²⁶ CR/PR at Table IV-6. Measured by units of complete MAE, the market share of U.S. importers' U.S. shipments of nonsubject imports was *** percent in 2018, *** percent in 2019, and *** percent in 2020. Calculated from *id.* at Tables J-9 and J-11.

²²⁷ CR/PR at Table IV-6. Measured by units of complete MAE, the market share of U.S. importers' U.S. shipments of nonsubject imports was *** percent in interim 2020 and *** percent in interim 2021. Calculated from *id.* at Tables J-9 and J-11.

²²⁸ Chair Kearns and Commissioner Karpel note that the data that exclude *** are very similar to the data noted above. The domestic industry's market share decreased from *** percent in 2018 to *** percent in 2019, then increased to *** percent in 2020, a level *** percentage points lower than in 2018. CR/PR at Table C-2. Its market share was *** percent in interim 2020 and lower, at *** percent, in interim 2021. *Id.* The domestic industry's production capacity was *** short tons in 2018, *** short tons in 2019, and *** short tons in 2020; it was *** short tons in interim 2020 and *** short tons in interim 2021. *Id.* The domestic industry's capacity utilization decreased from *** percent in 2018 to *** percent in 2019 and to *** percent in 2020; it was *** percent in interim 2020 and *** percent in interim 2021. *Id.*

Subject imports' market share increased steadily from *** percent in 2018 to *** percent in 2019 and to *** percent in 2020, a level *** percentage points higher than in 2018. *Id.* Their market share was *** percent in interim 2020 and higher, at *** percent, in interim 2021. *Id.*

The market share of nonsubject imports increased from *** percent in 2018 to *** percent in 2019, then declined to *** percent in 2020, a level *** percentage points lower than in 2018. *Id.* Their market share was *** percent in interim 2020 and *** percent in interim 2021. *Id.*

²²⁹ *** responding domestic producers, nine of 15 responding importers, and five of 13 responding purchasers noted that there were supply constraints in the market before the petitions were filed on February 26, 2021. CR/PR at II-11. *** responding producers, 10 of 14 responding importers, and nine of 12 responding purchasers reported experiencing supply constraints in the market after the petitions were filed. *Id.* See also *id.* at Tables F-1 to F-4.

²³⁰ Producers and importers most frequently noted supply chain issues that are lingering effects of the COVID-19 pandemic on production during 2020. CR/PR at II-11 to II-12. Producers pointed to raw material shortages and labor bottlenecks, and both producers and importers indicated that logistical issues such as container shortages, freight availability and global port congestion have played a role in procuring sufficient components to manufacture MAE. *Id.*

²³¹ CR/PR at II-11 to II-12.

pandemic.²³² The majority of domestic producers reported a partial improvement regarding their MAE operations starting in early 2021, limited by continued supply chain issues and labor shortages, rising material costs, and the effects of new COVID-19 variants.²³³ Six of 10 foreign producers reported that the pandemic had an impact on their firm's operations, and five reported a partial or full reversal of the adverse impacts of the pandemic.²³⁴

3. Substitutability and Other Conditions

We find that there is a moderate-to-high degree of substitutability between the domestic like product and subject imports, depending on the extent of product differentiation, differing lead times, and availability.²³⁵ Most responding purchasers and importers reported that the domestic like product and subject imports are always or frequently interchangeable.²³⁶ All responding domestic producers indicated that the domestic like product and subject imports are always or frequently interchangeable.²³⁷

The record indicates that price is an important factor in purchasing decisions, along with quality and availability. Price and quality were tied for the most frequently cited first-most important factor, and availability was the most frequently reported second-most and third-

²³² Ten of 11 responding purchasers noted availability issues with domestically produced MAE, and nine of 11 responding purchasers reported availability issues with MAE imported from China. CR/PR at II-12. Four of nine responding purchasers reported these availability issues with respect to product imported from nonsubject sources. *Id.* See also *id.* at app. F.

²³³ CR/PR at III-6, Table III-4.

²³⁴ CR/PR at VII-6.

²³⁵ CR/PR at II-17.

²³⁶ CR/PR at Tables II-14 to II-17. Nine of 11 responding purchasers reported that domestically produced all other MAE and subject all other MAE are always or frequently interchangeable. *Id.* at Table II-17. All five responding purchasers reported that domestically produced telehandlers and subject telehandlers are always or frequently interchangeable. *Id.* at Table II-16. Eight of 11 responding importers reported that domestically produced all other MAE and subject all other MAE are always or frequently interchangeable. *Id.* at Table II-15. Three of six responding importers reported that domestically produced telehandlers and subject telehandlers are always or frequently interchangeable. *Id.* at Table II-14.

²³⁷ CR/PR at Tables II-12, II-13.

most important factor.²³⁸ The majority of purchasers (seven of 11 for telehandlers and seven of 12 for all other MAE) reported that they sometimes purchase the lowest-priced product.²³⁹

The vast majority of purchasers reported that the domestic like product is superior or comparable to subject imports with respect to all 16 purchasing factors, except for price, where five of 12 purchasers reported the domestic product was “inferior,” *i.e.*, the domestic like product was priced higher.²⁴⁰ The majority of importers reported that differences other than price were sometimes or never significant when comparing domestically produced and subject MAE,²⁴¹ although the majority of domestic producers and purchasers reported that differences other than price were always or frequently significant.²⁴²

End users, including construction companies and rental companies that also may act as retailers, were responsible for the largest share of purchases of MAE during the POI, whether domestically produced or imported from China, with distributors responsible for the remainder.²⁴³ Three of 12 purchasers of telehandlers and four of 12 purchasers of all other MAE require certification of their suppliers.

²³⁸ CR/PR at Table II-7. Of 13 responding purchasers, 10 rated price as a very important purchasing factor. *Id.* at Table II-8. Other purchasing factors generally rated as very important were quality (12 firms), ANSI compliance and product consistency (11 firms each), and availability, delivery time, and reliability of supply (10 firms each). *Id.*

²³⁹ CR/PR at II-19. *** reported that it always purchases the lowest-priced product, whereas *** noted it never purchases the lowest-priced product. *Id.*

²⁴⁰ CR/PR at Table II-11. A minority of purchasers reported the domestic like product as inferior on price (five of 12), availability (three of 12), delivery time (one of 11), reliability of supply (one of 12), discounts offered (two of 11), and minimum quality requirements (one of 12). *Id.* For all other purchasing factors, including ANSI compliance, product range, product consistency, quality meeting industry standards, and quality exceeding industry standards, purchasers rated domestic product as comparable or superior. *Id.*

²⁴¹ For telehandlers, four of seven importers reported that differences other than price were sometimes or never significant between domestically produced MAE and subject imports. CR/PR at Table II-20. For all other MAE, seven of 12 importers reported that differences other than price were sometimes or never significant between domestically produced MAE and subject imports. *Id.* at Table II-21.

²⁴² For telehandlers, two of four domestic producers and three of five purchasers reported that differences other than price were always or frequently significant between domestically produced MAE and subject imports. CR/PR at Tables II-18, II-22. For all other MAE, four of seven domestic producers and six of 11 purchasers reported that differences other than price were always or frequently significant between domestically produced MAE and subject imports. *Id.* at Tables II-19, II-23.

²⁴³ Between *** percent of domestic producers’ U.S. shipments and between *** percent of U.S. importers’ U.S. shipments of subject imports went to end users between 2018 and 2020. CR/PR at Table II-1.

Domestic producers sold MAE in 2020 through ***.²⁴⁴ Importers sold ***.²⁴⁵ Domestic producers' short-term contracts typically fix ***, whereas their annual contracts typically fix *** and responding producers were ***.²⁴⁶ Importers' annual contracts typically fixed price, and three of five responding importers noted that prices could be renegotiated during the contract.²⁴⁷ No domestic producer or importer reported indexing prices to raw material costs in its contracts.²⁴⁸

Domestic producers primarily produce MAE to order, while U.S. importers primarily sell MAE from U.S. inventories.²⁴⁹ Reported lead times on average were shorter for U.S. importers' shipments than for domestic producers' shipments.²⁵⁰

The primary raw materials used to manufacture MAE are fabricated steel components, which accounted for *** percent of domestic producers' raw material costs in 2020.²⁵¹ Raw material costs were the largest component of the domestic industry's COGS. While raw material costs decreased as a ratio to COGS and net sales from 2018 to 2020,²⁵² they were

²⁴⁴ CR/PR at Table V-3. The greatest share of U.S. sales of MAE by domestic producers in 2020 were short-term contracts, accounting for *** percent of domestic producers' U.S. shipments, with the remainder of domestic producers' U.S. shipments split among annual contracts (**% percent) or spot sales (**% percent). *Id.*

²⁴⁵ CR/PR at Table V-3. The greatest share of U.S. sales of MAE by U.S. importers in 2020 were spot sales, accounting for *** percent of U.S. importers' U.S. shipments, with most of the remainder of U.S. importers' U.S. shipments split among annual contracts (**% percent) or short-term contracts (**% percent). *Id.*

²⁴⁶ CR/PR at V-5.

²⁴⁷ CR/PR at V-5.

²⁴⁸ CR/PR at V-5.

²⁴⁹ CR/PR at II-20. Domestic producers reported that approximately *** of their commercial shipments were produced to order with the remainder of their commercial shipments coming from inventories. *Id.* U.S. importers reported that 75.9 percent of commercial shipments came from U.S. inventories with most of the remaining commercial shipments produced to order. *Id.*

²⁵⁰ CR/PR at II-20. Domestic producers reported that lead times for their produced-to-order commercial shipments averaged **%. *Id.* Their lead times for commercial shipments that came from *** averaged **%. *Id.* U.S. importers reported that lead times for their produced-to-order shipments averaged **%. *Id.* Their lead times for commercial shipments that came from U.S. inventories averaged *** while lead times for commercial shipments from foreign inventories averaged **%. *Id.*

²⁵¹ CR/PR at V-1, Table VI-4.

²⁵² CR/PR at Table VI-1. Raw material costs as a share of COGS increased from *** percent in 2018 to *** percent in 2019, then decreased to *** percent in 2020. *Id.* As a ratio to net sales, raw material costs decreased steadily from *** percent in 2018 to *** percent in 2019 and to *** percent in 2020. *Id.*

higher in interim 2021 than in interim 2020,²⁵³ as raw material costs surged in the fourth quarter of 2020 and the first half of 2021.²⁵⁴ Six of seven responding domestic producers and *** responding importers indicated that raw material prices had been increasing.²⁵⁵

MAE became subject to section 301 of the Tariff Act of 1974²⁵⁶ tariffs (“section 301 tariffs”) of 25 percent *ad valorem* in July 2018.²⁵⁷ Three of five responding domestic producers, five of 10 responding importers, and one of four responding purchasers indicated that the section 301 tariffs had increased the prices of MAE.²⁵⁸ Three of four responding domestic producers, eight of 11 responding importers, and three of four responding purchasers reported that section 301 tariffs on goods from China had increased raw material prices for MAE.²⁵⁹

Pursuant to section 232 of the Trade Expansion Act of 1962,²⁶⁰ the President proclaimed an additional 25 percent *ad valorem* duty (“section 232 tariffs”) on steel products used in the production of MAE, effective March 23, 2018.²⁶¹ *** responding domestic producers and seven of 14 responding importers indicated that section 232 tariffs on steel imports had the effect of increasing prices on raw materials to produce MAE, but five of seven responding domestic producers and *** responding importers stated that these increases did not increase the price of MAE.²⁶²

²⁵³ CR/PR at VI-12 to VI-13, Table VI-1. Raw material costs as a share of COGS were *** percent in interim 2020 and *** percent in interim 2021. *Id.* at Table VI-1. Raw material costs as a share of net sales were *** percent in interim 2020 and *** percent in interim 2021. *Id.*

²⁵⁴ CR/PR at Figure V-1.

²⁵⁵ CR/PR at Table V-1.

²⁵⁶ 19 U.S.C. § 2411.

²⁵⁷ *Notice of Action and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 83 Fed. Reg. 28710 (June 20, 2018). An exclusion from the section 301 tariffs was granted for a specific MAE product, classified under HTS statistical reporting number 8427.10.8020. CR/PR at I-12. The exclusion covered one type of MAE, namely, “Operator riding self-propelled aerial work platforms of a kind described in statistical note 1 to chapter 84, powered by an electric motor, with a load capacity not exceeding 1,400 kg.” *Id.* The exclusion went into effect in October 2018, and expired as of December 31, 2020. *Id.*

²⁵⁸ CR/PR at Table II-3.

²⁵⁹ CR/PR at Table II-3.

²⁶⁰ 19 U.S.C. § 1862.

²⁶¹ *Adjusting Imports of Steel Into the United States*, Presidential Proclamation 9705, March 8, 2018, 83 Fed. Reg. 11625 (March 15, 2018). *See also* Chinese Respondents’ Prehear. Br. at 40.

²⁶² CR/PR at Table V-1.

D. Material Injury or Threat of Material Injury by Reason of Subject MAE from China

Based on the record in this investigation, we find that an industry in the United States is threatened with material injury by reason of imports of MAE from China that have been subsidized by the government of China.²⁶³

1. Volume and Likely Volume of Subject Imports

Subject imports maintained a substantial presence in the U.S. market and increased as a share of the market throughout the POI as apparent U.S. consumption declined from 2018 to 2020. The volume of subject imports decreased from 48,830 short tons in 2018 to 34,886 short tons in 2019 and to 29,861 short tons in 2020, an overall decrease of 38.8 percent.²⁶⁴ However, the volume of subject imports was 31.7 percent higher in interim 2021, at 24,162 short tons, than in interim 2020, at 18,351 short tons.²⁶⁵ U.S. shipments of subject imports followed a similar trend: they declined from 38,009 short tons in 2018 to 36,965 short tons in 2019, and to 25,885 short tons in 2020, but were 75.6 percent higher in interim 2021, at 23,012 short tons, than in interim 2020, at 13,107 short tons.²⁶⁶ As apparent U.S. consumption declined more rapidly than shipments of subject imports from 2018 to 2020, subject imports increased their market share from *** percent in 2018 to *** percent in 2019, and to *** in 2020; subject

²⁶³ In its final countervailing duty determination concerning MAE from China, Commerce found 13 subsidy programs to be countervailable, including the following: income tax programs, preferential lending, and governmental provision of goods and services for less than adequate remuneration. 86 Fed. Reg. 57809 (referencing the detailed description found in *Issues and Decision Memorandum for the Final Affirmative Determination in the Countervailing Duty Investigation of Certain Mobile Access Equipment and Subassemblies Thereof from the People's Republic of China*, October 12, 2021, at 15–19). However, we have considered the information presented by Commerce as to the nature of these subsidies, and none of them are a subsidy described in Article 3 or 6.1 of the Subsidies Agreement.

²⁶⁴ CR/PR at Table IV-2.

²⁶⁵ CR/PR at Table IV-2.

²⁶⁶ CR/PR at Tables IV-5, C-1. In terms of units of complete MAE, U.S. shipments of subject imports of all in-scope MAE shipped directly from China increased from *** units in 2018 to *** units in 2019, and then declined to *** units in 2020; they were *** percent higher, at *** units, in interim 2021 than, at *** units, in interim 2020. *Id.* at Table J-8.

imports' market share was *** percent in interim 2020 and *** percent in interim 2021.²⁶⁷ Approximately *** percent of the gain in market share by subject imports from 2018 to 2020 was at the direct expense of the domestic industry; all of the increase in market share by subject imports when comparing the interim periods was at the direct expense of the domestic industry.²⁶⁸ In light of the foregoing, we find that the volume of subject imports in absolute terms and relative to consumption in the United States, and the increase relative to consumption, is significant.

We also find that the volume of subject imports is likely to increase substantially in the imminent future from its already significant level. Importers reported that they have arranged imports of *** short tons of MAE from China for the period of July to December 2021.²⁶⁹ When the reported arranged imports of MAE in the second half of 2021 are added to the reported U.S. shipments by U.S. importers in interim 2021 (23,012 short tons), the total U.S. shipments of subject imports of MAE in 2021 would be *** short tons, which is by far the highest annual level on the record and demonstrates that a substantial increase in subject imports is imminent.²⁷⁰

Further, the record evidence from responding subject producers shows that the Chinese industry is large and growing substantially and this growth is likely to foster substantial exports to the United States in the imminent future.²⁷¹ The Chinese industry's reported capacity more than doubled from 2018 to 2020, increasing from 342,332 short tons in 2018 to 463,834 short tons in 2019, and to 707,599 short tons in 2020, for an overall increase of 106.7 percent;

²⁶⁷ CR/PR at Tables IV-6, C-1. In terms of units of complete MAE, the market share of U.S. shipments of subject imports of all in-scope MAE shipped directly from China based on units steadily increased from *** percent in 2018 to *** percent in 2019, and *** percent in 2020; it was higher in interim 2021, at *** percent, than in interim 2020, at *** percent. Calculated from *id.* at Tables J-8 and J-11.

²⁶⁸ The domestic industry's market share fluctuated between 2018 and 2020 and was lower in interim 2021 than in interim 2020. The domestic industry's market share was *** percent in 2018, *** percent in 2019, and *** percent in 2020; it was *** percent in interim 2020 and *** percent in interim 2021. CR/PR at Table C-1.

²⁶⁹ CR/PR at Table VII-7. Importers reported arranged subject imports of MAE to the United States of *** short tons for July–September 2021, *** short tons for October–December 2021, *** short tons for January–March 2022, and *** short tons for April–June 2022. *Id.* We note that the arranged import figures are not necessarily complete even for 2021, as the due date for questionnaire responses was September 7, 2021, while importers' lead times averaged 70 days for purchases from Chinese inventory and 94 days for produced-to-order shipments. *Id.* at II-20.

²⁷⁰ Calculated from CR/PR at Tables IV-5 and VII-7.

²⁷¹ We observe that the questionnaire data of responding Chinese producers is estimated to account for *** percent of total MAE production in China in 2020. CR/PR at VII-3.

reported capacity was 363,895 short tons in interim 2020 and 14.7 percent higher, at 417,220 short tons, in interim 2021.²⁷²

In addition, although reported Chinese production of MAE increased overall by 88.4 percent from 250,752 short tons in 2018 to 364,245 short tons in 2019, and 472,409 short tons in 2020, the growth in the industry's capacity outpaced this increased production, and the reported capacity utilization rate declined from 73.2 percent in 2018 to 66.8 percent in 2020.²⁷³ The Chinese industry maintained substantial quantities of unused production capacity at all times during the POI.²⁷⁴

In addition to this significant and increasing excess capacity during the POI, responding producers project further growth in the near future. The production capacity of the industry in China is projected to increase to 812,269 short tons in 2021 and to 906,702 short tons in 2022.²⁷⁵ Its projected capacity in 2022 is 164.9 percent higher than its capacity at the beginning of the POI.²⁷⁶ Production is projected to increase from 614,106 short tons in 2021 to 650,761 short tons in 2022, but capacity utilization rates are projected to decline from 75.6 percent in 2021 to 71.8 percent in 2022.²⁷⁷ Chinese producers projected unused production capacity of 198,163 short tons in 2021 and 255,941 short tons in 2022.²⁷⁸

That growth, coupled with the already substantial capacity and excess capacity of the industry in China, is likely to result in substantial and increasing exports of MAE to the U.S. market in the imminent future. From 2018 to 2020, responding Chinese producers' export

²⁷² CR/PR at Table VII-3. By comparison, the domestic industry's capacity was stable at *** short tons in 2018, *** short tons in 2019 and 2020, and *** short tons in interim 2020 and interim 2021. *Id.* at Table III-8. During the POI, Chinese producers of MAE reported six expansions, two plant openings, two relocations, and one *** plant closure; four firms also reported increases in production capacity due to improved technology, labor, production, and supply chain management. *Id.* at VII-4, Table VII-2.

²⁷³ CR/PR at Table VII-3. The Chinese industry's reported production was 220,722 short tons in interim 2020 and 335,144 short tons in interim 2021. The Chinese industry's reported capacity utilization was 73.2 percent in 2018, 78.5 percent in 2019, 66.8 percent in 2020, 60.7 percent in interim 2020, and 80.3 percent in interim 2021. *Id.*

²⁷⁴ Chinese producers' existing unused production capacity was 91,580 short tons in 2018, 99,589 short tons in 2019, 235,190 short tons in 2020, 143,173 short tons in interim 2020, and 82,076 short tons in interim 2021. Calculated from CR/PR at Table VII-3. This Chinese industry excess capacity as a share of apparent U.S. consumption was *** percent in 2018, *** percent in 2019, *** percent in 2020, *** percent in interim 2020, and *** percent in interim 2021. Calculated from *id.* at Tables VII-3 and C-1.

²⁷⁵ CR/PR at Table VII-3.

²⁷⁶ CR/PR at Table VII-3.

²⁷⁷ CR/PR at Table VII-3.

²⁷⁸ Calculated from CR/PR at Table VII-3. During the POI, out-of-scope production accounted for *** percent or less of total production on the same equipment. *Id.* at Table VII-4.

shipments by volume and as a share of total shipments declined as more shipments were directed to the home market. By contrast, in interim 2021 alone their volume of export shipments exceeded 2020 levels and are projected in 2021 and 2022 to be higher than in any year during the POI.²⁷⁹ Moreover, Chinese producers' projections of exports to the United States likely underestimate actual volumes that the Chinese industry will ship to the U.S. market in the imminent future, to a significant extent.²⁸⁰ Therefore, although there has been more focus on the home market by Chinese producers than in the past,²⁸¹ the substantial

²⁷⁹ Chinese producers reported export shipments to all markets of 124,235 short tons in 2018, 109,232 short tons in 2019, 81,993 short tons in 2020, 37,082 short tons in interim 2020, and 87,366 short tons in interim 2021. CR/PR at Table VII-3. Export shipments to all markets are projected to be 140,580 short tons in 2021 and 140,956 short tons in 2022. *Id.* As a share of total shipments, Chinese producers reported export shipments as 51.5 percent in 2018, 31.7 percent in 2019, 18.7 percent in 2020, 19.8 percent in interim 2020, and 25.4 percent in interim 2021. *Id.* Export shipments as a share of total shipments are projected to be 22.8 percent in 2021 and 21.6 percent in 2022. *Id.*

²⁸⁰ Some of these projections reflect ***. See CR/PR at VII-7. As noted above, when the reported arranged imports of MAE in the second half of 2021 (***) short tons) are added to the reported U.S. shipments by U.S. importers in interim 2021 (23,012 short tons), the total U.S. shipments of subject imports of MAE in 2021 is *** short tons, which is by far the highest annual level on the record and demonstrates that a significant increase in subject imports is imminent. Calculated from *id.* at Tables IV-5 and VII-7. In other words, importers have already imported or arranged to import much more in 2021 than the 27,156 short tons responding Chinese producers projected they would export to the United States during the entire year. *Id.* at Table VII-3.

²⁸¹ Chinese respondents have provided arguments and information to allege that demand for MAE in the Chinese home market will continue to increase in the future. See, e.g., Chinese Respondents' Prehear. Br. at 80–89; Chinese Respondents' Posthear. Br. at 12. We recognize that Chinese producers projected substantial increases in shipments to the home market in 2021, at 475,319 short tons, and in 2022, at 511,676 short tons, compared to its highest prior level of 356,808 short tons in 2020. CR/PR at Table VII-3. However, responding Chinese producers also projected record levels of unused production capacity (198,163 short tons in 2021 and 255,941 short tons in 2022) and export shipments (140,580 short tons in 2021 and 140,956 short tons in 2022), and increasing capacity is projected to outpace increases in home market shipments from 2021 to 2022. *Id.* at Table VII-3. We also note that based on responding Chinese producers' figures, growth in the Chinese MAE home market has been slowing in the recent past, and these producers expect it to slow more sharply next year. The Chinese industry's home market MAE shipments increased 100.9 percent from 2018 to 2019, 51.8 percent from 2019 to 2020, were higher in interim 2021 than in interim 2020, and are projected to increase by only 7.6 percent from 2021 to 2022. Derived from *id.* at Table VII-3. In contrast, Chinese respondents point to forecasts of "robust" 12 percent growth in U.S. construction rental revenue in 2022. Chinese Respondents' Posthear. Br. at Responses to Commission Questions, p. 97. While Chinese home market shipments were 70.4 percent higher in interim 2021 than in interim 2020, that percentage is smaller than the percentages when comparing the interim periods in terms of export shipments to the United States (149.7 percent) and exports to all other markets (130.0 percent). Derived from CR/PR at Table VII-3. Thus, any increases in Chinese home market demand will not hinder Chinese producers' ability to increase export shipments due to the substantial growth in capacity.

growth in their capacity and production has also permitted them to increase their export shipments. Additionally, the record contains statements made by representatives of Chinese companies on their intentions to increase their presence in export markets, including the U.S. and North American markets.²⁸² Chinese producers have attended recent American Rental Association and other trade shows in the United States and purchased advertisements in English-language industry publications, indicating their intentions to increase sales beyond the Chinese or Asian markets.²⁸³ The record evidence establishes that the large and increasing Chinese industry will likely export substantially increasing volumes of MAE in the imminent future.²⁸⁴

Record evidence also establishes that the Chinese industry will likely substantially increase exports to the U.S. market in the imminent future. The large U.S. market is attractive to foreign producers of MAE. While exports to the U.S. market declined as a share of Chinese producers' total shipments from 2018 to 2020, that share was higher in interim 2021 than in interim 2020, and we find it notable that Chinese producers exported 26,241 short tons of subject merchandise to the United States in interim 2021, a larger volume than in 2020 (21,502 short tons) or 2019 (24,262 short tons).²⁸⁵ Chinese producers' exports to the United States in interim 2021 were larger than their exports to the U.S. in interim 2020 and grew by a larger percentage (149.7 percent) than did their home market shipments (70.4 percent) or their exports to other markets (130.0 percent).²⁸⁶ We find it noteworthy that subject imports have been sold to *** large consolidators that provided questionnaire responses, and Chinese

²⁸² See Petitioner's Prehear. Br. at 89–93. We note that Chinese MAE subassemblies incorporated into complete MAE in third countries, such as Canada, are subject merchandise within the scope of these investigations.

²⁸³ See Petitioner's Posthear. Br. at 25–27, Exhs. 3, 15, 18.

²⁸⁴ The ratio of U.S. importers' end-of-period inventories of subject imports to U.S. shipments of imports was significant and increased from 39.6 percent in 2018 to 55.8 percent in 2020; it was 68.3 percent in interim 2020 and 31.0 percent in interim 2021. CR/PR at Table VII-6. The ratio of end-of-period inventories to production for the Chinese industry was between 12.2 percent and 20.4 percent in each full year and each interim period; it is projected to be 14.4 percent in 2021 and 13.3 percent in 2022. *Id.* at Table VII-3. The ratio of end-of period inventories to total shipments for the Chinese industry was at similar levels. *Id.*

²⁸⁵ CR/PR at Table VII-3.

²⁸⁶ Derived from CR/PR at Table VII-3. Chinese producers noted that their projected shipments to the United States were affected by ***, *inter alia*. *Id.* at VII-7. We note that this *** would be resolved to the benefit of Chinese producers if orders are not imposed on subject imports. Further, while Chinese producers exported 26,241 short tons to the United States in interim 2021, their projected U.S. exports for all of 2021 are only 27,156 short tons, and we note that U.S. importers have arranged imports of *** short tons directly from China for the July–December 2021 period. *Id.* at Tables VII-3, VII-7.

imports have accounted for a growing share of these firms' purchases.²⁸⁷ Taken together, these firms accounted for more than three-quarters of reported purchases, thus indicating that subject imports have gained wide access to the most significant segment of purchasers in the U.S. market.²⁸⁸ Evidence also shows that ***.²⁸⁹ Witnesses for the domestic industry testified that several Chinese producers recently opened distribution and sales facilities in the United States and have recruited *** personnel from domestic producers as part of their strategy to grow their presence in the U.S. market.²⁹⁰

While six of the 10 Chinese producers reported that the COVID-19 pandemic had an impact on their firm operations, including supply chain disruptions and such shipping challenges as limited supply, delays, and increased costs, and nine of 11 purchasers reported availability issues with subject imports,²⁹¹ five Chinese producers reported a partial or full reversal of the adverse impacts of the pandemic beginning as early as March 2020.²⁹² We recognize that there may be lingering supply chain and shipping challenges from the pandemic, but Chinese producers were able to export to the U.S. market more subject merchandise in the first half of 2021, at 26,241 short tons, than they reported exporting to the U.S. market in full-year 2019 (24,262 short tons) or 2020 (21,502 short tons), and importers have arranged large quantities of subject imports for the remainder of 2021 as discussed above.²⁹³ Therefore, Chinese producers have been able to significantly increase the volume of their MAE exports to the United States, even in the face of any supply constraint issues or supply chain challenges. Furthermore, several Chinese producers have reported that their supply constraints have eased,²⁹⁴ indicating that there is a trend toward resolving Chinese producers' supply chain

²⁸⁷ Purchases of MAE produced in China accounted for *** percent of total purchases of MAE by *** in 2018, *** percent in 2019, and *** percent in 2020. Calculated from *** purchasers' questionnaire response, EDIS Doc. ***, at Q. II-1a; *** purchasers' questionnaire response, EDIS Doc. ***, at Q. II-1a; *** purchasers' questionnaire response, EDIS Doc. ***, at Q. II-1a. Purchasers were not asked for quantities of purchases in the interim periods.

²⁸⁸ CR/PR at Table V-13.

²⁸⁹ See Petitioner's Posthear. Br. at 9, Exhs. 2, 9; Hearing Tr. at 39.

²⁹⁰ Hearing Tr. at 39–40; Petitioner's Prehear. Br. at Exhs. 9, 12, 16–18, 25; Petitioner's Posthear. Br. at Exhs. 9, 20.

²⁹¹ CR/PR at II-12, VII-6.

²⁹² CR/PR at VII-6.

²⁹³ CR/PR at Table VII-3.

²⁹⁴ Five Chinese producers reported a partial or full reversal of the adverse impacts; four reported that there still exist raw material supply shortages and high transportation costs while one reported that the Delta variant reduced production and shipments in mid-2021. CR/PR at VII-6.

disruptions, shipping challenges, and high transportation costs, which would improve their ability to export to the U.S. market.²⁹⁵

We recognize that in interim 2021, the Chinese industry's capacity utilization reached 80.3 percent, and that its excess capacity was less than in interim 2020.²⁹⁶ Yet, the Chinese industry's excess capacity was still substantial compared to U.S. demand, and in this same period Chinese producers achieved their greatest penetration of the U.S. market in percentage terms.²⁹⁷ Chinese producers project, moreover, that their average capacity utilization rate will sink in 2022 to less than its 2018 or 2019 levels and their aggregated excess capacity will surpass levels in any full year in the record.²⁹⁸

In sum, subject imports from China maintained a significant and growing presence in the U.S. market from 2018 to 2020 and in interim 2021. The subject imports that importers have arranged for the remainder of 2021 show that a substantial increase in subject imports is imminent. As discussed above, the United States remains an attractive export market for subject producers, and these producers have evidenced a continuing interest in further developing that market. Moreover, the existing and projected increases in production capacity and excess capacity of Chinese producers demonstrate both the ability and incentive to substantially increase the volume of exports to the United States in the imminent future. Based on the above discussion, we find the likelihood of substantially increased imports of subject merchandise into the United States in the imminent future.

2. Price Effects and Likely Price Effects of the Subject Imports

At the outset, as observed above, the record indicates that there is a moderate-to-high degree of substitutability between subject imports and the domestic like product, and that price is an important factor in purchasing decisions for MAE, along with other factors.

²⁹⁵ As discussed below similar trends may benefit U.S. MAE production and demand, but we expect that the net effect will allow Chinese producers to continue to gain U.S. market share.

²⁹⁶ CR/PR at Table VII-3.

²⁹⁷ Subject imports' U.S. market share in interim 2021 was *** percent, compared to *** percent in interim 2020, *** percent in 2020, *** percent in 2019, and *** percent in 2018. CR/PR at Table C-1.

²⁹⁸ CR/PR at Table VII-3.

In the final phase of these investigations, the Commission collected quarterly pricing data from U.S. producers and importers for six MAE products.²⁹⁹ Six U.S. producers and nine importers provided usable pricing data for sales of the requested products.³⁰⁰ Pricing data reported by these firms accounted for approximately *** percent of U.S. producers' U.S. shipments of complete MAE and *** percent of reported U.S. shipments of subject imports of complete MAE from China in 2020.³⁰¹

The pricing data show predominant underselling by the subject imports. Prices for product imported directly from China were below those for the domestically produced MAE in 47 of 59 (79.7 percent) quarterly comparisons, while prices for such imports were above those for domestically produced MAE in 12 of 59 (20.3 percent) quarterly comparisons.³⁰² There were 4,472 units of subject imports in the quarterly comparisons in which subject imports undersold the domestic like product (88.7 percent of the total); there were 571 units of subject imports in the quarterly comparisons in which subject imports oversold the domestic like product (11.3 percent of the total).³⁰³ The margins of underselling ranged from 0.3 to 30.3 percent, and averaged 12.7 percent during the POI, while the margins of overselling ranged

²⁹⁹ The six pricing products are as follows:

Product 1.-- Battery-powered scissor lift, with electric or hydraulic drive, with 12'-14' platform height elevation and 500 lb. to 600 lb. maximum lift capacity

Product 2.-- Battery-powered scissor lift, with electric or hydraulic drive, with 18'-20' platform height elevation and 500 lb. to 600 lb. maximum lift capacity

Product 3.-- Battery-powered scissor lift, with electric or hydraulic drive, with 38'-42' platform height elevation and a width of less than 50 inches

Product 4.-- Diesel-powered four- or all-wheel drive articulating boom lift, with 44'-46' platform height elevation and 500 lb. to 1000 lb. maximum lift capacity

Product 5.-- Diesel-powered four- or all-wheel drive telescoping boom lift, with 64'-67' platform height elevation including jib option and 500 lb. to 1000 lb. maximum lift capacity

Product 6.-- Diesel-powered four- or all-wheel drive material telehandler, with 53'-57' maximum lift height and 10,000-lb. maximum lift capacity.

CR/PR at V-7.

³⁰⁰ CR/PR at V-7. Not all firms reported pricing for all products for all quarters.

³⁰¹ CR/PR at V-7.

³⁰² CR/PR at Table V-11.

³⁰³ CR/PR at Table V-11.

from 1.3 to 68.6 percent, and averaged 26.7 percent.³⁰⁴ ³⁰⁵ Responses to lost sales questions and comparisons of import and domestic prices tended to confirm that subject import were often priced lower than domestic products.³⁰⁶

³⁰⁴ CR/PR at Table V-11. Average margins of underselling/overselling for Pricing Product 2, which exhibited the highest margins of overselling, were influenced by ***. *Id.* at Table V-11 note.

³⁰⁵ Chair Kearns and Commissioner Karpel note that the data that exclude *** are very similar to the data described above. Prices for product imported from China were below those for the domestically produced MAE in 45 of 59 (76.3 percent) quarterly comparisons, while prices for such imports were above those for domestically produced MAE in 14 of 59 (23.7 percent) quarterly comparisons. CR/PR at Table Q-7. There were 4,297 units of subject imports in the quarterly comparisons in which subject imports undersold the domestic like product (85.2 percent of the total); there were 746 units of subject imports in the quarterly comparisons in which subject imports oversold the domestic like product (14.8 percent of the total). *Id.* The margins of underselling ranged from 0.3 to 29.6 percent, and averaged 13.1 percent during the POI, while the margins of overselling ranged from 0.02 to 69.4 percent, and averaged 25.4 percent. *Id.*

³⁰⁶ CR/PR at II-11, V-25. In the final phase of these investigations, of the 12 responding purchasers, seven reported that, since 2018, they had purchased imported MAE from China instead of U.S.-produced product; six of these purchasers reported that subject import prices were lower than U.S.-produced product, and two of them reported that the lower price was a primary reason for switching to subject imports. *Id.* at Table V-14. One of the two purchasers estimated it had purchased *** short tons of subject imports instead of domestic product due to their lower price. *Id.*

We have given less weight to the lost sales responses of ***. *See* purchasers' questionnaire, EDIS Doc. 749092 (Aug. 9, 2021), at Q. III-29; Email from ***, EDIS Doc. *** (***) . *** and ***. *** questionnaire response at Q. II-16b; *** importers' questionnaire response, EDIS Doc. ***, at Q. II-6a, II-6c.

It is notable that the prevalence of underselling in terms of the number of comparisons and units involved grew over the POI, and subject imports uniformly undersold the domestic like product in interim 2021. Specifically, while instances of underselling and overselling for product imported from China directly were evenly split in 2018, subject import prices were below those for the domestically produced MAE in 16 of 17 (94.1 percent) of quarterly comparisons in 2020 and in all quarterly comparisons in 2021.^{307 308}

In sum, we find that, in light of the moderate-to-high degree of substitutability between subject imports and the domestic like product and the importance of price in purchasing decisions for MAE, there was significant and increasing underselling by subject imports during the POI.

We have also considered whether subject imports have depressed domestic prices to a significant degree. During the POI, domestic prices increased for five of six pricing products, with price increases ranging from 3.0 percent to 13.2 percent; the sixth pricing product registered just a 0.2 percent price decrease over the full POI (but a *** percent increase between the beginning of the POI and the first quarter of 2021).³⁰⁹ The data show that prices

³⁰⁷ Derived from CR/PR at Tables V-4 to V-9. There were 1,384 units and 1,399 units of subject imports in quarterly comparisons in which subject imports undersold the domestic like product in 2020 and 2021, respectively; there were 1 unit and 0 units of subject imports in quarterly comparisons in which subject imports oversold the domestic like product in 2020 and 2021, respectively. *Id.*

³⁰⁸ CR/PR at Table V-11. The largest number of subject imports of MAE from China were reported for Pricing Products 1, 2, and 3 (scissor lift products). *Id.* These three products accounted for the majority of the underselling comparisons by both instances and units. *Id.* Prices for Pricing Product 1 imported from China were below those for the domestically produced MAE in all 14 quarterly comparisons, accounting for *** units; prices for Pricing Product 2 imported from China were below those for the domestically produced MAE in eight of 13 (61.5 percent) quarterly comparisons, accounting for *** units (97.1 percent of total reported for Pricing Product 2); and prices for Pricing Product 3 imported from China were below those for the domestically produced MAE in eight of 14 (57.1 percent) quarterly comparisons, accounting for *** units (56.4 percent of total reported for Pricing Product 3). *Id.*

³⁰⁹ CR/PR at Table V-10. During the POI, domestic prices increased by 5.2 percent for Pricing Product 1, 8.4 percent for Pricing Product 2, 13.2 percent for Pricing Product 3, 3.1 percent for Pricing Product 4, and 3.0 percent for Pricing Product 5. *Id.* Domestic prices declined by 0.2 percent for Pricing Product 6. *Id.* No purchaser confirmed that U.S. producers had reduced prices in order to compete with lower-priced imports from China. *Id.* at V-25.

of subject imports from China decreased for all available products, ranging from 2.5 percent to *** percent over the POI.^{310 311 312}

We have also considered whether subject imports have prevented price increases for domestically produced MAE that otherwise would have occurred to a significant degree. The domestic industry's ratio of COGS to net sales fluctuated but increased overall by *** percentage points from 2018 to 2020, declining from *** percent in 2018 to *** percent in 2019, but then increasing to *** percent in 2020.³¹³ While the industry's unit COGS increased by \$*** per short ton between 2018 and 2020, its net sales average unit value ("AUV") only increased by \$*** during that same period.³¹⁴ As a result, the domestic industry experienced a cost-price squeeze 2018 to 2020, particularly from 2019 to 2020 when the industry's unit COGS increased by \$*** per short ton and its net sales AUV declined by \$***.^{315 316} However, we

³¹⁰ During the POI, prices for subject imports from China decreased by 5.9 percent for Pricing Product 1, 29.1 percent for Pricing Product 2, *** percent for Pricing Product 3, and *** percent for Pricing Product 5. CR/PR at Table V-10. Importers of subject merchandise only reported limited pricing data for Pricing Products 4 and 6. *Id.*

³¹¹ Chair Kearns and Commissioner Karpel observe that the trends in domestic prices excluding *** were very similar to the trends set out above. Domestic prices generally increased slightly for five of six pricing products, ranging from *** percent to *** percent. Derived from CR/PR at Tables Q-1 to Q-6. During the POI, domestic prices increased by *** percent for Pricing Product 1, *** percent for Pricing Product 2, *** percent for Pricing Product 3, *** percent for Pricing Product 4, and *** percent for Pricing Product 5; domestic prices declined by *** percent for Pricing Product 6. *Id.*

³¹² While we recognize the limitations on the use of AUVs due to product mix, we note that the AUVs increased over the POI for U.S. producers' U.S. shipments of MAE and for the industry's net sales. CR/PR at Table C-1. In addition, the AUVs of U.S. producers' U.S. shipments increased from 2018 to 2020 for all MAE product types (*i.e.*, telehandlers, scissor lifts, and boom lifts), whether measured in dollars per short ton or dollars per unit, and were higher in interim 2021 than in interim 2020 for scissor lifts and boom lifts. *Id.* at Table J-7.

³¹³ CR/PR at Table VI-1. It was *** percent in interim 2020 and *** percent in interim 2021. *Id.*

³¹⁴ CR/PR at Table VI-2. The domestic industry's unit COGS increased in each year from 2018 to 2020, while its net sales AUV increased between 2018 and 2019, but then declined slightly in 2020. *Id.* at Table VI-1.

³¹⁵ CR/PR at Table VI-2.

³¹⁶ Chair Kearns and Commissioner Karpel note that the data that exclude *** are very similar to those discussed above. The domestic industry's ratio of COGS to net sales fluctuated but increased overall by *** percentage points from 2018 to 2020, declining from *** percent in 2018 to *** percent in 2019, but then increasing to *** percent in 2020; it was *** percent in interim 2020 and *** percent in interim 2021. CR/PR at Table C-2. While the industry's unit COGS increased by \$*** per short ton between 2018 and 2020, its net sales AUV only increased by \$*** during that same period. *Id.* As a result, the domestic industry experienced a cost-price squeeze from 2018 to 2020, particularly from 2019 to 2020 when the industry's unit COGS increased by \$*** per short ton and its net sales AUV declined by \$***. *Id.*

recognize that apparent U.S. consumption declined each year and overall by *** percent from 2018 to 2020.^{317 318}

We find that subject imports and the domestic like product are likely to continue to compete against each other and that price will likely continue to be an important factor in purchasing decisions in the imminent future. Given these considerations and the significant and intensifying underselling by subject imports observed during the POI, and particularly in 2020 and interim 2021, we further find that, in the imminent future, the likely significant and substantially increasing volumes of subject imports are likely to increasingly undersell the domestic like product, and gain additional market share at the expense of the domestic

³¹⁷ CR/PR at Table C-1. Moreover, as apparent U.S. consumption and net sales improved in interim 2021 compared with interim 2020, the COGS to net sales ratio in interim 2021, at *** percent was similar to the level in 2018. *Id.* We note that most market participants reported either increasing or fluctuating demand in the United States since January 1, 2018. *Id.* at II-15.

³¹⁸ Chair Kearns and Commissioner Karpel observe that the data are similar for the domestic industry they have defined; specifically, as apparent U.S. consumption and net sales were higher in interim 2021 compared with interim 2020, the COGS to net sales ratio in interim 2021, at *** percent, was similar to the level in 2018 (*** percent). CR/PR at Table C-2.

industry.³¹⁹ Particularly in light of the surge in raw material costs seen in 2021,³²⁰ the large and increasing volumes of lower-priced subject imports from China will likely have depressive or suppressive effects on prices for the domestic like product to a significant degree in the imminent future. Faced with such subject imports, the domestic industry will be forced either to lower its prices or to maintain prices (even if its costs increase) and lose sales and market

³¹⁹ Subject imports gained *** percentage points of market share as measured by short tons from 2018 to 2020 as the domestic industry lost *** percentage points. CR/PR at Table C-1. Subject imports had *** percentage points more market share in interim 2021 than they had in interim 2020, while the domestic industry had *** fewer percentage points of market share. *Id.* In terms of units of complete MAE, U.S. importers' U.S. shipments of subject imports shipped directly from China gained *** percentage points of market share from 2018 to 2020 as the domestic industry gained *** percentage points. Calculated from *id.* at Tables J-7, J-8, and J-11. In terms of units of complete MAE, subject imports had *** percentage points more market share in interim 2021 than they had in interim 2020, while the domestic industry had *** fewer percentage points of market share. *Id.* Chinese respondents assert that importers did not use underselling "deliberately" to increase market share because importers were not necessarily aware of competing domestic prices, particularly at the end of the POI when prices were rising. Chinese Respondents' Posthear. Br. at Responses to Commissioner Questions, pp. 51–53. Yet, the intent of importers is not dispositive. Importers could choose the prices at which they sold, and customers could select among competing options, with price an important consideration. As discussed, the record indicates that price and quality are the most important factors in purchasing decisions; all purchasers rated the domestic product as superior or comparable on the most important quality-related factors; and pricing data show subject imports underselling to an increasing degree. CR/PR at Tables II-7, II-8, II-11. During the POI, this market process resulted in an increase in subject import market share, and a decrease in domestic producers' market share, whatever importers knew or intended. Looking forward to the imminent future, the increasing extent of underselling toward the end of the POI indicates importers are likely to continue to undersell the domestic product, which will likely result in further increases in subject import market share at the expense of the domestic industry and/or suppression of domestic prices.

Similarly, MEC asserts that it does not sell based on price, and that purchasers choose its products based on other characteristics such as innovative features. MEC Posthear. Br. *passim*. Yet, MEC accounted for only a *** of subject imports throughout the POI, fluctuating between *** percent and *** percent. Calculated from CR/PR at Table IV-2; MEC's U.S. importers' questionnaire response, ***. Moreover, domestic producers report competing with Chinese producers other than MEC's *** on the basis of price. *See, e.g.,* Petitioner's Posthear. Br. at Exhs. 2, 9. Purchasers have identified other new Chinese sources that entered the market during the POI, such as LGMG and Sinoboom. CR/PR at II-12. The prices offered by LGMG and Sinoboom are among the *** in the U.S. market. *See* LGMG North America importers' questionnaire response, EDIS Doc. 751355 (Sept. 10, 2021) at Q. III-2; Sinoboom North America importers' questionnaire response, EDIS Doc. 751080 (Sept. 7, 2021) at Q. III-2; CR/PR at Tables V-4 to V-9. Chinese respondents argue that new entrants such as LGMG are ***, Chinese Respondents' Posthear. Br. at Responses to Commissioner Questions, p. 54, but there is overlap and increasingly so. *See* Petitioner's Posthear. Br. at Exhs. 2, 9. Given the increasing degree of underselling seen toward the end of the POI, the pattern of new arrivals indicates that an important component of subject import competition will increasingly be price driven in the imminent future.

³²⁰ CR/PR at V-1, Figure V-1.

share to subject imports. We thus find that subject imports are likely to have significant price effects in the imminent future.

3. Impact and Likely Impact of the Subject Imports

As discussed above, the domestic industry's market share was *** percent in 2018, *** percent in 2019, and *** percent in 2020, for an overall decline of *** percentage points from 2018 to 2020; the industry's market share was *** percent in interim 2020 and lower, at *** percent, in interim 2021, by far its lowest share of the POI.³²¹ The domestic industry's production capacity decreased from 2018 to 2020.³²² Production,³²³ capacity utilization,³²⁴ and

³²¹ CR/PR at Tables IV-6, C-1. As previously discussed, in terms of units of MAE, the market share of U.S. shipments of subject imports of all in-scope MAE shipped directly from China based on units steadily increased from *** percent in 2018 to *** percent in 2019, and *** percent in 2020; it was higher in interim 2021, at *** percent, than in interim 2020, at *** percent. Calculated from *id.* at Tables J-8 and J-11.

³²² The domestic industry's production capacity was *** short tons in 2018, *** short tons in 2019, and *** short tons in 2020. CR/PR at Table III-8. It was *** short tons in interim 2020 and *** short tons in interim 2021. *Id.*

³²³ The domestic industry's production decreased from *** short tons in 2018 to *** short tons in 2019 and to *** short tons in 2020. CR/PR at Table III-8. It was *** short tons in interim 2020 and *** short tons in interim 2021. *Id.*

³²⁴ The domestic industry's capacity utilization decreased from *** percent in 2018 to *** percent in 2019 and to *** percent in 2020. CR/PR at Table III-8. It was *** percent in interim 2020 and *** percent in interim 2021. *Id.*

domestic shipments³²⁵ declined each year from 2018 to 2020.^{326 327}

Employment-related indicators for the domestic industry largely declined each year from 2018 to 2020. The indicators for production-related workers (“PRWs”), total hours worked, and wages paid declined from 2018 to 2020 and were lower in interim 2021 than in

³²⁵ The domestic industry’s U.S. shipments decreased from *** short tons in 2018 to *** short tons in 2019 and to *** short tons in 2020. CR/PR at Table III-10. They were *** short tons in interim 2020 and *** short tons in interim 2021. *Id.* Similarly, the domestic industry’s adjusted U.S. shipments (to avoid double counting the quantity of imported MAE subassemblies contained in U.S. producers’ U.S. shipments of finished MAE) decreased from *** short tons in 2018 to *** short tons in 2019 and to *** short tons in 2020. *Id.* at Table III-12. They were *** short tons in interim 2020 and *** short tons in interim 2021. *Id.*

³²⁶ The ratio of end-of-period inventories to total shipments increased from *** percent in 2018 to *** percent in 2019 and to *** percent in 2020. CR/PR at Table III-13. It was *** percent in interim 2020 and *** percent in interim 2021. *Id.*

³²⁷ Chair Kearns and Commissioner Karpel note that the data that exclude *** are very similar to those discussed above. The domestic industry’s market share was *** percent in 2018, *** percent in 2019, and *** percent in 2020, for an overall decline of *** percentage points from 2018 to 2020; the industry’s market share was *** percent in interim 2020 and lower, at *** percent, in interim 2021. CR/PR at Table C-2. The domestic industry’s production capacity was *** short tons in 2018, *** short tons in 2019, and *** short tons in 2020; it was *** short tons in interim 2020 and *** short tons in interim 2021. *Id.* Production decreased from *** short tons in 2018 to *** short tons in 2019 and to *** short tons in 2020; it was *** short tons in interim 2020 and *** short tons in interim 2021. *Id.* Capacity utilization decreased from *** percent in 2018 to *** percent in 2019 and to *** percent in 2020; it was *** percent in interim 2020 and *** percent in interim 2021. *Id.* The domestic industry’s U.S. shipments decreased from *** short tons in 2018 to *** short tons in 2019 and to *** short tons in 2020; they were *** short tons in interim 2020 and *** short tons in interim 2021. *Id.* The ratio of end-of-period inventories to total shipments increased from *** percent in 2018 to *** percent in 2019 and to *** percent in 2020; it was *** percent in interim 2020 and *** percent in interim 2021. *Id.*

interim 2020.³²⁸ ³²⁹ Productivity declined as well from 2018 to 2020, although hourly wages increased.³³⁰ ³³¹

Revenues,³³² gross profit,³³³ operating income,³³⁴ operating income ratio,³³⁵ and net income³³⁶ declined each year from 2018 to 2020. Domestic producers' capital expenditures

³²⁸ The domestic industry's number of PRWs decreased steadily from *** in 2018 to *** in 2019 and to *** in 2020; it was *** in interim 2020 and *** in interim 2021. CR/PR at Table III-22. Total hours worked decreased steadily from *** in 2018 to *** in 2019 and to *** in 2020; they were *** in interim 2020 and *** in interim 2021. *Id.* Wages paid decreased steadily from \$*** in 2018 to \$*** in 2019 and to \$*** in 2020; they were \$*** in interim 2020 and \$*** in interim 2021. *Id.*

³²⁹ Chair Kearns and Commissioner Karpel note that the data that exclude *** are very similar to those discussed above. The domestic industry's number of PRWs decreased steadily from *** in 2018 to *** in 2019 and to *** in 2020; it was *** in interim 2020 and *** in interim 2021. CR/PR at Table C-2. Total hours worked decreased steadily from *** in 2018 to *** in 2019 and to *** in 2020; they were *** in interim 2020 and *** in interim 2021. *Id.* Wages paid decreased steadily from \$*** in 2018 to \$*** in 2019 and to \$*** in 2020; they were \$*** in interim 2020 and \$*** in interim 2021. *Id.*

³³⁰ Productivity in pounds per hour decreased steadily from *** in 2018 to *** in 2019 and to *** in 2020; it was *** in interim 2020 and *** in interim 2021. CR/PR at Table III-22. Unit labor costs per short ton increased from \$*** in 2018 to \$*** in 2019 and to \$*** in 2020; they were \$*** in interim 2020 and \$*** in interim 2021. *Id.* Hourly wages increased steadily from \$*** in 2018 to \$*** in 2019 and to \$*** in 2020; they were \$*** in interim 2020 and \$*** in interim 2021. *Id.*

³³¹ Chair Kearns and Commissioner Karpel note that the data that exclude *** are very similar to those discussed above. Productivity in pounds per hour decreased steadily from *** in 2018 to *** in 2019 and to *** in 2020; it was *** in interim 2020 and *** in interim 2021. CR/PR at Table C-2. Unit labor costs per short ton increased from \$*** in 2018 to \$*** in 2019 and to \$*** in 2020; they were \$*** in interim 2020 and \$*** in interim 2021. *Id.* Hourly wages increased steadily from \$*** in 2018 to \$*** in 2019 and to \$*** in 2020; they were \$*** in interim 2020 and \$*** in interim 2021. *Id.*

³³² The domestic industry's net sales revenues decreased steadily from \$*** in 2018 to \$*** in 2019 and to \$*** in 2020; they were \$*** in interim 2020 and \$*** in interim 2021. CR/PR at Table VI-1.

³³³ The domestic industry's gross profit decreased steadily from \$*** in 2018 to \$*** in 2019 and to \$*** in 2020; it was \$*** in interim 2020 and \$*** in interim 2021. CR/PR at Table VI-1.

³³⁴ The domestic industry's operating income decreased steadily from \$*** in 2018 to \$*** in 2019 and to \$*** in 2020; it was \$*** in interim 2020 and \$*** in interim 2021. CR/PR at Table VI-1.

³³⁵ The ratio of operating income to net sales was *** percent in 2018, *** percent in 2019, and *** percent in 2020; it was *** percent in interim 2020 and *** percent in interim 2021. CR/PR at Table VI-1.

³³⁶ The domestic industry's net income was \$*** in 2018, \$*** in 2019, and *** in 2020; it was *** in interim 2020 and \$*** in interim 2021. CR/PR at Table VI-1.

also declined during the POI.^{337 338}

We recognize that declines in the domestic industry's performance from 2019 to 2020 were due in significant part to the effects of the COVID-19 pandemic. The sudden decline in demand that occurred due to the pandemic would have caused the domestic industry's financial performance to deteriorate as output was reduced and fixed costs were spread over fewer units. By the same token, however, the increasing presence of subject imports in the U.S.

³³⁷ Capital expenditures for the domestic industry declined from \$*** in 2018 to \$*** in 2019 and to \$*** in 2020; they were \$*** in interim 2020 and \$*** in interim 2021. CR/PR at Table VI-8. Research and development expenses increased from \$*** in 2018 to \$*** in 2019, then decreased to \$*** in 2020; they were \$*** in interim 2020 and \$*** in interim 2021. *Id.* at Table VI-9. *** of eight domestic producers reported negative effects on investment, and *** of eight domestic producers reported negative effects on growth and development that they attributed to subject imports. *Id.* at Table VI-16.

³³⁸ Chair Kearns and Commissioner Karpel note that the financial data that exclude *** are very similar to those discussed above. The domestic industry's net sales revenues decreased steadily from \$*** in 2018 to \$*** in 2019 and to \$*** in 2020; they were just under \$*** in interim 2020 and \$*** in interim 2021. CR/PR at Table C-2. The domestic industry's gross profit decreased steadily from \$*** in 2018 to \$*** in 2019 and to \$*** in 2020; it was \$*** in interim 2020 and \$*** in interim 2021. *Id.* The domestic industry's operating income decreased steadily from \$*** in 2018 to \$*** in 2019 and to \$*** in 2020; it was \$*** in interim 2020 and \$*** in interim 2021. *Id.* The ratio of operating income to net sales was *** percent in 2018, *** percent in 2019, and *** percent in 2020; it was *** percent in interim 2020 and *** percent in interim 2021. *Id.* The domestic industry's net income was \$*** in 2018, \$*** in 2019, and *** in 2020; it was *** in interim 2020 and \$*** in interim 2021. *Id.* Capital expenditures for the domestic industry declined from \$*** in 2018 to \$*** in 2019 and to \$*** in 2020; they were \$*** in interim 2020 and \$*** in interim 2021. *Id.* Research and development expenses increased from \$*** in 2018 to \$*** in 2019, then decreased to \$*** in 2020; they were \$*** in interim 2020 and \$*** in interim 2021. Calculated from *id.* at Table VI-9. *** of the six domestic producers in the domestic industry as defined by Chair Kearns and Commissioner Karpel reported negative effects on investment, and *** of six domestic producers reported negative effects on growth and development that they attributed to subject imports. ***. *Id.* at Table VI-16.

market, especially in interim 2021, also resulted in lost volumes for the domestic industry in excess of the lost volumes that could be attributed to effects of the pandemic.³³⁹

As the effects of the COVID-19 pandemic lessened, many of the industry's indicators improved in interim 2021 compared with interim 2020, including increased sales with fixed costs spread over more units. However, the domestic industry continues to face increases in low-priced subject imports and a surge in raw material costs. As discussed above, raw material costs surged in the fourth quarter of 2020 and the first half of 2021.³⁴⁰ No domestic producer reported indexing prices to raw material costs in its contracts; *** percent of the domestic industry's contracts reportedly are on an annual basis.³⁴¹ The extent of the cost increase during the POI was masked by the fact that steel prices tend to have a lag of two quarters before affecting the profit and loss statements of the companies.³⁴² This means that the full extent of increases in steel coil and plate prices in the first half of 2021 were not fully realized in the industry's financial performance in interim 2021, but would be realized in the imminent future.

³³⁹ Chinese respondents argue that COVID-19 pandemic-related supply constraints prevented U.S. producers from expanding production in 2020 and 2021, resulting in increased subject import market share when purchasers were forced to turn to alternative sources of supply. Chinese Respondents' Posthear. Br. at 4–5. Yet, subject imports gained market share even in 2019, prior to the pandemic, indicating that supply constraints are not the only factor driving increases in subject import market penetration. Further, as discussed above, supply constraints affected both U.S. and Chinese producers, and a majority of purchasers rated the domestic product as superior or comparable to subject imports on availability. See CR/PR at II-11 to II-12, Tables II-11, F-4. Moreover, as previously discussed, underselling by subject imports was frequent and increased in 2020 and interim 2021 compared to earlier in the POI, giving purchasers price-related reasons to choose subject imports in a market in which price is an important purchasing factor. Derived from *id.* at Tables V-4 to V-9. If domestic supply was unavailable, importers of subject merchandise could have achieved higher prices selling in the U.S. market, but underselling by subject imports increased in 2020 and interim 2021. See *id.* We cannot conclude that supply constraints explain all increases in subject imports' market share during the POI, nor that they eliminate the likelihood that other factors, such as increased excess production capacity in the Chinese industry, will cause further increases in subject import market share in the imminent future. Even if, *arguendo*, domestic supply constraints resulted in some increase in subject imports, that would not negate the likely imminent substantial increase in subject imports volume, including downward pricing pressure or lost sales due to substantially increasing volumes of lower-priced subject imports.

³⁴⁰ CR/PR at V-1 to V-2, Figure V-1.

³⁴¹ CR/PR at V-5, Table V-3.

³⁴² CR/PR at V-1; Hearing Tr. at 110–111, 137 (“{W}e buy steel on a three-month rolling average that locks the price in for the next quarter, that creates about a one-quarter delay but also when we bring it on our books and it rolls off into the finished product through the P&L, that’s another quarter so there’s about a two-quarter delay in latency.”).

The likely substantially increased volume of subject imports and resulting price effects are particularly threatening to the domestic industry facing these increased costs.³⁴³

The combination of the delayed financial effects of surging raw material costs and increasing volumes of subject imports at progressively lower prices relative to U.S. pricing levels will significantly impact the domestic industry's performance in the imminent future to a greater extent than it already has, whether by preventing U.S. producers from raising prices sufficiently to cover the raw material cost increases, or by taking market share from U.S. producers as they are unable to lower prices to compete with increasing volumes of lower-

³⁴³ Petitioner's Posthear. Br. at 13, 18, Exhs. 11, 16; Petitioner's Final Comments at 11. The news reports that Chinese respondents submitted just before the record closed are not to the contrary; the reports address certain aspects of the condition of the two largest U.S. producers but not impending cost conditions or profitability. See Request for Leave to File Factual Information, EDIS Doc. 755567 (Nov. 1, 2021).

priced subject imports, or both.³⁴⁴ The domestic industry's market share was *** percentage points lower in interim 2021 than it was in interim 2020 as subject imports increased and uniformly undersold the domestic product.³⁴⁵ With the likely substantial increase in subject imports, this trend will likely continue and worsen in the imminent future. In addition, petitioner argues that Chinese imports have moved from offering less complex and relatively less expensive types of MAE to offering the full range of MAE products at low prices.³⁴⁶ This is supported in the data, which show U.S. shipments of telehandlers imported directly from China ***.³⁴⁷ We note that there were *** U.S. shipments of telehandlers imported directly from China in ***, but reported shipments of these telehandlers were *** short tons in the *** and

³⁴⁴ MEC, the largest importer of subject merchandise during the POI, argues that it gained market share as a result of increased demand for its innovative MAE features, for which its customers pay higher prices, therefore supporting its claim that MAE sales are not driven by price competition. MEC's Prehear. Br. at 15–28; MEC's Posthear. Br. at 4–14 (describing micro-scissor lift and micro-boom lift safety features, a boom lift that can support “the heavy material load and four workers simultaneously,” and MEC's “award winning” Leak Containment System). As noted above, we have included MEC within the domestic industry, which we examine as a whole. See section III.B.3, *supra*. MEC acknowledges that other domestic producers sell MAE with leak containment features “copied” from MEC. MEC's Prehear. Br. at 26; MEC's Posthear. Br. at 6–8 (citing JLG and Terex); see also MEC's Posthear. Br. at 10 (Terex's offering of a micro-scissor lift). *** reported that its purchases of subject imports *** its customers demanded models equipped with a hydraulic leak protection option that was only available on subject imports. CR/PR at II-22. Also as noted above, we found that the record indicates that price is an important factor in purchasing decisions, in which price and quality were the most frequently cited first-most important factors, and availability was the most frequently reported second-most and third-most important factors. See section IV.B.3., *supra*; CR/PR at Tables II-7, II-8. All responding purchasers reported that domestically produced MAE is superior or comparable to subject imports with regard to quality meeting or exceeding industry standards, product consistency, and ANSI compliance. CR/PR at Table II-11. Moreover, MEC accounted for less than *** of subject imports in 2020; domestic producers report competing with Chinese producers other than MEC's *** on the basis of price. *Id.* at Table IV-1; see, e.g., Petitioner's Prehear. Br. at Exhs. 24, 36, 37; Petitioner's Posthear. Br. at Exhs. 2, 9.

Chinese respondents similarly argue that purchasers do not base their purchasing decisions on price. Chinese Respondents' Prehear. Br. at 30–39; Chinese Respondents' Posthear. Br. at 4–6 (citing MAE “innovation” by MEC, supply availability, and ANSI compliance). As discussed above, 10 of 11 responding purchasers noted availability issues with domestically produced MAE, and nine of 11 responding purchasers reported availability issues with MAE imported from China. CR/PR at II-12. Similarly, all 12 responding purchasers reported that domestically produced MAE is superior or comparable to subject imports with regard to quality meeting or exceeding industry standards, product consistency, and ANSI compliance. *Id.* at Table II-11.

³⁴⁵ CR/PR at Tables IV-6, V-4 to V-9.

³⁴⁶ See Petitioner's Prehear. Br. at 101–102.

³⁴⁷ CR/PR at Table V-9.

*** short tons in the first half of 2021, nearly *** the volume from the ***.³⁴⁸ Thus, domestic producers are likely to confront more expansive subject import competition, including for higher-valued MAE products, in the imminent future than they did for much of the POI, which further threatens the domestic industry's output, capacity utilization, employment, and financial results.

We recognize that apparent consumption trended upward at the end of the POI and the record contains evidence that this trend may continue as the economy recovers from the COVID-19 pandemic.³⁴⁹ If that occurs, any demand increases will tend to improve the U.S. industry's financial performance, other things equal. Yet, we must evaluate the threat of injury in the context of the business cycle. Even if rising demand has the result of improving the domestic industry's performance and employment, which is not a foregone conclusion given rising raw material costs and the uncertain course of the pandemic, it will not negate the harmful impacts of subject imports, including downward pricing pressure or lost sales due to substantially increasing volumes of lower-priced subject imports.

As discussed above, the already significant volume of subject imports from China is likely to substantially increase in the imminent future, increasingly underselling the domestic like product. This substantial and increasing volume of low-priced subject imports will likely take market share and sales from domestic producers, and depress or suppress domestic prices significantly. Lost sales will negatively affect the domestic industry's production, capacity utilization, shipments, and employment. Likely suppressed or depressed prices will negatively affect the domestic industry's revenues, profits, and ability to make capital improvements.³⁵⁰ Thus, we find that the likely substantial increase in low-priced subject imports will have a significant adverse impact on the domestic industry in the imminent future.

We have also considered other factors to ensure that we are not attributing any likely injury to subject imports that will actually result from other causes. The vast majority of nonsubject imports are from Canada, followed by the United Kingdom.³⁵¹ The quantity and market share of U.S. shipments of nonsubject imports declined substantially from 2018 to

³⁴⁸ CR/PR at Tables C-3, L-8.

³⁴⁹ *E.g.*, CR/PR at Tables VI-7, F-3.

³⁵⁰ *See* CR/PR at Tables VI-15, VI-16. In response to a question regarding the anticipated negative effects of subject imports on investment, growth, and development, domestic producers cited ***. *Id.* at Table VI-16.

³⁵¹ CR/PR at IV-3.

2020.³⁵² Although the quantity and market share were higher in interim 2021 compared with interim 2020, the level is in line with their stable presence in the U.S. market.³⁵³ AUVs for nonsubject imports were substantially higher than those of subject imports in each year and interim period.³⁵⁴ Moreover, AUVs for nonsubject imports increased each year from 2018 to 2020, as AUVs for subject imports declined by 4.1 percent during the same period.³⁵⁵

As discussed above, demand reductions and supply constraints resulting from the COVID-19 pandemic did affect the U.S. industry's performance during the POI. Yet, effects of the pandemic did not explain away the increase in subject imports' U.S. market share during the POI, and are not likely to prevent substantial increases in subject import volumes in the imminent future.³⁵⁶ Moreover, even recovering demand would not negate the harm that a substantial increase in low-priced subject imports would have on the domestic industry in the imminent future.

³⁵² The quantity of nonsubject imports was 198,229 short tons in 2018, 182,482 short tons in 2019, and 92,090 short tons in 2020. CR/PR at Table IV-5. The market share of imports from nonsubject sources was *** percent in 2018, *** percent in 2019, and *** percent in 2020, for an overall *** percentage points of market share from 2018 to 2020. *Id.* at Table IV-6. Measured by units of complete MAE, the market share of U.S. importers' U.S. shipments of nonsubject imports was *** percent in 2018, *** percent in 2019, and *** percent in 2020, for an overall *** percentage points. Calculated from *id.* at Tables J-9 and J-11.

³⁵³ CR/PR at Table IV-6. The market share of imports from nonsubject sources was *** percent in interim 2020 and *** percent in interim 2021. *Id.* Measured by units of complete MAE, the market share of U.S. importers' U.S. shipments of nonsubject imports was *** percent in interim 2020 and *** percent in interim 2021. Calculated from *id.* at Tables J-9 and J-11.

³⁵⁴ CR/PR at Table IV-2.

³⁵⁵ CR/PR at Table IV-2. With respect to prices, nonsubject imports from Canada displayed mostly underselling vis-à-vis domestic MAE in terms of number of instances and quantities. *Id.* at Table O-7. Unlike subject imports, which gained market share as their underselling intensified over the POI, the market share of nonsubject imports from Canada was steady to declining, and there is no indication that any future underselling is likely to alter this pattern. *See id.* at Table IV-6.

³⁵⁶ *See* note 339, *supra*.

V. Conclusion

For the reasons stated above, we determine that an industry in the United States is threatened with material injury by reason of subject imports of MAE from China that have been found to be subsidized by the government of China.³⁵⁷

³⁵⁷ Based on the record of this investigation, we would not have found material injury by reason of subject imports but for the suspension of liquidation of entries of subject merchandise. See 19 U.S.C. § 1673d(b)(4)(B).

Part I: Introduction

Background

These investigations result from petitions filed with the U.S. Department of Commerce (“Commerce”) and the U.S. International Trade Commission (“USITC” or “Commission”) by the Coalition of American Manufacturers of Mobile Access Equipment (“CAMMAE,” “the Coalition,” or “Petitioner”)¹ on February 26, 2021, alleging that an industry in the United States is materially injured or threatened with material injury by reason of subsidized and less-than-fair-value (“LTFV”) imports of certain mobile access equipment and subassemblies thereof (“mobile access equipment” or “MAE”)² from China. Table I-1 provides information relating to the background of these investigations.^{3 4}

Table I-1
MAE: Information relating to the background and schedule of this proceeding

Effective date	Action
February 26, 2021	Petitions filed with Commerce and the Commission; institution of the Commission's investigations (86 FR 12711, March 4, 2021)
March 18, 2021	Commerce’s notice of initiation of countervailing duty investigation (86 FR 15905, March 25, 2021) and antidumping duty investigation (86 FR 15922, March 25, 2021)
April 12, 2021	Commission’s preliminary affirmative determinations (86 FR 20196, April 16, 2021)
May 4, 2021	Commerce’s postponement of preliminary countervailing duty determination (86 FR 23681)
July 1, 2021	Commerce’s postponement of preliminary antidumping duty determination (86 FR 35059)

Table continued.

¹ The Coalition is composed of JLG Industries, Inc. (“JLG”), Hagerstown, Maryland and Terex Corporation (“Terex”), Redmond, Washington.

² See the section entitled “The subject merchandise” in Part I of this report for a complete description of the merchandise subject in this proceeding.

³ Pertinent Federal Register notices are referenced in appendix A, and may be found at the Commission’s website (www.usitc.gov).

⁴ Appendix B presents a list of witnesses appearing at the Commission’s hearing for this proceeding.

Table I-1 Continued

MAE: Information relating to the background and schedule of this proceeding

Effective date	Action
July 30, 2021	Commerce's preliminary affirmative countervailing duty determination (86 FR 41013); scheduling of final phase of Commission's antidumping duty and countervailing duty investigations (86 FR 44402, August 12, 2021)
September 30, 2021	Commerce's preliminary affirmative antidumping duty determination, postponement of final determination, and extension of provisional measures (86 FR 54164)
October 12, 2021	Commission's hearing
October 19, 2021	Commerce's final affirmative countervailing duty determination (86 FR 57809)
November 10, 2021	Commission's countervailing duty vote
December 3, 2021	Commission's countervailing duty determination and views

Statutory criteria

Section 771(7)(B) of the Tariff Act of 1930 (the "Act") (19 U.S.C. § 1677(7)(B)) provides that in making its determinations of injury to an industry in the United States, the Commission—

shall consider (I) the volume of imports of the subject merchandise, (II) the effect of imports of that merchandise on prices in the United States for domestic like products, and (III) the impact of imports of such merchandise on domestic producers of domestic like products, but only in the context of production operations within the United States; and. . . may consider such other economic factors as are relevant to the determination regarding whether there is material injury by reason of imports.

Section 771(7)(C) of the Act (19 U.S.C. § 1677(7)(C)) further provides that—⁵

In evaluating the volume of imports of merchandise, the Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States is significant. . . In evaluating the effect of imports of such merchandise on prices, the Commission shall consider whether. . . (I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree. . . . In examining the impact required to be considered under subparagraph (B)(i)(III), the Commission shall evaluate (within the context of the business cycle and conditions of competition that are distinctive to the affected industry) all relevant economic factors which have a bearing on the state of the industry in the United States, including, but not limited to. . . (I) actual and potential decline in output, sales, market share, gross profits, operating profits, net profits, ability to service debt, productivity, return on investments, return on assets, and utilization of capacity, (II) factors affecting domestic prices, (III) actual and potential negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment, (IV) actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and (V) in {an antidumping investigation}, the magnitude of the margin of dumping.

In addition, Section 771(7)(J) of the Act (19 U.S.C. § 1677(7)(J)) provides that—⁶

(J) EFFECT OF PROFITABILITY.—The Commission may not determine that there is no material injury or threat of material injury to an industry in the United States merely because that industry is profitable or because the performance of that industry has recently improved.

⁵ Amended by PL 114-27 (as signed, June 29, 2015), Trade Preferences Extension Act of 2015.

⁶ Amended by PL 114-27 (as signed, June 29, 2015), Trade Preferences Extension Act of 2015.

Organization of report

Part I of this report presents information on the subject merchandise, subsidy/dumping margins, and domestic like product. Part II of this report presents information on conditions of competition and other relevant economic factors. Part III presents information on the condition of the U.S. industry, including data on capacity, production, shipments, inventories, and employment. Parts IV and V present the volume of subject imports and pricing of domestic and imported products, respectively. Part VI presents information on the financial experience of U.S. producers. Part VII presents the statutory requirements and information obtained for use in the Commission's consideration of the question of threat of material injury as well as information regarding nonsubject countries.

Market summary

Mobile access equipment are mechanical devices used to provide access for people, equipment, or materials to areas at height. MAE—which consists primarily of telehandlers, scissor lifts, and boom lifts—combines a mobile chassis, a lifting device, and a coupler that provides an attachment for the lifting mechanism, in addition to other components.⁷ The leading U.S. producers of MAE are JLG and Terex,⁸ while leading producers of MAE in China include ***. The leading U.S. importers of MAE from China are ***, while the leading exporter of MAE from nonsubject sources (Canada) is Skyjack, Inc. (“Skyjack”). U.S. purchasers of MAE are firms that either rent or distribute MAE, or that manufacture MAE; leading purchasers include ***.

⁷ See the section entitled “The subject merchandise” in Part I of this report for a complete description of the merchandise subject in this proceeding.

⁸ JLG and Terex comprise the Coalition that filed these petitions. See Part III of this report for U.S. producers' share of reported production.

Apparent U.S. consumption of MAE totaled *** short tons (\$***) in 2020. Currently, eight firms are known to produce MAE in the United States.⁹ U.S. producers' U.S. shipments of MAE totaled *** short tons (\$***) in 2020, and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. shipments of imports from subject sources totaled 25,885 short tons (\$104.7 million) in 2020 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. shipments of imports from nonsubject sources totaled 92,090 short tons (\$659.7 million) in 2020 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value.

Summary data and data sources

A summary of data collected in these investigations is presented in appendix C, tables C-1 through C-5. Except as noted, U.S. industry data are based on questionnaire responses of eight firms that are believed to account for the vast majority of U.S. production of MAE during 2020. U.S. imports are based on questionnaire responses of 17 firms, which are believed to account for the vast majority of U.S. imports of MAE from subject and nonsubject sources in 2020. Foreign producer/exporter data are based on the response of 10 firms that account for an estimated *** percent of the production of MAE in China during 2020.

Previous and related investigations

MAE has not been subject to any prior antidumping or countervailing duty investigations in the United States.¹⁰

⁹ The Commission issued questionnaires to 14 firms believed to be U.S. producers of MAE and received eight useable questionnaires. Of the other six firms, two reported that they were not domestic producers of MAE; the remaining four stated that they were U.S. producers of MAE but did not provide complete questionnaire responses in time for the Commission to consider them in its analysis. See part III of this report for more information.

¹⁰ As described in the scope section below, subject merchandise includes chassis assemblies. On May 3, 2021 and July 2, 2021, respectively, the Commission made final determinations that an industry in the United States was materially injured by reason of imports of chassis and subassemblies from China that were found by Commerce to be subsidized by the government of China and sold in the United States at LTFV. 86 FR 24665, May 7, 2021 (countervailing duty determination); 86 FR 36158, July 8, 2021 (antidumping duty determination); Chassis and Subassemblies from China, Investigation No. 701-TA-657 (Final), USITC Publication 5187, May 2021, p. 1; and Chassis and Subassemblies from China, Investigation No. 731-TA-1537 (Final), USITC Publication 5211, July 2021, p. 1.

There is no indication that the chassis assemblies, as described in the scope of these investigations, and those in the Chassis and Subassemblies from China proceedings are the same.

Nature and extent of subsidies and sales at LTFV

Subsidies

On October 19, 2021, Commerce published a notice in the Federal Register of its final determination of countervailable subsidies for producers and exporters of MAE from China.¹¹ Table I-2 presents Commerce's findings of subsidization of MAE in China.

Table I-2
MAE: Commerce's final subsidy determination with respect to imports from China

Final countervailable subsidy rate in percent

Entity	Final countervailable subsidy rate
Lingong Group Jinan Heavy Machinery Co., Ltd.	18.34
Zhejiang Dingli Machinery Co., Ltd.	11.95
Jinan Zhongtian International Trading	448.70
Zhongshan Shiliwang Machinery Co., LTD	448.70
Yantai Empire Industry and Trade	448.70
Shandong Lede Machinery	448.70
Shandong Huifeng Auto Fittings	448.70
Jinan Zhongtang Mechanical Equipment	448.70
All others	12.93

Source: 86 FR 57809, October 19, 2021.

Note: For further information on programs determined to be countervailable, see Commerce's associated Issues and Decision Memorandum.

¹¹ 86 FR 57809, October 19, 2021.

Sales at LTFV

On September 30, 2021, Commerce published a notice in the Federal Register of its preliminary affirmative determination of sales at LTFV with respect to imports from China.¹² Table I-3 presents Commerce's dumping margins with respect to imports of product from China.

Table I-3

MAE: Commerce's preliminary weighted-average LTFV margins with respect to imports from China

Preliminary estimated weighted average dumping margin in percent; cash deposit rate in percent

Exporter	Producer	Estimated weighted average dumping margin	Cash deposit rate (adjusted for subsidy offsets)
Lingong Group Jinan Heavy Machinery Co., Ltd	Lingong Group Jinan Heavy Machinery Co., Ltd	275.06	274.86
Zhejiang Dingli Machinery Co., Ltd	Zhejiang Dingli Machinery Co., Ltd	17.78	7.07

Table continued.

¹² 86 FR 54164, September 30, 2021.

Table I-3 Continued**MAE: Commerce's preliminary weighted-average LTFV margins with respect to imports from China, separate rate applicable to non-select companies**

Preliminary estimated weighted average dumping margin in percent; cash deposit rate in percent

Non-selected exporter receiving a separate rate	Producer supplying the non-selected exporter receiving a separate rate	Estimated weighted average dumping margin	Cash deposit rate (adjusted for subsidy offsets)
Hunan Sinoboom Intelligent Equipment Co., Ltd	Hunan Sinoboom Intelligent Equipment Co., Ltd	56.55	47.42
Mantall Heavy Industry Co., Ltd	Mantall Heavy Industry Co., Ltd	56.55	47.42
Noblelift Intelligent Equipment Co., Ltd	Noblelift Intelligent Equipment Co., Ltd	56.55	47.42
Oshkosh JLG (Tianjin) Equipment Technology Co., Ltd.	Noblelift Intelligent Equipment Co., Ltd	56.55	47.42
Sany Marine Heavy Industry Co., Ltd	Sany Marine Heavy Industry Co., Ltd	56.55	47.42
Terex (Changzhou) Machinery Co., Ltd	Terex (Changzhou) Machinery Co, Ltd	56.55	47.42
Xuzhou Construction Machinery Group Imp. & Exp. Co., Ltd.	Xuzhou Construction Machinery Group Fire-Fighting Safety Equipment Co., Ltd.	56.55	47.42
China-Wide Entity		275.06	274.86

Source: 86 FR 54164, September 30, 2021.

The subject merchandise

Commerce's scope

In the current proceeding, Commerce has defined the scope as follows:¹³

...certain mobile access equipment, which consists primarily of boom lifts, scissor lifts, and material telehandlers, and subassemblies thereof. Mobile access equipment combines a mobile (self-propelled or towed) chassis, with a lifting device (e.g., scissor arms, boom assemblies) for mechanically lifting persons, tools and/or materials capable of reaching a working height of ten feet or more, and a coupler that provides an attachment point for the lifting device, in addition to other components. The scope of this investigation covers mobile access equipment and subassemblies thereof whether finished or unfinished, whether assembled or unassembled, and whether the equipment contains any additional features that provide for functions beyond the primary lifting function.

Subject merchandise includes, but is not limited to, the following subassemblies:

- *Scissor arm assemblies, or scissor arm sections, for connection to chassis and platform assemblies. These assemblies include: (1) Pin assemblies that connect sections to form scissor arm assemblies, and (2) actuators that power the arm assemblies to extend and retract. These assemblies may or may not also include blocks that allow sliding of end sections in relation to frame and platform, hydraulic hoses, electrical cables, and/or other components;*
- *boom assemblies, or boom sections, for connection to the boom turntable, or to the chassis assembly, or to a platform assembly or to a lifting device. Boom assemblies include telescoping sections where the smallest section (or tube) can be nested in the next larger section (or tube) and can slide out for extension and/or articulated sections joined by pins. These assemblies may or may not include pins, hydraulic cylinders, hydraulic hoses, electrical cables, and/or other components;*

¹³ 86 FR 57809, October 19, 2021.

- *chassis assemblies, for connection to scissor arm assemblies, or to boom assemblies, or to boom turntable assemblies. Chassis assemblies include: (1) Chassis frames, and/or (2) frame sections. Chassis assemblies may or may not include axles, wheel end components, steering cylinders, engine assembly, transmission, drive shafts, tires and wheels, crawler tracks and wheels, fuel tank, hydraulic oil tanks, battery assemblies, and/or other components;*
- *boom turntable assemblies, for connection to chassis assemblies, or to boom assemblies. Boom turntable assemblies include turntable frames. Boom turntable assemblies may or may not include engine assembly, slewing rings, fuel tank, hydraulic oil tank, battery assemblies, counterweights, hoods (enclosures), and/or other components.*

Importation of any of these subassemblies, whether assembled or unassembled, constitutes unfinished mobile access equipment for purposes of this investigation.

Processing of finished and unfinished mobile access equipment and subassemblies such as trimming, cutting, grinding, notching, punching, slitting, drilling, welding, joining, bolting, bending, beveling, riveting, minor fabrication, galvanizing, painting, coating, finishing, assembly, or any other processing either in the country of manufacture of the in-scope product or in a third country does not remove the product from the scope. Inclusion of other components not identified as comprising the finished or unfinished mobile access equipment does not remove the product from the scope.

The scope excludes forklifts, vertical mast lifts, mobile self-propelled cranes and motor vehicles that incorporate a scissor arm assembly or boom assembly. Forklifts are material handling vehicles with a working attachment, usually a fork, lifted along a vertical guide rail with the operator seated or standing on the chassis behind the vertical mast. Vertical mast lifts are person and material lifting vehicles with a working attachment, usually a platform, lifted along a vertical guide rail with an operator standing on the platform. Mobile self-propelled cranes are material handling vehicles with a boom attachment for lifting loads of tools or materials that are suspended on ropes, cables, and/or chains, and which contain winches mounted on or near the base of the boom with ropes, cables, and/or chains managed along the boom structure.

The scope also excludes motor vehicles (defined as a vehicle driven or drawn by mechanical power and manufactured primarily for use on public streets, roads, and highways, but does not include a vehicle operated only on a rail line pursuant to 49 U.S.C. 30102(a)(7)) that incorporate a scissor arm assembly or boom assembly. The scope further excludes vehicles driven or drawn by mechanical power operated only on a rail line that incorporate a scissor arm assembly or boom assembly. The scope also excludes: (1) Rail line vehicles, defined as vehicles with hi-rail gear or track wheels, and a fixed (nontelescopic) main boom, which perform operations on rail lines, such as laying rails, setting ties, or other rail maintenance jobs; and (2) certain rail line vehicle subassemblies, defined as chassis subassemblies and boom turntable subassemblies for rail line vehicles with a fixed (non-telescopic) main boom.

Tariff treatment

Based upon the scope set forth by Commerce, information available to the Commission indicates that the merchandise subject to these investigations is imported under statistical reporting numbers 8427.10.8020, 8427.10.8030, 8427.10.8070, 8427.10.8095, 8427.20.8020, 8427.20.8090, 8427.90.0020, and 8427.90.0090 of the Harmonized Tariff Schedule of the United States (“HTSUS” or “HTS”). The parts typically used in manufacturing mobile access equipment that are subject to these investigations are imported under HTS subheading 8431.20.00. The 2021 general rate of duty is free for HTS subheadings 8427.10.80, 8427.20.80, 8427.90.00, and 8431.20.00. Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.

Section 301 tariff treatment

Various Chinese products subject to these investigations are also subject to additional duties under Section 301 of the Trade Act of 1974. Imported Chinese products under the HTS subheadings 8427.10.80 and 8427.20.80 are subject to an additional 25 percent *ad valorem* import duty which went into effect as of July 6, 2018.¹⁴ Exclusions were granted based on descriptions at the statistical reporting number level and were granted to products imported under HTS statistical reporting number 8427.10.8020 on October 2, 2018. The exclusion was for, “Operator riding self-propelled aerial work platforms of a kind described in statistical note 1 to chapter 84, powered by an electric motor, with a load capacity not exceeding 1,400 kg.”¹⁵ This exclusion expired on December 31, 2020.

The product

Description and applications

MAE¹⁶ is machinery that combines a self-propelled mobile chassis with a direct, connected device having the purpose of lifting people, tools, or materials.¹⁷ MAE covered by the scope of these investigations have a minimum working height of ten feet (figure I-1)¹⁸ or more and include subassemblies (unassembled or unfinished). MAE covered by the scope of these investigations do not include forklifts, mobile self-propelled cranes, and motor vehicles that incorporate scissor arm attachments or boom attachments.¹⁹

¹⁴ 83 FR 28714 June 20, 2018.

¹⁵ 84 FR 52567 October 2, 2018.

¹⁶ MAE can also be referred to as aerial lifts, aerial work platforms (“AWP”), and/or mobile elevating work platforms (“MEWP”). Conference transcript, pp. 68-69 (Morris); MEC’s postconference brief, p. 1.

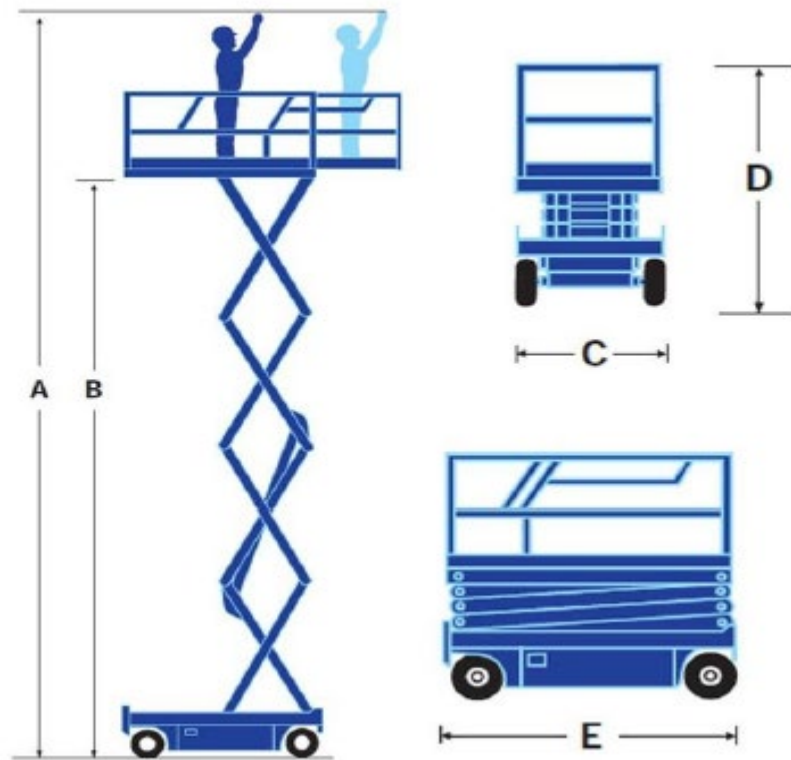
¹⁷ Petitions, p. 6.

¹⁸ Petitioner indicates that the “vast majority” of MAE have a working height of ten feet or above. Conference transcript, p. 122 (Brightbill and Morris).

Working height has a six-foot differential to platform height. A fully extended 60-foot boom lift would have a 60-foot platform height but a 66-foot working height. *Ibid.*, pp. 120-121 (Morris).

¹⁹ Forklifts handle materials with a fork-like working attachment on a vertical mast with the operator seated or standing behind the mast. Self-propelled cranes are intended to solely handle loads that are suspended or lifted with ropes, cables, or chains.

Figure I-1
MAE: Working height diagram



Note: The letter (A) represents working height, (B) platform height, (C) width, (D) stowed height, and (E) length.

Source: Petitioner, *Certain Mobile Access Equipment and Subassemblies Thereof from the People's Republic of China: Responses to Supplemental Questionnaire on Volume I of the Petition*, March 5, 2021, p. 2.

There exists a range of models that are classified as MAE, mainly scissor lifts, boom lifts, and telehandlers. Distinct differences exist between each model, and each model contains various submodels. Scissor lifts (figure I-2) are hydraulic platforms that are designed to raise people and materials vertically. The ability to rise strictly vertically provides customers with a unique form of stability with reliable reach and greater carrying capacity than ladders and scaffolding.²⁰ There are three main types of scissor lifts that differ not only from boom lifts (explained below) but also one from another in weight capacity, height range, power type, and best suited surfaces (table I-4).

Figure I-2
MAE: Scissor lift



Source: Petitions, p. 8.

Table I-4
MAE: Different characteristics of scissor lifts

Type	Weight Capacity (lbs)	Height Range (ft)	Power Type	Surfaces
Single Man	300 – 500	17 – 46	Pushed/Electric	Smooth/Flat/Even
Slab	500 – 1200	25 – 46	Electric	Smooth/Flat/Even
Rough Terrain	800 – 1500	32 – 59	IC (Engine)/Electric	Rough/Uneven/Outdoor

Source: Eqdepot, “The Complete Guide to Aerial Lifts”, <https://www.eqdepot.com/resources/the-complete-guide-to-aerial-lifts/>, retrieved March 5, 2021.

²⁰ Eqdepot, “The Complete Guide to Aerial Lifts”, <https://www.eqdepot.com/resources/the-complete-guide-to-aerial-lifts/>, retrieved March 9, 2021.

Boom lifts are aerial work platforms that consist of a base with a hydraulic lift system attached that powers a crane, as well as a platform or “bucket,” that is primarily used to lift a single worker.²¹ The boom lift can reach heights much higher than a standard scissor lift while also having the added ability to maneuver around obstacles by having hinges on the extension arm that can pivot. There are two main types of boom lifts, straight and articulating, with the difference between them being that the straight lift does not have the same number of hinges as the articulating lift (figure I-3). While this does not allow the straight lift to maneuver like the articulating lift, it does allow for it to reach the highest height of all lifts.²² Boom lifts may also be referred to as a man lift, basket crane, bucket truck, or cherry picker. Table I-5 presents the different characteristics of boom lifts.

²¹ MacAllister Rentals, “What Type of Aerial Lift is Right for the Job?”, <https://www.macallisterrentals.com/aerial-lift-type-for-the-job/>, retrieved March 5, 2021.

²² Eqdepot, “The Complete Guide to Aerial Lifts”, <https://www.eqdepot.com/resources/the-complete-guide-to-aerial-lifts/>, retrieved March 5, 2021.

Figure I-3
MAE: Straight telescoping boom lift (left) vs articulating boom lift (right)



Source: Petitions, p. 9

Table I-5
MAEs: Different characteristics of boom lifts

Type	Weight Capacity (lbs)	Height Range (ft)	Power Type	Surfaces
Straight	500 – 1000	40 – 185	Electric/IC (Engine)	Smooth/Flat/Outdoor
Articulating	500 – 1000	30 – 140	Electric/IC (Engine)	Smooth/Flat/Outdoor

Source: Eqdepot, “The Complete Guide to Aerial Lifts”, <https://www.eqdepot.com/resources/the-complete-guide-to-aerial-lifts/>, retrieved March 5, 2021.

Telehandlers, or telescopic handlers, are MAE that resemble forklifts but perform operations at greater heights and higher weight capacities (figure I-4). Telehandlers are mostly used for rough terrain in construction and agricultural environments.²³ Telehandlers are often equipped with 4-wheel drive and have a boom attached to a chassis that can lift materials 50 feet with capacities ranging from 5,500 to 12,000 pounds. There are two main types of telehandlers, telescopic and rotating, with the difference being the rotating telehandler’s arm can swivel around the chassis in a 360-degree range of motion. Table I-6 presents the different characteristics of telehandlers.

Figure I-4
MAE: Telehandler



Source: Petitions, p. 10.

Table I-6
MAE: Different characteristics of telehandlers

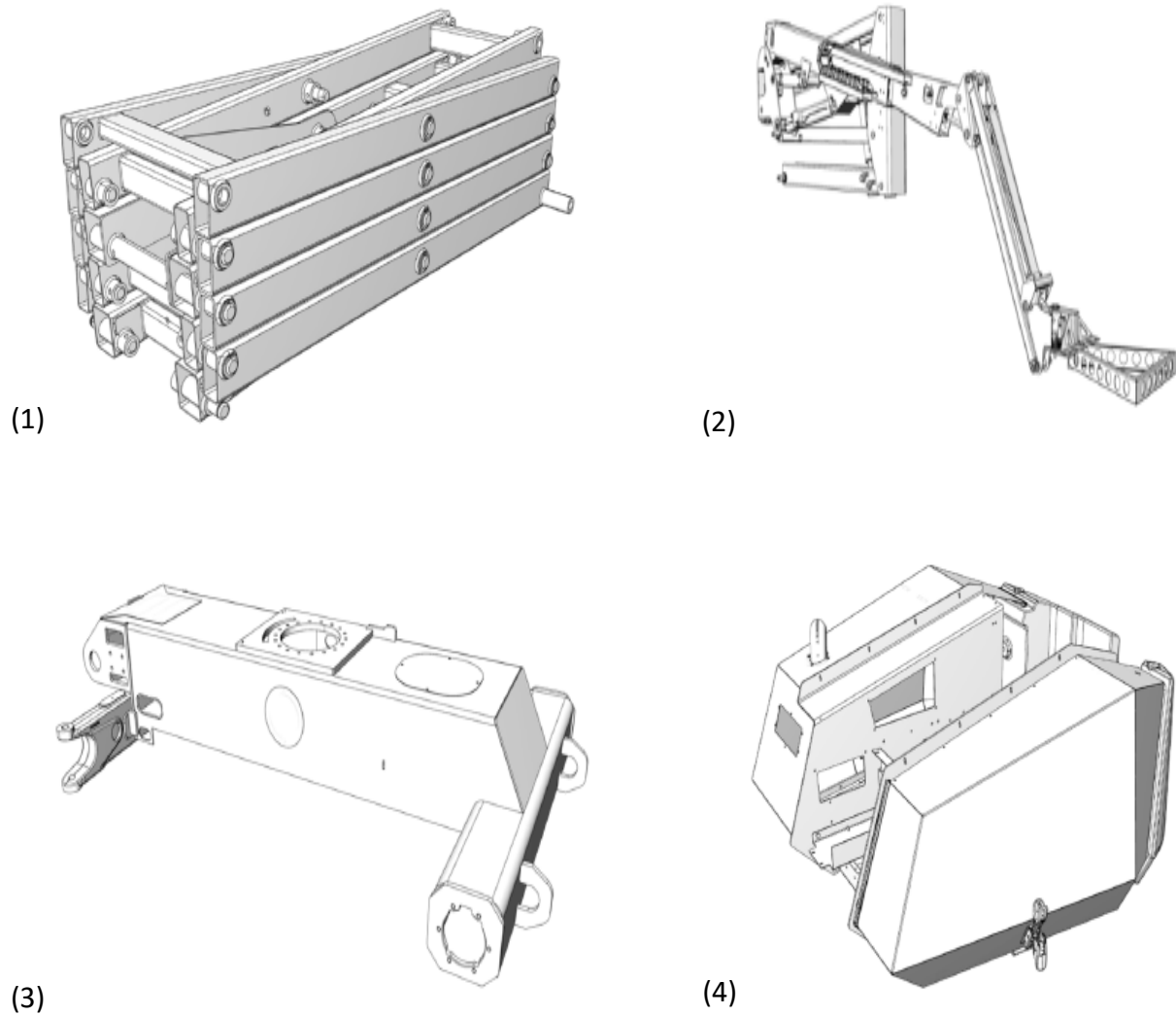
Type	Weight Capacity (lbs)	Height Range (ft)	Surfaces
Telescopic	5,500 – 12,000	18 – 55	Rough/Outdoor/Smooth/Flat
Rotating	5,500 – 12,000	18 – 55	Rough/Outdoor/Smooth/Flat

Source: Eqdepot, “The Complete Guide to Aerial Lifts”, <https://www.eqdepot.com/resources/the-complete-guide-to-aerial-lifts/>, retrieved March 5, 2021.

²³ Eqdepot, “The Complete Guide to Aerial Lifts”, <https://www.eqdepot.com/resources/the-complete-guide-to-aerial-lifts/>, retrieved March 5, 2021.

MAE are comprised primarily of fabricated steel parts and subassemblies, which are engine-powered or electric-powered, with mobile lifting devices, among other parts.²⁴ MAE subassemblies covered under the scope include: (1) scissor arm assemblies or scissor arm sections; (2) boom assemblies or boom sections; (3) mobile access equipment chassis assemblies; and (4) boom turntable assemblies. Figure I-5 presents several examples of these subassemblies.

Figure I-5
MAE: Subassemblies



Source: Petitions, pp. 11-14.

²⁴ Petitions, p. 8.

The various MAE covered by the scope have a range of price points.²⁵ Scissor lifts are usually priced \$10,000–15,000, while units with short range boom (30–40 ft.) lifts are priced \$20,000–40,000 and larger range boom lifts can cost \$100,000–200,000. Renting a scissor lift costs around \$100–150 a day or \$350–500 weekly, whereas renting a boom lift costs \$250–400 a day or \$1,000–1,500 a week.²⁶ Telehandlers that can lift a weight up to 6,999 lbs. are usually priced \$70,000–80,000 while mid-range telehandlers (capacity of 11,000 lbs.) are priced \$125,000–135,000.²⁷ These price discrepancies make renting an economic choice in many construction or consumer markets, where producers sell to rental companies that then rent to consumers. Equipment rental companies are the dominant purchasers of MAE in the U.S. market.²⁸

Domestic MAE and subject MAE have similar specifications with regards to weight capacity, height range, design, and overall use.²⁹ Parts used in domestic MAE can be replaced with parts from subject MAE with little to no complications.³⁰ Parts that are ordered for a certain producer have the capability to be used in most, if not all, domestically produced or imported MAE. Even within the domestic market, U.S. producers' parts can be interchanged.³¹ Handrails, engines, and various third-party parts all fall under this umbrella.

²⁵ Appendix H presents a range of U.S. producers' and importers' products and prices.

²⁶ Bigrentz, "Do You Really Want to Buy That Scissor or Boom Lift? Why Renting is a Better Option," September 20, 2016, <https://www.bigrentz.com/blog/why-renting-is-a-better-option>. (Retrieved March 5, 2021.)

²⁷ Access-lift, "Telehandlers FAQ," Accessed September 23, 2021. <https://access-lift.com/telehandlers-faq/>.

²⁸ Conference transcript, pp. 150-151 (Kirschenmann).

²⁹ Conference transcript, p. 117 (Ford).

³⁰ But see Conference transcript, p. 225 (Kirchenmann) ("at the subassembly level, there is no interchangeability").

³¹ Conference transcript, pp. 116-117 (Ford); pp. 213-214 (Paylor).

Manufacturing processes

The MAE manufacturing process primarily consists of four main steps: (1) fabrication, (2) wet and dry paint application, (3) subassembly, and (4) final assembly.³² Manufacturers typically purchase or import steel, then weld and shape it into critical structural components such as the frame/chassis, boom subassemblies, boom tubes, and turntable assemblies.³³ After these major components are finished, they undergo a wet and dry preparation and paint application process.³⁴ Once painted, the subassemblies are fitted with electrical connections as well as tubing and hydraulic hose routing along with assembling the components into a boom assembly or scissor lift chassis.³⁵ This chassis or assembly is then pinned and connected hydraulically and electrically to the turntable.³⁶ Control boxes and their components undergo a similar assembly process until they are fitted to the entire assembly. Once the individual fabrications are fully made, they undergo a final assembly process to be made into a complete MAE. At this stage in the process, several safety tests are performed, recorded, and documented to test for quality or nonconformance issues.³⁷ The product then goes into a final inspection bed to allow for correction of issues or to pass a general inspection.

The manufacturing process between domestic MAE and subject MAE appears to be very similar³⁸ with the difference being the level of automation along the assembly line which can vary drastically.³⁹ Production of individual types of MAE is also very similar and companies are able to swap out assembly lines in the same day to produce different kinds of lifts. All three types of MAEs can be produced in the same factory with the same inputs as other lines.⁴⁰

³² Petitions, p. 13.

³³ Petitions, p. 13; Conference transcript, pp. 116-117 (Ford).

³⁴ Petitions, p. 13.

³⁵ Petitions, p. 14.

³⁶ Petitions, p. 14.

³⁷ Petitions, p. 14.

³⁸ Conference transcript, pp. 118, 215 (Ford, Paylor).

³⁹ Conference transcript, p. 216 (Paylor).

⁴⁰ Conference transcript, pp. 118-119 (Morris, Meyer).

Domestic like product issues

Petitioner proposes that the Commission should define a single domestic like product coextensive with the scope of these investigations, to include boom lifts, scissor lifts, and telehandlers, and subassemblies thereof.^{41 42} Following the Commission's preliminary affirmative determinations, Chinese Respondents⁴³ and Respondent SANY⁴⁴ requested that the Commission collect information needed to determine whether two domestic like products should be defined: (1) telehandlers and (2) boom lifts and scissor lifts (i.e., "all other MAE").^{45 46}

The Commission's decision regarding the appropriate domestic product(s) that are "like" the subject imported product is based on a number of factors including: (1) physical characteristics and uses; (2) manufacturing facilities, production processes, and employees; (3) channels of distribution; (4) interchangeability; (5) producer and customer perceptions; and (6) price. The Commission requested U.S. producers, importers, and purchasers comment on the comparability of telehandlers and all other MAE by these six like product factors. Responses provided by firms are summarized in table I-7 below.⁴⁷ A discussion on the factors follows.

⁴¹ Petitioner's postconference brief, p. 5; Petitioner's Comments on Draft Questionnaires, pp. 4-5; Petitioner's prehearing brief, pp. 6-8; Petitioner's posthearing brief, p. 3, and exh. 1 pp. 50-61.

⁴² U.S. producer and purchaser Pettibone Traverse Lift, LLC ("Pettibone") argues that the record supports defining a single domestic like product consisting of all MAE. Pettibone's prehearing brief, pp. 1-8; Pettibone's posthearing brief, pp. 1-2.

⁴³ The Chinese Respondents include Zhejiang Dingli Machinery Co., Ltd.; Lingong Group Jinan Heavy Machinery Co., Ltd. and its U.S. affiliate LGMG North America Inc.; Zoomlion Heavy Industry Science and Technology Co., Ltd.; XCMG Import & Export Co., Ltd.; SANY Marine Heavy Industry Co., Ltd.; and the China Chamber of Commerce for Import and Export of Machinery and Electronic Products Subcommittee. Chinese Respondents' Comments on Draft Questionnaires, p. 1.

⁴⁴ Respondent SANY is composed of foreign producer/exporter SANY Marine Heavy Industry Co., Ltd. and U.S. importer SANY America Inc. Respondent SANY's Comments on Draft Questionnaires, p. 1.

⁴⁵ Chinese Respondents' Comments on Draft Questionnaires, p. 13; Respondent SANY's Comments on Draft Questionnaires, p. 2; Respondent SANY's prehearing brief, p. 2; Respondent SANY's posthearing brief, pp. 2-7.

⁴⁶ Canadian MAE producer and respondent Skyjack argues that telehandlers constitute a separate domestic like product from all other MAE. Respondent Skyjack's prehearing brief, pp. 19-28; Respondent Skyjack's posthearing brief, pp. 14.

⁴⁷ Appendix D presents the firms' narrative responses regarding the like product factors.

Table I-7**MAE: Count of U.S. producers, importers, and purchasers reporting on the comparability of telehandlers and all other MAE by the like product factors**

Number of firms reporting

Factor	Firm type	Fully	Mostly	Somewhat	Never
Physical characteristics and uses	U.S. producers	0	3	1	2
Manufacturing facilities, production processes, and employees	U.S. producers	3	2	2	0
Channels of distribution	U.S. producers	5	0	2	0
Interchangeability	U.S. producers	0	1	3	2
Producer and customer perceptions	U.S. producers	2	2	1	2
Price	U.S. producers	1	2	1	3
Physical characteristics and uses	Importers	0	3	1	6
Manufacturing facilities, production processes, and employees	Importers	1	3	5	1
Channels of distribution	Importers	3	4	3	0
Interchangeability	Importers	0	1	3	5
Producer and customer perceptions	Importers	2	1	0	6
Price	Importers	1	1	2	5
Physical characteristics and uses	Purchasers	0	3	2	6
Manufacturing facilities, production processes, and employees	Purchasers	2	5	1	1
Channels of distribution	Purchasers	6	4	2	0
Interchangeability	Purchasers	0	2	2	7
Producer and customer perceptions	Purchasers	3	3	2	2
Price	Purchasers	1	3	2	3

Source: Compiled from data submitted in response to Commission questionnaires.

Physical characteristics and end uses

Petitioner argues that telehandlers and all other MAE share the same physical characteristics and end uses. The two products include a chassis base with an attached lifting assembly. They are made primarily of fabricated steel, and all are mobile. They are primarily used in construction applications, and are used to lift people or materials to a height.⁴⁸

Respondent SANY argues that telehandlers have distinct physical characteristics from all other MAE due to their different end uses. Telehandlers are used to lift cargo and materials with a lifting fork, whereas all other MAE are used to lift people and thus must have a platform on which people can stand. As a result of this difference in end use, the design standards to which these different categories of MAE are constructed differ as well.⁴⁹ Telehandlers are designed to have a lifting capacity of over 2,500 pounds; all other MAE are usually designed to lift a maximum weight of between 500 to 2,500 pounds.⁵⁰ Telehandlers are usually made of stronger material⁵¹ and are installed with larger engines⁵² as compared to all other MAE.

⁴⁸ Petitioner notes that different MAE are used depending on the height and weight of the load that needs to be carried, but there is significant overlap in the capabilities of boom lifts, scissor lifts, and telehandlers. Petitioner's postconference brief, exh. 1, pp. 27-28.

⁴⁹ Telehandlers sold to the U.S. market must conform to the Industrial Truck Standards Development Foundation (ITSDF) standard B56.6, a specification for rough terrain forklifts. By contrast, boom lifts and scissor lifts sold in the United States must conform to the American National Standards Institute ("ANSI") standard A92.20, which is a design standard for mobile elevating work platforms ("MEWPs"). ANSI A92.20 specifically provides that this standard is not applicable to material lift equipment. Respondent SANY's Comments on Draft Questionnaires, p. 3 and attachments 3-4.

⁵⁰ For example, Respondent SANY's telehandlers sold in the U.S. market during the period of investigation have a lifting capacity of between 10,000 to 12,000 pounds. This difference in lifting capacity is also reflected in the Commission's pricing products. Product 6, a diesel-powered telehandler, has a maximum lift capacity of 10,000 pounds. Products 1-5 include a combination of boom lifts and scissor lifts which have a lift capacity that ranges between 500 and 1,000 pounds. Respondent SANY's Comments on Draft Questionnaires, p. 3 and attachment 4.

⁵¹ Telehandlers and boom lifts both have a boom assembly (i.e., a lifting device). A telehandler's boom is usually made of telescoping steel tubes. Boom lifts use telescoping steel tubes designed for much lighter static and dynamic loads due to the lower lift capacity, slower speed, and lower power of the machine. Scissor lifts have a scissor arm assembly which is composed of multiple joints that are pinned together. Respondent SANY's Comments on Draft Questionnaires, p. 4.

⁵² Telehandlers are installed with a large engine of more than 74 horsepower (hp) with a maximum drive speed of 20 miles per hour (mph). To ensure the safety of people, boom lifts and scissor lifts are installed with small engines of less than 74 hp with a slow and precise hydraulic system, and the lifts move at a speed of no more than 6 mph. Respondent SANY's Comments on Draft Questionnaires, p. 4.

No U.S. producer, importer, or purchaser reported that telehandlers and all other MAE were fully comparable in terms of physical characteristics and end uses. The majority of U.S. producers (4 of 6) reported that telehandlers and all other MAE were somewhat or mostly comparable in this factor. By contrast, the majority of importers (6 of 10) and purchasers (6 of 11) reported that the physical characteristics and end uses between telehandlers and all other MAE are never comparable.

Manufacturing facilities, production processes, and employees

Petitioner argues that all subject MAE can be produced in the same facilities, on the same equipment, using the same production processes, and with the same employees.⁵³ Additionally, the production processes for subject MAE are so similar that it takes only a few days for manufacturers of MAE to change a production line from producing, for example, telehandlers to all other MAE.⁵⁴

Respondent SANY argues that due to the physical difference between telehandlers and all other MAE, these products are not normally produced on the same production lines. Instead, companies tend to specialize in either telehandlers or all other MAE; or at a minimum, maintain separate production lines.⁵⁵

In general, the majority of U.S. producers (4 of 7), importers (8 of 10), and purchasers (6 of 9) report that telehandlers and all other MAE are somewhat or mostly manufactured in the same facilities, from the same inputs, on the same equipment, and by the same employees.

⁵³ Petitioner notes that JLG produces boom lifts, scissor lifts, and telehandlers, and often produces these products in the same facilities with the same employees. Petitioner's postconference brief, p. 30.

⁵⁴ Petitioner notes that Terex will reallocate its employees and move them from one in-scope product line to another in-scope product line based on demand for the company's products. Petitioner's postconference brief, pp. 30-31.

⁵⁵ Respondent SANY comments that both JLG and Terex, the two firms comprising the Coalition who filed these petitions, previously specialized in boom and scissor lift production and entered the telehandler market only by acquiring other telehandler production companies. Respondent SANY's Comments on Draft Questionnaires, p. 4.

Channels of distribution

Petitioner argues that telehandlers and all other MAE are sold through the same channels of distribution, primarily to construction equipment rental companies.⁵⁶ Petitioner states that there are both large and small construction equipment rental companies in the United States, and that domestic producers sell to both.⁵⁷ There are a few companies that may invest only in telehandlers or only in all other MAE. Nevertheless, almost all rental companies carry the products.⁵⁸

Respondent SANY states that telehandlers and all other MAE are generally sold through the same or similar channels of distribution—to end users (including rental companies, who may act as retailers) or distributors, dealers, and other retailers. Respondent SANY notes, however, that due to enhanced regulations and safety concerns on all other MAE, the rental companies for them and telehandlers do not completely overlap.⁵⁹

The majority of U.S. producers (5 of 7), importers (7 of 10), and purchasers (10 of 12) reported that the channels of distribution for telehandlers and all other MAE are mostly or fully comparable.

Interchangeability

Petitioner argues that telehandlers and all other MAE are generally interchangeable. The products can be used to lift loads to height on construction sites. While any specific MAE model is manufactured to satisfy certain height and weight requirements, there is an overlap in the capabilities among the types of in-scope MAE.⁶⁰ Accordingly, Petitioner believes that all in-scope MAE exist in the same continuum of products.

⁵⁶ Petitioner's postconference brief, pp. 28-29.

⁵⁷ Petitioner notes that there is a relatively small number of very large national rental companies that have operations across the entire country. Moreover, there is an additional grouping of customers that operate on a regional basis, and there is a large number of very small, localized companies that sell MAE as well. Petitioner's postconference brief, p. 29.

⁵⁸ Petitioner notes that the distribution model is the same irrespective of the size of the rental company: MAE producers sell to the rental company, which rents the MAE to contractors. Petitioner's postconference brief, p. 29.

⁵⁹ Respondent SANY concedes that the large national rental companies rent boom lifts, scissor lifts, and telehandlers. Respondent SANY's Comments on Draft Questionnaires, pp. 4-5.

⁶⁰ Petitioner, for example, notes that if you need to lift 500 pounds to 19 feet, you could accomplish that with a boom lift, a scissor lift, or a telehandler. Petitioner's postconference brief, p. 28.

Respondent SANY argues that telehandlers are entirely non-interchangeable with all other MAE. This argument is based on the different end uses and physical characteristics of the two products, as discussed above. Respondent SANY acknowledges, however, that while there may be some limited ability for all other MAE to lift cargo like telehandlers, that is not a normal end use.⁶¹ Additionally, certain assembly attachments such as forks, carriages, buckets, and platforms are not interchangeable between telehandlers and all other MAE.⁶²

No U.S. producer, importer, nor purchaser reported that telehandlers and all other MAE are fully interchangeable in terms of the ability to substitute the products in the same application. The majority of U.S. producers (4 of 6), however, stated that telehandlers and all other MAE are mostly or somewhat interchangeable. By contrast, the majority of importers (5 of 9) and purchasers (7 of 11) stated that telehandlers are never interchangeable with all other MAE.

Producer and customer perceptions

Petitioner argues that producers and customers perceive in-scope telehandlers and all other MAE to be part of the same band of products. Rental companies, the primary purchasers of MAE, own all types of in-scope subject merchandise so they can supply their customers' needs.⁶³ Petitioner argues that the ultimate end users of product, such as contractors and construction companies, also perceive MAE to be on the same continuum of products depending on their project-specific needs.⁶⁴

⁶¹ Respondent SANY further notes that in the event that a boom lift or a scissor lift is used to lift material, it could not normally lift the same weight of material as a telehandler. Respondent SANY's Comments on Draft Questionnaires, p. 5. For further detail, see discussion on lifting capacity under the Physical Characteristics and End Uses subsection.

⁶² Respondent SANY's Comments on Draft Questionnaires, p. 5.

⁶³ Petitioner notes that these rental companies understand the market and may invest more heavily year-to-year in boom lifts, scissor lifts, or telehandlers, but they ultimately purchase all kinds of MAE and supply it to their customers based on those customers' needs. Petitioner's postconference brief, p. 31.

⁶⁴ Petitioner notes that a contractor may rent an MAE with a lift capacity of 10 feet one day, then rent an MAE with a lift capacity of 40 or 80 feet the next day, depending on the contractor's needs, which rental companies usually accommodate. Accordingly, MAE customers perceive in-scope MAE to be on a continuum, which allows them to provide contractors, the ultimate end users, with the correct product for the contractor's project. Petitioner's postconference brief, pp. 31-32.

Respondent SANY argues that MAE producers and customers perceive telehandlers and all other MAE differently. Telehandlers are used more widely for sites that require lifting and moving materials and cargo (e.g., construction, warehousing, mining, and shipping), whereas all other MAE are typically used in high construction sites. Other factors that influence perceptions include advertising, purchaser awareness, and the different licensing requirements for operating a telehandler versus all other MAE.⁶⁵

The majority of U.S. producers (4 of 7) and U.S. purchasers (6 of 10) in general agree that producers and customers perceived telehandlers and all other MAE as mostly or fully comparable. By contrast, the majority of U.S. importers (6 of 9) report that producers and customers never perceive telehandlers and all other MAE as comparable.

Price

Petitioner argues that in-scope MAE are sold on the same price continuum and that there is significant overlap in the pricing of MAE.⁶⁶

Respondent SANY argues that MAE product prices differ based on the size and lifting capacity of an individual piece of equipment. Due to their physical characteristics and end uses, telehandlers require larger and more powerful engines, axles, and transmission and hydraulic systems that have a higher cost of production than those of all other MAE. Moreover, the prices of telehandlers are usually affected by lift capacity, whereas prices for all other MAE are affected by height.⁶⁷

Opinion is mixed among U.S. producers and purchasers as to whether prices are comparable between telehandlers and all other MAE. The majority of importers (5 of 9), however, report that the prices between telehandlers and all other MAE are never comparable.

⁶⁵ Respondent SANY argues that from the perspective of producers, no producer mixes telehandlers and all other MAE in product brochures. Respondent SANY's Comments on Draft Questionnaires, p. 6, fn. 7. In terms of awareness, customers who need to lift both cargo and people may purchase both telehandlers and all other MAE, but customers who need to lift either cargo or people exclusively will not purchase these products indiscriminately. *Ibid.*, p. 6. Additionally, there are operator licensing requirements for each type of equipment and the licensing is not interchangeable, meaning that being licensed to operate telehandlers does not authorize the operator to operate all other MAE. *Ibid.*

⁶⁶ Petitioner's postconference brief, p. 32.

⁶⁷ Respondent SANY's Comments on Draft Questionnaires, p. 6.

Intermediate products

The domestic like product proposed by Petitioner includes intermediate products (“MAE subassemblies”), as well as downstream products (“complete MAE”).⁶⁸ U.S. producers, importers, and purchasers were asked to assess any differences between in-scope MAE subassemblies and completed MAE, based on factors the Commission typically considers in a semi-finished products analysis, including: (1) whether the upstream article is dedicated to the production of the downstream article or has independent uses; (2) whether there are perceived to be separate markets for the upstream and downstream articles; (3) differences in the physical characteristics and functions of the upstream and downstream articles; (4) differences in the costs or value of the vertically differentiated articles; and (5) the significance and extent of the processes used to transform the upstream into the downstream articles. Responses provided by firms are summarized in table I-8 below (where a ‘no’ response generally corresponds to indicating no differences or distinctions between complete MAE and in-scope MAE subassemblies).⁶⁹

⁶⁸ Subject MAE subassemblies include, but are not limited to, scissor arm assemblies, boom assemblies, chassis subassemblies, and boom turntable subassemblies. Subject complete MAE consists primarily of telehandlers, scissor lifts, and boom lifts. See the section entitled “The subject merchandise” in Part I of this report for a complete description of the merchandise subject in this proceeding.

⁶⁹ Appendix E presents the firms’ narrative responses regarding the semi-finished products factors.

Table I-8**MAE: Count of U.S. producers', importers', and purchasers' responses regarding semi-finished products factors**

Number of firms reporting

Comparison factor	Firm type	No	Yes
Other uses.--Are there uses for the unfinished product(s) other than for the production of the finished product(s)?	U.S. producers	8	0
Separate market.--Is the market for unfinished product(s) separate and distinct from the market for finished product(s)?	U.S. producers	6	2
Differences in characteristics.--Are there differences in the physical characteristics and functions of the unfinished product(s) and finished products(s)?	U.S. producers	5	3
Differences in cost.--Is there a significant difference in the cost or value between unfinished product(s) and finished product(s)?	U.S. producers	3	5
Transformation intensive.--Would you describe the processes used to transform the unfinished product(s) into the finished product(s) as significant and particularly labor or capital intensive?	U.S. producers	3	5
Other uses.--Are there uses for the unfinished product(s) other than for the production of the finished product(s)?	Importers	7	3
Separate market.--Is the market for unfinished product(s) separate and distinct from the market for finished product(s)?	Importers	4	6
Differences in characteristics.--Are there differences in the physical characteristics and functions of the unfinished product(s) and finished products(s)?	Importers	3	7
Differences in cost.--Is there a significant difference in the cost or value between unfinished product(s) and finished product(s)?	Importers	3	7
Transformation intensive.--Would you describe the processes used to transform the unfinished product(s) into the finished product(s) as significant and particularly labor or capital intensive?	Importers	3	7
Other uses.--Are there uses for the unfinished product(s) other than for the production of the finished product(s)?	Purchasers	8	1
Separate market.--Is the market for unfinished product(s) separate and distinct from the market for finished product(s)?	Purchasers	6	3
Differences in characteristics.--Are there differences in the physical characteristics and functions of the unfinished product(s) and finished products(s)?	Purchasers	6	3
Differences in cost.--Is there a significant difference in the cost or value between unfinished product(s) and finished product(s)?	Purchasers	5	4
Transformation intensive.--Would you describe the processes used to transform the unfinished product(s) into the finished product(s) as significant and particularly labor or capital intensive?	Purchasers	5	4

Source: Compiled from data submitted in response to Commission questionnaires.

The majority of U.S. producers (8 of 8), importers (7 of 10), and purchasers (8 of 9) agree that there are no uses for MAE subassemblies other than for the production of complete MAE. The majority of importers (6 of 10) report that there are separate markets for MAE subassemblies and complete MAE, while the majority of producers (6 of 8) and purchasers (6 of 9) report there are not separate markets. The majority of importers (7 of 10) report that MAE subassemblies have different physical characteristic and functions than complete MAE, whereas the majority of producers (5 of 8) and purchasers (6 of 9) report that there are no such differences. The majority of U.S. producers (5 of 8) and importers (7 of 10) agree that there is a significant difference in the cost or value of MAE subassemblies and complete MAE, while purchasers (5 of 9) report no difference in cost or value. In terms of the intensive nature of transforming MAE subassemblies into complete MAE, the majority of producers (5 of 8) and importers (7 of 10) reported that the process was significant, whereas purchasers (5 of 9) would describe the process as not significant or intensive.

Respondent Skyjack argues that the Commission should treat MAE subassemblies as a separate domestic like product from complete MAE.⁷⁰ Respondent Skyjack states that the processes used to transform MAE subassemblies into complete MAE,⁷¹ as well as the resulting differences between MAE subassemblies and complete MAE in terms of physical characteristics,⁷² functions,⁷³ and value⁷⁴ are significant. Moreover, there is a distinct market for MAE subassemblies separate from the market for complete MAE.⁷⁵ These facts, respectively and taken together, Respondent Skyjack argues, warrant a finding of two separate domestic like products: MAE subassemblies and complete MAE.

⁷⁰ Respondent Skyjack's prehearing brief, p. 2; Respondent Skyjack's posthearing brief, p. 1-5.

⁷¹ Respondent Skyjack notes that it takes *** of labor hours to produce a complete MAE. The hours required for the *** is significantly more than the hours required for ***. Respondent Skyjack's prehearing brief, pp. 4-5, and exhs. 3-5.

⁷² Respondent Skyjack argues that MAE subassemblies are unrefined pieces of steel that have no other componentry attached at the time they are imported. In order to be useful, the MAE subassemblies need to undergo a sophisticated manufacturing process in order to create a complete MAE. As a result, MAE subassemblies cannot accomplish any of the functions of a complete MAE. Moreover, MAE subassemblies that have been significantly processed into higher-value subassemblies cannot provide the same function of a complete MAE without connection to additional subassemblies. Respondent Skyjack's prehearing brief, pp. 7-8, and exh. 6.

⁷³ Respondent Skyjack notes that although MAE subassemblies are generally used to produce complete MAE, there are other uses for MAE subassemblies beyond the production of complete MAE. In particular, certain in-scope subassemblies can be used for refurbishing or repairing complete MAE. Respondent Skyjack's prehearing brief, p. 6.

⁷⁴ Respondent Skyjack argues that the cost of producing downstream complete MAE from MAE subassemblies is substantial. The mandatory elements of an unfinished subassembly are a small fraction of the cost of a complete MAE. Paraphrasing ***, Respondent Skyjack notes that even the most expensive subassembly ***. Moreover, Respondent Skyjack argues that the per-ton value for complete MAE is significantly different than from an MAE subassembly. The per-ton value of a complete MAE was around \$*** during most periods of the investigations; while the per-ton value of an MAE subassembly was \$***. Respondent Skyjack's prehearing brief, pp. 8-10.

⁷⁵ Respondent Skyjack argues that the market for MAE subassemblies is distinct from the market for complete MAE, because complete MAE are sold primarily to rental companies, while MAE subassemblies are used by original equipment manufacturers. Respondent Skyjack's prehearing brief, pp. 6-7.

During the preliminary phase of these investigations, Petitioner contended that MAE subassemblies are part of the single domestic like product. Petitioner argued that the process of transforming MAE subassemblies into complete MAE is minor in comparison to the production of the subassemblies themselves, subassemblies are dedicated to the production of complete MAE and cannot be used in the production of any other product, there are only minor differences between the physical characteristics of subassemblies and of completed MAE, subassemblies and complete MAE do not have separate markets, and subassemblies account for a substantial portion of the total cost of complete MAE.⁷⁶

Additional domestic like product and semi-finished product factors

To inform the Commission's domestic like product and semi-finished product analyses, information on U.S. producers' operation on telehandlers, all other MAE, and subassemblies thereof are present below. Table I-9 provides a count of U.S. producers who manufacture telehandlers and/or all other MAE. Of responding firms, two, ***, reported manufacturing both telehandlers and all other MAE. Table I-10 presents the share of U.S. producers' U.S. shipments by channel of distribution differentiated between telehandlers and all other MAE. U.S. producers shipped the majority of their telehandlers and all other MAE to distributors during 2018-20. Table I-11 presents the average unit values of U.S. producers' U.S shipments of telehandlers, all other MAE, and subassemblies thereof. Throughout each period of the investigations, the average unit value for telehandlers was higher than the average unit value for all other MAE. The average unit value of an MAE subassembly ***.

⁷⁶ Petitioner's postconference brief, p. 5; exh. 1, pp 27-37.

Table I-9**MAE: Number of U.S. producers reporting manufacturing of telehandlers and all other MAE**

Count in number of firms reporting

Firms reporting	Count
Only production of telehandlers	1
Only production of all other MAE	5
Production of both telehandlers and all other MAE	2
Ability to shift between telehandlers and all other MAE	3

Source: Compiled from data submitted in response to Commission questionnaires.

Table I-10**MAE: Share of U.S. producers' U.S. shipments by channel of distribution, product type, and period**

Shares in percent

Product type	Channel	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Telehandlers	to Distributors	***	***	***	***	***
Telehandlers	to End users	***	***	***	***	***
All other MAE	to Distributors	***	***	***	***	***
All other MAE	to End users	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table I-11**MAE: Average unit values of U.S. producers' U.S. shipments by product type and period**

Unit values in dollars per short ton

Product type	Level	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Telehandlers	Complete units	***	***	***	***	***
Telehandlers	Subassemblies	***	***	***	***	***
All other MAE	Complete units	***	***	***	***	***
All other MAE	Subassemblies	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: *** U.S. shipments of MAE subassemblies.

Part II: Conditions of competition in the U.S. market

U.S. market characteristics

MAE is used to lift people, tools, equipment, and other materials up to 180 feet or higher,¹ and is primarily used in construction applications, but may also be used for agricultural, warehousing, and facility maintenance applications.² MAE can be self-propelled or towed, electric-powered or engine-powered, and includes various types of scissor lifts, boom lifts, and telehandlers.³ ⁴ There is a wide variety of MAE, with capabilities to lift people and/or material of various weights to various heights, depending on the type of MAE.⁵

MAE can be imported into the United States either fully assembled or in subassemblies,⁶ and during the preliminary phase, petitioner and respondents agreed that there are virtually no U.S. commercial shipments of subassemblies.⁷ Some U.S. producers also import complete MAE from China, these include ***. Respondent MEC stated that the three “dominant players” in the U.S. market (U.S. producers JLG and Terex, and Canadian firm Skyjack⁸) are *** percent of the market, and accounted for *** percent of scissor lift production and *** percent of boom lift production in 2018.⁹

¹ The petitions state that MAE is used to lift items up to 180 feet or higher, and Commerce’s scope refers to a working height of 10 feet or more. Petitions, p. 8. See Part I for a description of Commerce’s scope and a detailed discussion of the product.

² Petitions, p. 8.

³ Boom lifts can have a hydraulic arm that is articulating (with arms that bend) or telescopic (with straight arms) and have a lifting arm with a platform or bucket attached to a grounded base. Telehandlers can also have a lifting arm with a platform or bucket attached to a grounded base, but its arms are generally telescoping. Petitions, pp. 8-10.

⁴ There is a small, limited market for “indoor-only” (or “inside-only”) MAE primarily of scissor lift models. Indoor-only MAE would not meet outside safety standards due to tip-over ratios and wind. Indoor-only models would also be electric powered. Petitioner’s postconference brief, exh. 1, p. 49, and Chinese respondents’ postconference brief, Attachment, p. 5.

⁵ MAE can range from equipment lifting 600 pounds up to 19 feet to equipment lifting 10,000 pounds up to 53 feet. Petitions, p. 8.

⁶ Firms may not import all subassembly parts at the same time, and may use subassemblies from different sources in completing the manufacture of MAE.

⁷ All subassemblies are assembled into complete MAE. Conference transcript, pp. 49-50 (Brightbill, Ford) and 225 (Kirschenmann). The discussion in this section of the report pertains to fully assembled MAE.

⁸ See Part I and Part IV for a discussion on importer Skyjack Equipment and exporter and Canadian producer Skyjack Canada.

⁹ Respondent MEC’s postconference brief, p. 9.

Apparent U.S. consumption of MAE decreased by *** percent during 2018-2020 on a quantity basis, but was *** percent higher in January-June (“interim”) 2021 compared with January-June 2020. Most of the decrease occurred between 2019 and 2020 (*** percent), and most firms ascribed the decrease to effects from COVID-19.

U.S. purchasers

The Commission received 14 usable questionnaire responses from firms that had purchased MAE during January 2018-June 2021.^{10 11 12} Eight responding purchasers are rental companies, seven are distributors, and four reported themselves in some other way (three are U.S. producers of at least one type of MAE). Some rental companies such as *** are nationwide, while others are regional or local.¹³ Responding purchasers of complete MAE are split among these firms.¹⁴ The largest purchasing firms responding to the

¹⁰ The following firms provided purchaser questionnaire responses: ***.

¹¹ Of the 14 responding purchasers, seven purchased the domestic product, eight purchased imports of the subject merchandise from China, six purchased MAE imported from Canada, one purchased MAE from Mexico (***), and five purchased imports of MAE from other sources. These countries include Denmark, France, Korea, Germany, India, Italy, Romania, and the UK. ***.

¹² Twelve purchasers indicated they had marketing/pricing knowledge of domestic product, 10 of MAE imported from China, 8 of MAE imported from Canada, 4 of product imported from Mexico, and 8 of product imported from other countries.

¹³ United Rentals is the largest equipment rental firm with more than 1,100 stores nationwide. Conference transcript, p. 140 (Paylor). ***. Respondents stated that there has been consolidation among the largest national equipment rental firms: “These very large and extremely well financed companies began to buy up multiple regional independent stores and consolidate them” in the late 1990s. Conference transcript, p. 142 (Paylor) and respondent MEC’s postconference brief pp. 10-11.

¹⁴ Respondent Sinoboom stratified purchasers into national, regional, and local. According to Sinoboom, national purchasers are referred to as consolidators; regional purchasers have 10 to 20 stores across multiple states, and local purchasers have 1 or 2 stores in a city or state. Conference transcript, p. 220 (Kirschenmann).

Commission's questionnaire include ***.

In the preliminary phase of the investigations, respondent MEC stated that to sell to the consolidators the MAE producer must be an approved or preferred supplier, able to meet the consolidators' volume needs, and be willing to be part of a trade package.^{15 16 17} Rental fleets typically keep MAE for 4 to 8 years before they are replaced,¹⁸ however, U.S. producer Terex and respondent Sinoboom noted that the major consolidators are able to "age" their fleet.¹⁹ Respondent Sinoboom added that consolidators have different purchasing behaviors than smaller rental agencies.²⁰ A representative for MEC stated that larger consolidators can move their inventory around the country to respond to supply needs at their rental locations, but smaller and medium-sized firms with just a few branches are unable to do so.²¹ Also during the preliminary phase, petitioner argued that due to the consolidators' national distribution network there is a lower barrier to entry, that purchasers typically carry multiple brands, and the cost of switching or adding brands is minimal.^{22 23} Respondent MEC stated that large rental companies focus on "fleet uniformity" and prefer to source products from a limited number of brands and companies.²⁴

¹⁵ Respondent MEC added that MEC, JLG, SkyJack and Genie are among "the few" approved suppliers for the consolidators. Conference transcript, pp. 202-203 (Hix). Genie is a brand manufactured by Terex.

¹⁶ Petitioner and respondents disagreed on whether the barrier to entry into the MAE market was low due to the consolidators' national distribution network or high due to the requirements to sell to a consolidator. Conference transcript, pp. 19 (Brightbill) and 202-203 (Hix)

¹⁷ Respondent MEC explained a trade package as when the supplier "will be required to take a certain amount of used product, their used product, on trade to then dispose of essentially so they don't have to go into the secondary market." Conference transcript, p. 201 (Hix).

¹⁸ Conference transcript pp. 210 (Hix).

¹⁹ Conference transcript, pp. 80-81 (Meyer) and 207-208 (Kirschenmann).

²⁰ Respondent Sinoboom stated that consolidators were able to "stretch the age of their current fleet and leverage existing inventory across their different stores" and purchased fewer MAE due to the economic slowdown associated with the COVID-19 pandemic. Smaller rental agencies with smaller fleets were unable to do so, and demand for MAE in the smaller rental companies was stable throughout the period. Conference transcript, pp. 207-210 (Kirschenmann, Kahn, Hix).

²¹ Hearing transcript, p. 278 (Hix)

²² Petitioner's postconference brief, pp. 11-12, and Conference transcript, p. 19 (Brightbill).

²³ Petitioner also argued that Chinese producers are "actively seeking additional inroads with some of the largest rental companies in the country" after establishing a presence with small- and medium-sized companies. Petitioner's postconference brief, p. 12.

²⁴ Respondent MEC's postconference brief, p. 11; *see also* Conference transcript, 201-202 (Hix) (consolidators want preferred suppliers, price competitiveness, ability to meet volume, and trade packages).

New ANSI standards

Complete MAE is subject to safety standards set by the American National Standards Institute (“ANSI”). Meeting ANSI standards is not a legal requirement, but safety is considered a “critical need” and the ANSI standards are de facto required by purchasers.²⁵ Being compliant with ANSI standards was considered very important by 11 of 13 responding purchasers. New ANSI standards were published in May 2020 and became effective in June 2020, and they are consistent with the standards in Europe, Australia, and Canada.²⁶

Petitioner noted that domestically produced MAE is “generally consistent” with ANSI standards.²⁷ Petitioner argued that the new standards had a “modest effect on pricing” and estimated that the standards increased prices by *** percent.²⁸ Chinese respondents stated that products made before the new standards went into effect can be “legacied in” as compliant, but there may be issues with liability and insurance, thus, older MAE “may be replaced faster than they would otherwise.”²⁹ Respondent MEC added that there was excess inventory of MAE that did not meet the new ANSI standards which competed directly with new ANSI standards compliant MAE.³⁰

When asked whether the new ANSI standards had an impact on the market or their purchasing decisions, 6 of 12 responding purchasers reported that they had for all MAE other than telehandlers.³¹ Purchaser *** noted that the new ANSI-compliant MAE have some different features and standards. Purchaser *** reported that the extra sensors and weight to ensure compliance resulted in higher costs. Purchaser *** stated that it purchased the new ANSI standard machines despite a somewhat higher price. Purchaser *** stated that the impact was on prices, with the impact greater at some suppliers than others. *** stated that “certain suppliers (Genie) made changes to their design which we felt were not in the best interest of our customers, so we stopped purchasing the impacted models.” Lastly, purchaser *** noted that its “old line manufactures ... handled the change badly. Lower quality machines, irregular supply. This made our business difficult.”

²⁵ Petitioner’s postconference brief, p. 20.

²⁶ Respondent MEC argued that production of MAE subject to these new ANSI standards are targeted for the global market, not the U.S. market. Respondent MEC’s postconference brief, p. 14.

²⁷ Petitioner’s postconference brief, exh. 1, pp. 45-46.

²⁸ Petitioner’s postconference brief, exh. 1, pp. 47-48.

²⁹ Chinese respondents’ postconference brief, Attachment, p. 4.

³⁰ Respondent MEC’s postconference brief, p. 14.

³¹ No purchaser reported an effect on the market for, or their purchases of, telehandlers.

Secondary refurbished MAE market

A secondary market of refurbished or remanufactured MAE exists, but petitioner and Chinese respondents disagree regarding the size of this market. Petitioner stated that the refurbished market is “miniscule” and accounted for ***.³² Chinese respondents argued that refurbished MAE is about 60 percent of the cost of a new MAE, and refurbished MAE compete directly with new MAE.^{33 34 35}

In addition to refurbished equipment, some equipment may simply be sold as used equipment by rental companies directly. Purchaser *** stated that it purchases new equipment every three years and sells off its used equipment to other purchasers such as brokers, end users, general contractors, and electricians which otherwise would not be able to purchase new MAE due to their cost. As an example, a new 60-foot boom lift that costs \$100,000 might be sold for \$35,000 after being used for 3 years. This firm sells approximately *** this way.³⁶

Channels of distribution

U.S. producers and importers sold mainly to end users, as shown in table II-1, whether sourced from China, Canada, Mexico, or other sources.

³² Petitioner’s postconference brief, exh. 1, p. 51.

³³ Petitioner’s postconference brief, p. 36 and Conference transcript, pp. 147-148 and 172-173 (Paylor).

³⁴ Chinese respondents noted that trade-ins of MAE can be used to discount new equipment. Chinese respondents’ postconference brief, pp. 36-37.

³⁵ No producer and one importer reported using trade-ins to set prices. However, Genie has noted that “Manufacturers, like Genie, often take equipment on a trade-in thus making them a good source of used equipment,” and that “In today’s market, there are numerous resources for buying used equipment — including auctions, local equipment distributors, manufacturers who take trade-ins, trade publications and used equipment websites.” Genie (Terex), “How to Find the Right Used Equipment for Your Rental Fleet,” <https://www.genielift.com/en/aerialpros/used-equipment-2>, retrieved October 28, 2021.

³⁶ Telephone interview with ***.

Table II-1
MAE: Share of U.S. shipments by source, channel of distribution, and period

Shares in percent

Source	Channel	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
United States	Distributor	***	***	***	***	***
United States	End user	***	***	***	***	***
China	Distributor	***	***	***	***	***
China	End user	***	***	***	***	***
Canada	Distributor	***	***	***	***	***
Canada	End user	***	***	***	***	***
Mexico	Distributor	***	***	***	***	***
Mexico	End user	***	***	***	***	***
All other sources	Distributor	***	***	***	***	***
All other sources	End user	***	***	***	***	***
Nonsubject sources	Distributor	***	***	***	***	***
Nonsubject sources	End user	***	***	***	***	***
All import sources	Distributor	***	***	***	***	***
All import sources	End user	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: “End user” includes construction companies and other end users (including rental companies, who may also act as retailers). “Distributor” includes dealers and other retailers.

Geographic distribution

U.S. producers reported selling MAE to all regions in the contiguous United States, with the exception of ***, which only sold to the Midwest (table II-2). Importers reported selling MAE to various regions in the contiguous United States, though not all importers sold to all regions. For U.S. producers, *** percent of sales were within 100 miles of their production facility, *** percent were between 101 and 1,000 miles, and *** percent were over 1,000 miles. Importers’ sales were somewhat more concentrated locally: they sold 38.1 percent within 100 miles of their U.S. point of shipment, 25.4 percent between 101 and 1,000 miles, and 36.4 percent over 1,000 miles.

Table II-2
MAE: Count of U.S. producers' and U.S. importers' geographic markets

Region	U.S. producers	China
Northeast	7	10
Midwest	8	12
Southeast	7	11
Central Southwest	7	12
Mountain	7	11
Pacific Coast	7	13
Other	6	9
All regions (except Other)	7	10
Reporting firms	8	13

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Other U.S. markets include AK, HI, PR, and VI.

Impact of section 301 tariffs and 232 tariffs

MAE have been subject to section 301 tariffs of 25 percent since July 2018.³⁷ Some MAE products received exclusions from section 301 tariffs throughout the period including electric scissor MAE that received an exclusion from July 2019 to December 2020.^{38 39}

U.S. producers, importers, and purchasers were asked to describe the impact that section 301 tariffs on imports from China had on various aspects of the MAE market: overall demand; supply from the United States, China, and other sources; prices; and raw material costs (table II-3).

³⁷ MAE and subassemblies classified under HTS 8427.10.80, 8427.20.80 and 8431.20.00, were included in “List 1” of the Section 301 tariffs. *Notice of Action and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 83 Fed. Reg. 28,710 (U.S. Trade Rep. June 20, 2018).

³⁸ Chinese respondents’ postconference brief, Attachment, p. 7.

³⁹ For example, some self-propelled aerial work platforms were excluded from October 2, 2019 to December 31, 2020. Petitioner’s postconference brief exh. 1, pp. 43-44.

Table II-3
MAE: Count of firms' responses regarding the impact of the 301 tariffs on Chinese-origin products

Impact on	Firm type	Increase	No change	Decrease	Fluctuate
Demand	U.S. producers	0	4	0	1
Demand	Importers	2	6	0	1
Demand	Purchasers	0	3	0	1
U.S. Supply	U.S. producers	0	4	0	1
U.S. Supply	Importers	1	9	0	1
U.S. Supply	Purchasers	0	3	0	1
Supply from China	U.S. producers	2	3	0	0
Supply from China	Importers	3	6	1	0
Supply from China	Purchasers	1	3	0	0
Supply from others	U.S. producers	0	4	0	1
Supply from others	Importers	1	8	0	2
Supply from others	Purchasers	0	3	0	1
Prices	U.S. producers	3	1	0	1
Prices	Importers	5	4	0	1
Prices	Purchasers	1	2	0	1
Raw material cost	U.S. producers	3	1	0	0
Raw material cost	Importers	8	3	0	0
Raw material cost	Purchasers	3	1	0	0

Source: Compiled from data submitted in response to Commission questionnaires.

A majority of each firm type indicated that section 301 tariffs did not have an impact on demand or supply from any of the three sources. A majority of producers and half of responding importers indicated that they did increase MAE prices, and a majority of all three types of firms indicated these tariffs increased raw material prices. Similarly, section 232 tariffs on steel and aluminum imports were reported to have more of an impact on raw material prices than on MAE prices.⁴⁰

Supply and demand considerations

U.S. supply

Table II-4 provides a summary of the supply factors influencing the supply of MAE from U.S. producers and from subject countries. Whereas U.S. capacity maintained a similar level, capacity in China grew by more than 100 percent. Capacity utilization declined in both countries but substantially more in the United States than in China.

⁴⁰ See Part V for more information on firms' perceptions of the effect of section 232 tariffs on prices.

Table II-4
MAE: Supply factors that affect the ability to increase shipments to the U.S. market, by country

Quantity in short tons; ratio and share in percent; count is number of “yes” responses

Factor	Measure	United States	China
Capacity 2018	Quantity	***	***
Capacity 2020	Quantity	***	***
Capacity utilization 2018	Ratio	***	***
Capacity utilization 2020	Ratio	***	***
Inventories to total shipments 2018	Ratio	***	***
Inventories to total shipments 2020	Ratio	***	***
Home market shipments 2020	Share	***	***
Non-US export market shipments 2020	Share	***	***
Ability to shift production (firms reporting “yes”)	Count	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Responding U.S. producers accounted for the vast majority U.S. production of MAE in 2020. Responding foreign producer/exporter firms accounted for more than half of U.S. imports of MAE from China during 2020. For additional data on the number of responding firms and their share of U.S. production and of U.S. imports from each subject country, please refer to Part I, “Summary Data and Data Sources.”

Domestic production

Based on available information, U.S. producers of MAE have the ability to respond to changes in demand with large changes in the quantity of shipments of U.S.-produced MAE to the U.S. market. The main contributing factors to this degree of responsiveness of supply are substantially increased available capacity, and a moderate level of exports to other countries. Factors mitigating responsiveness of supply are the limited ability to shift production to or from alternate products and low inventories in June 2021.

Whereas domestic capacity to produce MAE declined by *** percent, capacity utilization declined from *** percent in 2018 to *** percent in 2020. Capacity utilization was somewhat higher in interim 2021 (*** percent) than in interim 2020 (*** percent. U.S. producer JLG noted that ***. U.S. producer Terex closed its Rock Hill, South Carolina plant in December 2020.^{41 42} Domestic inventories have declined from *** percent of total

⁴¹ Conference transcript, p. 20 (Brightbill).

⁴² Other reported production constraints included raw materials, labor availability, machine capacity, product mix, parts availability, and weather.

shipments at the end of 2020 to *** percent in June 2021, down from *** percent in June 2020.

U.S. producers' major export markets include ***.⁴³ U.S. producer JLG stated that the standard configuration for machines made for the Chinese, European, and U.S. market are "very similar."⁴⁴ *** other products on the same equipment as MAE.⁴⁵

Subject imports from China

Based on available information, producers of MAE from China have the ability to respond to changes in demand with large changes in the quantity of shipments of MAE to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the high levels and increasing availability of unused capacity and inventories, and some ability to shift shipments from alternate markets. Factors mitigating responsiveness of supply include the inability to shift production to or from alternate products.

Capacity to produce MAE in China more than doubled during 2018-20, and was 14.7 percent higher in the first half of 2021 than the first half of 2020. Though production increased considerably, it did not double, so capacity utilization declined by 6.5 percentage points during 2018-20. It also was higher in interim 2021 (at 80.3 percent) than in interim 2020 (60.7 percent). Chinese producers reported exports to all major regions including Asia, Africa, Europe, the Middle East, North America, South America, and Oceania.⁴⁶ There were no reported barriers to exports. *** Chinese producers reported producing other products on MAE equipment.⁴⁷

⁴³ U.S. producer JLG stated that its U.S. manufacturing facilities service the North and South American markets, its European facilities service Europe, and its Chinese facility for the Chinese and Asian Pacific markets. U.S. producer Terex similarly stated that its facilities in the United States, Europe, and China are made to service their respective markets. Conference transcript, pp. 50-51 (Meyer, Morris).

⁴⁴ Conference transcript, p. 98 (Morris).

⁴⁵ U.S. producers reported cost and the specific equipment and machinery as limiting factors in their inability to shift production to alternate products.

⁴⁶ Some firms reported specific countries instead of regions: Argentina, Chile, Europe, Mongolia, and Uzbekistan for telehandlers and Australia, Denmark, India, Japan, Korea, Malaysia, Mexico, the Netherlands, New Zealand, Russia, South Africa, and Turkey for all other MAE.

⁴⁷ Factors affecting foreign producers' inability to shift production include asset availability and cost. Chinese producer *** reported that it is unable to switch production (capacity) between MAE and other products using the same equipment and/or labor, but also noted that it produced vertical lifts on the same equipment, machinery or with the same employees as it used to produce MAE. *** reported that "the cost and time of shifting" as factors affecting its ability to shift production capacity between products.

Imports from nonsubject sources

Nonsubject imports accounted for *** percent of total U.S. imports in 2020. The two largest importers of nonsubject imports were ***. Other large importers *** listed Mexico, Romania, France, and Italy, as their major sources of imports from nonsubject countries.⁴⁸ Based on official Commerce statistics, Canada, Mexico, the United Kingdom, Italy, and Germany were the top sources of U.S. imports of MAE. Combined, these countries accounted for 77.4 percent of nonsubject imports in 2020.

Supply constraints

Firms in the MAE market indicated that it has been marked by a considerable amount of supply constraints since 2018. *** responding U.S. producers, 9 of 15 responding importers, and 5 of 13 responding purchasers noted that there were supply constraints in the market before the petitions were filed. After the petitions were filed, *** responding producers, 10 of 14 responding importers, and 9 of 12 responding purchasers⁴⁹ reported experiencing supply constraints in the market.

Producers most frequently noted supply chain constraints, in particular lingering effects of COVID-19 on production during 2020.⁵⁰ These included raw material shortages and labor bottlenecks. Some also reported having difficulties supplying product during the recovery. In addition, some noted that container shortages and global port congestion have played a role. *** generalized its experience in that it is “currently experiencing the same supply constraints seen in virtually every industry and every market in the world” such as those in microchips. It also noted that it rejects deals when the price is too low. U.S. producer *** expressed similar sentiments, noting that it is still “suffering through supply chain logistics issues.” Importers also noted global supply chain issues including freight availability causing

⁴⁸ *** have affiliate firms that produce MAE in these nonsubject countries.

⁴⁹ Two of the purchasers stating that there were no supply constraints were ***. *** indicated experiencing supply constraints. *** reported that there were none as well. However, it referenced that the constraints were no more than what it described in the market as existing before the petitions were filed.

⁵⁰ For further information regarding the effects of COVID-19 on U.S. producers and importers, see Parts III and IV.

difficulties in procuring sufficient components to manufacture MAE. Firms such as *** noted having to push out orders, lose orders, or change build plans to accommodate the difficulties.

Purchasers have noted these difficulties, and responses such as those by *** reflect knowledge of these difficulties (“All manufacturers have struggled to meet demand since mid-2020 due to COVID and component supply chain disruptions. Do not foresee this being resolved for the next 12 months” and “All Manufacturers had timing constraints with COVID-19 related supply chain issues and inflationary impacts,” respectively). When asked whether availability from domestic, Chinese, and nonsubject sources had changed, purchasers also noted the decreased availability of MAE. Ten of 11 responding purchasers⁵¹ availability issues with domestic MAE, 9 of 11 responding purchasers reported availability issues with MAE imported from China, and 4 of 9 responding purchasers reported these issues with respect to product imported from nonsubject sources. Most purchasers noted decreases and pointed to COVID-19 as a reason. A few noted increases, but one purchaser, ***, stated that there is a 2021 demand increase, but “no machines made in 2020.” Full descriptions of firms’ responses are provided in Appendix F.

New suppliers

Eleven of 12 purchasers indicated that new suppliers entered the U.S. market since January 1, 2018. Purchasers cited various firms: LGMG (cited by 8 purchasers), Sinoboom (3 purchasers), Liugong, SANY, Zoomlion, and Chinese firms generally (2 purchasers), and 7 other suppliers which purchasers mentioned once.

U.S. demand

Based on available information, the overall demand for MAE is likely to experience small to moderate changes in response to changes in price. The main contributing factor is the lack of substitute products, but this degree is somewhat moderated by the ability of large customers to delay purchases in the short term.

⁵¹ This total does not include ***.

End uses and cost share

Completed MAE is an end-use product and is not used in further downstream products. Reported end uses for fully assembled MAE include uses for equipment rental agencies and uses in the agriculture and construction sectors.

Business cycles

*** responding U.S. producers, 13 of 15 responding importers, and 7 of 13 responding purchasers indicated that the market was subject to business cycles or conditions of competition. Specifically, *** reported that the business cycle is seasonal and mirrors the construction industry, with *** noting that orders are often placed in the winter to ensure receipt in the spring before the busiest time of the year. *** added that in addition to weather's influence, governmental projects and the economy may also play a role. Two importers, ***, described a natural business cycle in this industry of 7 to 10 years. Importer *** reported that sales to rental agencies are highest in the second quarter and lower in the fourth and first quarter.⁵²

Purchaser *** noted that it is dependent on the "economy for construction projects" and outlooks and that the seasonal nature of demand is based on customer order patterns. Purchaser *** stated, "Some markets in colder climates may experience a decline in rental demand for certain MAE used for exterior construction projects. If the construction market is robust in the area, the decline may not materialize."

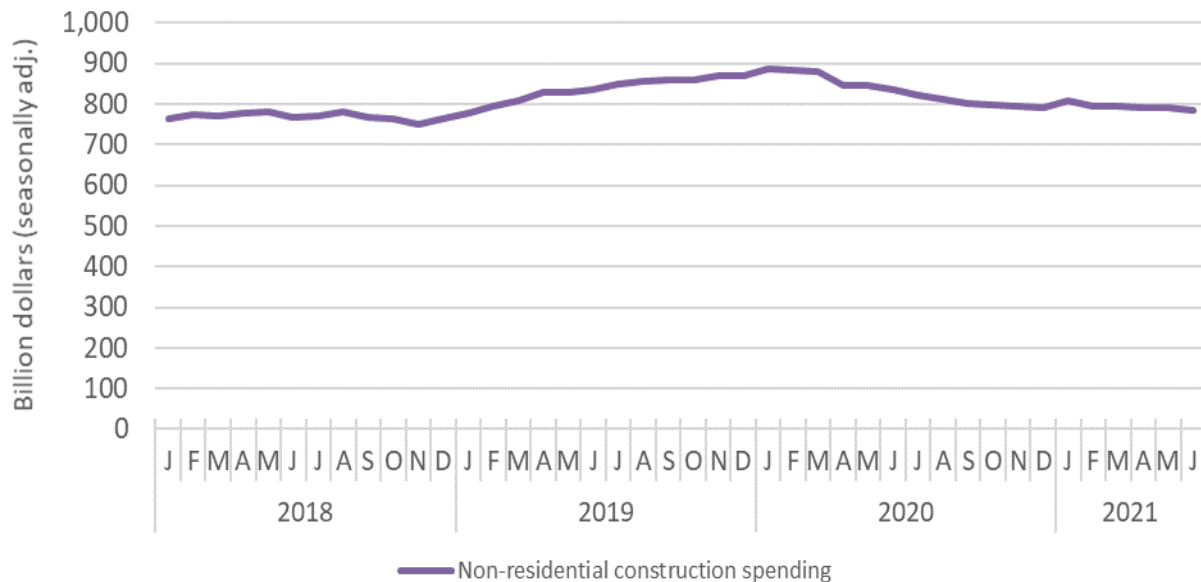
⁵² *** added that "with industry suppression in 2020, many small- to mid-size rental houses were looking for quicker, flexible, and nimble supply that wasn't tied to Large National Rental houses. These smaller rental houses struggled for attention and machine availability from many U.S. manufacturers in 2019 when industry was high. They are enjoying the focus from *** on their businesses, whether in high industry years or low."

Demand trends

Demand for MAE is generally tied to construction trends, particularly nonresidential construction. As shown in figure II-1, seasonally adjusted nonresidential construction spending fluctuated from January 2018 to June 2021, increasing by 16.1 percent between January 2018 and January 2020, but has decreased 11.3 percent by June 2021, with the first large drop in April 2020 associated with the economic slowdown due to the COVID-19 pandemic.⁵³ JLG noted that many large construction projects using JLG equipment were shut down for a period due to COVID-19, impacting demand for their MAE.⁵⁴

Figure II-1

Nonresidential construction spending: Monthly, billions of dollars, seasonally adjusted annual rate, January 2018 to June 2021



Source: U.S. Census Bureau, Total Construction Spending: Nonresidential (TLNRESCONS), retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/TLNRESCONS>, September 23, 2021.

⁵³ The National Bureau of Economic Research (“NBER”) reported that the United States entered a recession in February 2020 and reached the trough in April 2020. “Determination of the February 2020 Peak in US Economic Activity,” NBER, (June 8, 2020), <https://www.nber.org/news/business-cycle-dating-committee-announcement-june-8-2020> and “Determination of the April 2020 Trough in US Economic Activity,” NBER, (July 19, 2021), <https://www.nber.org/news/business-cycle-dating-committee-announcement-july-19-2021>, retrieved September 24, 2021.

⁵⁴ Hearing transcript, p. 51 (Morris).

Most firms reported either increasing or fluctuating demand in the United States since January 1, 2018. Demand for end-use products was reported by four purchasers to be increasing, and by two to be either fluctuating or not changing (table II-5).⁵⁵ During the preliminary phase, both petitioner and respondents noted the effect of the COVID-19 pandemic on demand. U.S. producer JLG stated that while its facilities did not close due to the pandemic, “many large construction projects” using JLG’s MAE were shut down.⁵⁶ U.S. producer *** reported that customers are looking for innovations, and that outside of the United States, electric powered MAE are replacing engine powered products. Respondent Sinoboom argued that demand for MAE dropped “by over 60 percent” during the pandemic.⁵⁷ Respondent MEC added that there was a shift in demand for “dirt equipment” in 2019 due to an increase in U.S. infrastructure projects.⁵⁸

Table II-5
MAE: Count of firms’ responses regarding overall domestic and foreign demand

Market	Firm type	Increase	No change	Decrease	Fluctuate
Domestic demand	U.S. producers	***	***	***	***
Domestic demand	Importers	6	1	2	3
Domestic demand	Purchasers	6	0	0	5
Foreign demand	U.S. producers	***	***	***	***
Foreign demand	Importers	5	1	2	3
Foreign demand	Purchasers	2	1	0	3
Demand for end use products	Purchasers	4	2	0	2

Source: Compiled from data submitted in response to Commission questionnaires.

⁵⁵ Firms were asked separately about demand patterns for telehandlers, all other MAE, and all in-scope MAE. Purchasers’ responses were the same for the three categories, with the exception of one purchaser which noted declining end-use demand for telehandlers instead of increasing demand. Producers’ responses displayed the same pattern of either increasing or fluctuating demand, with more firms noting fluctuating than increasing demand for both telehandlers and all other MAE. Importers’ responses somewhat differed when splitting between the types of MAE. Two importers each noted fluctuating, decreasing, or unchanging demand for telehandlers compared with one importer noting increasing demand. For all other MAEs, four noted fluctuating demand, three decreased demand, two increased demand, and one unchanged demand in the United States. They reported in nearly the same manner for demand outside the United States.

⁵⁶ Conference transcript, p. 35 (Morris).

⁵⁷ Conference transcript, p. 152 (Kirschenmann).

⁵⁸ Respondent MEC’s postconference brief, p. 12.

Most U.S. producers (5 of 7) and some importers (5 of 15) reported changes in product mix since 2018.⁵⁹ *** generally noted that since 2018 height requirements are higher, run times are longer, and products have less emissions and safer features. *** reported that overall, the industry has not experienced a change in product mix other than incorporating the new ANSI standard, but noted that *** has had “significant changes” to its product range.⁶⁰ *** also reported a new class of scissor lifts (***) while its *** were discontinued. U.S. producer *** also reported changes to its individual line, a ***. Importer *** added that the ANSI standards have caused some changes in designs.

Substitute products

Firms were asked about the existence of possible substitutes for telehandlers and for all other MAE. Two of 5 responding U.S. producers, 5 of 11 responding importers, and 3 of 10 responding purchasers noted that there are substitutes for telehandlers. Two of 7 responding U.S. producers, 4 of 14 responding importers, and 2 of 11 responding purchasers noted that there are substitutes for all other MAE. The majority of the firms noting the existence of substitutes were ***, which indicated that telehandlers and scissor lifts/boom lifts are substitutes for each other. In addition, importers *** reported that cranes of various types, rough terrain forklifts, and vertical mast forklifts are substitutes for telehandlers. Importer *** reported that straight mast forklifts and mobile construction cranes are substitutes for telehandlers, but noted that both substitutes have restrictions.⁶¹ Importer *** reported that cranes, truck-mounted platforms, and telehandlers (in rare instances) are substitutes for all other MAE. Importer *** also reported that telehandlers with work platform attachments can be substitutes for other MAE, but the attachment requires more labor to operate and are restricted from moving while workers are on the platform. Purchaser *** stated industrial forklifts could substitute for telehandlers, and purchaser *** stated cranes, rotating telehandlers, and straight mast forklifts could do so

⁵⁹ Four of each responding firm type were *** firms.

⁶⁰ These changes include ***.

⁶¹ *** added that straight mast forklifts have “limited working range and poor all-terrain performance” and that mobile construction cranes have “significantly higher market prices” and are designed for high-capacity lifting.

in order to lift materials. Purchaser *** noted that ladders, scaffolding, and access platforms could substitute for all other MAE for lifting people and working at height.

Substitutability issues

This section will assess the degree to which U.S.-produced MAE and imports of MAE from China can be substituted for one another by examining the importance of certain purchasing factors and the comparability of MAE from domestic and imported sources based on those factors. Based on available data, staff believes that there is a moderate-to-high degree of substitutability between domestically produced MAE and MAE imported from China.⁶² Firms' responses varied regarding the significance of differences other than price between MAE produced in the United States and China. Firms also reported differing lead times and availability due to the types of shipments (made-to-order versus shipments from inventory) which may somewhat limit the substitutability between domestic and Chinese MAE. Some differences may also have occurred earlier in the period with respect to differing options on equipment.

Factors affecting purchasing decisions

Purchaser decisions based on source

As shown in table II-6, a majority of purchasers and half of their customers never make purchasing decisions based on the country of origin of MAE, although two purchasers always base their decision using country of origin. In contrast, most purchasers usually or sometimes base their purchasing decisions on the producer of the equipment. Purchasers' customers were reported to act similarly, though two fewer usually bought based on the producer than the purchasers, and one additional purchaser noted its customers never make decisions based on the producer.⁶³ Purchasers or their customers basing decisions on the firm noted availability, being a competitor with domestic sources, brand familiarity/recognition, cost of repairs, perceived brand quality, a preference to buy from U.S. companies, product differentiation, a regional preference for a certain manufacturer, and the ability to purchase from a company

⁶² The degree of substitution between domestic and imported MAE depends upon the extent of product differentiation between the domestic and imported products and reflects how easily purchasers can switch from domestically produced MAE to the MAE imported from China (or vice versa) when prices change. The degree of substitution may include such factors as relative prices (discounts/rebates), quality differences (e.g., grade standards, defect rates, etc.), and differences in sales conditions (e.g., lead times between order and delivery dates, reliability of supply, product services, etc.).

⁶³ *** reported its customers "never" make purchasing decision based on producer ***.

that allows the purchaser to brand it as its own for resale.⁶⁴ One purchaser, ***, stated that it prefers buying domestically because of parts and technical support. Purchaser *** noted that some government contracts require purchasing domestic MAE.

Table II-6
MAE: Count of purchasing decisions by purchaser or their customer, based on producer and country of origin

Firm making decision	Decision based on	Always	Usually	Sometimes	Never
Purchaser	Producer	1	4	4	2
Customer	Producer	0	2	4	3
Purchaser	Country	2	0	3	6
Customer	Country	0	1	3	4

Source: Compiled from data submitted in response to Commission questionnaires.

Importance of purchasing domestic product

Nine of 12 purchasers of MAE reported that none of their purchases required purchasing U.S.-produced product. Two reported that domestic product was required by law, and one reported it was required by their customers. *** noted it was required by law for 50 percent of its purchases, and required by customers for 40 percent of its purchases. *** reported it was required for 1 percent of its purchases. In total, domestic requirements applied to 0.5 percent of reported purchases, and customer requirements applied to less than 0.1 percent.

Most important purchase factors

Purchasers were asked to list the top three factors they consider in the purchase of MAE, but they could report more factors if needed. Nearly half of responding purchasers did so. The most often cited top three factors firms consider in their purchasing decisions for MAE were availability factors (13 firms), quality factors (11 firms), and initial price or cost (10 firms) as shown in table II-7. Price and quality factors were the most frequently cited first-most important factor (cited by four firms each), followed by total cost of ownership (two firms); availability factors were the most frequently reported second-most and third-most important factor (seven and four firms, respectively).

⁶⁴ Two purchasers noted that customers will “very rarely” request a particular producer’s MAE. One indicated “never” from the options provided, and one did not select any of the options. *** did not select from the options provided, but noted that they ***.

Table II-7

MAE: Count of ranking of factors used in purchasing decisions as reported by U.S. purchasers, by factor

Factor	First	Second	Third	Other	Total
Availability/lead time/delivery	1	7	4	1	13
Quality/reliability/meet new ANSI standards	4	3	1	3	11
Initial price/cost	4	2	3	1	10
Total cost of ownership/resale value	2	1	0	1	4
Support – technical, lifecycle, parts availability	1	0	3	0	4
Contract terms	1	0	0	2	3
Made in the United States	1	0	0	0	1
All other factors	0	0	2	1	4

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Total cost of ownership was noted by purchasers as including purchase price, repair and maintenance cost, parts cost and availability, and residual values.

Note: Contract terms includes the ability for the purchaser to use its name as the brand name, payment terms, contract length, marketing allowances, and trade allowances.

Note: Other factors include brand, functionality, and options available.

The majority of purchasers (7 of 11 for telehandlers and 7 of 12 for all other MAE) reported that they “sometimes” purchase the lowest-priced product. *** was the only firm that reported that it “always” purchases the lowest-priced product, whereas *** was the firm that noted it “never” purchases the product priced lowest.

Importance of specified purchase factors

Purchasers were asked to rate the importance of 16 factors in their purchasing decisions (table II-8). The factors most frequently rated as very important were quality factors: quality meets industry standards (12 purchasers), ANSI-compliant and product consistency (11 purchasers each). Other factors rated as very important by more than half of responding purchasers were availability, delivery time, price, and reliability of supply (10 purchasers each), technical support/service (9 purchasers), and quality exceeds industry standards (8 purchasers).

Table II-8**MAE: Count of importance of purchase factors, as reported by U.S. purchasers, by factor**

Factor	Very important	Somewhat important	Not important
Quality meets industry standards	12	1	0
ANSI-compliant	11	2	0
Product consistency	11	2	0
Availability	10	3	0
Delivery time	10	3	0
Price	10	3	0
Reliability of supply	10	3	0
Technical support/service	9	4	0
Quality exceeds industry standards	8	5	0
U.S. transportation costs	6	7	0
Product range	6	5	1
Discounts offered	5	8	0
Delivery terms	5	7	1
Payment terms	3	9	1
Minimum quantity requirements	1	4	7
Packaging	0	2	10

Source: Compiled from data submitted in response to Commission questionnaires.

Lead times

Roughly *** of domestic MAE is manufactured on a produced-to-order basis, with lead times averaging four-and-a-half months. The remainder is sold out of inventory with an average lead time of eight days. In contrast, 75.9 percent of imported MAE from China is sold out of U.S. inventory, with 4.4 percent sold out of foreign inventories and 19.7 percent produced-to-order. Importers' lead times averaged 8 days for shipments from inventory, 70 days out of foreign inventories, and 94 days if produced-to-order. During the preliminary phase, Chinese respondents argued that differences in lead times between domestic and Chinese MAE were significant and were an important non-price factor in purchasers' decisions.⁶⁵ Chinese respondents emphasized that smaller "mom and pop" companies have "immediate needs" that U.S. producers are unable to meet.⁶⁶

⁶⁵ Chinese respondents' postconference brief, pp. 23-27.

⁶⁶ Chinese respondents' postconference brief, pp. 25-27.

Supplier certification

Three of 12 purchasers of telehandlers require certification of their suppliers, and 4 of 12 purchasers of all other MAE require it. The three requiring both are ***, which will typically perform internal testing, may include demo units, and were reported by *** to take several months. ***. ***. One purchaser (***) reported that some products were not selected due to quality issues, but did not state which products.

Minimum quality specifications

As can be seen from table II-9, seven responding purchasers reported that domestically produced product always met minimum quality specifications, and five reported that they usually meet minimum quality specifications. Five responding purchasers reported that the MAE imported from China always met minimum quality specifications, compared with three that indicated they usually do and two (***) that noted they sometimes do. Purchasers' responses regarding nonsubject imports from Canada were evenly split between always and usually, but only one purchaser (***) reported that nonsubject imports of MAE from Mexico always met minimum quality specifications.

Table II-9
MAE: Count of firms' responses regarding suppliers' ability to meet minimum quality specifications, by source

Source of purchases	Always	Usually	Sometimes	Rarely or never
United States	7	5	0	0
China	5	3	2	0
Canada	5	5	0	0
Mexico	1	3	0	0
Nonsubject sources	2	1	2	0

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Purchasers were asked how often domestically produced or imported MAE meets minimum quality specifications for their own or their customers' uses.

Eleven responding purchasers reported factors which they considered determined quality. Some reported general factors like reliability, downtime, ease of operation, ease of repair/maintenance, ease of use from a rental standpoint, feedback on performance in the field, level of support, product consistency, total cost of ownership, and training. Other purchasers reported physical qualities such as an absence of hydraulic leaks, meeting applicable standards, name brand componentry, a quality OEM engine manufacturer, a quality OEM axle manufacturer, quality of paint, robust structural build quality, and a well-designed electrical and hydraulic systems.

Changes in purchasing patterns

Purchasers were asked about changes in their purchasing patterns from different sources since 2018 (table II-10). Equal numbers of purchasers increased, decreased, or did not change their level of purchases from domestic sources, but a majority noted increasing purchases from China. Purchaser *** noted an overall decrease in fleet purchases, particularly in 2020 due to COVID-19, and it *** its customers demanded models equipped with an innovative hydraulic leak protection option that was only available on MAE manufactured in China. *** decreased its purchases from the United States due to COVID-19, and *** decreased its purchases from China and other nonsubject countries for the same reason. *** increased purchases from China because of a new manufacturer. *** increased its purchases from the United States and nonsubject sources due to company growth, its purchases from China due to availability in its local area, and decreased its purchases from Canada due to long lead times and quality control issues. *** purchases fluctuated due to COVID-19. *** was a startup company in 2019 so it increased its purchases from the United States, China, and Canada. Purchaser *** reported increased purchases from other nonsubject countries and marginally increased purchases from China, along with decreased purchases from the United States and Mexico due to availability issues. Finally, *** increased its purchases from China of ***.

Table II-10

MAE: Count of changes in purchase patterns from U.S., subject, and nonsubject countries

Source of purchases	Increased	Constant	Decreased	Fluctuated	Did not purchase
United States	3	3	3	1	3
China	5	1	1	1	2
Canada	1	2	3	1	4
Mexico	0	0	1	1	8
Nonsubject sources	3	0	1	1	5
Sources unknown	0	0	0	0	9

Source: Compiled from data submitted in response to Commission questionnaires.

Four of 13 responding purchasers reported that they had changed suppliers since January 1, 2018. Specifically, *** was dropped by *** due to high cost and frequent repairs. *** added suppliers due to increasing market share.

Purchase factor comparisons of domestic products, subject imports, and nonsubject imports

Purchasers were asked a number of questions comparing MAE produced in the United States, China, and nonsubject countries. First, purchasers were asked for a country-by-country comparison on the same 16 factors (table II-11) for which they were asked to rate the importance. A majority of purchasers reported that domestic MAE and MAE imported from China were comparable across most of the factors. A plurality considered them comparable on price, and a majority of purchasers indicated that domestic MAE were superior with respect to product range. Product range was considered a very important factor by half of responding purchasers.

A large majority of purchasers reported that U.S. and nonsubject MAE were comparable on all factors in comparisons with Canada, Mexico, and other nonsubject sources. Six purchasers compared MAE from China with that from Canada, Mexico, and other nonsubject countries, though all purchasers did not offer comparisons on all factors. The majority of purchasers rated MAE from China comparable to those from each nonsubject source except for rating China superior to Mexico and other nonsubject sources on price.

Table II-11**MAE: Count of purchasers' responses comparing U.S.-produced and imported product**

Factor	Country pair	Superior	Comparable	Inferior
Quality meets industry standards	U.S. vs China	3	9	0
ANSI compliant	U.S. vs China	2	10	0
Product consistency	U.S. vs China	3	9	0
Availability	U.S. vs China	2	7	3
Delivery time	U.S. vs China	4	6	1
Price	U.S. vs China	1	6	5
Reliability of supply	U.S. vs China	2	9	1
Technical support/service	U.S. vs China	5	6	1
Quality exceeds industry standards	U.S. vs China	3	9	0
U.S. transportation costs	U.S. vs China	2	10	0
Product range	U.S. vs China	7	5	0
Discounts offered	U.S. vs China	1	8	2
Delivery terms	U.S. vs China	3	9	0
Payment terms	U.S. vs China	2	10	0
Minimum quantity requirements	U.S. vs China	2	9	1
Packaging	U.S. vs China	1	10	0

Table continued.

Table II-11 Continued**MAE: Count of purchasers' responses comparing U.S.-produced and imported product**

Factor	Country pair	Superior	Comparable	Inferior
Quality meets industry standards	U.S. vs Canada	1	9	0
ANSI compliant	U.S. vs Canada	0	10	0
Product consistency	U.S. vs Canada	1	9	0
Availability	U.S. vs Canada	1	9	0
Delivery time	U.S. vs Canada	1	8	0
Price	U.S. vs Canada	1	9	0
Reliability of supply	U.S. vs Canada	1	9	0
Technical support/service	U.S. vs Canada	1	9	0
Quality exceeds industry standards	U.S. vs Canada	1	9	0
U.S. transportation costs	U.S. vs Canada	1	9	0
Product range	U.S. vs Canada	2	8	0
Discounts offered	U.S. vs Canada	1	8	0
Delivery terms	U.S. vs Canada	1	9	0
Payment terms	U.S. vs Canada	1	9	0
Minimum quantity requirements	U.S. vs Canada	1	9	0
Packaging	U.S. vs Canada	0	9	0

Table continued.

Table II-11 Continued**MAE: Count of purchasers' responses comparing U.S.-produced and imported product**

Factor	Country pair	Superior	Comparable	Inferior
Quality meets industry standards	U.S. vs Mexico	0	3	0
ANSI compliant	U.S. vs Mexico	0	3	0
Product consistency	U.S. vs Mexico	0	3	0
Availability	U.S. vs Mexico	0	3	0
Delivery time	U.S. vs Mexico	0	3	0
Price	U.S. vs Mexico	0	3	0
Reliability of supply	U.S. vs Mexico	0	3	0
Technical support/service	U.S. vs Mexico	0	3	0
Quality exceeds industry standards	U.S. vs Mexico	0	3	0
U.S. transportation costs	U.S. vs Mexico	0	3	0
Product range	U.S. vs Mexico	0	3	0
Discounts offered	U.S. vs Mexico	0	3	0
Delivery terms	U.S. vs Mexico	0	3	0
Payment terms	U.S. vs Mexico	0	3	0
Minimum quantity requirements	U.S. vs Mexico	0	3	0
Packaging	U.S. vs Mexico	0	3	0

Table continued.

Table II-11 Continued**MAE: Count of purchasers' responses comparing U.S.-produced and imported product**

Factor	Country pair	Superior	Comparable	Inferior
Quality meets industry standards	U.S. vs Nonsubject sources	1	4	0
ANSI compliant	U.S. vs Nonsubject sources	1	5	0
Product consistency	U.S. vs Nonsubject sources	1	4	0
Availability	U.S. vs Nonsubject sources	0	5	0
Delivery time	U.S. vs Nonsubject sources	1	4	0
Price	U.S. vs Nonsubject sources	0	5	0
Reliability of supply	U.S. vs Nonsubject sources	0	5	0
Technical support/service	U.S. vs Nonsubject sources	2	4	0
Quality exceeds industry standards	U.S. vs Nonsubject sources	1	4	0
U.S. transportation costs	U.S. vs Nonsubject sources	0	5	0
Product range	U.S. vs Nonsubject sources	1	4	0
Discounts offered	U.S. vs Nonsubject sources	0	5	0
Delivery terms	U.S. vs Nonsubject sources	0	5	0
Payment terms	U.S. vs Nonsubject sources	0	5	0
Minimum quantity requirements	U.S. vs Nonsubject sources	0	5	0
Packaging	U.S. vs Nonsubject sources	0	5	0

Table continued.

Table II-11 Continued**MAE: Count of purchasers' responses comparing U.S.-produced and imported product**

Factor	Country pair	Superior	Comparable	Inferior
Quality meets industry standards	China vs Canada	1	7	0
ANSI compliant	China vs Canada	0	8	0
Product consistency	China vs Canada	1	6	1
Availability	China vs Canada	2	6	0
Delivery time	China vs Canada	2	6	0
Price	China vs Canada	2	5	1
Reliability of supply	China vs Canada	1	7	0
Technical support/service	China vs Canada	0	7	1
Quality exceeds industry standards	China vs Canada	1	7	0
U.S. transportation costs	China vs Canada	0	7	1
Product range	China vs Canada	1	4	3
Discounts offered	China vs Canada	0	6	1
Delivery terms	China vs Canada	1	7	0
Payment terms	China vs Canada	0	8	0
Minimum quantity requirements	China vs Canada	0	8	0
Packaging	China vs Canada	1	7	0

Table continued.

Table II-11 Continued**MAE: Count of purchasers' responses comparing U.S.-produced and imported product**

Factor	Country pair	Superior	Comparable	Inferior
Quality meets industry standards	China vs Mexico	0	3	0
ANSI compliant	China vs Mexico	0	3	0
Product consistency	China vs Mexico	0	2	1
Availability	China vs Mexico	0	3	0
Delivery time	China vs Mexico	0	3	0
Price	China vs Mexico	2	0	1
Reliability of supply	China vs Mexico	0	3	0
Technical support/service	China vs Mexico	0	3	0
Quality exceeds industry standards	China vs Mexico	0	3	0
U.S. transportation costs	China vs Mexico	0	3	0
Product range	China vs Mexico	0	3	0
Discounts offered	China vs Mexico	0	2	1
Delivery terms	China vs Mexico	0	3	0
Payment terms	China vs Mexico	0	3	0
Minimum quantity requirements	China vs Mexico	0	3	0
Packaging	China vs Mexico	0	3	0

Table continued.

Table II-11 Continued**MAE: Count of purchasers' responses comparing U.S.-produced and imported product**

Factor	Country pair	Superior	Comparable	Inferior
Quality meets industry standards	China vs Nonsubject sources	0	3	0
ANSI compliant	China vs Nonsubject sources	0	3	0
Product consistency	China vs Nonsubject sources	0	3	0
Availability	China vs Nonsubject sources	0	3	0
Delivery time	China vs Nonsubject sources	0	3	0
Price	China vs Nonsubject sources	2	1	0
Reliability of supply	China vs Nonsubject sources	0	3	0
Technical support/service	China vs Nonsubject sources	0	3	0
Quality exceeds industry standards	China vs Nonsubject sources	0	3	0
U.S. transportation costs	China vs Nonsubject sources	0	3	0
Product range	China vs Nonsubject sources	0	3	0
Discounts offered	China vs Nonsubject sources	0	3	0
Delivery terms	China vs Nonsubject sources	0	3	0
Payment terms	China vs Nonsubject sources	0	3	0
Minimum quantity requirements	China vs Nonsubject sources	0	3	0
Packaging	China vs Nonsubject sources	0	3	0

Source: Compiled from data submitted in response to Commission questionnaires.

Note: A rating of superior means that price/U.S. transportation cost is generally lower. For example, if a firm reported "U.S. superior," it meant that the U.S. product was generally priced lower than the imported product.

Comparison of U.S.-produced and imported MAE

In order to determine whether U.S.-produced MAE can generally be used in the same applications as imports from China, Canada, and Mexico, U.S. producers, importers, and purchasers were asked separately whether telehandlers and all other MAE can always, frequently, sometimes, or never be used interchangeably. As shown in tables II-12 to II-17, all producers reported all telehandlers as "always" interchangeable, and all other MAE "frequently" or "always" interchangeable, regardless of source. Importers and purchasers noted less interchangeability, but nearly all firms still reported that all country pairs had at least frequent interchangeability for all other MAEs. However, for telehandlers, importers were more divided.⁶⁷

⁶⁷ Data in these tables include those of ***.

Table II-12**MAE: Count of U.S. producers reporting the interchangeability between telehandlers produced in the United States and in other countries, by country pair**

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. China	4	0	0	0
U.S. vs. Canada	4	0	0	0
U.S. vs. Mexico	4	0	0	0
U.S. vs. Other	4	0	0	0
China vs. Canada	4	0	0	0
China vs. Mexico	4	0	0	0
China vs. Other	4	0	0	0
Canada vs. Mexico	4	0	0	0
Canada vs. Other	4	0	0	0
Mexico vs. Other	4	0	0	0

Source: Compiled from data submitted in response to Commission questionnaires.

Table II-13**MAE: Count of U.S. producers reporting the interchangeability between all other MAE produced in the United States and in other countries, by country pair**

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. China	6	1	0	0
U.S. vs. Canada	6	1	0	0
U.S. vs. Mexico	6	0	0	0
U.S. vs. Other	6	1	0	0
China vs. Canada	6	1	0	0
China vs. Mexico	6	0	0	0
China vs. Other	6	1	0	0
Canada vs. Mexico	6	0	0	0
Canada vs. Other	6	1	0	0
Mexico vs. Other	6	1	0	0

Source: Compiled from data submitted in response to Commission questionnaires.

Importer *** noted that its response of “sometimes” relates to differences in standards. Adding to this point, importer *** noted that “The machines in the U.S. generally have a high-mounted boom, where the EU machines have a low-mounted boom. There are functional differences between these two design strategies that make them more suitable for how their home market uses the equipment. Depending on which market (U.S. vs. EU) the machine was designed for has more to do with interchangeability than the actual country of origin. There are also regulatory compliance concerns...” Importer *** also reported differing national design standards for the U.S. and Canadian markets compared to other countries, noting that national design standards limit interchangeability for country pairings of

U.S. and Canada with China and other countries.⁶⁸ Purchaser *** was not aware of any instances where they would not be interchangeable, though customers may request a specific brand.

Table II-14
MAE: Count of importers reporting the interchangeability between telehandlers produced in the United States and in other countries, by country pair

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. China	3	0	2	1
U.S. vs. Canada	3	3	0	1
U.S. vs. Mexico	3	3	0	1
U.S. vs. Other	3	0	4	1
China vs. Canada	3	0	3	1
China vs. Mexico	3	0	3	1
China vs. Other	3	0	3	1
Canada vs. Mexico	3	3	0	1
Canada vs. Other	3	0	3	1
Mexico vs. Other	3	0	2	1

Source: Compiled from data submitted in response to Commission questionnaires.

Table II-15
MAE: Count of importers reporting the interchangeability between all other MAE produced in the United States and in other countries, by country pair

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. China	4	4	3	0
U.S. vs. Canada	5	4	0	0
U.S. vs. Mexico	4	5	0	0
U.S. vs. Other	5	3	2	0
China vs. Canada	4	3	2	0
China vs. Mexico	4	4	1	0
China vs. Other	4	4	1	0
Canada vs. Mexico	5	4	0	0
Canada vs. Other	5	3	1	0
Mexico vs. Other	4	5	0	0

Source: Compiled from data submitted in response to Commission questionnaires.

⁶⁸ It also added that U.S. and Canadian telehandlers cannot operate in other countries where “ULSD fuel” is not available.

Table II-16**MAE: Count of purchasers reporting the interchangeability between telehandlers produced in the United States and in other countries, by country pair**

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. China	3	2	0	0
U.S. vs. Canada	7	2	1	0
U.S. vs. Mexico	3	1	0	0
U.S. vs. Other	5	2	0	0
China vs. Canada	3	2	0	0
China vs. Mexico	3	1	0	0
China vs. Other	3	1	0	0
Canada vs. Mexico	3	1	0	0
Canada vs. Other	5	1	0	0
Mexico vs. Other	3	1	0	0

Source: Compiled from data submitted in response to Commission questionnaires.

Table II-17**MAE: Count of purchasers reporting the interchangeability between all other MAE produced in the United States and in other countries, by country pair**

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. China	5	4	2	0
U.S. vs. Canada	5	4	2	0
U.S. vs. Mexico	3	1	1	0
U.S. vs. Other	5	2	1	0
China vs. Canada	5	2	3	0
China vs. Mexico	3	1	1	0
China vs. Other	5	2	1	0
Canada vs. Mexico	3	1	1	0
Canada vs. Other	5	2	1	0
Mexico vs. Other	4	1	1	0

Source: Compiled from data submitted in response to Commission questionnaires.

In addition, U.S. producers, importers, and purchasers were asked to assess how often differences other than price were significant in sales of telehandlers and all other MAE from the United States, subject, or nonsubject countries. As seen in tables II-18 to II-23, responses were mixed.⁶⁹ *** noted that technical support should always be a factor, but recent prices are so low that customers have been “willing to overlook technical and after sales support.” Producer *** noted that quality and availability are critical purchasing factors that typically eclipse price. ***. Importer *** noted two factors for telehandlers: regulatory compliance and market expectations for factors such as comfort, operation, reliability, and quality. As a result, it reported, this impacts customer acceptance and interchangeability between U.S. market MAE and European market MAE. Importer *** noted that Chinese-origin telehandlers are generally designed to European standards, restricting marketability in North America. *** stated that availability, quality, after-sales service, parts, and training are always important, but also pointed to its patented innovations and safety features. *** noted that there are lower lead times associated with Chinese-origin MAE.

Purchaser *** noted that quality between domestic and foreign MAE does not differ materially, but technical support and product range is better with U.S. producers. Availability has been “a challenge for all manufacturers” and “differs by manufacturers across all product lines.” Purchaser *** stated that parts availability and technical support differ, so it always buys domestic MAE. Purchaser *** makes its decision on many factors, regardless of country of origin. Purchaser *** stated that availability, support, and options such as Leak Guard⁷⁰ are important factors other than price.

⁶⁹ Data in these tables include those of ***.

⁷⁰ A Leak Guard functions to prevent hydraulic oil leaks in scissor lifts from dripping onto the floor.

Table II-18**MAE: Count of U.S. producers reporting the significance of differences other than price between telehandlers produced in the United States and in other countries, by country pair**

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. China	1	1	0	2
U.S. vs. Canada	1	0	1	2
U.S. vs. Mexico	1	0	1	2
U.S. vs. Other	1	0	1	2
China vs. Canada	1	0	1	2
China vs. Mexico	1	0	1	2
China vs. Other	1	0	1	2
Canada vs. Mexico	1	0	1	2
Canada vs. Other	1	0	1	2
Mexico vs. Other	1	0	1	2

Source: Compiled from data submitted in response to Commission questionnaires.

Table II-19**MAE: Count of U.S. producers reporting the significance of differences other than price between all other MAE produced in the United States and in other countries, by country pair**

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. China	2	2	1	2
U.S. vs. Canada	2	1	2	2
U.S. vs. Mexico	2	0	2	2
U.S. vs. Other	2	2	1	2
China vs. Canada	2	1	2	2
China vs. Mexico	2	0	2	2
China vs. Other	2	2	1	2
Canada vs. Mexico	2	0	2	2
Canada vs. Other	2	2	1	2
Mexico vs. Other	2	2	1	2

Source: Compiled from data submitted in response to Commission questionnaires.

Table II-20**MAE: Count of importers reporting the significance of differences other than price between telehandlers produced in the United States and in other countries, by country pair**

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. China	0	3	1	3
U.S. vs. Canada	0	0	4	3
U.S. vs. Mexico	0	0	3	3
U.S. vs. Other	0	1	2	3
China vs. Canada	0	2	2	3
China vs. Mexico	0	1	2	3
China vs. Other	0	1	2	3
Canada vs. Mexico	0	1	2	3
Canada vs. Other	0	2	2	3
Mexico vs. Other	0	1	2	3

Source: Compiled from data submitted in response to Commission questionnaires.

Table II-21**MAE: Count of importers reporting the significance of differences other than price between all other MAE produced in the United States and in other countries, by country pair**

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. China	1	4	5	2
U.S. vs. Canada	1	1	4	4
U.S. vs. Mexico	1	1	4	3
U.S. vs. Other	1	1	4	3
China vs. Canada	1	3	4	2
China vs. Mexico	1	2	4	2
China vs. Other	1	2	4	2
Canada vs. Mexico	1	1	4	3
Canada vs. Other	1	1	5	3
Mexico vs. Other	1	1	4	3

Source: Compiled from data submitted in response to Commission questionnaires.

Table II-22**MAE: Count of purchasers reporting the significance of differences other than price between telehandlers produced in the United States and in other countries, by country pair**

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. China	3	0	0	2
U.S. vs. Canada	2	1	3	4
U.S. vs. Mexico	2	0	0	2
U.S. vs. Other	2	1	1	3
China vs. Canada	2	0	1	3
China vs. Mexico	2	0	0	2
China vs. Other	2	0	1	3
Canada vs. Mexico	2	0	0	2
Canada vs. Other	2	0	1	3
Mexico vs. Other	2	0	0	3

Source: Compiled from data submitted in response to Commission questionnaires.

Table II-23**MAE: Count of purchasers reporting the significance of differences other than price between all other MAE produced in the United States and in other countries, by country pair**

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. China	4	2	3	2
U.S. vs. Canada	3	1	3	4
U.S. vs. Mexico	3	0	0	2
U.S. vs. Other	3	1	1	2
China vs. Canada	3	0	3	2
China vs. Mexico	3	0	0	2
China vs. Other	3	0	1	2
Canada vs. Mexico	3	0	0	2
Canada vs. Other	3	0	1	2
Mexico vs. Other	3	0	0	2

Source: Compiled from data submitted in response to Commission questionnaires.

Elasticity estimates

This section discusses elasticity estimates; parties were encouraged to comment on these estimates in their prehearing or posthearing brief. Economists for petitioner used the provided staff estimates of the elasticities in their analysis of the MAE market.⁷¹

⁷¹ Petitioner's prehearing brief, exh 1, p. 37.

U.S. supply elasticity

The domestic supply elasticity for MAE measures the sensitivity of the quantity supplied by U.S. producers to changes in the U.S. market price of MAE. The elasticity of domestic supply depends on several factors including the level of excess capacity, the ease with which producers can alter capacity, producers' ability to shift to production of other products, the existence of inventories, and the availability of alternate markets for U.S.-produced MAE. Analysis of these factors above indicates that the U.S. industry has the ability to greatly increase or decrease shipments to the U.S. market if there are no supply chain issues; an estimate in the range of 4 to 7 is suggested.

U.S. demand elasticity

The U.S. demand elasticity for MAE measures the sensitivity of the overall quantity demanded to a change in the U.S. market price of MAE. This estimate depends on factors discussed above such as the existence, availability, and commercial viability of substitute products, as well as the component share of the MAE in the production of any downstream products. Since MAE are capital goods able to be repaired or refurbished, firms may be able to push out their purchases due to pricing. Based on the available information, the aggregate demand for MAE is likely to be moderately to highly inelastic; a range of -0.25 to -0.75 is suggested.

Substitution elasticity

The elasticity of substitution depends upon the extent of product differentiation between the domestic and imported products.⁷² Product differentiation, in turn, depends upon such factors as quality (e.g., components, appearance, reliability, etc.) and conditions of sale (e.g., availability, sales terms/discounts/promotions, etc.). While there are some differences in types or features of MAE, all must meet the ANSI standards. There are sometimes preferences for based on brand or manufacturer, and differing lead times may play a role in purchaser choice. Overall, however, MAE from the U.S. and China are comparable on most factors. Based on available information, the elasticity of substitution between U.S.-produced MAE and imported MAE is likely to be in the range of 3 to 6.

⁷² The substitution elasticity measures the responsiveness of the relative U.S. consumption levels of the subject imports and the domestic like products to changes in their relative prices. This reflects how easily purchasers switch from the U.S. product to the subject products (or vice versa) when prices change.

Part III: U.S. producers' production, shipments, and employment

The Commission analyzes a number of factors in making injury determinations (see 19 U.S.C. §§ 1677(7)(B) and 1677(7)(C)). Information on the subsidies and dumping margins was presented in Part I of this report and information on the volume and pricing of imports of the subject merchandise is presented in Part IV and Part V. Information on the other factors specified is presented in this section and/or Part VI and (except as noted) is based on the questionnaire responses of eight firms that accounted for the vast majority of U.S. production of MAE during 2020.

The Commission issued a U.S. producer questionnaire to 14 firms based on information contained in the petitions and industry research.¹ Eight firms provided usable data on their operations.² ³ Staff believes that these responses represent the vast majority of U.S. production of MAE.

¹ The Commission issued questionnaires to: (1) California Manufacturing and Engineering Corp. ("MEC"); (2) Custom Equipment, LLC ("Custom Equipment"); (3) Global Machinery Group Inc. ("Global"); (4) Haulotte North America Manufacturing ("Haulotte"); (5) JCB Inc. ("JCB"); (6) JLG Industries, Inc. ("JLG"); (7) Lift-A-Loft Corporation ("Lift-a-Loft"); (8) Manitou North America ("Manitou"); (9) Niftylift Inc. ("Niftylift"); (10) Pettibone Traverse Lift, LLC ("Pettibone"); (11) Snorkel International, LLC ("Snorkel"); (12) Terex Corporation ("Terex"); (13) Teupen North America Inc. ("Teupen"); and (14) Xtreme Manufacturing ("Xtreme").

² The eight firms that provided useable data are Custom Equipment, Global, Haulotte, JLG, MEC, Pettibone, Snorkel, and Terex.

³ Of the other six firms, two (***) stated that they were not U.S. producers of MAE. The remaining four firms reported production of MAE during the period of investigation. However, the Commission did not receive complete data in time to include these firms into its full analysis. Based on the limited information received:

- *** reported production of *** shorts tons of MAE in 2020, accounting for *** percent of total U.S. production.
- *** reported production of *** short tons of MAE in 2020, accounting for *** percent of U.S. production.
- *** reported production of *** short tons of MAE in 2020, accounting for *** percent of U.S. production.
- ***.

Table III-1 lists U.S. producers of MAE, their production locations, positions on the petitions, and shares of total production.

Table III-1
MAE: U.S. producers, their position on the petitions, location of production, and share of reported production, 2020

Shares in percent

Firm	Position on CVD order	Position on AD order	Production location(s)	Share of production
Custom Equipment	***	***	Richfield, WI West Bend, WI	***
Global	***	***	San Luis Obispo, CA	***
Haulotte	***	***	Archbold, OH	***
JLG	***	***	McConnellsburg, PA Shippensburg, PA Bedford, PA Greencastle, PA	***
MEC	***	***	Kerman, CA	***
Pettibone	***	***	Baraga, MI	***
Snorkel	***	***	Elwood, KS	***
Terex	***	***	Redmond, WA Moses Lake, WA Oklahoma City, OK	***
All firms	Various	Various	Various	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table III-2 presents information on U.S. producers' ownership, related and/or affiliated firms. In addition to being U.S. producers, six of eight firms reported being a U.S. importer;^{4 5} and five of eight reported being related to a producer and/or importer/exporter of MAE.⁶ *** is a subsidiary of ***, a manufacturer of MAE in ***, who also has MAE subsidiaries in ***. *** is related to MAE producers in ***. *** is owned in part by ***, a producer and an exporter of MAE from China to United States. *** is related to MAE producers in ***. ***, which is related to MAE producers in ***, is partly owned by ***.

⁴ *** reported they had no related firms engaged in the manufacturing of MAE or engaged in the importation/exportation of MAE between China and the United States.

⁵ For further information see the section below on U.S. producers' imports.

⁶ Of the U.S. producers who also import MAE, *** reported ***.

Table III-3 presents U.S. producers' reported changes in operations since January 1, 2018. *** reported opening ***. *** reported plant closures. *** reported ***. *** also reported ***. Both *** reported *** in an effort to promote business efficiency.

The majority of firms reported *** as a result of the impact of the COVID-19 pandemic.⁷

⁷ For further information see the section below on the impact of the COVID-19 pandemic on U.S. producers' operations.

Table III-3
MAE: U.S. producers' reported changes in operations

Item	Firm name and accompanying narrative response
Plant openings	***
Plant closings	***
Plant closings	***
Relocations	***
Relocations	***
Consolidations	***
Prolonged shutdowns or curtailments	***
Prolonged shutdowns or curtailments	***
Prolonged shutdowns or curtailments	***
Prolonged shutdowns or curtailments	***
Prolonged shutdowns or curtailments	***
Prolonged shutdowns or curtailments	***
Other	***
Other	***

Source: Compiled from data submitted in response to Commission questionnaires.

Impact of the COVID-19 pandemic

In the current proceeding, U.S. producers were asked to discuss the impact of the COVID-19 pandemic on their firms' supply chain arrangements, production, shipments, and employment relating to MAE. Moreover, U.S. producers were asked to discuss whether they had experienced any reversal (partial or full) of the adverse impact of the COVID-19 pandemic on their MAE operations. Table III-4 and table III-5 present U.S. producers' responses, respectively.

Several U.S. producers reported that they were not required to stop their operations as a result of the COVID-19 pandemic, as construction machinery manufacturers were deemed essential businesses by many local governments. However, lower demand for MAE by construction companies, whose projects were either delayed or terminated due to the pandemic, had a negative impact on U.S. producers. As U.S. producers lowered supply to meet decreasing demand, they were forced to reduce employee hours, issue furloughs, cut staff, and close plants for extended periods of time. Some U.S. producers, however, reported benefiting from the Small Business Administration's ("SBA") Paycheck Protection Program ("PPP"), which provided loans to firms to continue paying their workers.

At the onset of the pandemic, U.S. producers were also hampered by supply chain issues. Due to the shutdown of many manufacturing plants around the world and the closure of some ports, there was a shortage of MAE parts in the global market. Without these parts to produce complete MAE, firms had an increasing number of order delays.

In terms of recovery, the majority of U.S. producers reported a partial reversal on their MAE operations starting around the first and second quarters of 2021—as vaccines rolled out and the opening economy led to an increase in demand. Factors hampering a full recovery include continued supply chain issues and labor shortages, rising material costs, increasing competition from Chinese imports of MAE, and new COVID-19 variants.

Table III-4

MAE: U.S. producers' narratives regarding impact of COVID-19

Firm	Narrative response
Custom Equipment	***
Global	***
Haulotte	***
JLG	***
MEC	***
Pettibone	***
Snorkel	***
Terex	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table III-5
MAE: U.S. producers' narratives regarding COVID-19 reversal

Firm	Narrative response
Custom Equipment	***
Global	***
Haulotte	***
JLG	***
MEC	***
Pettibone	***
Snorkel	***
Terex	***

Source: Compiled from data submitted in response to Commission questionnaires.

Sufficient production-related activities

As discussed in Part I of this report, the domestic like product proposed by Petitioner includes intermediate products (“MAE subassemblies”), as well as downstream products (“complete MAE”).⁸ As a result, U.S. producers were asked to describe in detail their firms’ operations with respect to MAE subassemblies (either domestic or imported) in the production of complete MAE in the United States (e.g., explain the process for producing and transforming MAE subassemblies into complete MAE).

U.S. producers were asked to quantify their view as to the complexity, intensity, and importance of converting activities as they related to transforming MAE subassemblies into complete MAE. Table III-6 presents the firms’ ratings. The majority of firms were in the middle, while only three firms found the process of converting MAE subassemblies into complete MAE extremely complex, intense, and important.

Table III-6
MAE: Count of U.S. producers' rating complexity of finishing operations

Count of number of firms reporting

	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
Haulotte	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All producers	0	0	5	0	3

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Ratings are on a scale of 1-5 with 1 being the least complex and 5 the most.

⁸ Subject MAE subassemblies include, but are not limited to, scissor arm assemblies, boom assemblies, chassis subassemblies, and boom turntable subassemblies. Subject complete MAE consists primarily of telehandlers, scissor lifts, and boom lifts. See the section entitled “The subject merchandise” in Part I of this report for a complete description of the merchandise subject in this proceeding.

U.S. producers were further asked to provide information on the six factors relevant to the sufficient production-related activities analysis that the Commission routinely undertakes. Table III-7 provides information on firms' domestic production-related activities.⁹

Table III-7
MAE: U.S. producers' data for sufficient production related activities by firm and SPRA factors, since January 1, 2018

Firm	Capital investments (Value in 1,000 dollars)	Technical expertise (Value in 1,000 dollars)	Value added (percent)	Employment (number of production related workers)	Quantity, type and source of parts (Value in 1,000 dollars)
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
Haulotte	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Capital investments are the range of capital expenditures reported from 2018-2020. Technical expertise is the range of aggregate annual research and development expenses reported from 2018-2020. Value added data are the range of aggregate annual total conversion costs divided by total COGS percentages reported from 2018-2020. Employment data are aggregate annual production and related workers (PRWs) range from 2018-2020. Quantity, type, and source of parts data are the aggregate annual domestic raw materials costs for 2018-2020 (see table G-22 for more detail). ***. ***.

⁹ Further information on firms' domestic production activities is presented in appendix G.

U.S. production, capacity, and capacity utilization

Table III-8 and figure III-1 present U.S. producers' capacity, production, and capacity utilization for MAE. Capacity decreased *** percent during the period of investigation, from *** short tons in 2018 to *** short tons in 2020. The decline is largely attributable to ***, which decreased capacity by *** short tons during 2018-20.¹⁰ However, it was partly offset by ***, which increased capacity by *** short tons during the same period. Production decreased by *** percent from 2018 to 2019 and continued to decline by *** percent from 2019 to 2020, decreasing overall by *** percent during 2018-20. Since production declines far outpaced capacity declines, capacity utilization dropped. In 2018, capacity utilization was at *** percent; it then decreased to *** percent in 2019 and *** percent in 2020, declining a total of *** percentage points during 2018-20.

Capacity, production, and capacity utilization were higher during January–June 2021 than during January–June 2020.¹¹

¹⁰ *** reported ***.

¹¹ Several U.S. producers reported partial recovery from the impact of the COVID-19 pandemic on their MAE operations during the first and second quarters of 2021. For more information, see the section on the impact of the COVID-19 pandemic on U.S. producers in this report.

Table III-8
MAE: U.S. producers' capacity, by firm and by period

Capacity in short tons

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
Haulotte	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table III-8 Continued
MAE: U.S. producers' production, by firm and by period

Production in short tons

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
Haulotte	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table III-8 Continued
MAE: U.S. producers' capacity utilization ratio, by firm and by period

Capacity utilization ratios in percent

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
Haulotte	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table III-8 Continued
MAE: U.S. producers' share of production, by firm and by period

Share of production in percent

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
Haulotte	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	100.0	100.0	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

Figure III-1
MAE: U.S. producers' capacity, production, and capacity utilization, by period

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Production on the same equipment

U.S. producers were asked to report their overall capacity and production on the same equipment as subject production.¹² Table III-9 presents U.S. producers' responses. In general, *** MAE produced by U.S. producers is manufactured from ***, but the share of production using imported subassemblies rose over the period for which data were collected. *** reported production of alternative products.¹³

¹² In this proceeding, U.S. producers were asked to report their firm's U.S. shipments by two product types: (1) a "complete MAE," meaning a finished, fully assembled MAE; and (2) an "MAE subassembly," meaning an in-scope subassembly of an MAE as defined by the product scope, including chassis, booms, boom turntables, and scissor arms. According to JLG, there is no real market for subassemblies outside of taking those subassemblies to produce a finished MAE. Conference transcript, pp. 70-71 (Morris)

All eight U.S. producers reported U.S. shipments of complete MAE during the period of investigations.

¹³ *** reported *** using the same equipment, machinery, or employees as used to produce MAE.

Table III-9**MAE: U.S. producers' overall capacity and production on the same equipment as subject production, by period**

Quantities in short tons; shares and ratios in percent

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Overall capacity	Quantity	***	***	***	***	***
MAE production from own subassemblies	Quantity	***	***	***	***	***
MAE production from domestic purchases	Quantity	***	***	***	***	***
MAE production from imported subject	Quantity	***	***	***	***	***
MAE production from imported nonsubject	Quantity	***	***	***	***	***
All MAE production	Quantity	***	***	***	***	***
Out-of-scope production	Quantity	***	***	***	***	***
Total production	Quantity	***	***	***	***	***
Overall capacity utilization	Ratio	***	***	***	***	***
MAE production from own subassemblies	Share	***	***	***	***	***
MAE production from domestic purchases	Share	***	***	***	***	***
MAE production from imported subject	Share	***	***	***	***	***
MAE production from imported nonsubject	Share	***	***	***	***	***
All MAE production	Share	***	***	***	***	***
Out-of-scope production	Share	***	***	***	***	***
Total production	Share	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

U.S. producers' U.S. shipments and exports

Table III-10 presents U.S. producers' U.S. shipments, export shipments, and total shipments. During 2018-20, U.S. producers' shipments ranged from *** percent to *** percent and export shipments ranged from *** percent to *** percent.¹⁴ Combined, total shipments decreased from *** short tons in 2018 to *** short tons in 2020, or a decline of *** percent. However, total shipments and U.S. shipments were higher during January–June 2021 than during January–June 2020.

The average unit value¹⁵ for U.S. shipments, export shipments, and total shipments increased *** percent, *** percent, and *** percent, respectively, during 2018-20. Average unit values for exports and total shipments were higher during January–June 2021 than in January–June 2020. By contrast, average unit values of U.S. shipments were lower in during January–June 2021 than in January–June 2020.

¹⁴ Export destinations include ***. *** accounted for ***.

¹⁵ Appendix H presents average unit values of complete MAE and MAE subassemblies as reported by U.S. producers and importers.

Table III-10
MAE: U.S. producers' shipments, by location of shipment and period

Quantity in short tons; value in 1,000 dollars; unit values in dollars per short ton; shares in percent

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
U.S. shipments	Quantity	***	***	***	***	***
Export shipments	Quantity	***	***	***	***	***
Total shipments	Quantity	***	***	***	***	***
U.S. shipments	Value	***	***	***	***	***
Export shipments	Value	***	***	***	***	***
Total shipments	Value	***	***	***	***	***
U.S. shipments	Unit value	***	***	***	***	***
Export shipments	Unit value	***	***	***	***	***
Total shipments	Unit value	***	***	***	***	***
U.S. shipments	Share of quantity	***	***	***	***	***
Export shipments	Share of quantity	***	***	***	***	***
Total shipments	Share of quantity	***	***	***	***	***
U.S. shipments	Share of value	***	***	***	***	***
Export shipments	Share of value	***	***	***	***	***
Total shipments	Share of value	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

Table III-11 presents U.S. producers' U.S. shipments by shipment type. *** reported internal consumption of MAE. Two firms, ***, reported transfers of MAE to related firms.¹⁶

¹⁶ ***. *** noted that ***, *** U.S. producer questionnaire at II-10 and II-14b. *** reported ***, *** U.S. importer questionnaire at II-15.

Table III-11
MAE: U.S. producers' U.S. shipments, by shipment type and by period

Quantity in short tons; value in 1,000 dollars; unit values in dollars per short ton; shares in percent

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Commercial U.S. shipments	Quantity	***	***	***	***	***
Internal consumption	Quantity	***	***	***	***	***
Transfers to related firms	Quantity	***	***	***	***	***
U.S. shipments	Quantity	***	***	***	***	***
Commercial U.S. shipments	Value	***	***	***	***	***
Internal consumption	Value	***	***	***	***	***
Transfers to related firms	Value	***	***	***	***	***
U.S. shipments	Value	***	***	***	***	***
Commercial U.S. shipments	Unit value	***	***	***	***	***
Internal consumption	Unit value	***	***	***	***	***
Transfers to related firms	Unit value	***	***	***	***	***
U.S. shipments	Unit value	***	***	***	***	***
Commercial U.S. shipments	Share of quantity	***	***	***	***	***
Internal consumption	Share of quantity	***	***	***	***	***
Transfers to related firms	Share of quantity	***	***	***	***	***
U.S. shipments	Share of quantity	***	***	***	***	***
Commercial U.S. shipments	Share of value	***	***	***	***	***
Internal consumption	Share of value	***	***	***	***	***
Transfers to related firms	Share of value	***	***	***	***	***
U.S. shipments	Share of value	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

As presented in table III-12, staff adjusted U.S. producers' U.S. shipments for use in apparent consumption to avoid double counting the quantity and value of imported MAE subassemblies contained in U.S. producers' U.S. shipments of complete MAE.

Table III-12
MAE: U.S. producers' U.S. shipments for use in apparent consumption by period

Quantity in short tons; value in 1,000 dollars

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
U.S. shipments	Quantity	***	***	***	***	***
U.S. shipments fully domestic	Value	***	***	***	***	***
U.S. shipments value added to imports	Value	***	***	***	***	***
U.S. shipments total	Value	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: The quantity for U.S. producers' U.S. shipments reflects the quantity sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies regardless of whether the MAE were sold as subassemblies or as complete units. The value for U.S. producers' U.S. shipments reflects the value sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies plus the additional value added to either U.S.-produced or imported subassemblies from domestic assembly operations. Fully domestic value includes the additional value added by domestic assembly operations on U.S.-produced subassemblies, while the value added to imports includes the additional value added by domestic assembly operations on imported subassemblies. In measuring consumption and market share this methodology avoids reclassifying and/or double counting merchandise already reported once by U.S. producers or by U.S. importers. The unit value of U.S. producers' U.S. shipments is based on the fully domestic value.

U.S. producers' inventories

Table III-13 presents U.S. producers' end-of-period inventories and the ratio of these inventories to U.S. producers' production, U.S. shipments, and total shipments. U.S. producers' inventories decreased irregularly over the period for which data were collected.¹⁷ Inventories increased from *** short tons in 2018 to *** short tons in 2019. They declined to *** short tons by the end of 2020, a decline of *** percent from 2018. By June 2021, inventories were at *** shorts tons, a decline of *** percent from June 2020.

Inventories and inventory ratios were at their peak, both in absolute and relative terms, at the end of the first interim period in June 2020.

Table III-13
MAE: U.S. producers' inventories and inventory ratios, by period

Quantity in short tons; inventory ratios in percent

Item	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
End-of-period inventory quantity	***	***	***	***	***
Inventory ratio to U.S. production	***	***	***	***	***
Inventory ratio to U.S. shipments	***	***	***	***	***
Inventory ratio to total shipments	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

¹⁷ *** accounted for ***. *** noted that ***. *** U.S. producer questionnaire, p. 51. *** noted that ***. *** U.S. producer questionnaire, pp. 49-50.

U.S. producers' purchases and imports¹⁸

Four U.S. producers reported purchases of MAE from China during the period for which data were collected. *** reported purchases of complete MAE,¹⁹ while *** reported purchases of MAE subassemblies.²⁰ Six of the eight U.S. producers reported importing MAE from subject and/or nonsubject sources during the period for which data were collected.²¹

Table III-14 through table III-20 present U.S. producers' U.S. production and U.S. producers' and related importers' U.S. imports, purchases of imports, and ratios of imports to U.S. production.²² Table III-21 presents firms' reasons for their importation.

Table III-14

MAE: *'s U.S. production and related importers' U.S. imports, purchases of imports, and ratios of imports to U.S. production, by period**

Quantity in short tons; inventory ratios in percent

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

¹⁸ Two firms, ***, reported that they import MAE through a foreign trade zone ("FTZ"). *** reported that ***. *** reported that ***. *** clarified that ***.

¹⁹ *** stated that ***, ***.

²⁰ The firms reported ***.

²¹ Appendix G presents additional information on how these U.S. producers incorporate imports of MAE subassemblies into their domestic production.

²² U.S. producer *** reported *** during the period for which data were collected.

Table III-15

MAE: *'s U.S. production and related importers' U.S. imports, purchases of imports, and ratios of imports to U.S. production, by period**

Quantity in short tons; inventory ratios in percent

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table III-16

MAE: *'s U.S. production and related importers' U.S. imports, purchases of imports, and ratios of imports to U.S. production, by period**

Quantity in short tons; inventory ratios in percent

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table III-17

MAE: *'s U.S. production and related importers' U.S. imports, purchases of imports, and ratios of imports to U.S. production, by period**

Quantity in short tons; inventory ratios in percent

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table III-18

MAE: *'s U.S. production and related importers' U.S. imports, purchases of imports, and ratios of imports to U.S. production, by period**

Quantity in short tons; inventory ratios in percent

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
***	***	***	***	***	***	***
***	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table III-19

MAE: *'s U.S. production and related importers' U.S. imports, purchases of imports, and ratios of imports to U.S. production, by period**

Quantity in short tons; inventory ratios in percent

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table III-20

MAE: *'s U.S. production and related importers' U.S. imports, purchases of imports, and ratios of imports to U.S. production, by period**

Quantity in short tons; inventory ratios in percent

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***
***	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table III-21

MAE: U.S. producers' reasons for imports, by firm

Item	Firm's narrative response
***'s reason for importing	***
***'s reason for importing	***
***'s reason for importing	***
***'s reason for importing	***
***'s reason for importing	***
***'s reason for importing	***

Source: Compiled from data submitted in response to Commission questionnaires.

U.S. employment, wages, and productivity

Table III-22 shows U.S. producers' employment-related data. Generally, most employment related metrics declined during 2018-20. The number of production and related workers ("PRWs"), total hours worked, and wages paid fell by *** percent, *** percent, and *** percent, respectively. Hourly wages and, consequently, unit labor costs were the only two measures to increase. Hourly wages rose by \$*** and unit labor costs increased by *** percent.

All employment related metrics, except for hourly wages and productivity, were lower during January–June 2021 than during January–June 2020.

Table III-22
MAE: U.S. producers' employment related data, by period

Item	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Production and related workers (PRWs) (number)	***	***	***	***	***
Total hours worked (1,000 hours)	***	***	***	***	***
Hours worked per PRW (hours)	***	***	***	***	***
Wages paid (\$1,000)	***	***	***	***	***
Hourly wages (dollars per hour)	***	***	***	***	***
Productivity (pounds per hour)	***	***	***	***	***
Unit labor costs (dollars per short ton)	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Part IV: U.S. imports, apparent U.S. consumption, and market shares

U.S. importers

The Commission issued importer questionnaires to 64 firms believed to be importers of subject MAE, as well as to all known U.S. producers of MAE.¹ Usable questionnaire responses were received from 17 companies,² representing ***³ of U.S. imports from China and nonsubject sources in 2020 under HTS subheadings 8427.10, 8427.20, 8427.90, and 8431.20, all of which are “basket” categories.

¹ The Commission issued questionnaires to those firms identified in the petitions, firms that were identified as U.S. importers in foreign producer questionnaires, and firms that, based on a review of data from third-party sources, may have accounted for more than one percent of total imports under HTS subheadings 8427.10, 8427.20, and 8431.20 in 2020.

² Of the remaining 47 firms that did not submit an importer questionnaire:

- Twenty-eight firms certified they have not imported MAE into the U.S. since January 1, 2018.
- Fifteen firms did not respond. One such firm, ***. None of the remaining fourteen non-responsive firms were identified in foreign producer questionnaire responses as U.S. importers of MAE. The remaining 14 firms were: ***.
- One firm, ***. Email from ***, September 14, 2021.
- One firm, ***.
- One firm ***.

³ Staff estimated import coverage based on complete units of MAE. Staff obtained importer questionnaires from all importers identified in the ten foreign producer questionnaires that were submitted, with the exception of ***. Further, U.S. shipments of complete MAE (finished or unfinished) reported in U.S. importer and U.S. producer questionnaires totaled *** units of MAE, which exceeds the *** estimate of *** units of MAE. Petitions, pp. 2-3.

Table IV-1 lists all responding U.S. importers of MAE from China and other sources; their locations; and their shares of U.S. imports; in 2020.

Table IV-1
MAE: U.S. importers, their headquarters, and share of total imports by source, 2020

Shares in percent.

Firm	Headquarters	China	Nonsubject sources	All import sources
Ballymore	Coatesville, PA	***	***	***
Clark	West Fargo, ND	***	***	***
Global	San Luis Obispo, CA	***	***	***
Haulotte	Virginia Beach, VA	***	***	***
JCB	Pooler, GA	***	***	***
JLG	Hagerstown, MD	***	***	***
LGMG NA	Chambersburg, PA	***	***	***
Manitou	West Bend, WI	***	***	***
MEC	Kerman, CA	***	***	***
Noblelift NA	Des Plaines, IL	***	***	***
SANY America	Peachtree City, GA	***	***	***
Sinoboom	Katy, TX	***	***	***
Skyjack	Guelph, ON	***	***	***
Snorkel	Elwood, KS	***	***	***
Terex	Redmond, WA	***	***	***
Unimacts	Lexington, MA	***	***	***
XCMG	Las Vegas, NV	***	***	***
All firms	Various	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

U.S. imports⁴

Table IV-2 and figure IV-1 present data for U.S. imports of MAE from China, Canada, Mexico;⁵ and all other sources.

U.S. imports from China and nonsubject sources⁶ each decreased in quantity and value during 2018-20, and were each higher in quantity and value in interim 2021 than in interim 2020. Imports from China decreased by 38.8 percent in quantity and 41.3 percent in value during 2018-20, but were 31.7 percent higher in quantity and 33.1 percent higher in value in interim 2021 than interim 2020. Imports from nonsubject sources decreased by 57.5 percent in quantity and 55.7 percent in value during 2018-20, but were 71.2 percent higher in quantity and 71.4 percent higher in value in interim 2021 than in interim 2020. MAE imports from Mexico had the lowest average unit values,⁷ followed by imports from China. Unit values of imports from Canada, Mexico, and all other sources increased during 2018-20, by ***, ***, and *** percent, respectively, while unit values of imports from China decreased during 2018-20 by 4.1 percent.

⁴ On October 12, 2021, Commerce clarified that subassemblies of Chinese origin are in-scope, including when imported into the United States from a country other than China, whether or without additional processing (i.e., including when incorporated as part of a complete MAE assembled outside of China and imported into the United States as a complete MAE). Certain Mobile Access Equipment and Subassemblies Thereof from the People's Republic of China: Scope Comments Decision Memorandum for the Final Determination, pp. 7-10. Staff contacted the eight U.S. importers that reported imports of complete MAE from nonsubject sources to determine whether any of these complete MAE contained subassemblies of Chinese origin. Six importers reported that they do not import complete MAE containing subassemblies of Chinese origin, and one importer (***) did not respond to staff's inquiry.

One importer, Skyjack, Inc., reported that it imports some complete MAE from Canada that contain subassemblies of Chinese origin. Hearing transcript, p. 207 (Witkowski); Respondent Skyjack's posthearing brief, pp. 5 and 11. In applicable part IV tables, imports from nonsubject sources have been adjusted to remove the quantity and value of these subassemblies of Chinese origin. These imports of subassemblies of Chinese origin are presented as subject imports under the row labeled "**China indirect.**" The row labeled "**China direct**" presents imports that were imported directly from China to the U.S. The row labeled "**China**" is the summation of imports from "China direct" and "China indirect." More information on the China indirect imports can be found in appendix U.

⁵ The vast majority of MAE imports from Mexico are imported by ***.

⁶ The largest sources of nonsubject imports were ***. Other import sources included ***. U.S. Importers' Questionnaire responses to questions II-7a, II-8a, II-9a, II-10a, II-11a, and II-12a.

⁷ *** MAE imports from Mexico were ***.

During 2018-20, imports from China as a share of total imports increased by quantity (6.2 percentage points) and value (3.7 percentage points), but were 5.2 percentage points lower in quantity and 3.8 percentage points lower in value in interim 2021 than interim 2020. The ratio of U.S. imports from China to U.S. production increased by *** percentage points during 2018-20, and was *** percentage points higher in interim 2021 than in interim 2020. The ratio of nonsubject import sources to U.S. production increased by *** percentage points during 2018-20, and was *** percentage points higher in interim 2021 than in interim 2020.

Table IV-2
MAE: U.S. imports by source and period

Quantity in short tons; value in 1,000 dollars; unit value in dollars per short ton

Source	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
China direct	Quantity	***	***	***	***	***
China indirect	Quantity	***	***	***	***	***
China	Quantity	48,830	34,886	29,861	18,351	24,162
Canada	Quantity	***	***	***	***	***
Mexico	Quantity	***	***	***	***	***
All other sources	Quantity	***	***	***	***	***
Nonsubject sources	Quantity	209,554	199,325	89,084	43,704	74,817
All import sources	Quantity	258,384	234,212	118,946	62,054	98,979
China direct	Value	***	***	***	***	***
China indirect	Value	***	***	***	***	***
China	Value	209,381	139,525	122,851	74,685	99,378
Canada	Value	***	***	***	***	***
Mexico	Value	***	***	***	***	***
All other sources	Value	***	***	***	***	***
Nonsubject sources	Value	1,329,491	1,275,272	588,578	292,240	500,944
All import sources	Value	1,538,872	1,414,797	711,429	366,925	600,322
China direct	Unit value	***	***	***	***	***
China indirect	Unit value	***	***	***	***	***
China	Unit value	4,288	3,999	4,114	4,070	4,113
Canada	Unit value	***	***	***	***	***
Mexico	Unit value	***	***	***	***	***
All other sources	Unit value	***	***	***	***	***
Nonsubject sources	Unit value	6,344	6,398	6,607	6,687	6,696
All import sources	Unit value	5,956	6,041	5,981	5,913	6,065

Table continued.

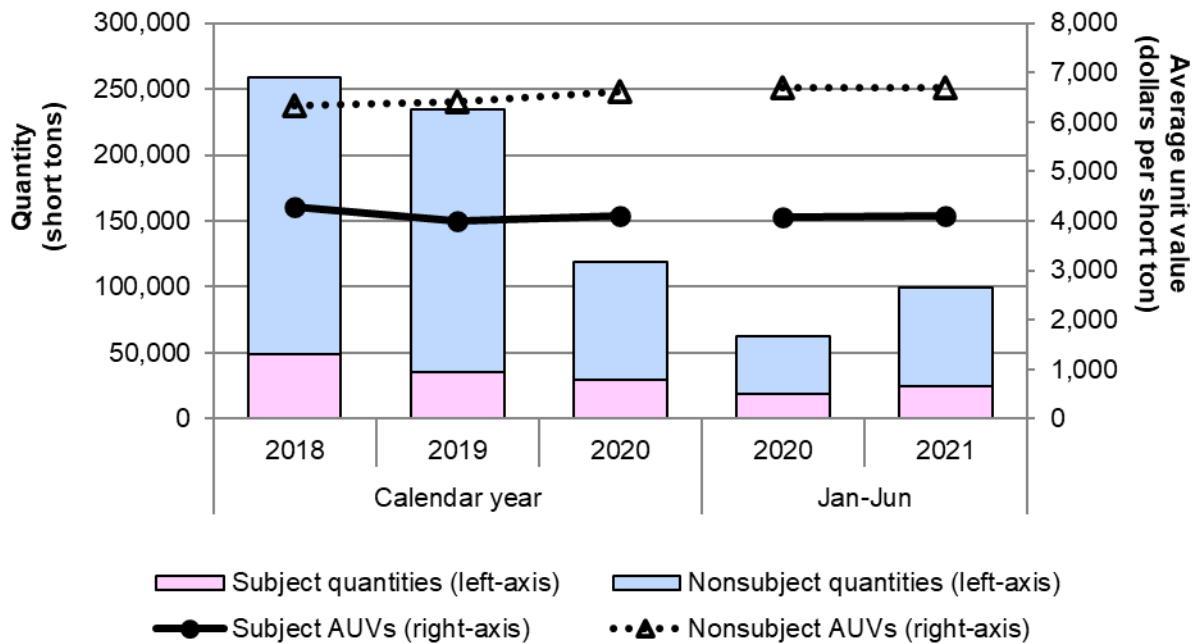
Table IV-2 Continued
MAE: Share of U.S. imports by source and period

Share of quantity is the share of U.S. imports by quantity in percent; share of value is the share of U.S. imports by value in percent; ratio are U.S. imports to production in percent

Source	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
China direct	Share of quantity	***	***	***	***	***
China indirect	Share of quantity	***	***	***	***	***
China	Share of quantity	18.9	14.9	25.1	29.6	24.4
Canada	Share of quantity	***	***	***	***	***
Mexico	Share of quantity	***	***	***	***	***
All other sources	Share of quantity	***	***	***	***	***
Nonsubject sources	Share of quantity	81.1	85.1	74.9	70.4	75.6
All import sources	Share of quantity	100.0	100.0	100.0	100.0	100.0
China direct	Share of value	***	***	***	***	***
China indirect	Share of value	***	***	***	***	***
China	Share of value	13.6	9.9	17.3	20.4	16.6
Canada	Share of value	***	***	***	***	***
Mexico	Share of value	***	***	***	***	***
All other sources	Share of value	***	***	***	***	***
Nonsubject sources	Share of value	86.4	90.1	82.7	79.6	83.4
All import sources	Share of value	100.0	100.0	100.0	100.0	100.0
China direct	Ratio	***	***	***	***	***
China indirect	Ratio	***	***	***	***	***
China	Ratio	***	***	***	***	***
Canada	Ratio	***	***	***	***	***
Mexico	Ratio	***	***	***	***	***
All other sources	Ratio	***	***	***	***	***
Nonsubject sources	Ratio	***	***	***	***	***
All import sources	Ratio	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Figure IV-1
MAE: U.S. imports quantity and average unit value, by source and period



Source: Compiled from data submitted in response to Commission questionnaires.

Ten of 17 importers reported that the COVID-19 pandemic had an impact on their importing operations. Five reported declining sales (***), seven reported supply chain disruptions due to shipping delays or foreign producer shutdowns (***), and six reported employment challenges such as layoffs, furloughs, reduced hours, and insufficient supply of workers (***). Nine importers reported experiencing a reversal in COVID-19 pandemic impacts, including recovering demand (***) and improvement in the supply chain (***). Some suggest that demand has fully recovered such that supply is struggling to keep up with demand (***), while others report a partial reversal (***) of the declining demand caused by the COVID-19 pandemic.⁸

⁸ Firms' descriptions regarding supply constraints are presented in Appendix F.

Eight of the seventeen U.S. importers are also U.S. producers – ***.⁹ Table IV-3 presents U.S. imports controlled by U.S. producers, by source and by period.

Table IV-3
MAE: U.S. imports controlled by U.S. producers, by source and period

Quantity in short tons; shares in percent

Source	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
China direct	Quantity	***	***	***	***	***
China indirect	Quantity	***	***	***	***	***
China	Quantity	***	***	***	***	***
Canada	Quantity	***	***	***	***	***
Mexico	Quantity	***	***	***	***	***
All other sources	Quantity	***	***	***	***	***
Nonsubject sources	Quantity	***	***	***	***	***
All import sources	Quantity	***	***	***	***	***
China direct	Share	***	***	***	***	***
China indirect	Share	***	***	***	***	***
China	Share	***	***	***	***	***
Canada	Share	***	***	***	***	***
Mexico	Share	***	***	***	***	***
All other sources	Share	***	***	***	***	***
Nonsubject sources	Share	***	***	***	***	***
All import sources	Share	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares are the share of U.S. producer-controlled imports out of total imports within each source. Zeroes, null values, and undefined calculations are suppressed and shown as “---”.

⁹ U.S. importers *** confirmed they are U.S. producers of MAE, but did not provide a usable U.S. producer questionnaire response. For more information, see part III.

Negligibility

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.¹⁰ Negligible imports are generally defined in the Act, as amended, as imports from a country of merchandise corresponding to a domestic like product where such imports account for less than 3 percent of the volume of all such merchandise imported into the United States in the most recent 12-month period for which data are available that precedes the filing of the petition or the initiation of the investigation. However, if there are imports of such merchandise from a number of countries subject to investigations initiated on the same day that individually account for less than 3 percent of the total volume of the subject merchandise, and if the imports from those countries collectively account for more than 7 percent of the volume of all such merchandise imported into the United States during the applicable 12-month period, then imports from such countries are deemed not to be negligible.¹¹ Table IV-4 presents U.S. imports of MAE in the twelve-month period preceding the filing of the petitions. Imports from China accounted for 21.3 percent of total imports of MAE by quantity during 2020.

Table IV-4
MAE: U.S. imports in the twelve-month period preceding the filing of the petitions, February 2020 through January 2021

Quantity in short tons; share of quantity is the share of total imports by quantity in percent

Source of imports	Quantity	Share of quantity
China direct	***	***
China indirect	***	***
China	25,115	21.3
Canada	***	***
Mexico	***	***
All other sources	***	***
Nonsubject sources	92,893	78.7
All import sources	118,007	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

¹⁰ Sections 703(a)(1), 705(b)(1), 733(a)(1), and 735(b)(1) of the Act (19 U.S.C. §§ 1671b(a)(1), 1671d(b)(1), 1673b(a)(1), and 1673d(b)(1)).

¹¹ Section 771 (24) of the Act (19 U.S.C § 1677(24)).

Apparent U.S. consumption

Table IV-5 and figure IV-2 present data on apparent U.S. consumption of MAE. U.S. producers' U.S. shipments, U.S. importers' U.S. shipments from China, and U.S. importers' U.S. shipments from nonsubject sources each decreased by quantity and value during 2018-20 and each were higher in interim 2021 than interim 2020. U.S. producers' U.S. shipments decreased *** percent in quantity and *** percent in value during 2018-20, but were *** percent higher in quantity and *** percent higher in value in interim 2021 than in interim 2020. U.S. importers' U.S. shipments from China decreased 31.9 percent in quantity and 31.7 percent in value during 2018-20, but were 75.6 percent higher in quantity and 95.0 percent higher in value during interim 2021 than in interim 2020. U.S. importers' U.S. shipments from nonsubject sources decreased 53.5 percent in quantity and 51.9 percent in value during 2018-20, but were 74.2 percent higher in quantity and 66.4 percent higher in value in interim 2021 than in interim 2020.

Table IV-5
MAE: Apparent U.S. consumption, by source and period

Quantity in short tons; value in 1,000 dollars

Source	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
U.S. producers	Quantity	***	***	***	***	***
China direct	Quantity	***	***	***	***	***
China indirect	Quantity	***	***	***	***	***
China	Quantity	38,009	36,965	25,885	13,107	23,012
Canada	Quantity	***	***	***	***	***
Mexico	Quantity	***	***	***	***	***
All other sources	Quantity	***	***	***	***	***
Nonsubject sources	Quantity	198,229	182,482	92,090	42,297	73,665
All import sources	Quantity	236,238	219,447	117,976	55,404	96,676
All sources	Quantity	***	***	***	***	***
U.S. producers fully domestic value	Value	***	***	***	***	***
U.S. producers value added to imports	Value	***	***	***	***	***
U.S. producers total	Value	***	***	***	***	***
China direct	Value	***	***	***	***	***
China indirect	Value	***	***	***	***	***
China	Value	153,224	153,431	104,708	51,279	99,973
Canada	Value	***	***	***	***	***
Mexico	Value	***	***	***	***	***
All other sources	Value	***	***	***	***	***
Nonsubject sources	Value	1,370,284	1,281,853	659,723	315,124	524,247
All import sources	Value	1,523,508	1,435,284	764,431	366,403	624,220
All sources	Value	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: The quantity for U.S. producers' U.S. shipments reflects the quantity sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies regardless of whether the MAE were sold as subassemblies or as complete units. The value for U.S. producers' U.S. shipments reflects the value sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies plus the additional value added to either U.S.-produced or imported subassemblies from domestic assembly operations. Fully domestic value includes the additional value added by domestic assembly operations on U.S.-produced subassemblies, while the value added to imports includes the additional value added by domestic assembly operations on imported subassemblies. In measuring consumption and market share this methodology avoids reclassifying and/or double counting merchandise already reported once by U.S. producers or by U.S. importers. The unit value of U.S. producers' U.S. shipments is based on the fully domestic value.

Note: Import sources are based on U.S. importers' U.S. shipments of imports from the specified source.

Figure IV-2
MAE: Apparent U.S. consumption, by source and period

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires

U.S. market shares

U.S. market share data are presented in table IV-6. U.S. shipments of imports from China as a share of total shipments gained *** percentage points by quantity and *** percentage points by value during 2018-20, while U.S. shipments of imports from nonsubject sources lost market share by quantity (*** percentage points) and value (*** percentage points). U.S. producers' U.S. shipments lost market share by quantity (*** percentage points) and gained market share by value (*** percentage points). Market share for U.S. producers' U.S. shipments was *** percentage points lower in quantity and *** percentage points lower in value in interim 2021 than in interim 2020, while market share for U.S. shipments of imports from China and nonsubject sources were each higher in interim 2021 than in interim 2020 based on both quantity (*** and *** percentage points, respectively) and value (*** and *** percentage points, respectively).

Table IV-6
MAE: Market shares, by source and period

Share of quantity is the share of apparent U.S. consumption by quantity in percent; share of value is the share of apparent U.S. consumption by value in percent

Source	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
U.S. producers	Share of quantity	***	***	***	***	***
China direct	Share of quantity	***	***	***	***	***
China indirect	Share of quantity	***	***	***	***	***
China	Share of quantity	***	***	***	***	***
Canada	Share of quantity	***	***	***	***	***
Mexico	Share of quantity	***	***	***	***	***
All other sources	Share of quantity	***	***	***	***	***
Nonsubject sources	Share of quantity	***	***	***	***	***
All import sources	Share of quantity	***	***	***	***	***
All sources	Share of quantity	100.0	100.0	100.0	100.0	100.0
U.S. producers fully domestic value	Share of value	***	***	***	***	***
U.S. producers value added to imports	Share of value	***	***	***	***	***
U.S. producers total	Share of value	***	***	***	***	***
China direct	Share of value	***	***	***	***	***
China indirect	Share of value	***	***	***	***	***
China	Share of value	***	***	***	***	***
Canada	Share of value	***	***	***	***	***
Mexico	Share of value	***	***	***	***	***
All other sources	Share of value	***	***	***	***	***
Nonsubject sources	Share of value	***	***	***	***	***
All import sources	Share of value	***	***	***	***	***
All sources	Share of value	100.0	100.0	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Complete and finished MAE: U.S. producers' and U.S. importers' U.S. shipments

Table IV-7 presents data on U.S. producers' and U.S. importers' U.S. shipments of complete and finished MAE,¹² by period.¹³

¹² Table IV-7 does not include complete but unfinished MAE, which consist of U.S. import shipments from *** that are imported fully assembled, but undergo further manufacturing operations in the United States. According to ***. *** U.S. importers' questionnaire response, question III-22. See table IV-9 for aggregate data on U.S. shipments of complete and finished MAE and complete but unfinished MAE.

¹³ See appendix J for further data on U.S. shipments by complete and finished MAE, complete but unfinished MAE, and subassemblies.

Table IV-7
Complete and finished MAE: U.S. producers' and U.S. importers' U.S. shipments, by period

Quantity in short tons; value in 1,000 dollars; unit values in dollars per short ton

Source	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
U.S. producers	Quantity	***	***	***	***	***
China direct	Quantity	***	***	***	***	***
China indirect	Quantity	***	***	***	***	***
China	Quantity	***	***	***	***	***
Canada	Quantity	***	***	***	***	***
Mexico	Quantity	***	***	***	***	***
All other sources	Quantity	***	***	***	***	***
Nonsubject sources	Quantity	***	***	***	***	***
All import sources	Quantity	***	***	***	***	***
All sources	Quantity	***	***	***	***	***
U.S. producers	Value	***	***	***	***	***
China direct	Value	***	***	***	***	***
China indirect	Value	***	***	***	***	***
China	Value	***	***	***	***	***
Canada	Value	***	***	***	***	***
Mexico	Value	***	***	***	***	***
All other sources	Value	***	***	***	***	***
Nonsubject sources	Value	***	***	***	***	***
All import sources	Value	***	***	***	***	***
All sources	Value	***	***	***	***	***
U.S. producers	Unit value	***	***	***	***	***
China direct	Unit value	***	***	***	***	***
China indirect	Unit value	***	***	***	***	***
China	Unit value	***	***	***	***	***
Canada	Unit value	***	***	***	***	***
Mexico	Unit value	***	***	***	***	***
All other sources	Unit value	***	***	***	***	***
Nonsubject sources	Unit value	***	***	***	***	***
All import sources	Unit value	***	***	***	***	***
All sources	Unit value	***	***	***	***	***

Table continued.

Table IV-7 Continued
Complete and finished MAE: U.S. producers' and U.S. importers' U.S. shipments, by period

Shares and ratios in percent

Source	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
U.S. producers	Share of quantity	***	***	***	***	***
China direct	Share of quantity	***	***	***	***	***
China indirect	Share of quantity	***	***	***	***	***
China	Share of quantity	***	***	***	***	***
Canada	Share of quantity	***	***	***	***	***
Mexico	Share of quantity	***	***	***	***	***
All other sources	Share of quantity	***	***	***	***	***
Nonsubject sources	Share of quantity	***	***	***	***	***
All import sources	Share of quantity	***	***	***	***	***
All sources	Share of quantity	100.0	100.0	100.0	100.0	100.0
U.S. producers	Share of value	***	***	***	***	***
China direct	Share of value	***	***	***	***	***
China indirect	Share of value	***	***	***	***	***
China	Share of value	***	***	***	***	***
Canada	Share of value	***	***	***	***	***
Mexico	Share of value	***	***	***	***	***
All other sources	Share of value	***	***	***	***	***
Nonsubject sources	Share of value	***	***	***	***	***
All import sources	Share of value	***	***	***	***	***
All sources	Share of value	100.0	100.0	100.0	100.0	100.0
U.S. producers	Ratio	***	***	***	***	***
China direct	Ratio	***	***	***	***	***
China indirect	Ratio	***	***	***	***	***
China	Ratio	***	***	***	***	***
Canada	Ratio	***	***	***	***	***
Mexico	Ratio	***	***	***	***	***
All other sources	Ratio	***	***	***	***	***
Nonsubject sources	Ratio	***	***	***	***	***
All import sources	Ratio	***	***	***	***	***
All sources (see note)	Ratio	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Ratios represent the share of complete and finished MAE out of all MAE within a given source. Given a portion of overall apparent consumption for "all sources" removes the double counting between U.S. imports of subassemblies and U.S. producers' U.S. shipments of finished goods (in the denominator) and the data in this table do not account for this double counting (the numerator), the ratio for all sources is greater than 100.0 percent.

Complete but unfinished MAE and MAE subassemblies: U.S. producers' and U.S. importers' U.S. shipments

Table IV-8 presents data on U.S. producers' and U.S. importers' U.S. shipments of complete but unfinished MAE and MAE subassemblies by period.¹⁴

Table IV-8
Complete but unfinished MAE and MAE subassemblies: U.S. producers' and U.S. importers' U.S. shipments, by period

Quantity in short tons; value in 1,000 dollars; unit values in dollars per short ton

Source	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
U.S. producers	Quantity	***	***	***	***	***
China direct	Quantity	***	***	***	***	***
China indirect	Quantity	***	***	***	***	***
China	Quantity	***	***	***	***	***
Canada	Quantity	***	***	***	***	***
Mexico	Quantity	***	***	***	***	***
All other sources	Quantity	***	***	***	***	***
Nonsubject sources	Quantity	***	***	***	***	***
All import sources	Quantity	***	***	***	***	***
All sources	Quantity	***	***	***	***	***
U.S. producers	Value	***	***	***	***	***
China direct	Value	***	***	***	***	***
China indirect	Value	***	***	***	***	***
China	Value	***	***	***	***	***
Canada	Value	***	***	***	***	***
Mexico	Value	***	***	***	***	***
All other sources	Value	***	***	***	***	***
Nonsubject sources	Value	***	***	***	***	***
All import sources	Value	***	***	***	***	***
All sources	Value	***	***	***	***	***
U.S. producers	Unit value	***	***	***	***	***
China direct	Unit value	***	***	***	***	***
China indirect	Unit value	***	***	***	***	***
China	Unit value	***	***	***	***	***
Canada	Unit value	***	***	***	***	***
Mexico	Unit value	***	***	***	***	***
All other sources	Unit value	***	***	***	***	***
Nonsubject sources	Unit value	***	***	***	***	***
All import sources	Unit value	***	***	***	***	***
All sources	Unit value	***	***	***	***	***

Table continued.

¹⁴ See appendix J for further data on U.S. shipments by complete and finished MAE, complete but unfinished MAE, and subassemblies.

Table IV-8 Continued
Complete but unfinished MAE and MAE subassemblies: U.S. producers' and U.S. importers' U.S. shipments, by period

Shares and ratios in percent

Source	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
U.S. producers	Share of quantity	***	***	***	***	***
China direct	Share of quantity	***	***	***	***	***
China indirect	Share of quantity	***	***	***	***	***
China	Share of quantity	***	***	***	***	***
Canada	Share of quantity	***	***	***	***	***
Mexico	Share of quantity	***	***	***	***	***
All other sources	Share of quantity	***	***	***	***	***
Nonsubject sources	Share of quantity	***	***	***	***	***
All import sources	Share of quantity	***	***	***	***	***
All sources	Share of quantity	100.0	100.0	100.0	100.0	100.0
U.S. producers	Share of value	***	***	***	***	***
China direct	Share of value	***	***	***	***	***
China indirect	Share of value	***	***	***	***	***
China	Share of value	***	***	***	***	***
Canada	Share of value	***	***	***	***	***
Mexico	Share of value	***	***	***	***	***
All other sources	Share of value	***	***	***	***	***
Nonsubject sources	Share of value	***	***	***	***	***
All import sources	Share of value	***	***	***	***	***
All sources	Share of value	100.0	100.0	100.0	100.0	100.0
U.S. producers	Ratio	***	***	***	***	***
China direct	Ratio	***	***	***	***	***
China indirect	Ratio	***	***	***	***	***
China	Ratio	***	***	***	***	***
Canada	Ratio	***	***	***	***	***
Mexico	Ratio	***	***	***	***	***
All other sources	Ratio	***	***	***	***	***
Nonsubject sources	Ratio	***	***	***	***	***
All import sources	Ratio	***	***	***	***	***
All sources	Ratio	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Ratios represent the share of complete but unfinished MAE and MAE subassemblies out of all MAE within a given source.

Complete MAE, finished and unfinished: U.S. producers' and U.S. importers' U.S. shipments

Table IV-9 presents data on U.S. producers' and U.S. importers' U.S. shipments of complete MAE, finished and unfinished, by period.¹⁵

Table IV-9
Complete MAE, finished and unfinished: U.S. producers' and U.S. importers' U.S. shipments, by period

Quantity in short tons; Value in 1,000 dollars; Unit values in dollars per short ton

Source	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
U.S. producers	Quantity	***	***	***	***	***
China direct	Quantity	***	***	***	***	***
China indirect	Quantity	***	***	***	***	***
China	Quantity	***	***	***	***	***
Canada	Quantity	***	***	***	***	***
Mexico	Quantity	***	***	***	***	***
All other sources	Quantity	***	***	***	***	***
Nonsubject sources	Quantity	***	***	***	***	***
All import sources	Quantity	***	***	***	***	***
All sources	Quantity	***	***	***	***	***
U.S. producers	Value	***	***	***	***	***
China direct	Value	***	***	***	***	***
China indirect	Value	***	***	***	***	***
China	Value	***	***	***	***	***
Canada	Value	***	***	***	***	***
Mexico	Value	***	***	***	***	***
All other sources	Value	***	***	***	***	***
Nonsubject sources	Value	***	***	***	***	***
All import sources	Value	***	***	***	***	***
All sources	Value	***	***	***	***	***
U.S. producers	Unit value	***	***	***	***	***
China direct	Unit value	***	***	***	***	***
China indirect	Unit value	***	***	***	***	***
China	Unit value	***	***	***	***	***
Canada	Unit value	***	***	***	***	***
Mexico	Unit value	***	***	***	***	***
All other sources	Unit value	***	***	***	***	***
Nonsubject sources	Unit value	***	***	***	***	***
All import sources	Unit value	***	***	***	***	***
All sources	Unit value	***	***	***	***	***

Table continued.

¹⁵ See appendix J for further data on U.S. shipments by complete and finished MAE, complete but unfinished MAE, and subassemblies.

Table IV-9 Continued
Complete MAE, finished and unfinished: U.S. producers' and U.S. importers' U.S. shipments, by period

Shares and ratios in percent

Source	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
U.S. producers	Share of quantity	***	***	***	***	***
China direct	Share of quantity	***	***	***	***	***
China indirect	Share of quantity	***	***	***	***	***
China	Share of quantity	***	***	***	***	***
Canada	Share of quantity	***	***	***	***	***
Mexico	Share of quantity	***	***	***	***	***
All other sources	Share of quantity	***	***	***	***	***
Nonsubject sources	Share of quantity	***	***	***	***	***
All import sources	Share of quantity	***	***	***	***	***
All sources	Share of quantity	100.0	100.0	100.0	100.0	100.0
U.S. producers	Share of value	***	***	***	***	***
China direct	Share of value	***	***	***	***	***
China indirect	Share of value	***	***	***	***	***
China	Share of value	***	***	***	***	***
Canada	Share of value	***	***	***	***	***
Mexico	Share of value	***	***	***	***	***
All other sources	Share of value	***	***	***	***	***
Nonsubject sources	Share of value	***	***	***	***	***
All import sources	Share of value	***	***	***	***	***
All sources	Share of value	100.0	100.0	100.0	100.0	100.0
U.S. producers	Ratio	***	***	***	***	***
China direct	Ratio	***	***	***	***	***
China indirect	Ratio	***	***	***	***	***
China	Ratio	***	***	***	***	***
Canada	Ratio	***	***	***	***	***
Mexico	Ratio	***	***	***	***	***
All other sources	Ratio	***	***	***	***	***
Nonsubject sources	Ratio	***	***	***	***	***
All import sources	Ratio	***	***	***	***	***
All sources (see note)	Ratio	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Ratios represent the share of complete MAE (both finished and unfinished) out of all MAE within a given source. Given a portion of overall apparent consumption for "all sources" removes the double counting between U.S. imports and U.S. producers' U.S. shipments of finished goods (in the denominator) and the data in this table do not account for this double counting (the numerator), the ratio for all sources is greater than 100.0 percent.

U.S. shipments of subassemblies by end use

Table IV-10 presents data on U.S. producers' and U.S. importers' share of U.S. shipments of subassemblies by end use. The vast majority of subassemblies are used by OEM manufacturers (***) to produce complete units of MAE.

***, reported importing subassemblies that were sold to refurbishers.

Table IV-10

MAE subassemblies: U.S. importers' share of U.S. shipments of subassemblies by end use type, 2020

Quantity in short tons

End use type	China	Canada	Mexico	All other sources	Nonsubject sources	All import sources
For OEM manufacturing	***	***	***	***	***	***
For refurbishing	***	***	***	***	***	***
All end uses	***	***	***	***	***	***

Table continued.

Table IV-10

MAE subassemblies: U.S. importers' share of U.S. shipments of subassemblies by end use type, 2020

Share across in percent

End use type	China	Canada	Mexico	All other sources	Nonsubject sources	All import sources
For OEM manufacturing	***	***	***	***	***	***
For refurbishing	***	***	***	***	***	***
All end uses	***	***	***	***	***	***

Table continued.

Table IV-10

MAE subassemblies: U.S. importers' share of U.S. shipments of subassemblies by end use type, 2020

Share down in percent

End use type	China	Canada	Mexico	All other sources	Nonsubject sources	All import sources
For OEM manufacturing	***	***	***	***	***	***
For refurbishing	***	***	***	***	***	***
All end uses	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Data presented in this table were not adjusted to reclassify imports of Chinese origin subassemblies that were imported as part of a complete MAE from a third country from nonsubject to subject sources.

Note: The data presented in the row labeled "For OEM manufacturing" include both imports directly imported by OEM manufacturers and imports imported by a firm that sold to OEM manufacturers. ***, reported importing subassemblies that were sold to OEM manufacturers.

Note: Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Part V: Pricing data

Factors affecting prices

Raw material costs

MAE is made predominantly of steel and fabricated steel parts. MAE is engine-powered or electric-powered, with mobile lifting devices, among other parts.¹ Major components of MAE may include frames, chassis, boom sections, and turntable assemblies which include engines, batteries, tanks, pumps, and other hydraulic components.^{2 3} Fabricated steel components comprised the largest share of raw material costs per MAE at *** percent in 2020, followed by hydraulic components (*** percent); engines, axles and transmissions (*** percent); other material inputs, including subassemblies (*** percent); electrical or battery components (*** percent); and steel plate/sheet (*** percent).

U.S. producers use varying grades and thicknesses of hot-rolled plate and hot-rolled coil to produce MAE, as well as a limited amount of steel tubes or bars and cold-rolled steel.⁴ Prices of hot-rolled coil increased overall by *** percent and prices of cut-to-length plate increased by *** percent from January 2018 to June 2021. Hot-rolled coil and cut-to-length plate prices increased in 2018 in conjunction with the steel 232 tariffs, and declined steadily throughout 2019 to mid-2020, when prices then sharply increased and have continued to increase throughout 2021 (figure V-1).^{5 6} Petitioner added that prices for other raw materials, such as *** also increased in 2020.⁷ Producers reported there is generally a two-quarter delay between changes in the cost of steel and the cost of finished MAE due to the length of raw material contracts and production.⁸

¹ Petitions, p. 8.

² Petitions, p. 13.

³ Major subassemblies include scissor arm assemblies or scissor arm sections, boom assemblies or boom sections, chassis assemblies, and boom turntable assemblies. Petitions, pp. 11-13.

⁴ Petitioner's postconference brief, exh. 1 pp. 39-41.

⁵ Petitioner also noted that the prices of fabricated steel components used for MAE production vary by component, and that "prices of fabricated steel components purchased by domestic producers are driven in part by the cost of raw steel." Petitioner's postconference brief, exh. 1 pp. 39-42, *see also* Petitioner's postconference brief, exh. 21, and exh. 25.

⁶ No U.S. producer explained the reason for the increase in steel prices that occurred in July 2020 beyond market conditions.

⁷ Petitioner's postconference brief, exh. 1 p. 42.

⁸ Hearing transcript, p. 128 (Nerenhausen).

Figure V-1

Raw materials: Steel hot-rolled coil and cut-to-length plate, carbon grade, f.o.b. U.S. mill average mid-price, dollars per short ton, January 2018-June 2021

* * * * *

Source: ***, retrieved September 21, 2021.

Note: Data used to produce this figure are presented in appendix N.

Seven of 13 responding purchasers were familiar with raw material costs, and 9 of 12 reported that raw material costs affected contract pricing. *** responding U.S. producers and 10 of 15 responding importers indicated that raw material prices had been increasing, and one producer and importer each noted that they had been fluctuating. Four importers reported that they had not changed. *** U.S. producers and 7 of 14 responding importers indicated that section 232 tariffs on steel and aluminum imports had the effect of increasing prices on raw materials to make MAE.⁹ *** responding producers and 8 of 13 responding importers stated that these increases did not increase the price of MAE, however.¹⁰ Producer *** noted that it has not been able to fully pass cost increases through to its customers due to section 232 tariffs. Producer *** stated that increased costs of primary steel has translated to higher costs for its purchased parts from domestic vendors of those parts, which has caused it to pass through those higher costs by raising prices for MAEs.

⁹ U.S. producer *** reported that Section 232 tariffs caused raw material prices to increase and not change.

¹⁰ The remaining responding firms all noted that they had increased MAE prices.

Table V-1
MAE: U.S. producers' and importers' perceptions regarding impact of 232 tariffs on prices

Number of firms reporting

Item	Firm type	Increase	No change	Decrease	Fluctuate
Trend in raw material prices	U.S. producers	6	0	0	1
Trend in raw material prices	Importers	***	***	***	***
Impact of 232 tariffs on raw material cost	U.S. producers	5	2	0	1
Impact of 232 tariffs on raw material cost	Importers	***	***	***	***
Impact of 232 tariffs on MAE prices	U.S. producers	2	5	0	0
Impact of 232 tariffs on MAE prices	Importers	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

In addition to section 232 tariffs on steel and aluminum imports, questionnaire recipients were asked how section 301 tariffs on goods from China had affected the MAE market. Three of 4 responding producers, *** responding importers, and 3 of 4 responding purchasers reported that they had increased raw material prices for MAE. Three of 5 responding producers, *** responding importers, and 1 of 4 responding purchasers indicated that the tariffs had affected the prices of MAE. Most other firms indicated that the tariffs had no effect on raw material or MAE prices.¹¹

Transportation costs to the U.S. market

Transportation costs for MAE shipped from China to the United States averaged 7.1 percent during 2020. These estimates were derived from official import data and represent the transportation and other charges on imports.¹²

¹¹ See Part II for a discussion of section 301 tariffs.

¹² The estimated transportation costs were obtained by subtracting the customs value from the c.i.f. value of the imports for 2020 and then dividing by the customs value based on the HTS statistical reporting numbers 8427.10.8020, 8427.10.8030, 8427.10.8070, 8427.10.8095, 8427.20.8020, 8427.20.8090, and 8431.20.0000 and may include out-of-scope product.

U.S. inland transportation costs

All responding U.S. producers and *** responding importers reported that they typically arrange transportation to their customers. Most U.S. producers reported that their U.S. inland transportation costs ranged from 2.5 to 6.5 percent while most importers reported costs of 1.0 to 7.0 percent.¹³

Pricing practices

Pricing methods

As discussed in Part II, purchasers of MAE are segregated by the four largest national equipment rental firms (“consolidators”),¹⁴ regional rental firms, and local “mom and pop” equipment rental firms. Respondents argued that sales to these consolidators differ from sales to smaller firms, and that the national firms require “extensive negotiations, contracts, low prices, and tremendous aftermarket support.”¹⁵ Respondent MEC stated that it ***.^{16 17} Petitioner stated that there are no significant differences in sales terms for different customers.¹⁸

U.S. producers and importers reported typically setting prices using set price lists, transaction-by-transaction negotiations, and contracts (table V-2).¹⁹ MEC reported that it sets a price for its base model and charges extra for premium features like its leak containment system, a well generator on boom lifts, the type of tires, etc.²⁰

¹³ One importer reported 10 percent, while another reported 100 percent.

¹⁴ Respondents stated that there has been consolidation among the largest national equipment rental firms: “These very large and extremely well financed companies began to buy up multiple regional independent stores and consolidate them” in the late 1990s. Conference transcript, p. 142 (Paylor) and respondent MEC’s postconference brief pp. 10-11.

¹⁵ Conference transcript, p. 151 (Kirschenmann).

¹⁶ Respondent MEC’s postconference brief, p. 11.

¹⁷ As discussed in Part II, firms may also trade in old MAE as a form of discounting new MAE in price negotiations. Respondent MEC stated that the consolidators include trade-ins as part of the contract negotiation, and that in order to participate in advance purchase orders with the consolidators, the firm is required to take a certain volume of consolidators’ used MAE on trade for disposal, which can be sold into the secondary market. Conference transcript, pp. 200-202 (Paylor, Kirschenmann, Hix). In its producer questionnaire, MEC ***. Used product can be sold into the market as well for a discount off the original price.

¹⁸ Conference transcript, pp. 104-105 (Meyer, Morris).

¹⁹ Multiple firms reported using more than one way to set prices.

²⁰ Hearing transcript, p. 268 (Hix).

Table V-2
MAE: U.S. producers' and importers' reported price setting methods, count

Number of firms reporting

Method	U.S. producers	Importers
Transaction-by-transaction	3	***
Contract	3	***
Set price list	6	***
Other	1	***
Responding firms	8	14

Source: Compiled from data submitted in response to Commission questionnaires.

Note: The sum of responses down may not add up to the total number of responding firms as each firm was instructed to check all applicable price setting methods employed.

U.S. producers reported selling most of their MAE pursuant to short-term or annual contracts, but also a not insubstantial portion on the spot market. In contrast, importers sold the majority of their MAE on the spot market, with a large minority also sold via annual contracts (table V-3).

Table V-3
MAE: U.S. producers' and importers' shares of U.S. commercial shipments by type of sale, 2020

Share in percent

Type of sale	U.S. producers	Importers
Long-term contracts	***	***
Annual contracts	***	***
Short-term contracts	***	***
Spot sales	***	***
Total	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Because of rounding, figures may not add to the totals shown.

Producers' short-term contracts typically fix ***. Their annual contracts, on the other hand, typically fix ***, and responding producers were ***. Importers' annual contracts typically fixed price, and 3 of 5 responding importers noted that prices could be renegotiated during the contract. No producer or importer reported indexing prices to raw material costs in its contracts.

One purchaser reported that it purchases MAE daily, three purchase weekly, four purchase monthly, two purchase quarterly, two purchase annually, and two purchase as needed. Eight of 12 responding purchasers reported that their purchasing frequency had not changed since 2018. Of the four that noted changing their frequency, three are purchasing more frequently. On average, purchasers contact between two and four suppliers, although half (5 of 10) reported purchasing from as few as one supplier. ***.

Sales terms and discounts

*** U.S. producers and 12 of 14 responding importers typically quote prices on an f.o.b. basis. *** and two importers also sell on a delivered basis. *** U.S. producers offer both quantity discounts and annual total volume discounts; *** producers (***) reported not having a discount policy, though *** reported that at times it has to decrease prices to compete with MAE from China. Seven importers offer quantity discounts, eight offer annual total volume discounts, and four offer some other type of discount; four have no discount policy. No producer reported that they use trade-ins to offer purchasers a discount, but importer *** reported that it did.

Price leadership

Five of eight responding purchasers reported that JLG is a market price leader and three reported Terex/Genie. JLG was reported to be the first to notify the market of price increases or was the most expensive, and purchaser *** stated that JLG was the first supplier to break its contract in 2021. In their purchaser questionnaire responses, *** listed multiple importers or foreign producers as price leaders, noting downward pricing pressure. Purchaser *** offered various ways that suppliers were price leaders: Genie-Terex (“inflationary price leader”), Canadian producer Skyjack (“pricing maintained at lower end”), and importers MEC (“initially pricing was low with increase in 2020-2021”), LGMG (“pricing offered lower than market”), and SANY (“telehandlers were offered in 2021 setting the {lower} end of the market”).

Price data

The Commission requested U.S. producers and importers to provide quarterly data for the total quantity and f.o.b. value of the following MAE products shipped to unrelated U.S. customers during January 2018-June 2021.

Product 1.-- Battery-powered scissor lift, with electric or hydraulic drive, with 12'-14' platform height elevation and 500 lb. to 600 lb. maximum lift capacity

Product 2.-- Battery-powered scissor lift, with electric or hydraulic drive, with 18'-20' platform height elevation and 500 lb. to 600 lb. maximum lift capacity

Product 3.-- Battery-powered scissor lift, with electric or hydraulic drive, with 38'-42' platform height elevation and a width of less than 50 inches

Product 4.-- Diesel-powered four- or all-wheel drive articulating boom lift, with 44'-46' platform height elevation and 500 lb. to 1,000 lb. maximum lift capacity

Product 5.-- Diesel-powered four- or all-wheel drive telescoping boom lift, with 64'-67' platform height elevation including jib option and 500 lb. to 1,000 lb. maximum lift capacity

Product 6.-- Diesel-powered four- or all-wheel drive material telehandler, with 53'-57' maximum lift height and 10,000-lb. maximum lift capacity

Six U.S. producers²¹ and nine importers provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.²² Pricing data reported by these firms accounted for approximately *** percent of U.S. producers' shipments of complete MAE and *** percent of U.S. shipments of subject imports of complete MAE from China in 2020.²³ Nonsubject country quarterly pricing data for Canada and Mexico are presented in Appendix O.

²¹ In the preliminary phase, ***.

²² Per-unit pricing data are calculated from total quantity and total value data provided by U.S. producers and importers. The precision and variation of these figures may be affected by rounding, limited quantities, and producer or importer estimates.

²³ Pricing coverage is based on the value of U.S. shipments reported in questionnaires. Including data for MAE from Canada that includes Chinese subassembly-containing product, the data cover *** percent of U.S. shipments of complete MAE from those sources.

Price data for products 1-6 are presented in tables V-4 to V-9 and figures V-2 to V-7.²⁴ Data in the tables and figures are presented using the data for MAE imported directly from China (“China”), those that incorporated Chinese subassemblies into MAE imported from nonsubject countries (“Canada with China”), and the sum of those two sets of data (“China Plus”).²⁵ The greatest number of imported MAE from China were reported in the three scissor lift products (products 1-3). The number of China (direct) units for the boom lift and telehandlers (products 4-6) sold in the period of investigation was small compared to the number of domestic units. Combined, they totaled less than the number of units that domestic producers sold in the first quarter of 2018 for product 4.

²⁴ Some products were reported to be ***. Appendix P presents the pricing data ***. Appendix Q presents pricing data ***.

²⁵ ***.

Table V-4

MAE: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 and margins of underselling/(overselling), by quarter

Price in dollars per unit, quantity in units, margin in percent.

Period	US price	US quantity	China price	China quantity	China margin
2018 Q1	***	***	***	***	***
2018 Q2	***	***	***	***	***
2018 Q3	***	***	***	***	***
2018 Q4	***	***	***	***	***
2019 Q1	***	***	***	***	***
2019 Q2	***	***	***	***	***
2019 Q3	***	***	***	***	***
2019 Q4	***	***	***	***	***
2020 Q1	***	***	***	***	***
2020 Q2	***	***	***	***	***
2020 Q3	***	***	***	***	***
2020 Q4	***	***	***	***	***
2021 Q1	***	***	***	***	***
2021 Q2	***	***	***	***	***

Table continued.

Period	Canada with China price	Canada with China quantity	Canada with China margin	China Plus price	China Plus quantity	China Plus margin
2018 Q1	---	0	---	***	***	***
2018 Q2	---	0	---	***	***	***
2018 Q3	---	0	---	***	***	***
2018 Q4	---	0	---	***	***	***
2019 Q1	---	0	---	***	***	***
2019 Q2	---	0	---	***	***	***
2019 Q3	---	0	---	***	***	***
2019 Q4	---	0	---	***	***	***
2020 Q1	---	0	---	***	***	***
2020 Q2	---	0	---	***	***	***
2020 Q3	---	0	---	***	***	***
2020 Q4	---	0	---	***	***	***
2021 Q1	---	0	---	***	***	***
2021 Q2	---	0	---	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 1: Battery-powered scissor lift, with electric or hydraulic drive, with 12'-14' platform height elevation and 500 lb. to 600 lb. maximum lift capacity

Table V-5

MAE: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 and margins of underselling/(overselling), by quarter

Price in dollars per unit, quantity in units, margin in percent.

Period	US price	US quantity	China price	China quantity	China margin
2018 Q1	***	***	***	***	***
2018 Q2	***	***	--	0	--
2018 Q3	***	***	***	***	***
2018 Q4	***	***	***	***	***
2019 Q1	***	***	***	***	***
2019 Q2	***	***	***	***	***
2019 Q3	***	***	***	***	***
2019 Q4	***	***	***	***	***
2020 Q1	***	***	***	***	***
2020 Q2	***	***	***	***	***
2020 Q3	***	***	***	***	***
2020 Q4	***	***	***	***	***
2021 Q1	***	***	***	***	***
2021 Q2	***	***	***	***	***

Table continued.

Period	Canada with China price	Canada with China quantity	Canada with China margin	China Plus price	China Plus quantity	China Plus margin
2018 Q1	---	0	---	***	***	***
2018 Q2	---	0	---	--	0	--
2018 Q3	---	0	---	***	***	***
2018 Q4	---	0	---	***	***	***
2019 Q1	---	0	---	***	***	***
2019 Q2	---	0	---	***	***	***
2019 Q3	---	0	---	***	***	***
2019 Q4	---	0	---	***	***	***
2020 Q1	---	0	---	***	***	***
2020 Q2	---	0	---	***	***	***
2020 Q3	---	0	---	***	***	***
2020 Q4	---	0	---	***	***	***
2021 Q1	---	0	---	***	***	***
2021 Q2	---	0	---	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 2: Battery-powered scissor lift, with electric or hydraulic drive, with 18'-20' platform height elevation and 500 lb. to 600 lb. maximum lift capacity

Table V-6

MAE: Weighted-average f.o.b. prices and quantities of domestic and imported product 3 and margins of underselling/(overselling), by quarter

Price in dollars per unit, quantity in units, margin in percent.

Period	US price	US quantity	China price	China quantity	China margin
2018 Q1	***	***	***	***	***
2018 Q2	***	***	***	***	***
2018 Q3	***	***	***	***	***
2018 Q4	***	***	***	***	***
2019 Q1	***	***	***	***	***
2019 Q2	***	***	***	***	***
2019 Q3	***	***	***	***	***
2019 Q4	***	***	***	***	***
2020 Q1	***	***	***	***	***
2020 Q2	***	***	***	***	***
2020 Q3	***	***	***	***	***
2020 Q4	***	***	***	***	***
2021 Q1	***	***	***	***	***
2021 Q2	***	***	***	***	***

Table continued.

Period	Canada with China price	Canada with China quantity	Canada with China margin	China Plus price	China Plus quantity	China Plus margin
2018 Q1	***	***	***	***	***	***
2018 Q2	***	***	***	***	***	***
2018 Q3	***	***	***	***	***	***
2018 Q4	***	***	***	***	***	***
2019 Q1	***	***	***	***	***	***
2019 Q2	***	***	***	***	***	***
2019 Q3	***	***	***	***	***	***
2019 Q4	***	***	***	***	***	***
2020 Q1	***	***	***	***	***	***
2020 Q2	***	***	***	***	***	***
2020 Q3	***	***	***	***	***	***
2020 Q4	***	***	***	***	***	***
2021 Q1	***	***	***	***	***	***
2021 Q2	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: ***.

Note: Product 3: Battery-powered scissor lift, with electric or hydraulic drive, with 38'-42' platform height elevation and a width of less than 50 inches

Table V-7

MAE: Weighted-average f.o.b. prices and quantities of domestic and imported product 4 and margins of underselling/(overselling), by quarter

Price in dollars per unit, quantity in units, margin in percent.

Period	US price	US quantity	China price	China quantity	China margin
2018 Q1	***	***	--	0	--
2018 Q2	***	***	--	0	--
2018 Q3	***	***	--	0	--
2018 Q4	***	***	--	0	--
2019 Q1	***	***	--	0	--
2019 Q2	***	***	--	0	--
2019 Q3	***	***	--	0	--
2019 Q4	***	***	--	0	--
2020 Q1	***	***	--	0	--
2020 Q2	***	***	--	0	--
2020 Q3	***	***	--	0	--
2020 Q4	***	***	***	***	***
2021 Q1	***	***	***	***	***
2021 Q2	***	***	***	***	***

Table continued.

Period	Canada with China price	Canada with China quantity	Canada with China margin	China Plus price	China Plus quantity	China Plus margin
2018 Q1	***	***	***	***	***	***
2018 Q2	***	***	***	***	***	***
2018 Q3	***	***	***	***	***	***
2018 Q4	***	***	***	***	***	***
2019 Q1	***	***	***	***	***	***
2019 Q2	***	***	***	***	***	***
2019 Q3	***	***	***	***	***	***
2019 Q4	***	***	***	***	***	***
2020 Q1	***	***	***	***	***	***
2020 Q2	***	***	***	***	***	***
2020 Q3	***	***	***	***	***	***
2020 Q4	***	***	***	***	***	***
2021 Q1	***	***	***	***	***	***
2021 Q2	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 4: Diesel-powered four- or all-wheel drive articulating boom lift, with 44'-46' platform height elevation and 500 lb. to 1,000 lb. maximum lift capacity

Table V-8

MAE: Weighted-average f.o.b. prices and quantities of domestic and imported product 5 and margins of underselling/(overselling), by quarter

Price in dollars per unit, quantity in units, margin in percent.

Period	US price	US quantity	China price	China quantity	China margin
2018 Q1	***	***	***	***	***
2018 Q2	***	***	***	***	***
2018 Q3	***	***	***	***	***
2018 Q4	***	***	--	0	--
2019 Q1	***	***	***	***	***
2019 Q2	***	***	***	***	***
2019 Q3	***	***	***	***	***
2019 Q4	***	***	***	***	***
2020 Q1	***	***	--	0	--
2020 Q2	***	***	***	***	***
2020 Q3	***	***	--	0	--
2020 Q4	***	***	***	***	***
2021 Q1	***	***	***	***	***
2021 Q2	***	***	***	***	***

Table continued.

Period	Canada with China price	Canada with China quantity	Canada with China margin	China Plus price	China Plus quantity	China Plus margin
2018 Q1	***	***	***	***	***	***
2018 Q2	***	***	***	***	***	***
2018 Q3	***	***	***	***	***	***
2018 Q4	***	***	***	***	***	***
2019 Q1	***	***	***	***	***	***
2019 Q2	***	***	***	***	***	***
2019 Q3	***	***	***	***	***	***
2019 Q4	***	***	***	***	***	***
2020 Q1	***	***	***	***	***	***
2020 Q2	***	***	***	***	***	***
2020 Q3	***	***	***	***	***	***
2020 Q4	***	***	***	***	***	***
2021 Q1	***	***	***	***	***	***
2021 Q2	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 5: Diesel-powered four- or all-wheel drive telescoping boom lift, with 64'-67' platform height elevation including jib option and 500 lb. to 1,000 lb. maximum lift capacity

Table V-9

MAE: Weighted-average f.o.b. prices and quantities of domestic and imported product 6 and margins of underselling/(overselling), by quarter

Price in dollars per unit, quantity in units, margin in percent.

Period	US price	US quantity	China price	China quantity	China margin
2018 Q1	***	***	--	0	--
2018 Q2	***	***	--	0	--
2018 Q3	***	***	--	0	--
2018 Q4	***	***	--	0	--
2019 Q1	***	***	--	0	--
2019 Q2	***	***	--	0	--
2019 Q3	***	***	--	0	--
2019 Q4	***	***	--	0	--
2020 Q1	***	***	--	0	--
2020 Q2	***	***	--	0	--
2020 Q3	***	***	***	***	***
2020 Q4	***	***	***	***	***
2021 Q1	***	***	***	***	***
2021 Q2	***	***	***	***	***

Table continued.

Period	Canada with China price	Canada with China quantity	Canada with China margin	China Plus price	China Plus quantity	China Plus margin
2018 Q1	***	***	***	***	***	***
2018 Q2	***	***	***	***	***	***
2018 Q3	***	***	***	***	***	***
2018 Q4	***	***	***	***	***	***
2019 Q1	***	***	***	***	***	***
2019 Q2	***	***	***	***	***	***
2019 Q3	***	***	***	***	***	***
2019 Q4	***	***	***	***	***	***
2020 Q1	***	***	***	***	***	***
2020 Q2	***	***	***	***	***	***
2020 Q3	***	***	***	***	***	***
2020 Q4	***	***	***	***	***	***
2021 Q1	***	***	***	***	***	***
2021 Q2	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: ***.

Note: Product 6: Diesel-powered four- or all-wheel drive material telehandler, with 53'-57' maximum lift height and 10,000-lb. maximum lift capacity

Figure V-2

MAE: Weighted-average prices and quantities of domestic and imported product 1, by quarter

Price

* * * * *

Volume

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 1: Battery-powered scissor lift, with electric or hydraulic drive, with 12'-14' platform height elevation and 500 lb. to 600 lb. maximum lift capacity

Figure V-3

MAE: Weighted-average prices and quantities of domestic and imported product 2, by quarter

Price

* * * * *

Volume

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 2: Battery-powered scissor lift, with electric or hydraulic drive, with 18'-20' platform height elevation and 500 lb. to 600 lb. maximum lift capacity

Figure V-4

MAE: Weighted-average prices and quantities of domestic and imported product 3, by quarter

Price

* * * * *

Volume

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 3: Battery-powered scissor lift, with electric or hydraulic drive, with 38'-42' platform height elevation and a width of less than 50 inches

Figure V-5
MAE: Weighted-average prices and quantities of domestic and imported product 4, by quarter

Price

* * * * *

Volume

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 4: Diesel-powered four- or all-wheel drive articulating boom lift, with 44'-46' platform height elevation and 500 lb. to 1,000 lb. maximum lift capacity

Figure V-6
MAE: Weighted-average prices and quantities of domestic and imported product 5, by quarter

Price

* * * * *

Volume

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 5: Diesel-powered four- or all-wheel drive telescoping boom lift, with 64'-67' platform height elevation including jib option and 500 lb. to 1,000 lb. maximum lift capacity

Figure V-7

MAE: Weighted-average prices and quantities of domestic and imported product 6, by quarter

Price

* * * * *

Volume

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 6: Diesel-powered four- or all-wheel drive material telehandler, with 53'-57' maximum lift height and 10,000-lb. maximum lift capacity

Price trends

In general, prices increased for domestic producers during Q1 2018 - Q2 2021, while prices for MAE imported from China were more divided. Table V-10 summarizes the price trends, by country and by product. As shown in the table, domestic price increases occurred in 5 of 6 products, ranging from 3.0 to 13.2 percent during the period, and rose fastest in scissor lift products.²⁶ Import prices from China decreased for all available products, whether or not including shipments of Canadian product including Chinese subassemblies. Price decreases ranged from *** percent to *** percent for data excluding Canadian product with Chinese subassemblies and 1.3 percent to 29.1 percent for data including them.

Table V-10
MAE: Summary of price data, by product and source

Volume in units, price in dollars per unit

Product	Source	Number of quarters	Volume of shipments	Low price	High price	First quarter price	Last quarter price	Percent change in price over period
Product 1	United States	14	***	***	***	***	***	5.2
Product 1	China	14	***	***	***	***	***	(5.9)
Product 1	Canada with China	***	***	***	***	***	***	***
Product 1	China Plus	14	***	***	***	***	***	(5.9)
Product 2	United States	14	***	***	***	***	***	8.4
Product 2	China	13	***	***	***	***	***	(29.1)
Product 2	Canada with China	***	***	***	***	***	***	***
Product 2	China Plus	13	***	***	***	***	***	(29.1)
Product 3	United States	14	***	***	***	***	***	13.2
Product 3	China	14	***	***	***	***	***	***
Product 3	Canada with China	***	***	***	***	***	***	***
Product 3	China Plus	14	***	***	***	***	***	(12.5)

Table continued.

²⁶ The final product, the sole telehandler product among the six, stayed nearly the same, decreasing by *** percent. Data for these products imported from China were only available for the final four quarters.

Table V-10 Continued
MAE: Summary of price data, by product and source

Volume in units, price in dollars per unit

Product	Source	Number of quarters	Volume of shipments	Low price	High price	First quarter price	Last quarter price	Percent change in price over period
Product 4	United States	14	***	***	***	***	***	3.1
Product 4	China	3	***	***	***	---	***	---
Product 4	Canada with China	***	***	***	***	***	***	***
Product 4	China Plus	14	***	***	***	***	***	(5.4)
Product 5	United States	14	***	***	***	***	***	3.0
Product 5	China	11	***	***	***	***	***	***
Product 5	Canada with China	***	***	***	***	***	***	***
Product 5	China Plus	14	***	***	***	***	***	(1.3)
Product 6	United States	14	***	***	***	***	***	(0.2)
Product 6	China	4	***	***	***	---	***	---
Product 6	Canada with China	***	***	***	***	***	***	***
Product 6	China Plus	14	***	***	***	***	***	(8.2)

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Percent change column is percentage change from the first quarter 2018 to the second quarter in 2021, if both are available.

Price comparisons

As shown in table V-11, prices for product imported from China directly were below those for U.S.-produced product in 47 of 59 instances (4,472 units); margins of underselling ranged from 0.3 to 30.3 percent, averaging 12.7 percent. In the remaining 12 instances (571 units), prices for product from China were between 1.3 and 68.6 percent above prices for the domestic product, averaging 26.7 percent.

Table V-11
MAE: Instances of underselling and overselling, range and average margins, by product, for imports from China excluding imports from Canada with Chinese subassemblies

Quantity in units; margin in percent

Product	Type	Number of quarters	Quantity	Average margin	Min margin	Max margin
Product 1 (scissor lift)	Underselling	14	***	***	***	***
Product 2 (scissor lift)	Underselling	8	***	***	***	***
Product 3 (scissor lift)	Underselling	8	***	***	***	***
Product 4 (boom lift)	Underselling	2	***	***	***	***
Product 5 (boom lift)	Underselling	11	***	***	***	***
Product 6 (telehandler)	Underselling	4	***	***	***	***
Total	Underselling	47	4,472	12.7	0.3	30.3
Product 1 (scissor lift)	Overselling	0	---	---	---	---
Product 2 (scissor lift)	Overselling	5	***	***	***	***
Product 3 (scissor lift)	Overselling	6	***	***	***	***
Product 4 (boom lift)	Overselling	1	***	***	***	***
Product 5 (boom lift)	Overselling	0	---	---	---	---
Product 6 (telehandler)	Overselling	0	---	---	---	---
Total	Overselling	12	571	(26.7)	(1.3)	(68.6)

Source: Compiled from data submitted in response to Commission questionnaires.

Note: These data include only quarters in which there is a comparison between the U.S. and subject product.

Note: ***.

Including data from indirect imports of MAE products containing Chinese subassemblies, there was a higher proportion of quarters in which overselling occurred, but there was still a greater number and volume of underselling than overselling. Underselling using total imports from China occurred in 52 of 83 quarters (6,840 units), compared with 31 of 83 quarters of overselling (4,526 units).²⁷ Underselling margins ranged from 0.0 percent to 28.4 percent, averaging 8.6 percent, while overselling margins ranged from 0.0 to 68.6 percent, averaging 16.0 percent.

Table V-12
MAE: Instances of underselling and overselling, range and average margins, by product, for imports from China including imports from Canada with Chinese subassemblies (China Plus)

Quantity in units; margin in percent

Product	Type	Number of quarters	Quantity	Average margin	Min margin	Max margin
Product 1 (scissor lift)	Underselling	14	***	***	***	***
Product 2 (scissor lift)	Underselling	8	***	***	***	***
Product 3 (scissor lift)	Underselling	7	***	***	***	***
Product 4 (boom lift)	Underselling	0	---	---	---	---
Product 5 (boom lift)	Underselling	10	***	***	***	***
Product 6 (telehandler)	Underselling	13	***	***	***	***
Total	Underselling	52	6,840	8.6	0.0	28.4
Product 1 (scissor lift)	Overselling	0	---	---	---	---
Product 2 (scissor lift)	Overselling	5	***	***	***	***
Product 3 (scissor lift)	Overselling	7	***	***	***	***
Product 4 (boom lift)	Overselling	14	***	***	***	***
Product 5 (boom lift)	Overselling	4	***	***	***	***
Product 6 (telehandler)	Overselling	1	***	***	***	***
Total	Overselling	31	4,526	(16.0)	(0.0)	(68.6)

Source: Compiled from data submitted in response to Commission questionnaires.

Note: These data include only quarters in which there is a comparison between the U.S. and subject product.

Note: ***.

²⁷ ***.

Lost sales and lost revenue

In the preliminary phase of the investigations, the Commission requested that U.S. producers of MAE report purchasers with which they experienced instances of lost sales or revenue due to competition from imports of MAE from China during 2018-2020. Two U.S. producers submitted lost sales and lost revenue allegations. The two responding U.S. producers identified 20 firms with which they lost sales or revenue (14 consisting of lost sales allegations, 4 consisting of lost revenue allegations, and 2 consisting of both types of allegations). Virtually all the allegations occurred in ***, with one occurring in *** and one in ***; allegations totaled *** units and ***.²⁸ Staff received a response from one purchaser which had increased its volume and share of purchases from domestic sources, citing greater construction demand in Texas.

In the final phase of the investigations, of the seven responding U.S. producers, three reported that they had to either reduce prices or roll back announced price increases, and three firms reported that they had lost sales.

Staff contacted 65 purchasers and received responses from 14. Responding purchasers reported purchasing approximately 814,000 short tons of MAE during January 2018-June 2021 (table V-13).

When asked if U.S. producers had reduced prices in order to compete with lower-priced imports from China, all seven responding purchasers reported “no.”

Of the 12 responding purchasers, 9 reported that, since 2018, they had purchased imported MAE from China instead of U.S.-produced product. Eight of these purchasers reported that subject import prices were lower than U.S.-produced product, and four of these purchasers reported that price was a primary reason for the decision to purchase imported product rather than U.S.-produced product. Two of the four purchasers were ***. Three purchasers estimated the quantity of MAE from China purchased instead of domestic product; quantities ranged from *** short tons to *** short tons. The *** short tons reflect *** (table V-14).²⁹ More than one purchaser identified availability, as well as the option for a specific feature

²⁸ Petitions, exh. I-15.

²⁹ ***.

(Leak Guard) that had been demanded by customers looking to prevent expensive environmental cleanup as non-price reasons for purchasing imported rather than U.S.-produced product.³⁰

**Table V-13
MAE: Purchasers' reported purchases, by source**

Quantity in short tons, changes in shares in percentage points

Purchaser	Domestic quantity	Subject quantity	All other quantity	Change in domestic share	Change in subject country share
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
Total	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: All other includes all other sources and unknown sources. Change is the percentage point change in the share of the firm's total purchases of domestic and/or subject country imports between first and last years.

³⁰ The Leak Guard and availability were both mentioned by ***.

Table V-14

MAE: Purchasers' responses to purchasing subject imports instead of domestic product

Quantity in short tons

Purchaser	Purchased subject imports instead of domestic	Imports priced lower	Choice based on price	Quantity	Explanation
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
Total	Yes--9; No--3	Yes--8; No--1	Yes--4; No--5	***	NA

Source: Compiled from data submitted in response to Commission questionnaires.

Note: ***. ***.

Part VI: Financial experience of U.S. producers

Background

The U.S.-produced MAE financial results of seven firms (***) are presented in this section of the report, covering the period January 1, 2018 through June 31, 2021.¹ All firms reported their financial results on the basis of U.S. generally accepted accounting principles (GAAP) and for calendar-year periods.² *** combined accounted for *** percent of the period's total reported sales quantity: *** (***) and *** (***) percent). The remaining firms accounted for shares ranging from less than *** percent of the period's total sales quantity (***) to *** percent (***). The majority of MAE revenue reflects commercial sales, but also includes a minimal share of transfer sales.³ No internal consumption was reported. Given the predominance of commercial sales throughout the period, a single revenue line item is presented in the tables below.

Staff conducted a verification of ***'s U.S. producers' questionnaire. The verification adjustments were incorporated into this report. ***.⁴

Operations on MAE

Table VI-1 and table VI-2 present income-and-loss data for U.S. producers' MAE operations and corresponding changes in average per MAE values (AUVs), respectively. Table VI-3 presents selected company-specific financial information. In Appendix R, tables R-1 and R-2 present financial results of operations of U.S. producers excluding ***. In Appendix S, tables S-1 and S-2 present financial results of U.S. producers' telehandler operations and table S-3 presents U.S. producers' count of subassembly procurement, by type and source, on telehandler operations. In Appendix T, tables T-1 and T-2 present financial results of U.S. producers' all other MAE operations; table T-3 presents U.S. producers' count of

¹ *** submitted incomplete financial data and its partial responses are not included in the aggregated financial results. *** accounted for *** percent of total U.S. producers' shipments in 2020.

² ***, however its financial results were provided on a calendar-year basis.

³ ***. Email from ***, September 14, 2021.

⁴ Staff verification report, ***, October 13, 2021.

subassembly procurement, by type and source, on all other MAE operations; and tables T-4 and T-5 present financial results of U.S. producers' all other MAE operations excluding ***.⁵

Table VI-1
MAE: Results of operations of U.S. producers, by item and period

Quantity in short tons; value in 1,000 dollars; ratios in percent and represent ratios to net sales value

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Total net sales	Quantity	***	***	***	***	***
Total net sales	Value	***	***	***	***	***
Raw material costs	Value	***	***	***	***	***
Direct labor costs	Value	***	***	***	***	***
Other factory costs	Value	***	***	***	***	***
Cost of goods sold	Value	***	***	***	***	***
Gross profit or (loss)	Value	***	***	***	***	***
SG&A expenses	Value	***	***	***	***	***
Operating income or (loss)	Value	***	***	***	***	***
Other expense / (income), net	Value	***	***	***	***	***
Net income or (loss)	Value	***	***	***	***	***
Depreciation/amortization	Value	***	***	***	***	***
Cash flow	Value	***	***	***	***	***
Raw material costs	Ratio	***	***	***	***	***
Direct labor costs	Ratio	***	***	***	***	***
Other factory costs	Ratio	***	***	***	***	***
Cost of goods sold	Ratio	***	***	***	***	***
Gross profit	Ratio	***	***	***	***	***
SG&A expense	Ratio	***	***	***	***	***
Operating income or (loss)	Ratio	***	***	***	***	***
Net income or (loss)	Ratio	***	***	***	***	***

Table continued.

⁵ ***.

Table VI-1 Continued**MAE: Results of operations of U.S. producers, by item and period**

Shares in percent and represent share of cost of goods sold; unit values in dollars per short ton; count in number of firms reporting

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Raw material costs	Share	***	***	***	***	***
Direct labor costs	Share	***	***	***	***	***
Other factory costs	Share	***	***	***	***	***
Cost of goods sold	Share	***	***	***	***	***
Total net sales	Unit value	***	***	***	***	***
Raw material costs	Unit value	***	***	***	***	***
Direct labor costs	Unit value	***	***	***	***	***
Other factory costs	Unit value	***	***	***	***	***
Cost of goods sold	Unit value	***	***	***	***	***
Gross profit or (loss)	Unit value	***	***	***	***	***
SG&A expenses	Unit value	***	***	***	***	***
Operating income or (loss)	Unit value	***	***	***	***	***
Net income or (loss)	Unit value	***	***	***	***	***
Operating losses	Count	***	***	***	***	***
Net losses	Count	***	***	***	***	***
Data	Count	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table VI-2
MAE: Changes in average unit values between comparison periods

Changes in percent

Item	2018-20	2018-19	2019-20	Jan-Jun 2020-21
Total net sales	***	***	***	***
Raw material costs	***	***	***	***
Direct labor costs	***	***	***	***
Other factory costs	***	***	***	***
Cost of goods sold	***	***	***	***

Table continued.

Table VI-2 Continued
MAE: Changes in average unit values between comparison periods

Changes in dollars per short ton

Item	2018-20	2018-19	2019-20	Jan-Jun 2020-21
Total net sales	***	***	***	***
Raw material costs	***	***	***	***
Direct labor costs	***	***	***	***
Other factory costs	***	***	***	***
Cost of goods sold	***	***	***	***
Gross profit or (loss)	***	***	***	***
SG&A expense	***	***	***	***
Operating income or (loss)	***	***	***	***
Net income or (loss)	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table VI-3
MAE: Firm-by-firm total net sales quantity, by firm and period

Net sales quantity

Quantity in short tons

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table VI-3 Continued
MAE: Firm-by-firm total net sales net sales value, by period

Net sales value

Value in 1,000 dollars

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table VI-3 Continued
MAE: Firm-by-firm COGS, by firm and period

COGS

Value in 1,000 dollars

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table VI-3 Continued**MAE: Firm-by-firm gross profit or (loss), by firm and period****Gross profit or (loss)**

Value in 1,000 dollars

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table VI-3 Continued**MAE: Firm-by-firm selling, general and administrative (“SG&A”) expenses, by firm and period****SG&A expenses**

Value in 1,000 dollars

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table VI-3 Continued**MAE: Firm-by-firm operating income or (loss), by firm and period****Operating income or (loss)**

Value in 1,000 dollars

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table VI-3 Continued**MAE: Firm-by-firm net income or (loss), by firm and period****Net income or (loss)**

Value in 1,000 dollars

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table VI-3 Continued**MAE: Firm-by-firm ratio of COGS to net sales value, by firm and period****COGS to net sales ratio**

Ratios in percent

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table VI-3 Continued**MAE: Firm-by-firm ratio of gross profit or (loss) to net sales value, by firm and period****Gross profit or (loss) to net sales ratio**

Ratios in percent

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table VI-3 Continued**MAE: Firm-by-firm ratio of SG&A expenses to net sales value, by firm and period****SG&A expenses to net sales ratio**

Ratios in percent

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table VI-3 Continued**MAE: Firm-by-firm ratio of operating income or (loss) to net sales value, by firm and period****Operating income or (loss) to net sales ratio**

Ratios in percent

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table VI-3 Continued**MAE: Firm-by-firm ratio of net income or (loss) to net sales value, by firm and period****Net income or (loss) to net sales ratio**

Ratios in percent

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table VI-3 Continued**MAE: Firm-by-firm unit net sales value, by firm and period****Unit net sales value**

Unit values in dollars per short ton

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table VI-3 Continued**MAE: Firm-by-firm unit raw material costs, by firm and period****Unit raw material costs**

Unit values in dollars per short ton

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table VI-3 Continued**MAE: Firm-by-firm unit direct labor costs, by firm and period****Unit direct labor costs**

Unit values in dollars per short ton

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table VI-3 Continued**MAE: Firm-by-firm unit other factory costs, by firm and period****Unit other factory costs**

Unit values in dollars per short ton

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table VI-3 Continued**MAE: Firm-by-firm unit COGS, by firm and period****Unit COGS**

Unit values in dollars per short ton

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table VI-3 Continued**MAE: Firm-by-firm unit gross profit or (loss), by firm and period****Unit gross profit or (loss)**

Unit values in dollars per short ton

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table VI-3 Continued**MAE: Firm-by-firm unit SG&A expenses, by firm and period****Unit SG&A expenses**

Unit values in dollars per short ton

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table VI-3 Continued**MAE: Firm-by-firm unit operating income or (loss), by firm and period****Unit operating income or (loss)**

Unit values in dollars per short ton

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table VI-3 Continued**MAE: Firm-by-firm unit net income or (loss), by firm and period****Unit net income or (loss)**

Unit values in dollars per short ton

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Net sales

As shown in table VI-1 the total net sales by quantity and value declined by *** percent and *** percent from 2018 to 2019, then further declined by *** percent and *** percent from 2019 to 2020, respectively. The total net sales by quantity and value were higher by *** percent and *** percent in January-June 2021 than in January-June 2020, respectively. As shown in table VI-3, the net sales quantity and value of all U.S. producers *** declined overall from 2018 to 2020.⁶ The net sales quantity and value of all MAE producers *** were higher in January-June 2021 than in January-June 2020.⁷

On an overall basis, average sales value per short ton increased from 2018 to 2019 and then declined somewhat in 2020, resulting in an increase of *** percent from 2018 to 2020. Average sales value per short ton was higher by *** percent in January-June 2021 than in January-June 2020. As shown in table VI-3, all U.S. producers reported an overall increase in sales value per short ton from 2018 to 2020; however, the company-specific trends were not uniform during the interim periods.⁸

Cost of goods sold and gross profit or loss

Raw materials

Total raw material cost is the largest component of cost of goods sold (“COGS”), ranging from *** percent (2020) of total COGS to *** percent (2019). On an average per short ton basis, raw material costs increased from 2018 to 2019, then declined in 2020, resulting in an

⁶ ***. Email from ***, September 14, 2021. ***. Email from ***, September 14, 2021. ***. Email from ***, September 14, 2021.

⁷ ***. Email from ***, September 16, 2021.

⁸ ***. Email from ***, September 16, 2021.

overall increase from 2018 to 2020. Raw material costs were higher in January-June 2021 than in January-June 2020. On a company-specific basis, all U.S. producers except *** reported an overall increase in average per short ton raw material costs from 2018 to 2020 and all U.S. producers except *** reported higher average per short ton raw material costs in January-June 2021 than in January-June 2020.^{9 10} Raw materials consist of steel plate/sheet, other fabricated steel components, engines, axles, transmissions, electrical/battery components, hydraulic components, subassemblies, and other material inputs such as ***. Table VI-4 presents a break-out of the raw material costs, by type, for calendar year 2020.

Table VI-4
MAE: Raw material costs, by type, 2020

Item	Value	Share of value
Steel plate/sheet costs	***	***
Other fab steel costs	***	***
Engines, axles, transmission costs	***	***
Electrical, battery costs	***	***
Hydraulic costs	***	***
Other costs including subassemblies	***	***
All raw materials	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

⁹ ***. Email from ***, September 20, 2021.

¹⁰ ***. Email from ***, September 16 and 23, 2021.

Table VI-5 presents the value of subassemblies U.S producers reported in raw materials which were internally produced, domestically purchased or purchased foreign origin/imported for MAE production.¹¹ Subassemblies are comprised of bucket attachments, carriage attachments, fork attachments, booms, cabs, scissor arms, stack arms, chassis, chassis frames, turntables, turntable frames, boom sections, boom weldments, and other components. ***.¹² ***.

Table VI-5
MAE: U.S. producers' value of subassemblies, by source and period

Values in 1,000 dollars; share of value in percent; ratio is value of subassemblies to total COGS

Source	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Internally produced	Value	***	***	***	***	***
Domestic purchases	Value	***	***	***	***	***
Foreign purchases or imports	Value	***	***	***	***	***
All sources	Value	***	***	***	***	***
Internally produced	Share	***	***	***	***	***
Domestic purchases	Share	***	***	***	***	***
Foreign purchases or imports	Share	***	***	***	***	***
All sources	Share	***	***	***	***	***
Internally produced	Ratio	***	***	***	***	***
Domestic purchases	Ratio	***	***	***	***	***
Foreign purchases or imports	Ratio	***	***	***	***	***
All sources	Ratio	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: ***. Email from ***, September 14, 2021.

¹¹ ***. Petitioners' postconference brief, exh. 1, p. 36.

¹² ***.

Direct labor and other factory costs

Direct labor, the smallest component of COGS, ranged from *** percent (2018 and 2019) to *** percent (January-June 2020 and January-June 2021). On an average per short ton basis, direct labor costs increased from 2018 to 2020 and were lower in January-June 2021 than in January-June 2020. All U.S. producers except *** reported overall increasing per short ton direct labor costs from 2018 to 2020. The company-specific trends were not uniform during the interim periods.¹³

Other factory costs, the second largest component of COGS, ranged from *** percent (2019) of total COGS to *** percent (2020). On a per short ton basis, other factory costs increased from 2018 to 2020 and were lower in January-June 2021 than in January-June 2020. Other factory costs include both variable and fixed components. During the full year period of investigation, the lowest sales quantity was reported in 2020 which was the same year when the industry reported the highest other factory costs per short ton because fixed costs included in other factory costs were allocated over fewer sales units.¹⁴ On a company-specific basis, all U.S. producers except *** reported overall increasing per short ton other factory costs from 2018 to 2020 and all U.S. producers except *** reported lower per short ton other factory costs in January-June 2021 than in January-June 2020.^{15 16}

¹³ ***. Email from ***, October 13, 2021.

¹⁴ ***. Email from ***, September 17, 2021. ***. Email from ***, September 20, 2021.

¹⁵ ***. Emails from ***, September 23 and 24, 2021.

¹⁶ ***. U.S. producers' questionnaire response of ***, question III-10a and III-10b.

COGS and gross profit or loss

The average COGS to net sales ratio declined somewhat from *** percent in 2018 to *** percent in 2019, then increased to *** percent in 2020 and was lower in January-June 2021 (*** percent) than in January-June 2020 (*** percent) due to trend changes in other factory costs as a ratio to net sales.¹⁷

As shown in table VI-1, the decline in net sales value along with the decline in sales volume from 2018 to 2020 exceeded the corresponding decline in COGS, thus the industry's gross profit declined from 2018 to 2020 but was higher in January-June 2021 than in January-June 2020 as net sales increased more than COGS. Gross margin (gross profit as a ratio to net sales) somewhat increased from *** percent in 2018 to *** percent in 2019, then declined to *** percent in 2020, and was higher in January-June 2021 (*** percent) than in January-June 2020 (*** percent). On a company-specific basis, all U.S. producers except *** reported overall declining gross profit margins from 2018 to 2020, however the company-specific trends were not uniform during the interim periods.

SG&A expenses and operating income or loss

The U.S. industry's total selling, general, and administrative ("SG&A") expenses declined from 2018 to 2020 and were lower in January-June 2021 than in January-June 2020. In conjunction with declines in total sales value, the SG&A expense ratio (total SG&A expenses divided by total sales value) increased from 2018 to 2020 as net sales values declined more than SG&A expenses during this time. The SG&A expense ratio was lower in January-June 2021 than in January-June 2020. Table VI-3 shows that all U.S. producers except *** reported an increasing SG&A expense ratio from 2018 to 2020 and *** U.S. producers reported a lower SG&A expense ratio in January-June 2021 than in January-June 2020.¹⁸

Operating income and the operating income margin (operating income as a ratio to net sales) overall declined from 2018 to 2020 with the greatest decline in 2020, largely reflecting the aforementioned decline in total gross profit. Operating income and the operating income margin were notably higher in January-June 2021 than in January-June 2020. On a company-specific basis, all U.S. producers except *** reported overall declining operating

¹⁷ ***. U.S. producers' questionnaire response of ***, question III-10b.

¹⁸ ***. U.S. producers' questionnaire response of ***, question III-10b.

income margins from 2018 to 2020 and all U.S. producers except *** reported overall higher operating income margins in January-June 2021 than in January-June 2020. *** reported an operating income throughout the reporting period; *** reported an operating loss throughout the reporting period; *** reported an operating loss in 2019, 2020, January-June 2020, and January-June 2021; *** reported an operating loss in 2018, 2019, and January-June 2020; *** reported an operating loss in 2020 and January-June 2020; and *** reported an operating loss in 2020 and January-June 2021.¹⁹

Interest expense, other expenses and income, and net income or loss

Classified below the operating income level are interest expense, other expense, and other income. In table VI-1, these items are aggregated and only the net amount is shown. The industry's net "all other expenses" increased from 2018 to 2019 then declined in 2020, and were lower in January-June 2021 than in January-June 2020. ***.²⁰

Net income declined from 2018 to 2019 then further declined to a loss in 2020, and was notably higher in January-June 2021 than in January-June 2020. The net income margin (net income as a ratio to net sales) exhibited the same trend. On a company-specific basis, all U.S. producers *** reported overall declining net income margins from 2018 to 2020 and all U.S. producers *** reported higher net income margins in January-June 2021 than in January-June 2020. *** reported a net income throughout the reporting period; ***.

¹⁹ Due to the changes in company-specific product mix during the period, a variance analysis is not presented in this section of the report.

²⁰ U.S. producers' questionnaire response of ***, question III-10b. *** accounted for the vast majority of reported net "all other expenses" during the reporting period.

Table VI-6 presents the U.S. producers’ narrative responses regarding the effects of COVID-19 pandemic on their financial performance and table VI-7 presents U.S. producers’ narrative responses regarding the reversal (partial or full) of the adverse impact of the COVID-19 pandemic on their financial performance.

Table VI-6
MAE: Firms’ narrative responses relating to COVID-19 pandemic effects on U.S. producers’ financial performance

Firm	Impact	Narrative response
Custom Equipment	***	***
Global	***	***
JLG	***	***
MEC	***	***
Pettibone	***	***
Snorkel	***	***
Terex	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table VI-7

MAE: Firms' narrative responses relating to reversal of adverse COVID-19 pandemic effects on U.S. producers' financial performance

Firm	Impact	Narrative response
Custom Equipment	***	***
Global	***	***
JLG	***	***
MEC	***	***
Pettibone	***	***
Snorkel	***	***
Terex	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Capital expenditures and research and development expenses

Table VI-8 presents U.S. producers' capital expenditures and table VI-9 presents research and development ("R&D") expenses related to their MAE operations. Tables VI-10 and VI-11 present firm-specific narrative descriptions of the nature, focus, and significance of their capital expenditures and R&D expenses, respectively. *** accounted for the vast majority of reported net capital expenditures and R&D expenses during the reporting period. The industry's capital expenditures declined from 2018 to 2020 and were lower in January-June 2021 than in January-June 2020. Total R&D expenses increased from 2018 to 2019, then declined in 2020, resulting in an overall decline from 2018 to 2020. Total R&D expenses were higher in January-June 2021 than in January-June 2020.

Table VI-8
MAE: U.S. producers' capital expenditures, by firm and period

Value in 1,000 dollars

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table VI-9
MAE: U.S. producers' R&D expenses, by firm and period

Value in 1,000 dollars

Firm	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	***	***	***	***	***
Global	***	***	***	***	***
JLG	***	***	***	***	***
MEC	***	***	***	***	***
Pettibone	***	***	***	***	***
Snorkel	***	***	***	***	***
Terex	***	***	***	***	***
All firms	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table VI-10

MAE: Narrative descriptions of U.S. producers' capital expenditures, by firm

Firm	Narrative explanation
Custom Equipment	***
Global	***
JLG	***
MEC	***
Pettibone	***
Snorkel	***
Terex	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table VI-11

MAE: Narrative descriptions of U.S. producers' R&D expenses, by firm

Firm	Narrative explanation
Custom Equipment	***
Global	***
JLG	***
MEC	***
Pettibone	***
Snorkel	***
Terex	***

Source: Compiled from data submitted in response to Commission questionnaires.

Assets and return on assets

Table VI-12 presents U.S. producers' total net assets while table VI-13 presents their return on net assets ("ROA") related to operations on MAE.²¹ Table VI-14 presents U.S. producers' narrative responses explaining their major asset categories and any significant changes in asset levels over time.

Table VI-12
MAE: U.S. producers' total net assets, by firm and period

Value in 1,000 dollars

Firm	2018	2019	2020
Custom Equipment	***	***	***
Global	***	***	***
JLG	***	***	***
MEC	***	***	***
Pettibone	***	***	***
Snorkel	***	***	***
Terex	***	***	***
All firms	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

²¹ With respect to a company's overall operations, staff notes that a total asset value (i.e., the bottom line value on the asset side of a company's balance sheet) reflects an aggregation of a number of current and non-current assets, which, in many instances, are not product specific. In at least some instances, allocation factors were presumably necessary to report total asset values specific to U.S. producers' MAE operations. The ability of U.S. producers to assign total asset values to discrete product lines affects the meaningfulness of operating return on net assets.

Table VI-13
MAE: U.S. producers' ROA, by firm and period

Ratio in percent

Firm	2018	2019	2020
Custom Equipment	***	***	***
Global	***	***	***
JLG	***	***	***
MEC	***	***	***
Pettibone	***	***	***
Snorkel	***	***	***
Terex	***	***	***
All firms	***	***	***

Note: ***. Emails from ***, October 25 and 26, 2021.

Source: Compiled from data submitted in response to Commission questionnaires.

Table VI-14
MAE: Narrative descriptions of U.S. producers' total net assets, by firm

Firm	Narrative explanation
Custom Equipment	***
Global	***
JLG	***
MEC	***
Pettibone	***
Snorkel	***
Terex	***

Source: Compiled from data submitted in response to Commission questionnaires.

Capital and investment

The Commission requested the U.S. producers of MAE to describe any actual or potential negative effects on their return on investment or their growth, investment, ability to raise capital, existing development and production efforts, or the scale of capital investments as a result of imports of MAE from China. Table VI-15 tabulates the responses regarding actual negative effects on investment, growth, and development, as well as anticipated negative effects. Table VI-16 presents the narrative responses of U.S. producers regarding actual and anticipated negative effects on investment, growth, and development.

Table VI-15

MAE: Negative effects of imports from subject sources on investment, growth, and development since January 1, 2018

Number of firms reporting

Effect	Category	Count
Cancellation, postponement, or rejection of expansion projects	Investment	1
Denial or rejection of investment proposal	Investment	0
Reduction in the size of capital investments	Investment	3
Return on specific investments negatively impacted	Investment	1
Other investment effects	Investment	2
Any negative effects on investment	Investment	3
Rejection of bank loans	Growth	0
Lowering of credit rating	Growth	0
Problem related to the issue of stocks or bonds	Growth	0
Ability to service debt	Growth	1
Other growth and development effects	Growth	2
Any negative effects on growth and development	Growth	3
Anticipated negative effects of imports	Future	5

Note: ***.

Source: Compiled from data submitted in response to Commission questionnaires.

Table VI-16**MAE: Narratives relating to actual and anticipated negative effects of imports on investment and growth and development, since January 1, 2018**

Item	Firm name and accompanying narrative response
Cancellation, postponement, or rejection of expansion projects	***
Cancellation, postponement, or rejection of expansion projects	***
Reduction in the size of capital investments	***
Reduction in the size of capital investments	***
Reduction in the size of capital investments	***
Return on specific investments negatively impacted	***
Other negative effects on investments	***
Other negative effects on investments	***
Rejection of bank loans	***
Ability to service debt	***
Other effects on growth and development	***

Table continued.

Table VI-16 Continued

MAE: Narratives relating to actual and anticipated negative effects of imports on investment and growth and development, since January 1, 2018

Item	Firm name and accompanying narrative response
Other effects on growth and development	***
Anticipated effects of imports	***
Anticipated effects of imports	***
Anticipated effects of imports	***
Anticipated effects of imports	***
Anticipated effects of imports	***

Source: Compiled from data submitted in response to Commission questionnaires.

Part VII: Threat considerations and information on nonsubject countries

Section 771(7)(F)(i) of the Act (19 U.S.C. § 1677(7)(F)(i)) provides that—

In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of the subject merchandise, the Commission shall consider, among other relevant economic factors¹--

- (I) if a countervailable subsidy is involved, such information as may be presented to it by the administering authority as to the nature of the subsidy (particularly as to whether the countervailable subsidy is a subsidy described in Article 3 or 6.1 of the Subsidies Agreement), and whether imports of the subject merchandise are likely to increase,*
- (II) any existing unused production capacity or imminent, substantial increase in production capacity in the exporting country indicating the likelihood of substantially increased imports of the subject merchandise into the United States, taking into account the availability of other export markets to absorb any additional exports,*
- (III) a significant rate of increase of the volume or market penetration of imports of the subject merchandise indicating the likelihood of substantially increased imports,*
- (IV) whether imports of the subject merchandise are entering at prices that are likely to have a significant depressing or suppressing effect on domestic prices, and are likely to increase demand for further imports,*
- (V) inventories of the subject merchandise,*

¹ Section 771(7)(F)(ii) of the Act (19 U.S.C. § 1677(7)(F)(ii)) provides that “The Commission shall consider {these factors} . . . as a whole in making a determination of whether further dumped or subsidized imports are imminent and whether material injury by reason of imports would occur unless an order is issued or a suspension agreement is accepted under this title. The presence or absence of any factor which the Commission is required to consider . . . shall not necessarily give decisive guidance with respect to the determination. Such a determination may not be made on the basis of mere conjecture or supposition.”

- (VI) *the potential for product-shifting if production facilities in the foreign country, which can be used to produce the subject merchandise, are currently being used to produce other products,*
- (VII) *in any investigation under this title which involves imports of both a raw agricultural product (within the meaning of paragraph (4)(E)(iv)) and any product processed from such raw agricultural product, the likelihood that there will be increased imports, by reason of product shifting, if there is an affirmative determination by the Commission under section 705(b)(1) or 735(b)(1) with respect to either the raw agricultural product or the processed agricultural product (but not both),*
- (VIII) *the actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and*
- (IX) *any other demonstrable adverse trends that indicate the probability that there is likely to be material injury by reason of imports (or sale for importation) of the subject merchandise (whether or not it is actually being imported at the time).²*

Information on the nature of the subsidies was presented earlier in this report; information on the volume and pricing of imports of the subject merchandise is presented in *Parts IV* and *V*; and information on the effects of imports of the subject merchandise on U.S. producers' existing development and production efforts is presented in *Part VI*. Information on inventories of the subject merchandise; foreign producers' operations, including the potential for "product-shifting"; any other threat indicators, if applicable; and any dumping in third-country markets, follows. Also presented in this section of the report is information obtained for consideration by the Commission on nonsubject countries.

² Section 771(7)(F)(iii) of the Act (19 U.S.C. § 1677(7)(F)(iii)) further provides that, in antidumping investigations, ". . . the Commission shall consider whether dumping in the markets of foreign countries (as evidenced by dumping findings or antidumping remedies in other WTO member markets against the same class or kind of merchandise manufactured or exported by the same party as under investigation) suggests a threat of material injury to the domestic industry."

The industry in China

The Commission issued foreign producers'/exporters' questionnaires to 23 firms believed to produce MAE in and/or export MAE from China.³ Usable responses to the Commission's questionnaire were received from ten firms: Guangxi LiuGong Machinery Co., Ltd. ("Guangxi"); Hunan Sinoboom Intelligent Equipment Co., Ltd ("Hunan Sinoboom"); JLG Industries, Inc. ("JLG Tianjin");⁴ Lingong Group Jinan Heavy Machinery Co., Ltd. ("Lingong"); Mantall Heavy Industry Co., Ltd. ("Mantall"); SANY Marine Heavy Industry Co., Ltd ("SANY China"); Terex (Changzhou) Machinery Co. Ltd. ("Terex Changzhou"); XCMG Fire-Fighting Safety Equipment Co., Ltd. ("XCMG China"); Zhejiang Dingli Machinery Co., Ltd. ("Dingli"); and Zoomlion Heavy Industry Science and Technology Co., Ltd ("Zoomlion"). These firms' exports to the United States accounted for approximately 72.0 percent of U.S. imports of MAE from China in 2020, as reported in importer questionnaires. According to estimates requested of the responding producers in China, the production of MAE in China reported in questionnaires accounts for approximately *** percent of telehandler production in China, and *** percent of all other MAE production in China,⁵ for a total of *** percent of overall production of all MAE in China.⁶ Table VII-1 presents information on the MAE operations of the responding producers and exporters in China.

³ These firms were identified through a review of information submitted in the petitions, preliminary phase questionnaire responses, and presented in third-party sources. One firm, ***, confirmed it is not a Chinese producer of MAE. Email from ***, September 3, 2021.

⁴ U.S. producer JLG Industries, Inc. submitted a foreign producer questionnaire, which covered production activities at its wholly owned subsidiary in China, Oshkosh JLG (Tianjin) Equipment Technology Company. Ltd., thus, the firm associated with its foreign producer questionnaire is referred to as "JLG Tianjin."

⁵ Estimates requested of responding producers in China for their share of production of all other MAE in China added up to *** percent. However, the estimate of one foreign producer, ***, was inconsistent with the estimates provided by other foreign producers, given firms' reported production. As such, staff revised *** estimate downward, from *** percent to *** percent, which resulted in an estimated coverage of *** percent of all other MAE production in China.

⁶ Other firms identified in importer questionnaires as U.S. importers' sources of MAE from China for which we did not receive a foreign producer questionnaire include ***.

Table VII-1
MAE: Summary data for producers in China, 2020

Quantity in short tons; share in percent

Firm	Production (short tons)	Share of reported production (percent)	Exports to the United States (short tons)	Share of reported exports to the United States (percent)	Total shipments (short tons)	Share of firm's total shipments exported to the United States (percent)
Dingli	***	***	***	***	***	***
Guangxi	***	***	***	***	***	***
Hunan Sinoboom	***	***	***	***	***	***
JLG Tianjin	***	***	***	***	***	***
Lingong	***	***	***	***	***	***
Mantall	***	***	***	***	***	***
SANY China	***	***	***	***	***	***
Terex Changzhou	***	***	***	***	***	***
XCMG China	***	***	***	***	***	***
Zoomlion	***	***	***	***	***	***
All firms	472,409	100.0	21,502	100.0	438,800	4.9

Source: Compiled from data submitted in response to Commission questionnaires.

Changes in operations

As presented in table VII-2, producers in China reported several operational and organizational changes since January 1, 2018, including six expansions, two plant openings, two relocations, one revised labor agreement, and one *** plant closure. Four firms also reported increases in production capacity due to improved technology, labor, production, and supply chain management.

Table VII-2**MAE: Reported changes in operations by producers in China, since January 1, 2018**

Item	Firm name and accompanying narrative response
Plant openings	***
Plant openings	***
Plant closings	***
Relocations	***
Relocations	***
Expansions	***
Expansions	***
Expansions	***
Expansions	***
Expansions	***
Expansions	***
Revised labor agreements	***

Item	Firm name and accompanying narrative response
Other	***
Other	***
Other	***
Other	***

Source: Compiled from data submitted in response to Commission questionnaires.

Six of the ten foreign producers reported that the COVID-19 pandemic had an impact on their firm operations. Five firms (***) reported supply chain disruptions; three firms reported shipping challenges (***), such as limited supply, delays, and increased costs; and one firm (***) reported *** plant closures at the beginning of 2020. Five foreign producers reported a partial or full reversal of the adverse impacts of the COVID-19 pandemic, with the beginning of the reversal reported ranging from March 2020 to August 2021. Four foreign producers reported that there are still raw material supply shortages and high transportation costs (***) and one foreign producer (***) reported that the Delta variant has resulted in decreased production and shipments in mid-2021.

Operations on MAE

Table VII-3 presents information on the MAE operations of the responding producers/exporters in China. ***.

Capacity, production, and home market shipments all increased over the 2018-20 period, by 106.7, 88.4, and 205.0 percent, respectively; while export shipments to the United States and all other markets decreased, by 36.1 and 33.2 percent, respectively. All of the aforementioned indicators are projected to increase between 2020 and 2021, and with the exception of export shipments to the United States, are projected to be higher in 2021 than in

any year during 2018-20.⁷ All of the aforementioned indicators, with the exception of export shipments to the United States, are projected to increase further between 2021 and 2022.⁸

In 2018, total shipments were roughly split evenly between home market shipments and export shipments. By 2020, home market shipments' share increased to approximately four-fifths of total shipments, while export shipments decreased to approximately one-fifth of total shipments.

Home market shipments increased as a share of total shipments by 32.8 percentage points during 2018-20. Export shipments to the U.S. and export shipments to all other markets (***) , as a share of total shipments, each decreased during 2018-20, by 9.1 and 23.8 percentage points, respectively.

Eight of the ten foreign producers projected decreases in or no exports to the United States between 2021 and 2022. Some explanations for these projections included ***.

Given that capacity increased by a greater percentage than production over the 2018-20 period, capacity utilization decreased by 6.5 percentage points during this period and is projected to decrease by 3.8 percentage points from 2021 to 2022.

End-of-period inventories increased by 145.7 percent from 2018 to 2020, but are projected to decrease by 2.1 percent between 2021 and 2022. The inventory to total shipments ratio increased by 5.3 percentage points during 2018 to 2020 and is projected to decrease by 1.1 percentage points between 2021 and 2022.

⁷ From 2020 to 2021, capacity is projected to increase by 14.8 percent, production by 30.0 percent, home market shipments by 33.2 percent, exports to all other markets by 87.5 percent, and exports to the U.S. by 26.3 percent.

⁸ From 2021 to 2022, capacity is projected to increase by 11.6 percent, production by 6.0 percent, home market shipments by 7.6 percent, and exports to all other markets by 13.1 percent. Exports to the U.S. are projected to decrease by 53.5 percent from 2021 to 2022.

Table VII-3
MAE: Data for producers in China, by period

Quantity in short tons

Item	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021	Projection 2021	Projection 2022
Capacity	342,332	463,834	707,599	363,895	417,220	812,269	906,702
Production	250,752	364,245	472,409	220,722	335,144	614,106	650,761
End-of-period inventories	36,807	56,816	90,425	89,934	81,732	88,633	86,762
Internal consumption	***	***	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***	***	***
Home market shipments	116,982	235,003	356,808	150,531	256,471	475,319	511,676
Exports to the United States	33,663	24,262	21,502	10,511	26,241	27,156	12,620
Exports to all other markets	90,572	84,970	60,491	26,572	61,125	113,424	128,336
Export shipments	124,235	109,232	81,993	37,082	87,366	140,580	140,956
Total shipments	241,217	344,235	438,800	187,613	343,837	615,899	652,632

Table continued.

Table VII-3 Continued
MAE: Data for producers in China, by period

Share and ratio in percent

Item	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021	Projection 2021	Projection 2022
Capacity utilization ratio	73.2	78.5	66.8	60.7	80.3	75.6	71.8
Inventory ratio to production	14.7	15.6	19.1	20.4	12.2	14.4	13.3
Inventory ratio to total shipments	15.3	16.5	20.6	24.0	11.9	14.4	13.3
Internal consumption share	***	***	***	***	***	***	***
Commercial home market shipments share	***	***	***	***	***	***	***
Home market shipments share	48.5	68.3	81.3	80.2	74.6	77.2	78.4
Exports to the United States share	14.0	7.0	4.9	5.6	7.6	4.4	1.9
Exports to all other markets share	37.5	24.7	13.8	14.2	17.8	18.4	19.7
Export shipments share	51.5	31.7	18.7	19.8	25.4	22.8	21.6
Total shipments share	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Alternative products

Table VII-4 presents other products that responding firms produce on the same equipment and machinery used to produce MAE. ***, reported producing *** on the same equipment as MAE, which accounted for less than *** percent of total production throughout the period for which data were collected. Overall capacity on the equipment used to produce MAE increased by *** percent and was *** percent higher in interim 2021 than in interim 2020. Overall capacity utilization decreased by *** percentage points from 2018 to 2020, but was *** percentage points higher in interim 2021 than in interim 2020.

Table VII-4
MAE: Chinese producers' overall capacity and production on the same equipment as subject production, by period

Quantity in short tons; share and ratio in percent

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Overall capacity	Quantity	***	***	***	***	***
Telehandlers production	Quantity	***	***	***	***	***
Other MAE production	Quantity	***	***	***	***	***
All scope MAE production	Quantity	250,752	364,245	472,409	220,722	335,144
Out-of-scope production	Quantity	***	***	***	***	***
Total production	Quantity	***	***	***	***	***
Overall capacity utilization	Ratio	***	***	***	***	***
Telehandlers production	Share	***	***	***	***	***
Other MAE production	Share	***	***	***	***	***
All scope MAE production	Share	***	***	***	***	***
Out-of-scope production	Share	***	***	***	***	***
Total production	Share	100.0	100.0	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Exports

According to Global Trade Atlas ("GTA"),⁹ the leading export markets for forklift trucks and other lifting or handling work trucks, and parts thereof from China are the United States, Australia, and the Netherlands (table VII-5). During 2020, the United States was the top export market for such products from China, accounting for 17.5 percent of total value, followed by Australia, accounting for 5.3 percent of total value.

⁹ The GTA data presented in this section are overbroad, as the relevant HS subheadings for MAE (8427.10, 8427.20, 8427.90 and 8431.20) include a substantial amount of out-of-scope product.

Table VII-5
Forklift trucks and other lifting or handling work trucks, and parts thereof: Exports from China, by period

Value in 1,000 dollars

Destination market	Measure	2018	2019	2020
United States	Value	751,792	576,906	558,313
Australia	Value	227,840	201,561	170,144
Netherlands	Value	229,865	187,760	159,929
Germany	Value	157,053	147,052	141,323
Korea	Value	125,391	144,098	120,198
Russia	Value	102,217	114,403	118,322
Japan	Value	139,559	160,406	108,725
France	Value	106,575	101,573	96,929
Thailand	Value	94,984	106,761	88,849
All other destination markets	Value	1,807,093	1,748,629	1,633,445
All destination markets	Value	3,742,369	3,489,149	3,196,177

Table continued.

Table VII-5 Continued
Forklift trucks and other lifting or handling work trucks, and parts thereof: Exports from China, by period

Share of value is the share of total exports by value in percent

Destination market	Measure	2018	2019	2020
United States	Share of value	20.1	16.5	17.5
Australia	Share of value	6.1	5.8	5.3
Netherlands	Share of value	6.1	5.4	5.0
Germany	Share of value	4.2	4.2	4.4
Korea	Share of value	3.4	4.1	3.8
Russia	Share of value	2.7	3.3	3.7
Japan	Share of value	3.7	4.6	3.4
France	Share of value	2.8	2.9	3.0
Thailand	Share of value	2.5	3.1	2.8
All other destination markets	Share of value	48.3	50.1	51.1
All destination markets	Share of value	100.0	100.0	100.0

Source: Official exports statistics under HS subheading 8427.10, 8427.20, 8427.90 and 8431.20 as reported by China customs in the Global Trade Atlas database, accessed August 27th, 2021.

Note: United States is shown at the top. All remaining top export destinations are shown in descending order of 2020 data.

Note: HS subheadings all include more products than those covered by the scope of these investigations. 8427.10 covers all self-propelled trucks with an electric motor, which includes various out of scope products such as rider operated forklift trucks. 8427.20 covers all other self-propelled trucks which includes other types of rider operated forklift and other trucks. 8431.20 covers parts of all machinery imported under the HS heading 8427.

U.S. inventories of imported merchandise

Table VII-6 presents data on U.S. importers' reported inventories of MAE. End-of-period inventories of MAE from China decreased by 27.6 percent from 2018 to 2019, then increased by 37.0 percent from 2019 to 2020, for an overall 0.8 decrease in inventories during 2018-20. End-of-period inventories of MAE from China were 10.2 percent lower in interim 2021 than interim 2020. The ratios of inventories of MAE from China to U.S. shipments of imports and total shipments of imports both increased over the 2018-20 period, from around two-fifths in 2018 to over half in 2020. The ratios of inventories of MAE from China to U.S. shipments of imports and total shipments of imports were lower in interim 2021 than interim 2020 (around two-thirds in interim 2020 and around one-third in interim 2021).

End-of-period inventories from nonsubject sources increased by 69.6 percent from 2018 to 2019, then decreased by 24.6 percent from 2019 to 2020, for a total increase of 27.8 percent from 2018 to 2020. End-of-period inventories of MAE from nonsubject sources were 33.0 percent lower in interim 2021 than interim 2020.

Table VII-6
MAE: U.S. importers' inventories, by period

Quantity in short tons; ratio in percent

Measure	Source	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Inventories quantity	China	12,719	9,212	12,618	14,170	12,722
Ratio to imports	China	29.6	31.2	47.5	45.4	29.4
Ratio to U.S. shipments of imports	China	39.6	29.1	55.8	68.3	31.0
Ratio to total shipments of imports	China	38.7	27.9	54.4	66.5	29.5
Inventories quantity	Canada	***	***	***	***	***
Ratio to imports	Canada	***	***	***	***	***
Ratio to U.S. shipments of imports	Canada	***	***	***	***	***
Ratio to total shipments of imports	Canada	***	***	***	***	***
Inventories quantity	Mexico	***	***	***	***	***
Ratio to imports	Mexico	***	***	***	***	***
Ratio to U.S. shipments of imports	Mexico	***	***	***	***	***
Ratio to total shipments of imports	Mexico	***	***	***	***	***
Inventories quantity	All other sources	***	***	***	***	***
Ratio to imports	All other sources	***	***	***	***	***
Ratio to U.S. shipments of imports	All other sources	***	***	***	***	***
Ratio to total shipments of imports	All other sources	***	***	***	***	***
Inventories quantity	Nonsubject	16,005	27,143	20,455	27,017	18,093
Ratio to imports	Nonsubject	7.3	13.1	22.2	29.1	11.7
Ratio to U.S. shipments of imports	Nonsubject	7.7	14.3	21.5	30.0	11.9
Ratio to total shipments of imports	Nonsubject	7.6	13.9	20.6	29.0	11.4
Inventories quantity	All sources	28,724	36,355	33,072	41,187	30,815
Ratio to imports	All sources	11.0	15.4	27.8	33.2	15.6
Ratio to U.S. shipments of imports	All sources	12.0	16.4	28.0	37.2	15.9
Ratio to total shipments of imports	All sources	11.8	15.9	27.0	36.0	15.2

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Skyjack did not report any China indirect inventories. Ratios in this table for China and Canada provide ratios to unadjusted import, U.S. shipment, and total shipment numbers.

U.S. importers' outstanding orders

The Commission requested importers to indicate whether they imported or arranged for the importation of MAE from China after June 30, 2021. Their reported data is presented in table VII-7. The majority (77.5 percent) of imported or arranged imports of MAE after June 30, 2021 are from nonsubject sources.

Eight of seventeen importers reported arranged imports from China after June 30, 2021, the majority of which were reported by *** (**% percent).

Eight of the seventeen importers reported arranged imports from nonsubject sources after June 30, 2021, the majority of which were reported by *** (**% percent) and *** (**% percent).

Table VII-7
MAE: Quantity of U.S. importers' arranged imports, by period

Quantity in short tons

Source of arranged imports	Jul-Sep 2021	Oct-Dec 2021	Jan-Mar 2022	Apr-Jun 2022	Total
China direct	***	***	***	***	***
China indirect	***	***	***	***	***
China	***	***	***	***	34,081
Canada	***	***	***	***	***
Mexico	***	***	***	***	***
All other sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	117,560
All import sources	***	***	***	***	151,641

Source: Compiled from data submitted in response to Commission questionnaires.

Antidumping or countervailing duty orders in third-country markets

There are no known active antidumping or countervailing duty investigations or existing orders in third-country markets related to MAE.¹⁰

¹⁰ Petitioner is not aware of any antidumping duty, countervailing duty, or safeguard orders in place in any third-country market on MAE imports from China. Petitioner's postconference brief, exh. 1, p. 54. No such trade measures have been reported to the World Trade Organization. Further, in their preliminary and final phase questionnaire responses, ***.

Information on nonsubject countries

With regards to in-scope merchandise, Canada is the largest nonsubject exporter of MAE to the United States based on statements and information provided by petitioner and respondent MEC, in reference to Skyjack, a Canadian producer of MAE. According to respondent MEC, Skyjack is, by far, the largest importer of MAE into the United States.¹¹ Petitioner states that Skyjack is ***.¹² According to the 2019 Annual Report for Linamar, Skyjack's parent corporation, its market share in North America for telehandlers and boom products have increased since 2013 by six times and three times, respectively. Its boom market share has also tripled in Europe in that same time period.¹³

Terex's 2019 10-K statement form¹⁴ identified the following companies as its main global competitors for boom lifts, scissor lifts, and telehandlers, which suggest that France, the U.K., and Italy are also likely large global nonsubject exporters of MAE:

- **Boom lifts:** JLG (U.S.), Haulotte (France), Skyjack (Canada), Snorkel (U.S.), JCB (U.K.), and Aichi (Japan).
- **Scissor lifts:** JLG (U.S.), Skyjack (Canada), Haulotte (France), Manitou (France), JCB (U.K.) and Dingli (China).
- **Telehandlers:** JLG (U.S.), JCB (U.K.), CNH (Italy), Merlo (Italy), Manitou (France).

Data on exports from Canada of forklift trucks and other lifting or handling work trucks, and parts thereof, during 2018-20, are presented in table VII-8.¹⁵ During 2020, the United States was the top export market for such products from Canada, accounting for 85.9 percent of total value, followed by the United Kingdom, accounting for 8.4 percent of total value.

¹¹ Transcript, p. 12 (McConkey).

¹² Petitions, exh. I-3.

¹³ Respondent MEC's postconference brief, pp. 14-15 and exh. 1.

¹⁴ Chinese respondents' postconference brief, exh. 2, p. 12.

¹⁵ The GTA data presented in this section are overbroad, as the relevant HS subheadings for MAE (8427.10, 8427.20, 8427.90 and 8431.20) include a substantial amount of out-of-scope product.

Table VII-8
Forklift trucks and other lifting or handling work trucks, and parts thereof: Exports from Canada,
by period

Value in 1,000 dollars

Destination market	Measure	2018	2019	2020
United States	Value	831,401	757,931	455,301
United Kingdom	Value	116,587	83,420	44,708
Brazil	Value	7,748	11,075	8,167
Australia	Value	22,443	14,091	6,083
France	Value	1,092	3,455	1,964
Sweden	Value	5,137	3,383	1,960
New Zealand	Value	896	1,162	1,356
Germany	Value	81	2,245	1,271
Korea	Value	6,979	8,472	1,015
All other destination markets	Value	34,656	50,095	8,145
All destination markets	Value	1,027,021	935,328	529,970

Table continued.

Table VII-8 Continued
Forklift trucks and other lifting or handling work trucks, and parts thereof: Exports from Canada,
by period

Share in percent

Destination market	Measure	2018	2019	2020
United States	Share of value	81.0	81.0	85.9
United Kingdom	Share of value	11.4	8.9	8.4
Brazil	Share of value	0.8	1.2	1.5
Australia	Share of value	2.2	1.5	1.1
France	Share of value	0.1	0.4	0.4
Sweden	Share of value	0.5	0.4	0.4
New Zealand	Share of value	0.1	0.1	0.3
Germany	Share of value	0.0	0.2	0.2
Korea	Share of value	0.7	0.9	0.2
All other destination markets	Share of value	3.4	5.4	1.5
All destination markets	Share of value	100.0	100.0	100.0

Source: Official exports statistics under HS subheading 8427.10, 8427.20, 8427.90 and 8431.20 as reported by China customs in the Global Trade Atlas database, accessed August 27th, 2021.

Note: HS subheadings all include more products than those covered by the scope of these investigations. 8427.10 covers all self-propelled trucks with an electric motor, which includes various out of scope products such as rider operated forklift trucks. 8427.20 covers all other self-propelled trucks which includes other types of rider operated forklift and other trucks. 8431.20 covers parts of all machinery imported under the HS heading 8427.

Mexico is another major nonsubject source of MAE exports to the United States.¹⁶ Data on Mexico exports of forklift trucks and other lifting or handling work trucks, and parts thereof, during 2018-20, are presented in table VII-9. During 2020, the United States was the top export market for such products from Mexico, accounting for 97.6 percent of total value, followed by Canada, accounting for 1.0 percent of total value.

Table VII-9
Forklift trucks and other lifting or handling work trucks, and parts thereof: Exports from Mexico, by period

Value in 1,000 dollars

Destination market	Measure	2018	2019	2020
United States	Value	404,610	383,787	332,427
Canada	Value	1,747	1,452	3,494
Germany	Value	1,095	1,311	982
Netherlands	Value	569	608	917
United Kingdom	Value	329	309	624
Chile	Value	354	252	270
Australia	Value	223	205	226
Israel	Value	25	309	211
Singapore	Value	169	225	203
All other destination markets	Value	2,995	2,153	1,294
All destination markets	Value	412,115	390,610	340,647

Table continued.

¹⁶ ***. *** U.S. producers' questionnaire response and ***.

Table VII-9 Continued**Forklift trucks and other lifting or handling work trucks, and parts thereof: Exports from Mexico, by period**

Share in percent

Destination market	Measure	2018	2019	2020
United States	Share of value	98.2	98.3	97.6
Canada	Share of value	0.4	0.4	1.0
Germany	Share of value	0.3	0.3	0.3
Netherlands	Share of value	0.1	0.2	0.3
United Kingdom	Share of value	0.1	0.1	0.2
Chile	Share of value	0.1	0.1	0.1
Australia	Share of value	0.1	0.1	0.1
Israel	Share of value	0.0	0.1	0.1
Singapore	Share of value	0.0	0.1	0.1
All other destination markets	Share of value	0.7	0.6	0.4
All destination markets	Share of value	100.0	100.0	100.0

Source: Official imports statistics of imports from Mexico (constructed export statistics for Mexico) under HS subheading 8427.10, 8427.20, 8427.90 and 8431.20 as reported by various statistical reporting authorities in the Global Trade Atlas database, accessed August 27, 2021.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. United States is shown at the top, all remaining top export destinations shown in descending order of 2020 data.

Note: HS subheadings all include more products than those covered by the scope of these investigations. 8427.10 covers all self-propelled trucks with an electric motor, which includes various out of scope products such as rider operated forklift trucks. 8427.20 covers all other self-propelled trucks which includes other types of rider operated forklift and other trucks. 8431.20 covers parts of all machinery imported under the HS heading 8427.

Data on global exports of forklift trucks and other lifting or handling work trucks, and parts thereof, during 2018-20, are presented in table VII-10.

Table VII-10
Forklift trucks and other lifting or handling work trucks, and parts thereof: Global exports, by reporting country and by period

Value in 1,000 dollars

Exporting country	Measure	2018	2019	2020
United States	Value	2,806,487	2,701,496	1,975,987
China	Value	3,742,369	3,489,149	3,196,177
Germany	Value	4,587,321	4,530,393	3,786,490
Italy	Value	2,027,879	2,043,267	1,576,793
United Kingdom	Value	1,446,833	1,433,938	1,465,630
France	Value	1,532,826	1,526,298	1,176,689
Sweden	Value	1,354,634	1,360,581	1,157,100
Japan	Value	1,293,343	1,092,356	948,658
Netherlands	Value	864,123	967,598	862,647
Belgium	Value	749,412	730,328	679,581
Korea	Value	812,297	776,503	591,988
Czech Republic	Value	647,826	657,418	582,707
All other exporters	Value	4,269,179	4,672,032	3,317,705
All reporting exporters	Value	26,134,528	25,981,358	21,318,153

Table continued.

Table VII-10 Continued
Forklift trucks and other lifting or handling work trucks, and parts thereof: Global exports, by reporting country and by period

Shares in percent

Exporting country	Measure	2018	2019	2020
United States	Share of value	10.7	10.4	9.3
China	Share of value	14.3	13.4	15.0
Germany	Share of value	17.6	17.4	17.8
Italy	Share of value	7.8	7.9	7.4
United Kingdom	Share of value	5.5	5.5	6.9
France	Share of value	5.9	5.9	5.5
Sweden	Share of value	5.2	5.2	5.4
Japan	Share of value	4.9	4.2	4.5
Netherlands	Share of value	3.3	3.7	4.0
Belgium	Share of value	2.9	2.8	3.2
Korea	Share of value	3.1	3.0	2.8
Czech Republic	Share of value	2.5	2.5	2.7
All other exporters	Share of value	16.3	18.0	15.6
All reporting exporters	Share of value	100.0	100.0	100.0

Source: Official exports statistics under HS subheading 8427.10, 8427.20, 8427.90 and 8431.20 reported by various national statistical authorities in the Global Trade Atlas database, accessed August 27, 2021 and official global imports statistics from Mexico under HS subheading 8427.10, 8427.20, 8427.90 and 8431.20 as reported by UN Comtrade in the Global Trade Atlas database, accessed August 27, 2021.

Note: HS subheadings all include more products than those covered by the scope of these investigations. 8427.10 covers all self-propelled trucks with an electric motor, which includes various out of scope products such as rider operated forklift trucks. 8427.20 covers all other self-propelled trucks which includes other types of rider operated forklift and other trucks. 8431.20 covers parts of all machinery imported under the HS heading 8427.

APPENDIX A
FEDERAL REGISTER NOTICES

The Commission makes available notices relevant to its investigations and reviews on its website, www.usitc.gov. In addition, the following tabulation presents, in chronological order, Federal Register notices issued by the Commission and Commerce during the current proceeding.

Citation	Title	Link
86 FR 12711, March 4, 2021	<i>Mobile Access Equipment From China; Institution of Antidumping and Countervailing Duty Investigations and Scheduling of Preliminary Phase Investigations</i>	https://www.govinfo.gov/content/pkg/FR-2021-03-04/pdf/2021-04439.pdf
86 FR 15905, March 25, 2021	<i>Certain Mobile Access Equipment and Subassemblies Thereof From the People's Republic of China: Initiation of Countervailing Duty Investigation</i>	https://www.govinfo.gov/content/pkg/FR-2021-03-25/pdf/2021-06181.pdf
86 FR 15922, March 25, 2021	<i>Certain Mobile Access Equipment and Subassemblies Thereof From the People's Republic of China: Initiation of Less-Than-Fair-Value Investigation</i>	https://www.govinfo.gov/content/pkg/FR-2021-03-25/pdf/2021-06180.pdf
86 FR 20196, April 16, 2021	<i>Certain Mobile Access Equipment and Subassemblies Thereof From China; Determinations</i>	https://www.govinfo.gov/content/pkg/FR-2021-04-16/pdf/2021-07789.pdf
86 FR 23681, May 4, 2021	<i>Certain Mobile Access Equipment and Subassemblies Thereof From the People's Republic of China: Postponement of Preliminary</i>	https://www.govinfo.gov/content/pkg/FR-2021-05-04/pdf/2021-09317.pdf

Citation	Title	Link
	<i>Determination in the Countervailing Duty Investigation</i>	
86 FR 35059, July 1, 2021	<i>Mobile Access Equipment and Subassemblies Thereof From the People's Republic of China: Postponement of Preliminary Determination in the Less-Than-Fair-Value Investigation</i>	https://www.govinfo.gov/content/pkg/FR-2021-07-01/pdf/2021-14046.pdf
86 FR 41013, July 30, 2021	<i>Certain Mobile Access Equipment and Subassemblies Thereof From the People's Republic of China: Preliminary Affirmative Countervailing Duty Determination</i>	https://www.govinfo.gov/content/pkg/FR-2021-07-30/pdf/2021-16332.pdf
86 FR 44402, August 12, 2021	<i>Certain Mobile Access Equipment and Subassemblies Thereof From China; Scheduling of the Final Phase of Countervailing Duty and Anti-Dumping Duty Investigations</i>	https://www.govinfo.gov/content/pkg/FR-2021-08-12/pdf/2021-17162.pdf
86 FR 54164, September 30, 2021	<i>Certain Mobile Access Equipment and Subassemblies Thereof From the People's Republic of China: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Postponement of Final Determination, and Extension of Provisional Measures</i>	https://www.govinfo.gov/content/pkg/FR-2021-09-30/pdf/2021-21257.pdf

Citation	Title	Link
86 FR 57809, October 19, 2021	<i>Certain Mobile Access Equipment and Subassemblies Thereof from the People's Republic of China: Final Affirmative Countervailing Duty Determination</i>	https://www.govinfo.gov/content/pkg/FR-2021-10-19/pdf/2021-22705.pdf

APPENDIX B

LIST OF HEARING WITNESSES

CALENDAR OF PUBLIC HEARING

Those listed below appeared in the United States International Trade Commission's hearing via videoconference:

Subject: Certain Mobile Access Equipment and Subassemblies
Thereof from China

Inv. Nos.: 701-TA-665 and 731-TA-1557 (Final)

Date and Time: October 12, 2021 - 9:30 a.m.

CONGRESSIONAL APPEARANCES:

The Honorable David G. Valadao, U.S. Representative, 21st District, California

The Honorable Dr. John Joyce, U.S. Representative, 13th District, Pennsylvania

OPENING REMARKS:

Petitioner (**Laura El-Sabaawi**, Wiley Rein LLP)
Respondents (**Jordan C. Kahn**, Grunfeld, Desiderio, Lebowitz, Silverman & Klestadt LLP)

In Support of the Imposition of Antidumping and Countervailing Duty Orders:

Wiley Rein LLP
Washington, DC
on behalf of

Coalition of American Manufacturers of Mobile Access Equipment

Frank Nerenhausen, President, JLG Industries, Inc.

Jeff Ford, Director, Global Strategy and Business Development, JLG Industries, Inc.

Tim Morris, Senior Vice President, Sales, Market Development and Customer Support, Americas, JLG Industries, Inc.

Simon Meester, President, Genie, A Terex Brand

Josh Meyer, Vice President, Global Sales, Terex Aerial Work Platforms

Dr. Seth T. Kaplan, President, International Economic Research LLC

Andrew Szamosszegi, Principal, Capital Trade, Incorporated

Timothy C. Brightbill)
Laura El-Sabaawi) – OF COUNSEL
Theodore P. Brackemyre)

**In Opposition to the Imposition of
Antidumping and Countervailing Duty Orders:**

Mayer Brown LLP
Washington, DC
on behalf of

California Manufacturing and Engineering Co. (“MEC”)

David White, President, MEC

Deanne Hix, Vice President, Sales and Operations & Strategic Planning, MEC

Matthew McConkey)
Anjani Nadadur) – OF COUNSEL
Warren Payne)

Grunfeld, Desiderio, Lebowitz, Silverman & Klestadt LLP
Washington, DC
on behalf of

Zhejiang Dingli Machinery Co., Ltd.
Zoomlion Heavy Industry Science and Technology Co., Ltd.
XCMG Import & Export Co., Ltd., SANY Marine Heavy Industry Co., Ltd.
Lingong Group Jinan Heavy Machinery Co., Ltd.
LGMG North America Inc.
the China Chamber of Commerce for Import Export of Machinery
and Electronic Products Subcommittee
(collectively, “Chinese Respondents”)

Craig Paylor, President and Chief Executive Officer, LGMG North America Inc.

James Dougan, Partner, ION Economics, LLC

Ned H. Marshak)
Jordan C. Kahn) – OF COUNSEL
Eve Q. Wang)

Akin Gump Strauss Haure & Feld LLP
Washington, DC
on behalf of

Skyjack Inc. (“Skyjack”)

Matthew R. Nicely)
Daniel M. Witkowski) – OF COUNSEL
Brandon J. Custard)

**In Opposition to the Imposition of
Antidumping and Countervailing Duty Orders (continued):**

Trade Pacific PLLC
Washington, DC
on behalf of

SANY America Inc.

Craig Moslander, Director of Engineering, SANY America, Inc.

Jarrod M. Goldfeder) – OF COUNSEL

REBUTTAL/CLOSING REMARKS:

Petitioner (**Timothy C. Brightbill**, Wiley Rein LLP)
Respondents (**Ned H. Marshak**, Grunfeld, Desiderio, Lebowitz, Silverman & Klestadt LLP)

-END-

APPENDIX C
SUMMARY DATA

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Table C-1

MAE: Summary data concerning the U.S. market, 2018-20, January to June 2020, and January to June 2021

Quantity=short tons; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per short ton; Period changes=percent--exceptions noted

	Reported data					Period changes			
	Calendar year		Jan-Jun			Comparison years			Jan-Jun
	2018	2019	2020	2020	2021	2018-20	2018-19	2019-20	2020-21
U.S. consumption quantity:									
Amount.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Producers' share (fn1).....	***	***	***	***	***	▼***	▼***	▲***	▼***
Importers' share (fn1):									
China direct (fn2).....	***	***	***	***	***	▲***	▲***	▲***	▲***
China indirect (fn2).....	***	***	***	***	***	▼***	▼***	▼***	▼***
China.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Canada.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Mexico.....	***	***	***	***	***	▼***	▼***	▼***	▲***
All other sources.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Nonsubject sources.....	***	***	***	***	***	▼***	▲***	▼***	▲***
All import sources.....	***	***	***	***	***	▲***	▲***	▼***	▲***
U.S. consumption value:									
Amount.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Producers' share (fn1):									
Fully domestic value.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Value added to imports.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Total.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Importers' share (fn1):									
China direct (fn2).....	***	***	***	***	***	▲***	▲***	▲***	▲***
China indirect (fn2).....	***	***	***	***	***	▼***	▼***	▼***	▼***
China.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Canada.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Mexico.....	***	***	***	***	***	▼***	▼***	▼***	▲***
All other sources.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Nonsubject sources.....	***	***	***	***	***	▼***	▼***	▼***	▲***
All import sources.....	***	***	***	***	***	▼***	▼***	▼***	▲***
U.S. importers' U.S. shipments of imports from:									
China direct (fn2):									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Ending inventory quantity.....	***	***	***	***	***	▼***	▼***	▲***	▼***
China indirect (fn2):									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Value.....	***	***	***	***	***	▲***	▼***	▼***	▼***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***
China:									
Quantity.....	38,009	36,965	25,885	13,107	23,012	▼(31.9)	▼(2.7)	▼(30.0)	▲75.6
Value.....	153,224	153,431	104,708	51,279	99,973	▼(31.7)	▲0.1	▼(31.8)	▲95.0
Unit value.....	\$4,031	\$4,151	\$4,045	\$3,912	\$4,344	▲0.3	▲3.0	▼(2.5)	▲11.0
Ending inventory quantity.....	***	***	***	***	***	▼***	▼***	▲***	▼***
Canada:									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Ending inventory quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Mexico:									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Ending inventory quantity.....	***	***	***	***	***	▼***	▲***	▼***	▼***
All other sources:									
Quantity.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▼***	▼***
Nonsubject sources:									
Quantity.....	198,229	182,482	92,090	42,297	73,665	▼(53.5)	▼(7.9)	▼(49.5)	▲74.2
Value.....	1,370,284	1,281,853	659,723	315,124	524,247	▼(51.9)	▼(6.5)	▼(48.5)	▲66.4
Unit value.....	\$6,913	\$5,403	\$5,432	\$5,836	\$5,434	▼(21.4)	▼(21.8)	▲0.5	▼(6.9)
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▼***	▼***

Table continued on next page.

Table C-1 continued

MAE: Summary data concerning the U.S. market, 2018-20, January to June 2020, and January to June 2021

Quantity=short tons; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per short ton; Period changes=percent--exceptions noted

	Reported data					Period changes			
	2018	Calendar year 2019	2020	Jan-Jun 2020	Jan-Jun 2021	Comparison years 2018-20	2018-19	2019-20	Jan-Jun 2020-21
U.S. importers' U.S. shipments of imports from:--Continued									
All import sources:									
Quantity.....	236,238	219,447	117,976	55,404	96,676	▼(50.1)	▼(7.1)	▼(46.2)	▲74.5
Value.....	1,523,508	1,435,284	764,431	366,403	624,220	▼(49.8)	▼(5.8)	▼(46.7)	▲70.4
Unit value.....	\$6,449	\$6,540	\$6,480	\$6,613	\$6,457	▲0.5	▲1.4	▼(0.9)	▼(2.4)
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▼***	▼***
U.S. producers':									
Average capacity quantity.....	***	***	***	***	***	▼***	▼***	▲***	▲***
Production quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Capacity utilization (fn1).....	***	***	***	***	***	▼***	▼***	▼***	▲***
U.S. shipments (fn3):									
Quantity (fn3).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value:									
Fully domestic value (fn3).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value added to imports (fn3).....	***	***	***	***	***	▼***	▲***	▼***	▲***
Total (fn3).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value (fn3).....	***	***	***	***	***	▲***	▲***	▼***	▲***
Export shipments:									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Value.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▼***	▲***	▼***	▼***
Inventories/total shipments (fn1).....	***	***	***	***	***	▲***	▲***	▲***	▼***
Production workers.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Hours worked (1,000s).....	***	***	***	***	***	▼***	▼***	▼***	▼***
Wages paid (\$1,000).....	***	***	***	***	***	▼***	▼***	▼***	▼***
Hourly wages (dollars per hour).....	***	***	***	***	***	▲***	▲***	▲***	▲***
Productivity (pounds per hour).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit labor costs.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Net sales:									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Cost of goods sold (COGS).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Gross profit or (loss) (fn4).....	***	***	***	***	***	▼***	▼***	▼***	▲***
SG&A expenses.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Operating income or (loss) (fn4).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Net income or (loss) (fn4).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit COGS.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Unit SG&A expenses.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Unit operating income or (loss) (fn4).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit net income or (loss) (fn4).....	***	***	***	***	***	▼***	▼***	▼***	▲***
COGS/sales (fn1).....	***	***	***	***	***	▲***	▼***	▲***	▼***
Operating income or (loss)/sales (fn1).....	***	***	***	***	***	▼***	▲***	▼***	▲***
Net income or (loss)/sales (fn1).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Capital expenditures.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Research and development expenses.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Net assets.....	***	***	***	***	***	▼***	▼***	▼***	***

Note.--Shares and ratios shown as "0.0" percent represent non-zero values less than "0.05" percent (if positive) and greater than "(0.05)" percent (if negative). Zeros, null values, and undefined calculations are suppressed and shown as "----". Period changes preceded by a "▲" represent an increase, while period changes preceded by a "▼" represent a decrease.

fn1.--Reported data are in percent and period changes are in percentage points.

fn2.--In this table, the term China direct relates to subject merchandise imported directly from China as reported by U.S. importers; whereas term China indirect relates to the subject merchandise (specifically Chinese subassemblies) imported *** from Canada embodied in complete MAE that were manufactured in Canada using the subject merchandise. The quantity and value reported for China indirect in this table relate to just the portion of the finished goods imported from Canada that was accounted for by the subject merchandise (i.e., the Chinese subassemblies).

fn3.--The quantity for U.S. producers' U.S. shipments reflects the quantity sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies regardless of whether the MAE were sold as subassemblies or as complete units; The value for U.S. producers' U.S. shipments reflects the value sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies plus the additional value added to either U.S.-produced or imported subassemblies from domestic assembly operations. Fully domestic value includes the additional value added by domestic assembly operations on U.S.-produced subassemblies, while the value added to imports includes the additional value added by domestic assembly operations on imported subassemblies. In measuring consumption and market share this methodology avoids reclassifying and/or double counting merchandise already reported once by U.S. producers or by U.S. importers. The unit value of U.S. producers' U.S. shipments is based on the fully domestic value.

fn4.--Percent changes only calculated when both comparison values represent profits; The directional change in profitability provided when one or both comparison values represent a loss.

Source: Compiled from data submitted in response to Commission questionnaires.

Table C-2

MAE: Summary data concerning the U.S. market excluding two U.S. producers ***, 2018-20, January to June 2020, and January to June 2021

Quantity=short tons; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per short ton; Period changes=percent--exceptions noted

	Reported data					Period changes			
	2018	Calendar year 2019	2020	Jan-Jun 2020	2021	2018-20	2018-19	2019-20	Jan-Jun 2020-21
U.S. consumption quantity:									
Amount.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Producers' share (fn1):									
Included producers.....	***	***	***	***	***	▼***	▼***	▲***	▼***
Excluded producers.....	***	***	***	***	***	▲***	▲***	▲***	▲***
All producers.....	***	***	***	***	***	▼***	▼***	▲***	▼***
Importers' share (fn1):									
China direct (fn2).....	***	***	***	***	***	▲***	▲***	▲***	▲***
China indirect (fn2).....	***	***	***	***	***	▼***	▼***	▼***	▼***
China.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Canada.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Mexico.....	***	***	***	***	***	▼***	▼***	▼***	▲***
All other sources.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Nonsubject sources.....	***	***	***	***	***	▼***	▲***	▼***	▲***
All import sources.....	***	***	***	***	***	▲***	▲***	▼***	▲***
U.S. consumption value:									
Amount.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Producers' share (fn1):									
Included producers.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Excluded producers.....	***	***	***	***	***	▲***	▲***	▲***	▲***
All producers.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Importers' share (fn1):									
China direct (fn2).....	***	***	***	***	***	▲***	▲***	▲***	▲***
China indirect (fn2).....	***	***	***	***	***	▼***	▼***	▼***	▼***
China.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Canada.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Mexico.....	***	***	***	***	***	▼***	▼***	▼***	▲***
All other sources.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Nonsubject sources.....	***	***	***	***	***	▼***	▼***	▼***	▲***
All import sources.....	***	***	***	***	***	▼***	▼***	▼***	▲***
U.S. importers' U.S. shipments of imports from:									
China direct (fn2):									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Ending inventory quantity.....	***	***	***	***	***	▼***	▼***	▲***	▼***
China indirect (fn2):									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Value.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***
China:									
Quantity.....	38,009	36,965	25,885	13,107	23,012	▼(31.9)	▼(2.7)	▼(30.0)	▲75.6
Value.....	153,224	153,431	104,708	51,279	99,973	▼(31.7)	▲0.1	▼(31.8)	▲95.0
Unit value.....	\$4,031	\$4,151	\$4,045	\$3,912	\$4,344	▲0.3	▲3.0	▼(2.5)	▲11.0
Ending inventory quantity.....	***	***	***	***	***	▼***	▼***	▲	▼***
Canada:									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Ending inventory quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Mexico:									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Ending inventory quantity.....	***	***	***	***	***	▼***	▲	▼***	▼***
All other sources:									
Quantity.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▼***	▼***
Nonsubject sources:									
Quantity.....	198,229	189,973	95,301	44,988	76,161	▼(51.9)	▼(4.2)	▼(49.8)	▲69.3
Value.....	1,370,284	1,281,853	659,723	315,124	524,247	▼(51.9)	▼(6.5)	▼(48.5)	▲66.4
Unit value.....	\$6,913	\$6,748	\$6,923	\$7,005	\$6,883	▲0.1	▼(2.4)	▲2.6	▼(1.7)
Ending inventory quantity.....	***	***	***	***	***	▲	▲	▼	▼

Table continued on next page.

Table C-2 continued

MAE: Summary data concerning the U.S. market excluding two U.S. producers ***, 2018-20, January to June 2020, and January to June 2021

Quantity=short tons; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per short ton; Period changes=percent--exceptions noted

	Reported data					Period changes			
	Calendar year		Jan-Jun			Comparison years			Jan-Jun
	2018	2019	2020	2020	2021	2018-20	2018-19	2019-20	2020-21
U.S. importers' U.S. shipments of imports from:--Continued									
All import sources:									
Quantity.....	236,238	219,447	117,976	55,404	96,676	▼(50.1)	▼(7.1)	▼(46.2)	▲74.5
Value.....	1,523,508	1,435,284	764,431	366,403	624,220	▼(49.8)	▼(5.8)	▼(46.7)	▲70.4
Unit value.....	\$6,449	\$6,540	\$6,480	\$6,613	\$6,457	▲0.5	▲1.4	▼(0.9)	▼(2.4)
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▼***	▼***
Included U.S. producers':									
Average capacity quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Production quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Capacity utilization (fn1).....	***	***	***	***	***	▼***	▼***	▼***	▲***
U.S. shipments (fn3):									
Quantity (fn3).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value (fn3).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value (fn3).....	***	***	***	***	***	▲***	▲***	▼***	▲***
Export shipments:									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Value.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▼***	▲***	▼***	▼***
Inventories/total shipments (fn1).....	***	***	***	***	***	▲***	▲***	▲***	▼***
Production workers.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Hours worked (1,000s).....	***	***	***	***	***	▼***	▼***	▼***	▼***
Wages paid (\$1,000).....	***	***	***	***	***	▼***	▼***	▼***	▼***
Hourly wages (dollars per hour).....	***	***	***	***	***	▲***	▲***	▲***	▲***
Productivity (pounds per hour).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit labor costs.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Net sales:									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Cost of goods sold (COGS).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Gross profit or (loss) (fn4).....	***	***	***	***	***	▼***	▼***	▼***	▲***
SG&A expenses.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Operating income or (loss) (fn4).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Net income or (loss) (fn4).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit COGS.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Unit SG&A expenses.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Unit operating income or (loss) (fn4).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit net income or (loss) (fn4).....	***	***	***	***	***	▼***	▼***	▼***	▲***
COGS/sales (fn1).....	***	***	***	***	***	▲***	▼***	▲***	▼***
Operating income or (loss)/sales (fn1).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Net income or (loss)/sales (fn1).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Capital expenditures.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Research and development expenses.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Net assets.....	***	***	***	***	***	▼***	▼***	▼***	***

Note.--Shares and ratios shown as "0.0" percent represent non-zero values less than "0.05" percent (if positive) and greater than "(0.05)" percent (if negative). Zeroes, null values, and undefined calculations are suppressed and shown as "----". Period changes preceded by a "▲" represent an increase, while period changes preceded by a "▼" represent a decrease.

fn1.--Reported data are in percent and period changes are in percentage points.

fn2.--In this table, the term China direct relates to subject merchandise imported directly from China as reported by U.S. importers; whereas term China indirect relates to the subject merchandise (specifically Chinese subassemblies) imported *** from Canada embodied in complete MAE that were manufactured in Canada using the subject merchandise. The quantity and value reported for China indirect in this table relate to just the estimated of the finished goods imported from Canada that was accounted for accounted for by the subject merchandise (i.e., the Chinese subassemblies).

fn3.--The quantity for U.S. producers' U.S. shipments reflects the quantity sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies regardless of whether the MAE were sold as subassemblies or as complete units; The value for U.S. producers' U.S. shipments reflects the value sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies plus the additional value added to either U.S.-produced or imported subassemblies from domestic assembly operations. Fully domestic value includes the additional value added by domestic assembly operations on U.S.-produced subassemblies, while the value added to imports includes the additional value added by domestic assembly operations on imported subassemblies. In measuring consumption and market share this methodology avoids reclassifying and/or double counting merchandise already reported once by U.S. producers or by U.S. importers. The unit value of U.S. producers' U.S. shipments is based on the fully domestic value. The detail for the fully domestic value and the value added to imports is provided in Appendix K.

fn4.--Percent changes only calculated when both comparison values represent profits; The directional change in profitability provided when one or both comparison values represent a loss.

Source: Compiled from data submitted in response to Commission questionnaires.

Table C-3

Telehandlers: Summary data concerning the U.S. market, 2018-20, January to June 2020, and January to June 2021

Quantity=short tons; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per short ton; Period changes=percent--exceptions noted

	Reported data					Period changes			
	Calendar year		Jan-Jun			Comparison years			Jan-Jun
	2018	2019	2020	2020	2021	2018-20	2018-19	2019-20	2020-21
U.S. consumption quantity:									
Amount.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Producers' share (fn1).....	***	***	***	***	***	▼***	▼***	▲***	▼***
Importers' share (fn1):									
China direct (fn2).....	***	***	***	***	***	▲***	***	▲***	▲***
China indirect (fn2).....	***	***	***	***	***	▼***	▲***	▼***	▼***
China.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Canada.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Mexico.....	***	***	***	***	***	***	***	***	***
All other sources.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Nonsubject sources.....	***	***	***	***	***	▼***	▲***	▼***	▲***
All import sources.....	***	***	***	***	***	▲***	▲***	▼***	▲***
U.S. consumption value:									
Amount.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Producers' share (fn1):									
Fully domestic value.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Value added to imports.....	***	***	***	***	***	***	***	***	***
Total.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Importers' share (fn1):									
China direct (fn2).....	***	***	***	***	***	▲***	***	▲***	▲***
China indirect (fn2).....	***	***	***	***	***	▼***	▼***	▼***	▼***
China.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Canada.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Mexico.....	***	***	***	***	***	***	***	***	***
All other sources.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Nonsubject sources.....	***	***	***	***	***	▼***	▼***	▼***	▲***
All import sources.....	***	***	***	***	***	▼***	▼***	▼***	▲***
U.S. importers' U.S. shipments of imports from:									
China direct (fn2):									
Quantity.....	***	***	***	***	***	▲***	***	▲***	▲***
Value.....	***	***	***	***	***	▲***	***	▲***	▲***
Unit value.....	***	***	***	***	***	▲***	***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	***	▲***	▲***
China indirect (fn2):									
Quantity.....	***	***	***	***	***	▼***	▲***	▼***	▼***
Value.....	***	***	***	***	***	▼***	▲***	▼***	▼***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***
China:									
Quantity.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	***	▲***	▲***
Canada:									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▼***	▼***
Mexico:									
Quantity.....	***	***	***	***	***	***	***	***	***
Value.....	***	***	***	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***	***	***	***
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***
All other sources:									
Quantity.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▼***	▲***	▼***
Ending inventory quantity.....	***	***	***	***	***	▼***	▲***	▼***	▼***
Nonsubject sources:									
Quantity.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▼***	▲***	▼***
Ending inventory quantity.....	***	***	***	***	***	▼***	▲***	▼***	▼***

Table continued on next page.

Table C-3 continued

Telehandlers: Summary data concerning the U.S. market, 2018-20, January to June 2020, and January to June 2021

Quantity=short tons; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per short ton; Period changes=percent--exceptions noted

	Reported data					Period changes			
	Calendar year		Jan-Jun			Comparison years			Jan-Jun
	2018	2019	2020	2020	2021	2018-20	2018-19	2019-20	2020-21
U.S. importers' U.S. shipments of imports from:--Continued									
All import sources:									
Quantity.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▼***	▲***	▼***
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▼***	▼***
U.S. producers':									
Average capacity quantity.....	***	***	***	***	***	***	***	***	***
Production quantity.....	***	***	***	***	***	▼***	▲***	▼***	▼***
Capacity utilization (fn1).....	***	***	***	***	***	▼***	▲***	▼***	▼***
U.S. shipments (fn3):									
Quantity (fn3).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value:									
Fully domestic value (fn3).....	***	***	***	***	***	▼***	▲***	▼***	▲***
Value added to imports (fn3).....	***	***	***	***	***	***	***	***	***
Total (fn3).....	***	***	***	***	***	▼***	▲***	▼***	▲***
Unit value (fn3).....	***	***	***	***	***	▲***	▲***	▲***	▼***
Export shipments:									
Quantity.....	***	***	***	***	***	▼***	▲***	▼***	▼***
Value.....	***	***	***	***	***	▼***	▲***	▼***	▼***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▼***	▼***
Inventories/total shipments (fn1).....	***	***	***	***	***	▲***	▲***	▲***	▼***
Production workers.....	***	***	***	***	***	▲***	▲***	▼***	▼***
Hours worked (1,000s).....	***	***	***	***	***	▼***	▲***	▼***	▼***
Wages paid (\$1,000).....	***	***	***	***	***	▼***	▲***	▼***	▼***
Hourly wages (dollars per hour).....	***	***	***	***	***	▲***	▲***	▲***	▲***
Productivity (pounds per hour).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit labor costs.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Net sales:									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Cost of goods sold (COGS).....	***	***	***	***	***	▼***	▲***	▼***	▲***
Gross profit or (loss) (fn4).....	***	***	***	***	***	▼***	▲***	▼***	▲***
SG&A expenses.....	***	***	***	***	***	▼***	▲***	▼***	▼***
Operating income or (loss) (fn4).....	***	***	***	***	***	▼***	▲***	▼***	▲***
Net income or (loss) (fn4).....	***	***	***	***	***	▼***	▲***	▼***	▲***
Unit COGS.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Unit SG&A expenses.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Unit operating income or (loss) (fn4).....	***	***	***	***	***	▼***	▲***	▼***	▲***
Unit net income or (loss) (fn4).....	***	***	***	***	***	▼***	▲***	▼***	▲***
COGS/sales (fn1).....	***	***	***	***	***	▼***	▼***	▲***	▲***
Operating income or (loss)/sales (fn1).....	***	***	***	***	***	▼***	▲***	▼***	▲***
Net income or (loss)/sales (fn1).....	***	***	***	***	***	▼***	▲***	▼***	▲***
Capital expenditures.....	***	***	***	***	***	▲***	▲***	▼***	▼***
Research and development expenses.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Net assets.....	***	***	***	***	***	▼***	▲***	▼***	***

Note.--Shares and ratios shown as "0.0" percent represent non-zero values less than "0.05" percent (if positive) and greater than "(0.05)" percent (if negative). Zeros, null values, and undefined calculations are suppressed and shown as "--". Period changes preceded by a "▲" represent an increase, while period changes preceded by a "▼" represent a decrease.

fn1.--Reported data are in percent and period changes are in percentage points.

fn2.--In this table, the term China direct relates to subject merchandise imported directly from China as reported by U.S. importers; whereas term China indirect relates to the subject merchandise (specifically Chinese subassemblies) imported *** from Canada embodied in complete MAE that were manufactured in Canada using the subject merchandise. The quantity and value reported for China indirect in this table relate to just the portion of the finished goods imported from Canada that was accounted for by the subject merchandise (i.e., the Chinese subassemblies).

fn3.--The quantity for U.S. producers' U.S. shipments reflects the quantity sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies regardless of whether the MAE were sold as subassemblies or as complete units; The value for U.S. producers' U.S. shipments reflects the value sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies plus the additional value added to either U.S.-produced or imported subassemblies from domestic assembly operations. Fully domestic value includes the additional value added by domestic assembly operations on U.S.-produced subassemblies, while the value added to imports includes the additional value added by domestic assembly operations on imported subassemblies. In measuring consumption and market share this methodology avoids reclassifying and/or double counting merchandise already reported once by U.S. producers or by U.S. importers. The unit value of U.S. producers' U.S. shipments is based on the fully domestic value.

fn4.--Percent changes only calculated when both comparison values represent profits; The directional change in profitability provided when one or both comparison values represent a loss.

Source: Compiled from data submitted in response to Commission questionnaires.

Table C-4

All other MAE: Summary data concerning the U.S. market, 2018-20, January to June 2020, and January to June 2021

Quantity=short tons; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per short ton; Period changes=percent--exceptions noted

	Reported data					Period changes			
	Calendar year		Jan-Jun			Comparison years			Jan-Jun
	2018	2019	2020	2020	2021	2018-20	2018-19	2019-20	2020-21
U.S. consumption quantity:									
Amount.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Producers' share (fn1).....	***	***	***	***	***	▼***	▼***	▲***	▼***
Importers' share (fn1):									
China direct (fn2).....	***	***	***	***	***	▲***	▲***	▲***	▲***
China indirect (fn2).....	***	***	***	***	***	▼***	▼***	▼***	▲***
China.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Canada.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Mexico.....	***	***	***	***	***	▼***	▼***	▼***	▲***
All other sources.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Nonsubject sources.....	***	***	***	***	***	▼***	▼***	▼***	▲***
All import sources.....	***	***	***	***	***	▲***	▲***	▼***	▲***
U.S. consumption value:									
Amount.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Producers' share (fn1):									
Fully domestic value.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Value added to imports.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Total.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Importers' share (fn1):									
China direct (fn2).....	***	***	***	***	***	▲***	▲***	▲***	▲***
China indirect (fn2).....	***	***	***	***	***	▼***	▼***	▼***	▲***
China.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Canada.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Mexico.....	***	***	***	***	***	▼***	▼***	▼***	▲***
All other sources.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Nonsubject sources.....	***	***	***	***	***	▼***	▼***	▼***	▲***
All import sources.....	***	***	***	***	***	▼***	▼***	▼***	▲***
U.S. importers' U.S. shipments of imports from:									
China direct (fn2):									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Ending inventory quantity.....	***	***	***	***	***	▼***	▼***	▲***	▼***
China indirect (fn2):									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***
China:									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Ending inventory quantity.....	***	***	***	***	***	▼***	▼***	▲***	▼***
Canada:									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Ending inventory quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Mexico:									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Ending inventory quantity.....	***	***	***	***	***	▼***	▲***	▼***	▼***
All other sources:									
Quantity.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Nonsubject sources:									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▼***	▼***

Table continued on next page.

Table C-4 continued

All other MAE: Summary data concerning the U.S. market, 2018-20, January to June 2020, and January to June 2021

Quantity=short tons; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per short ton; Period changes=percent--exceptions noted

	Reported data					Period changes			
	Calendar year		Jan-Jun			Comparison years			Jan-Jun
	2018	2019	2020	2020	2021	2018-20	2018-19	2019-20	2020-21
U.S. importers' U.S. shipments of imports from:--Continued									
All import sources:									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▲***	▼***
U.S. producers':									
Average capacity quantity.....	***	***	***	***	***	▼***	▼***	▲***	▲***
Production quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Capacity utilization (fn1).....	***	***	***	***	***	▼***	▼***	▼***	▲***
U.S. shipments (fn3):									
Quantity (fn3).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value:									
Fully domestic value (fn3).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value added to imports (fn3).....	***	***	***	***	***	▼***	▲***	▼***	▲***
Total (fn3).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value (fn3).....	***	***	***	***	***	▲***	▲***	▼***	▲***
Export shipments:									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Value.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▼***	▲***	▼***	▼***
Inventories/total shipments (fn1).....	***	***	***	***	***	▲***	▲***	▼***	▼***
Production workers.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Hours worked (1,000s).....	***	***	***	***	***	▼***	▼***	▼***	▼***
Wages paid (\$1,000).....	***	***	***	***	***	▼***	▼***	▼***	▼***
Hourly wages (dollars per hour).....	***	***	***	***	***	▲***	▲***	▲***	▲***
Productivity (pounds per hour).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit labor costs.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Net sales:									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Cost of goods sold (COGS).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Gross profit or (loss) (fn4).....	***	***	***	***	***	▼***	▼***	▼***	▲***
SG&A expenses.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Operating income or (loss) (fn4).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Net income or (loss) (fn4).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit COGS.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Unit SG&A expenses.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Unit operating income or (loss) (fn4).....	***	***	***	***	***	▼***	▲***	▼***	▲***
Unit net income or (loss) (fn4).....	***	***	***	***	***	▼***	▼***	▼***	▲***
COGS/sales (fn1).....	***	***	***	***	***	▲***	▼***	▲***	▼***
Operating income or (loss)/sales (fn1).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Net income or (loss)/sales (fn1).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Capital expenditures.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Research and development expenses.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Net assets.....	***	***	***	***	***	▼***	▼***	▼***	***

Note.--Shares and ratios shown as "0.0" percent represent non-zero values less than "0.05" percent (if positive) and greater than "(0.05)" percent (if negative). Zeroes, null values, and undefined calculations are suppressed and shown as "--". Period changes preceded by a "▲" represent an increase, while period changes preceded by a "▼" represent a decrease.

fn1.--Reported data are in percent and period changes are in percentage points.

fn2.--In this table, the term China direct relates to subject merchandise imported directly from China as reported by U.S. importers; whereas term China indirect relates to the subject merchandise (specifically Chinese subassemblies) imported *** from Canada embodied in complete MAE that were manufactured in Canada using the subject merchandise. The quantity and value reported for China indirect in this table relate to just the portion of the finished goods imported from Canada that was accounted for by the subject merchandise (i.e., the Chinese subassemblies).

fn3.--The quantity for U.S. producers' U.S. shipments reflects the quantity sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies regardless of whether the MAE were sold as subassemblies or as complete units; The value for U.S. producers' U.S. shipments reflects the value sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies plus the additional value added to either U.S.-produced or imported subassemblies from domestic assembly operations. Fully domestic value includes the additional value added by domestic assembly operations on U.S.-produced subassemblies, while the value added to imports includes the additional value added by domestic assembly operations on imported subassemblies. In measuring consumption and market share this methodology avoids reclassifying and/or double counting merchandise already reported once by U.S. producers or by U.S. importers. The unit value of U.S. producers' U.S. shipments is based on the fully domestic value.

fn4.--Percent changes only calculated when both comparison values represent profits; The directional change in profitability provided when one or both comparison values represent a loss.

Source: Compiled from data submitted in response to Commission questionnaires.

Table C-5

All other MAE: Summary data concerning the U.S. market excluding two U.S. producers ***, 2018-20, January to June 2020, and January to June 2021

Quantity=short tons; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per short ton; Period changes=percent--exceptions noted

	Reported data					Period changes			
	Calendar year			Jan-Jun		Comparison years			Jan-Jun
	2018	2019	2020	2020	2021	2018-20	2018-19	2019-20	2020-21
U.S. consumption quantity:									
Amount.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Producers' share (fn1):									
Included producers.....	***	***	***	***	***	▼***	▼***	▲***	▼***
Excluded producers.....	***	***	***	***	***	▲***	▲***	▲***	▲***
All producers.....	***	***	***	***	***	▼***	▼***	▲***	▼***
Importers' share (fn1):									
China direct (fn2).....	***	***	***	***	***	▲***	▲***	▲***	▲***
China indirect (fn2).....	***	***	***	***	***	▼***	▼***	▼***	▲***
China.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Canada.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Mexico.....	***	***	***	***	***	▼***	▼***	▼***	▲***
All other sources.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Nonsubject sources.....	***	***	***	***	***	▼***	▼***	▼***	▲***
All import sources.....	***	***	***	***	***	▲***	▲***	▼***	▲***
U.S. consumption value:									
Amount.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Producers' share (fn1):									
Included producers.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Excluded producers.....	***	***	***	***	***	▲***	▲***	▲***	▲***
All producers.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Importers' share (fn1):									
China direct (fn2).....	***	***	***	***	***	▲***	▲***	▲***	▲***
China indirect (fn2).....	***	***	***	***	***	▼***	▼***	▼***	▲***
China.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Canada.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Mexico.....	***	***	***	***	***	▼***	▼***	▼***	▲***
All other sources.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Nonsubject sources.....	***	***	***	***	***	▼***	▼***	▼***	▲***
All import sources.....	***	***	***	***	***	▼***	▼***	▼***	▲***
U.S. importers' U.S. shipments of imports from:									
China direct (fn2):									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Ending inventory quantity.....	***	***	***	***	***	▼***	▼***	▲***	▼***
China indirect (fn2):									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***
China:									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Ending inventory quantity.....	***	***	***	***	***	▼***	▼***	▲***	▼***
Canada:									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Ending inventory quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Mexico:									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Ending inventory quantity.....	***	***	***	***	***	▼***	▲***	▼***	▼***
All other sources:									
Quantity.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Nonsubject sources:									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▼***	▼***

Table continued on next page.

Table C-5 continued

All other MAE: Summary data concerning the U.S. market excluding two U.S. producers ***, 2018-20, January to June 2020, and January to June 2021

Quantity=short tons; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per short ton; Period changes=percent--exceptions noted

	Reported data					Period changes			
	Calendar year			Jan-Jun		Comparison years			Jan-Jun
	2018	2019	2020	2020	2021	2018-20	2018-19	2019-20	2020-21
U.S. importers' U.S. shipments of imports from:--Continued									
All import sources:									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Included U.S. producers':									
Average capacity quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Production quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Capacity utilization (fn1).....	***	***	***	***	***	▼***	▼***	▼***	▲***
U.S. shipments (fn3):									
Quantity (fn3).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value (fn3).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value (fn3).....	***	***	***	***	***	▲***	▲***	▼***	▲***
Export shipments:									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Value.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▼***	▲***	▼***	▼***
Inventories/total shipments (fn1).....	***	***	***	***	***	▲***	▲***	▼***	▼***
Production workers.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Hours worked (1,000s).....	***	***	***	***	***	▼***	▼***	▼***	▼***
Wages paid (\$1,000).....	***	***	***	***	***	▼***	▼***	▼***	▼***
Hourly wages (dollars per hour).....	***	***	***	***	***	▲***	▲***	▲***	▲***
Productivity (pounds per hour).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit labor costs.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Net sales:									
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Cost of goods sold (COGS).....	***	***	***	***	***	▲***	▲***	▼***	▲***
Gross profit or (loss) (fn4).....	***	***	***	***	***	▼***	▼***	▼***	▲***
SG&A expenses.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Operating income or (loss) (fn4).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Net income or (loss) (fn4).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit COGS.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Unit SG&A expenses.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Unit operating income or (loss) (fn4).....	***	***	***	***	***	▼***	▲***	▼***	▲***
Unit net income or (loss) (fn4).....	***	***	***	***	***	▼***	▼***	▼***	▲***
COGS/sales (fn1).....	***	***	***	***	***	▲***	▼***	▲***	▼***
Operating income or (loss)/sales (fn1).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Net income or (loss)/sales (fn1).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Capital expenditures.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Research and development expenses.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Net assets.....	***	***	***	***	***	▼***	▼***	▼***	***

Note.--Shares and ratios shown as "0.0" percent represent non-zero values less than "0.05" percent (if positive) and greater than "(0.05)" percent (if negative). Zeroes, null values, and undefined calculations are suppressed and shown as "--". Period changes preceded by a "▲" represent an increase, while period changes preceded by a "▼" represent a decrease.

fn1.--Reported data are in percent and period changes are in percentage points.

fn2.--In this table, the term China direct relates to subject merchandise imported directly from China as reported by U.S. importers; whereas term China indirect relates to the subject merchandise (specifically Chinese subassemblies) imported *** from Canada embodied in complete MAE that were manufactured in Canada using the subject merchandise. The quantity and value reported for China indirect in this table relate to just the portion of the finished goods imported from Canada that was accounted for by the subject merchandise (i.e., the Chinese subassemblies).

fn3.--The quantity for U.S. producers' U.S. shipments reflects the quantity sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies regardless of whether the MAE were sold as subassemblies or as complete units; The value for U.S. producers' U.S. shipments reflects the value sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies plus the additional value added to either U.S.-produced or imported subassemblies from domestic assembly operations. Fully domestic value includes the additional value added by domestic assembly operations on U.S.-produced subassemblies, while the value added to imports includes the additional value added by domestic assembly operations on imported subassemblies. In measuring consumption and market share this methodology avoids reclassifying and/or double counting merchandise already reported once by U.S. producers or by U.S. importers. The unit value of U.S. producers' U.S. shipments is based on the fully domestic value. The detail for the fully domestic value and the value added to imports is provided in Appendix M.

fn4.--Percent changes only calculated when both comparison values represent profits; The directional change in profitability provided when one or both comparison values represent a loss.

Source: Compiled from data submitted in response to Commission questionnaires.

APPENDIX D

**NARRATIVES ON DOMESTIC LIKE PRODUCT FACTORS:
TELEHANDLERS AND ALL OTHER MAE**

Table D-1

MAE: U.S. producers' domestic like product narratives on the comparability of telehandlers and all other MAE, by producer and by factor

Producer	Factor	Domestic like product narrative response
***	Physical characteristics and uses	***
***	Physical characteristics and uses	***
***	Physical characteristics and uses	***
***	Physical characteristics and uses	***
***	Physical characteristics and uses	***
***	Physical characteristics and uses	***
***	Physical characteristics and uses	***
***	Physical characteristics and uses	***
***	Manufacturing facilities, production processes, and employees	***
***	Manufacturing facilities, production processes, and employees	***
***	Manufacturing facilities, production processes, and employees	***

Producer	Factor	Domestic like product narrative response
***	Manufacturing facilities, production processes, and employees	***
***	Manufacturing facilities, production processes, and employees	***
***	Manufacturing facilities, production processes, and employees	***
***	Manufacturing facilities, production processes, and employees	***
***	Channels of distribution	***
***	Channels of distribution	***
***	Channels of distribution	***
***	Channels of distribution	***
***	Channels of distribution	***
***	Channels of distribution	***
***	Channels of distribution	***
***	Interchangeability	***
***	Interchangeability	***
***	Interchangeability	***

Producer	Factor	Domestic like product narrative response
***	Interchangeability	***
***	Interchangeability	***
***	Interchangeability	***
***	Interchangeability	***
***	Producer and customer perceptions	***
***	Producer and customer perceptions	***
***	Producer and customer perceptions	***
***	Producer and customer perceptions	***
***	Producer and customer perceptions	***
***	Producer and customer perceptions	***

Producer	Factor	Domestic like product narrative response
***	Producer and customer perceptions	***
***	Price	***
***	Price	***
***	Price	***
***	Price	***
***	Price	***
***	Price	***
***	Price	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table D-2

MAE: U.S. importers' domestic like product narratives on the comparability of telehandlers and all other MAE, by importer and by factor

Importer	Factor	Domestic like product narrative response
***	Physical characteristics and uses	***
***	Physical characteristics and uses	***
***	Physical characteristics and uses	***
***	Physical characteristics and uses	***
***	Physical characteristics and uses	***
***	Physical characteristics and uses	***

Importer	Factor	Domestic like product narrative response
***	Physical characteristics and uses	***

Importer	Factor	Domestic like product narrative response
***	Physical characteristics and uses	***
***	Physical characteristics and uses	***

Importer	Factor	Domestic like product narrative response
***	Physical characteristics and uses	***
***	Physical characteristics and uses	***
***	Physical characteristics and uses	***
***	Manufacturing facilities, production processes, and employees	***
***	Manufacturing facilities, production processes, and employees	***
***	Manufacturing facilities, production processes, and employees	***
***	Manufacturing facilities, production processes, and employees	***
***	Manufacturing facilities, production processes, and employees	***
***	Manufacturing facilities, production processes, and employees	***
***	Manufacturing facilities, production processes, and employees	***

Importer	Factor	Domestic like product narrative response
***	Manufacturing facilities, production processes, and employees	***
***	Manufacturing facilities, production processes, and employees	***
***	Manufacturing facilities, production processes, and employees	***
***	Manufacturing facilities, production processes, and employees	***
***	Manufacturing facilities, production processes, and employees	***
***	Channels of distribution	***
***	Channels of distribution	***
***	Channels of distribution	***

Importer	Factor	Domestic like product narrative response
***	Channels of distribution	***
***	Channels of distribution	***
***	Channels of distribution	***
***	Channels of distribution	***
***	Channels of distribution	***
***	Channels of distribution	***
***	Channels of distribution	***
***	Channels of distribution	***
***	Channels of distribution	***
***	Interchangeability	***
***	Interchangeability	***
***	Interchangeability	***
***	Interchangeability	***
***	Interchangeability	***

Importer	Factor	Domestic like product narrative response
***	Interchangeability	***
***	Interchangeability	***
***	Interchangeability	***
***	Interchangeability	***

Importer	Factor	Domestic like product narrative response
***	Interchangeability	***
***	Interchangeability	***
***	Interchangeability	***
***	Producer and customer perceptions	***
***	Producer and customer perceptions	***
***	Producer and customer perceptions	***
***	Producer and customer perceptions	***
***	Producer and customer perceptions	***
***	Producer and customer perceptions	***
***	Producer and customer perceptions	***

Importer	Factor	Domestic like product narrative response
***	Producer and customer perceptions	***
***	Producer and customer perceptions	***
***	Producer and customer perceptions	***
***	Producer and customer perceptions	***
***	Producer and customer perceptions	***
***	Price	***
***	Price	***
***	Price	***
***	Price	***

Importer	Factor	Domestic like product narrative response
***	Price	***
***	Price	***
***	Price	***
***	Price	***
***	Price	***
***	Price	***
***	Price	***
***	Price	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table D-3

MAE: Purchasers' domestic like product narratives on the comparability of telehandlers and all other MAE, by purchaser and factor

Purchaser	Factor	Domestic like product narrative response
***	Physical characteristics and uses	***
***	Physical characteristics and uses	***
***	Physical characteristics and uses	***
***	Physical characteristics and uses	***
***	Physical characteristics and uses	***
***	Physical characteristics and uses	***
***	Physical characteristics and uses	***
***	Physical characteristics and uses	***
***	Physical characteristics and uses	***
***	Manufacturing facilities, production processes, and employees	***

Purchaser	Factor	Domestic like product narrative response
***	Manufacturing facilities, production processes, and employees	***
***	Manufacturing facilities, production processes, and employees	***
***	Manufacturing facilities, production processes, and employees	***
***	Manufacturing facilities, production processes, and employees	***
***	Manufacturing facilities, production processes, and employees	***
***	Manufacturing facilities, production processes, and employees	***
***	Channels of distribution	***
***	Channels of distribution	***
***	Channels of distribution	***
***	Channels of distribution	***
***	Channels of distribution	***
***	Channels of distribution	***
***	Channels of distribution	***
***	Channels of distribution	***

Purchaser	Factor	Domestic like product narrative response
***	Interchangeability	***
***	Interchangeability	***
***	Interchangeability	***
***	Interchangeability	***
***	Interchangeability	***
***	Interchangeability	***
***	Interchangeability	***
***	Interchangeability	***
***	Producer and customer perceptions	***
***	Producer and customer perceptions	***
***	Producer and customer perceptions	***

Purchaser	Factor	Domestic like product narrative response
***	Producer and customer perceptions	***
***	Producer and customer perceptions	***
***	Producer and customer perceptions	***
***	Producer and customer perceptions	***
***	Price	***
***	Price	***
***	Price	***
***	Price	***
***	Price	***
***	Price	***
***	Price	***
***	Price	***
***	Price	***

Purchaser	Factor	Domestic like product narrative response
***	Price	***

Source: Compiled from data submitted in response to Commission questionnaires.

APPENDIX E

**NARRATIVES ON THE SEMI-FINISHED PRODUCTS FACTORS:
MAE SUBASSEMBLIES AND COMPLETE MAE**

Table E-1

MAE: U.S. producers' semi-finished product narratives regarding MAE subassemblies and complete MAE, by producer and factor

Producer	Factor	Narrative explanation
***	Separate markets	***
***	Separate markets	***
***	Differences in physical characteristics and functions of upstream and downstream articles	***
***	Differences in physical characteristics and functions of upstream and downstream articles	***
***	Differences in physical characteristics and functions of upstream and downstream articles	***
***	Differences in costs or value	***
***	Differences in costs or value	***
***	Differences in costs or value	***
***	Differences in costs or value	***
***	Differences in costs or value	***

Producer	Factor	Narrative explanation
***	Extent of processes used to transform upstream product into downstream product	***
***	Extent of processes used to transform upstream product into downstream product	***
***	Extent of processes used to transform upstream product into downstream product	***
***	Extent of processes used to transform upstream product into downstream product	***
***	Extent of processes used to transform upstream product into downstream product	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table E-2

MAE: U. S. importers' semi-finished product narratives regarding MAE subassemblies and complete MAE, by importer and factor

Importer	Factor	Narrative explanation
***	Dedication for use	***
***	Dedication for use	***
***	Dedication for use	***
***	Separate market	***
***	Separate market	***
***	Separate market	***
***	Separate market	***
***	Separate market	***
***	Separate market	***
***	Differences in physical characteristics and functions of upstream and downstream articles	***
***	Differences in physical characteristics and functions of upstream and downstream articles	***
***	Differences in physical characteristics and functions of upstream and downstream articles	***
***	Differences in physical characteristics and functions of upstream and downstream articles	***

Importer	Factor	Narrative explanation
***	Differences in physical characteristics and functions of upstream and downstream articles	***
***	Differences in physical characteristics and functions of upstream and downstream articles	***
***	Differences in physical characteristics and functions of upstream and downstream articles	***
***	Differences in costs or value	***
***	Differences in costs or value	***
***	Differences in costs or value	***
***	Differences in costs or value	***
***	Differences in costs or value	***

Importer	Factor	Narrative explanation
***	Differences in costs or value	***
***	Differences in costs or value	***
***	Extent of processes used to transform upstream product into downstream product	***
***	Extent of processes used to transform upstream product into downstream product	***
***	Extent of processes used to transform upstream product into downstream product	***
***	Extent of processes used to transform upstream product into downstream product	***

Importer	Factor	Narrative explanation
***	Extent of processes used to transform upstream product into downstream product	***
***	Extent of processes used to transform upstream product into downstream product	***
***	Extent of processes used to transform upstream product into downstream product	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table E-3

MAE: U.S. purchasers' semi-finished product narratives regarding MAE subassemblies and complete MAE, by purchaser and factor

Purchaser	Factor	Narrative explanation
***	Dedication for use	***
***	Separate market	***
***	Separate market	***
***	Separate market	***
***	Differences in physical characteristics and functions of upstream and downstream articles	***
***	Differences in physical characteristics and functions of upstream and downstream articles	***
***	Differences in physical characteristics and functions of upstream and downstream articles	***
***	Differences in costs or value	***
***	Differences in costs or value	***
***	Differences in costs or value	***
***	Differences in costs or value	***
***	Extent of processes used to transform upstream product into downstream product	***
***	Extent of processes used to transform upstream product into downstream product	***
***	Extent of processes used to transform upstream product into downstream product	***
***	Extent of processes used to transform upstream product into downstream product	***

Source: Compiled from data submitted in response to Commission questionnaires.

APPENDIX F

FIRMS' DESCRIPTIONS REGARDING SUPPLY CONSTRAINTS

Table F-1
MAE: Producers' descriptions regarding supply constraints since January 1, 2018

Producer	Supply constraints before the petitions were filed	Supply constraints after the petitions were filed
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***

Producer	Supply constraints before the petitions were filed	Supply constraints after the petitions were filed
***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table F-2

MAE: Importers' descriptions regarding supply constraints since January 1, 2018

Importer	Supply constraints before the petitions were filed	Supply constraints after the petitions were filed
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***

Importer	Supply constraints before the petitions were filed	Supply constraints after the petitions were filed
***	***	***
***	***	***
***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table F-3
MAE: Purchasers' descriptions regarding supply constraints since January 1, 2018

Purchaser	Supply constraints before the petitions were filed	Supply constraints after the petitions were filed
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

APPENDIX G

SUFFICIENT PRODUCTION-RELATED ACTIVITIES
FIRM-BY-FIRM DATA

Table G-1

MAE: U.S. producer Custom Equipment's narrative explanations relating to its overall domestic production activities and to the sufficient production-related activities factors as it relates to assembly operations using purchased or imported subassemblies or other in-scope merchandise

Factor	Custom Equipment's narrative responses
Domestic production activities description	***
Capital investments	***
Technical expertise	***
Value added	***
Employment	***
Quantity, type, and source of parts	***
Costs and activities	***
Rating of complexity	***
Narrative on complexity	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table G-2
MAE: U.S. producer Custom Equipment's U.S. production, by source of input and by period

Quantity in short tons; shares in percent

Source of input in production	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Internally produced subassemblies	Quantity	***	***	***	***	***
Purchased domestic subassemblies	Quantity	***	***	***	***	***
Domestic-origin subassemblies	Quantity	***	***	***	***	***
Purchased or imported subject subassemblies	Quantity	***	***	***	***	***
Purchased or imported nonsubject subassemblies	Quantity	***	***	***	***	***
Purchased or imported foreign-origin subassemblies	Quantity	***	***	***	***	***
All input sources	Quantity	***	***	***	***	***
Internally produced subassemblies	Share of quantity	***	***	***	***	***
Purchased domestic subassemblies	Share of quantity	***	***	***	***	***
Domestic-origin subassemblies	Share of quantity	***	***	***	***	***
Purchased or imported subject subassemblies	Share of quantity	***	***	***	***	***
Purchased or imported nonsubject subassemblies	Share of quantity	***	***	***	***	***
Purchased or imported foreign-origin subassemblies	Share of quantity	***	***	***	***	***
All input sources	Share of quantity	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table G-3

MAE: U.S. producer Global's narrative explanations relating to its overall domestic production activities and to the sufficient production-related activities factors as it relates to assembly operations using purchased or imported subassemblies or other in-scope merchandise

Factor	Global's narrative responses
Domestic production activities description	***
Capital investments	***
Technical expertise	***
Value added	***
Employment	***
Quantity, type, and source of parts	***
Costs and activities	***
Rating of complexity	***
Narrative on complexity	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table G-4
MAE: U.S. producer Global's U.S. production, by source of input and by period

Quantity in short tons; shares in percent

Source of input in production	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Internally produced subassemblies	Quantity	***	***	***	***	***
Purchased domestic subassemblies	Quantity	***	***	***	***	***
Domestic-origin subassemblies	Quantity	***	***	***	***	***
Purchased or imported subject subassemblies	Quantity	***	***	***	***	***
Purchased or imported nonsubject subassemblies	Quantity	***	***	***	***	***
Purchased or imported foreign-origin subassemblies	Quantity	***	***	***	***	***
All input sources	Quantity	***	***	***	***	***
Internally produced subassemblies	Share of quantity	***	***	***	***	***
Purchased domestic subassemblies	Share of quantity	***	***	***	***	***
Domestic-origin subassemblies	Share of quantity	***	***	***	***	***
Purchased or imported subject subassemblies	Share of quantity	***	***	***	***	***
Purchased or imported nonsubject subassemblies	Share of quantity	***	***	***	***	***
Purchased or imported foreign-origin subassemblies	Share of quantity	***	***	***	***	***
All input sources	Share of quantity	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table G-5

MAE: U.S. producer Haulotte's narrative explanations relating to its overall domestic production activities and to the sufficient production-related activities factors as it relates to assembly operations using purchased or imported subassemblies or other in-scope merchandise

Factor	Haulotte's narrative response
Domestic production activities description	***
Capital investments	***
Technical expertise	***
Value added	***
Employment	***
Quantity, type, and source of parts	***
Costs and activities	***
Rating of complexity	***
Narrative on complexity	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table G-6
MAE: U.S. producer Haulotte's U.S. production, by source of input and by period

Quantity in short tons; shares in percent

Source of input in production	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Internally produced subassemblies	Quantity	***	***	***	***	***
Purchased domestic subassemblies	Quantity	***	***	***	***	***
Domestic-origin subassemblies	Quantity	***	***	***	***	***
Purchased or imported subject subassemblies	Quantity	***	***	***	***	***
Purchased or imported nonsubject subassemblies	Quantity	***	***	***	***	***
Purchased or imported foreign-origin subassemblies	Quantity	***	***	***	***	***
All input sources	Quantity	***	***	***	***	***
Internally produced subassemblies	Share of quantity	***	***	***	***	***
Purchased domestic subassemblies	Share of quantity	***	***	***	***	***
Domestic-origin subassemblies	Share of quantity	***	***	***	***	***
Purchased or imported subject subassemblies	Share of quantity	***	***	***	***	***
Purchased or imported nonsubject subassemblies	Share of quantity	***	***	***	***	***
Purchased or imported foreign-origin subassemblies	Share of quantity	***	***	***	***	***
All input sources	Share of quantity	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table G-7

MAE: U.S. producer JLG 's narrative explanations relating to its overall domestic production activities and to the sufficient production-related activities factors as it relates to assembly operations using purchased or imported subassemblies or other in-scope merchandise

Factor	JLG's narrative response
Domestic production activities description	***
Capital investments	***
Technical expertise	***
Value added	***
Employment	***
Quantity, type, and source of parts	***
Costs and activities	***
Rating of complexity	***
Narrative on complexity	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table G-8
MAE: U.S. producer JLG's U.S. production, by source of input and by period

Quantity in short tons; shares in percent

Source of input in production	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Internally produced subassemblies	Quantity	***	***	***	***	***
Purchased domestic subassemblies	Quantity	***	***	***	***	***
Domestic-origin subassemblies	Quantity	***	***	***	***	***
Purchased or imported subject subassemblies	Quantity	***	***	***	***	***
Purchased or imported nonsubject subassemblies	Quantity	***	***	***	***	***
Purchased or imported foreign-origin subassemblies	Quantity	***	***	***	***	***
All input sources	Quantity	***	***	***	***	***
Internally produced subassemblies	Share of quantity	***	***	***	***	***
Purchased domestic subassemblies	Share of quantity	***	***	***	***	***
Domestic-origin subassemblies	Share of quantity	***	***	***	***	***
Purchased or imported subject subassemblies	Share of quantity	***	***	***	***	***
Purchased or imported nonsubject subassemblies	Share of quantity	***	***	***	***	***
Purchased or imported foreign-origin subassemblies	Share of quantity	***	***	***	***	***
All input sources	Share of quantity	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table G-9

MAE: U.S. producer MEC's narrative explanations relating to its overall domestic production activities and to the sufficient production-related activities factors as it relates to assembly operations using purchased or imported subassemblies or other in-scope merchandise

Factor	MEC's narrative response
Domestic production activities description	***
Capital investments	***
Technical expertise	***
Value added	***
Employment	***
Quantity, type, and source of parts	***
Costs and activities	***
Rating of complexity	***
Narrative on complexity	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table G-10
MAE: U.S. producer MEC's U.S. production, by source of input and by period

Quantity in short tons; shares in percent

Source of input in production	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Internally produced subassemblies	Quantity	***	***	***	***	***
Purchased domestic subassemblies	Quantity	***	***	***	***	***
Domestic-origin subassemblies	Quantity	***	***	***	***	***
Purchased or imported subject subassemblies	Quantity	***	***	***	***	***
Purchased or imported nonsubject subassemblies	Quantity	***	***	***	***	***
Purchased or imported foreign-origin subassemblies	Quantity	***	***	***	***	***
All input sources	Quantity	***	***	***	***	***
Internally produced subassemblies	Share of quantity	***	***	***	***	***
Purchased domestic subassemblies	Share of quantity	***	***	***	***	***
Domestic-origin subassemblies	Share of quantity	***	***	***	***	***
Purchased or imported subject subassemblies	Share of quantity	***	***	***	***	***
Purchased or imported nonsubject subassemblies	Share of quantity	***	***	***	***	***
Purchased or imported foreign-origin subassemblies	Share of quantity	***	***	***	***	***
All input sources	Share of quantity	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table G-11

MAE: U.S. producer Pettibone's narrative explanations relating to its overall domestic production activities and to the sufficient production-related activities factors as it relates to assembly operations using purchased or imported subassemblies or other in-scope merchandise

Factor	Pettibone's narrative response
Domestic production activities description	***
Capital investments	***
Technical expertise	***
Value added	***
Employment	***
Quantity, type, and source of parts	***
Costs and activities	***
Rating of complexity	***
Narrative on complexity	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table G-12**MAE: U.S. producer Pettibone's U.S. production, by source of input and by period**

Quantity in short tons; shares in percent

Source of input in production	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Internally produced subassemblies	Quantity	***	***	***	***	***
Purchased domestic subassemblies	Quantity	***	***	***	***	***
Domestic-origin subassemblies	Quantity	***	***	***	***	***
Purchased or imported subject subassemblies	Quantity	***	***	***	***	***
Purchased or imported nonsubject subassemblies	Quantity	***	***	***	***	***
Purchased or imported foreign-origin subassemblies	Quantity	***	***	***	***	***
All input sources	Quantity	***	***	***	***	***
Internally produced subassemblies	Share of quantity	***	***	***	***	***
Purchased domestic subassemblies	Share of quantity	***	***	***	***	***
Domestic-origin subassemblies	Share of quantity	***	***	***	***	***
Purchased or imported subject subassemblies	Share of quantity	***	***	***	***	***
Purchased or imported nonsubject subassemblies	Share of quantity	***	***	***	***	***
Purchased or imported foreign-origin subassemblies	Share of quantity	***	***	***	***	***
All input sources	Share of quantity	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table G-13

MAE: U.S. producer Snorkel's narrative explanations relating to its overall domestic production activities and to the sufficient production-related activities factors as it relates to assembly operations using purchased or imported subassemblies or other in-scope merchandise

Factor	Snorkel's narrative response
Domestic production activities description	***
Capital investments	***
Technical expertise	***
Value added	***
Employment	***
Quantity, type, and source of parts	***
Costs and activities	***
Rating of complexity	***
Narrative on complexity	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table G-14
MAE: U.S. producer Snorkel's U.S. production, by source of input and by period

Quantity in short tons; shares in percent

Source of input in production	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Internally produced subassemblies	Quantity	***	***	***	***	***
Purchased domestic subassemblies	Quantity	***	***	***	***	***
Domestic-origin subassemblies	Quantity	***	***	***	***	***
Purchased or imported subject subassemblies	Quantity	***	***	***	***	***
Purchased or imported nonsubject subassemblies	Quantity	***	***	***	***	***
Purchased or imported foreign-origin subassemblies	Quantity	***	***	***	***	***
All input sources	Quantity	***	***	***	***	***
Internally produced subassemblies	Share of quantity	***	***	***	***	***
Purchased domestic subassemblies	Share of quantity	***	***	***	***	***
Domestic-origin subassemblies	Share of quantity	***	***	***	***	***
Purchased or imported subject subassemblies	Share of quantity	***	***	***	***	***
Purchased or imported nonsubject subassemblies	Share of quantity	***	***	***	***	***
Purchased or imported foreign-origin subassemblies	Share of quantity	***	***	***	***	***
All input sources	Share of quantity	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table G-15

MAE: U.S. producer Terex's narrative explanations relating to its overall domestic production activities and to the sufficient production-related activities factors as it relates to assembly operations using purchased or imported subassemblies or other in-scope merchandise

Factor	Terex's narrative response
Domestic production activities description	***
Capital investments	***
Technical expertise	***
Value added	***
Employment	***
Quantity, type, and source of parts	***
Costs and activities	***
Rating of complexity	***
Narrative on complexity	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table G-16**MAE: U.S. producer Terex's U.S. production, by source of input and by period**

Quantity in short tons; shares in percent

Source of input in production	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Internally produced subassemblies	Quantity	***	***	***	***	***
Purchased domestic subassemblies	Quantity	***	***	***	***	***
Domestic-origin subassemblies	Quantity	***	***	***	***	***
Purchased or imported subject subassemblies	Quantity	***	***	***	***	***
Purchased or imported nonsubject subassemblies	Quantity	***	***	***	***	***
Purchased or imported foreign-origin subassemblies	Quantity	***	***	***	***	***
All input sources	Quantity	***	***	***	***	***
Internally produced subassemblies	Share of quantity	***	***	***	***	***
Purchased domestic subassemblies	Share of quantity	***	***	***	***	***
Domestic-origin subassemblies	Share of quantity	***	***	***	***	***
Purchased or imported subject subassemblies	Share of quantity	***	***	***	***	***
Purchased or imported nonsubject subassemblies	Share of quantity	***	***	***	***	***
Purchased or imported foreign-origin subassemblies	Share of quantity	***	***	***	***	***
All input sources	Share of quantity	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table G-17**MAE: U.S. producers' capital expenditures and ratio of capital expenditures to production, by firm and period**

Values in 1,000 dollars; ratios in dollars per short ton

Firm	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	Value	***	***	***	***	***
Global	Value	***	***	***	***	***
Haulotte	Value	***	***	***	***	***
JLG	Value	***	***	***	***	***
MEC	Value	***	***	***	***	***
Pettibone	Value	***	***	***	***	***
Snorkel	Value	***	***	***	***	***
Terex	Value	***	***	***	***	***
All firms	Value	***	***	***	***	***
Custom Equipment	Ratio	***	***	***	***	***
Global	Ratio	***	***	***	***	***
Haulotte	Ratio	***	***	***	***	***
JLG	Ratio	***	***	***	***	***
MEC	Ratio	***	***	***	***	***
Pettibone	Ratio	***	***	***	***	***
Snorkel	Ratio	***	***	***	***	***
Terex	Ratio	***	***	***	***	***
All firms	Ratio	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table G-18**MAE: U.S. producers' net assets and ratio of net assets to production, by firm and period**

Values in 1,000 dollars; ratios in dollars per short ton

Firm	Measure	2018	2019	2020
Custom Equipment	Value	***	***	***
Global	Value	***	***	***
Haulotte	Value	***	***	***
JLG	Value	***	***	***
MEC	Value	***	***	***
Pettibone	Value	***	***	***
Snorkel	Value	***	***	***
Terex	Value	***	***	***
All firms	Value	***	***	***
Custom Equipment	Ratio	***	***	***
Global	Ratio	***	***	***
Haulotte	Ratio	***	***	***
JLG	Ratio	***	***	***
MEC	Ratio	***	***	***
Pettibone	Ratio	***	***	***
Snorkel	Ratio	***	***	***
Terex	Ratio	***	***	***
All firms	Ratio	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "--".

Table G-19**MAE: U.S. producers' R&D expenses and ratio of R&D expenses to production, by firm and period**

Values in 1,000 dollars; ratios in dollars per short ton

Firm	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	Value	***	***	***	***	***
Global	Value	***	***	***	***	***
Haulotte	Value	***	***	***	***	***
JLG	Value	***	***	***	***	***
MEC	Value	***	***	***	***	***
Pettibone	Value	***	***	***	***	***
Snorkel	Value	***	***	***	***	***
Terex	Value	***	***	***	***	***
All firms	Value	***	***	***	***	***
Custom Equipment	Ratio	***	***	***	***	***
Global	Ratio	***	***	***	***	***
Haulotte	Ratio	***	***	***	***	***
JLG	Ratio	***	***	***	***	***
MEC	Ratio	***	***	***	***	***
Pettibone	Ratio	***	***	***	***	***
Snorkel	Ratio	***	***	***	***	***
Terex	Ratio	***	***	***	***	***
All firms	Ratio	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table G-20
MAE: U.S. producers' conversion costs

Values in 1,000 dollars; ratios to COGS in percent; ratios to production in dollars per short ton

Firm	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	Value	***	***	***	***	***
Global	Value	***	***	***	***	***
Haulotte	Value	***	***	***	***	***
JLG	Value	***	***	***	***	***
MEC	Value	***	***	***	***	***
Pettibone	Value	***	***	***	***	***
Snorkel	Value	***	***	***	***	***
Terex	Value	***	***	***	***	***
All firms	Value	***	***	***	***	***
Custom Equipment	Ratio to COGS	***	***	***	***	***
Global	Ratio to COGS	***	***	***	***	***
Haulotte	Ratio to COGS	***	***	***	***	***
JLG	Ratio to COGS	***	***	***	***	***
MEC	Ratio to COGS	***	***	***	***	***
Pettibone	Ratio to COGS	***	***	***	***	***
Snorkel	Ratio to COGS	***	***	***	***	***
Terex	Ratio to COGS	***	***	***	***	***
All firms	Ratio to COGS	***	***	***	***	***
Custom Equipment	Ratio to Production	***	***	***	***	***
Global	Ratio to Production	***	***	***	***	***
Haulotte	Ratio to Production	***	***	***	***	***
JLG	Ratio to Production	***	***	***	***	***
MEC	Ratio to Production	***	***	***	***	***
Pettibone	Ratio to Production	***	***	***	***	***
Snorkel	Ratio to Production	***	***	***	***	***
Terex	Ratio to Production	***	***	***	***	***
All firms	Ratio to Production	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table G-21**MAE: U.S. producers' employment levels and the ratio of production to number of employees**

Quantity in number of employees; ratios in short tons produced per employee

Firm	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	Quantity	***	***	***	***	***
Global	Quantity	***	***	***	***	***
Haulotte	Quantity	***	***	***	***	***
JLG	Quantity	***	***	***	***	***
MEC	Quantity	***	***	***	***	***
Pettibone	Quantity	***	***	***	***	***
Snorkel	Quantity	***	***	***	***	***
Terex	Quantity	***	***	***	***	***
All firms	Quantity	***	***	***	***	***
Custom Equipment	Ratio	***	***	***	***	***
Global	Ratio	***	***	***	***	***
Haulotte	Ratio	***	***	***	***	***
JLG	Ratio	***	***	***	***	***
MEC	Ratio	***	***	***	***	***
Pettibone	Ratio	***	***	***	***	***
Snorkel	Ratio	***	***	***	***	***
Terex	Ratio	***	***	***	***	***
All firms	Ratio	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table G-22**MAE: U.S. producers' value of domestic raw materials, share of domestic raw materials to total raw materials, and ratio of domestic raw materials to production**

Values in 1,000 dollars; shares in percent; ratios to production in dollars per short ton

Firm	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Custom Equipment	Value	***	***	***	***	***
Global	Value	***	***	***	***	***
Haulotte	Value	***	***	***	***	***
JLG	Value	***	***	***	***	***
MEC	Value	***	***	***	***	***
Pettibone	Value	***	***	***	***	***
Snorkel	Value	***	***	***	***	***
Terex	Value	***	***	***	***	***
All firms	Value	***	***	***	***	***
Custom Equipment	Share	***	***	***	***	***
Global	Share	***	***	***	***	***
Haulotte	Share	***	***	***	***	***
JLG	Share	***	***	***	***	***
MEC	Share	***	***	***	***	***
Pettibone	Share	***	***	***	***	***
Snorkel	Share	***	***	***	***	***
Terex	Share	***	***	***	***	***
All firms	Share	***	***	***	***	***
Custom Equipment	Ratio	***	***	***	***	***
Global	Ratio	***	***	***	***	***
Haulotte	Ratio	***	***	***	***	***
JLG	Ratio	***	***	***	***	***
MEC	Ratio	***	***	***	***	***
Pettibone	Ratio	***	***	***	***	***
Snorkel	Ratio	***	***	***	***	***
Terex	Ratio	***	***	***	***	***
All firms	Ratio	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---". ***.

APPENDIX H
RANGE OF AUVs

Table H-1
MAE: U.S. producers' range of AUVs, complete MAE

Unit values in dollars per unit

Firm	Measure	Lowest AUV product	Highest volume product	Highest AUV product
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table H-2
MAE: U.S. producers' range of AUVs, MAE subassemblies

Unit values in dollars per unit

Firm	Measure	Lowest AUV product	Highest volume product	Highest AUV product
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table H-3
MAE: U.S. importers' range of AUVs, complete MAE

Unit values in dollars per unit

Firm	Measure	Lowest AUV product	Highest volume product	Highest AUV product
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***

Table continued.

Table H-3 Continued
MAE: U.S. importers' range of AUVs, complete MAE

Unit values in dollars per unit

Firm	Measure	Lowest AUV product	Highest volume product	Highest AUV product
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table H-4
MAE: U.S. importers' range of AUVs, MAE subassemblies

Unit values in dollars per unit

Firm	Measure	Lowest AUV product	Highest volume product	Highest AUV product
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***
***	Unit value	***	***	***
***	Description	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

APPENDIX J

U.S. SHIPMENTS BY COMPLETE MAE AND SUBASSEMBLY TYPE

Table J-1

MAE: Terminal year U.S. producers' and U.S. importers' U.S. shipments, by product type and by source, 2020

Quantity in short tons

Product type	U.S. producers	China	Nonsubject sources	All import sources	All sources
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-1 Continued

MAE: Terminal year U.S. producers' and U.S. importers' U.S. shipments, by product type and by source, 2020

Shares across on short tons in percent

Product type	U.S. producers	China	Nonsubject sources	All import sources	All sources
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-1 Continued

MAE: Terminal year U.S. producers' and U.S. importers' U.S. shipments, by product type and by source, 2020

Share down on short tons in percent

Product type	U.S. producers	China	Nonsubject sources	All import sources	All sources
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: U.S. importers' U.S. shipments from nonsubject sources include some complete MAE that contained Chinese-origin subassemblies. As such, U.S. importers' U.S. shipments from nonsubject sources are overstated and U.S. importers' U.S. shipments from subject sources are understated. Data on these subassemblies of Chinese-origin are presented in part IV tables under the source row labeled "China indirect." In appendix J figures, "China direct" corresponds to the appendix J table columns labeled "China" and "Other than China direct" corresponds to the appendix J table columns labeled "nonsubject sources."

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Quantities shown as "0" represent values greater than zero, but less than half a short ton. Zeroes, null values, and undefined calculations are suppressed and shown as "--".

Figure J-1
Complete and finished MAE: U.S. producers' and U.S. importers' U.S. shipments, by type of complete MAE, 2020

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Figure J-2
Complete but unfinished MAE and MAE subassemblies: U.S. producers' and U.S. importers' U.S. shipments, by type of MAE subassembly, 2020

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Figure J-3
MAE: Share of U.S. producers' and U.S. importers' U.S. shipments, by state of assembly, 2020

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Figure J-4
MAE: Share of U.S. producers' and U.S. importers' U.S. shipments, by product category, 2020

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Table J-2

MAE: Terminal year U.S. producers' and U.S. importers' U.S. shipments, by product type and by source, 2020

Quantity in units

Product type	U.S. producers	China	Nonsubject sources	All import sources	All sources
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-2 Continued

MAE: Terminal year U.S. producers' and U.S. importers' U.S. shipments, by product type and by source, 2020

Share across on units in percent

Product type	U.S. producers	China	Nonsubject sources	All import sources	All sources
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-2 Continued

MAE: Terminal year U.S. producers' and U.S. importers' U.S. shipments, by product type and by source, 2020

Share down on units in percent

Product type	U.S. producers	China	Nonsubject sources	All import sources	All sources
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: U.S. importers' U.S. shipments from nonsubject sources include some complete MAE that contained Chinese-origin subassemblies. As such, U.S. importers' U.S. shipments from nonsubject sources are overstated and U.S. importers' U.S. shipments from subject sources are understated. Data on these subassemblies of Chinese-origin are presented in part IV tables under the source row labeled "China indirect." In appendix J figures, "China direct" corresponds to the appendix J table columns labeled "China" and "Other than China direct" corresponds to the appendix J table columns labeled "nonsubject sources."

Figure J-5
Complete and finished MAE: U.S. producers' and U.S. importers' U.S. shipments, by type of complete MAE, 2020

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Figure J-6
Complete but unfinished MAE and MAE subassemblies: U.S. producers' and U.S. importers' U.S. shipments, by type of MAE subassembly, 2020

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Source: Compiled from data submitted in response to Commission questionnaires.

Figure J-7
MAE: Share of U.S. producers' and U.S. importers' U.S. shipments, by state of assembly, 2020

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Source: Compiled from data submitted in response to Commission questionnaires.

Figure J-8
MAE: Share of U.S. producers' and U.S. importers' U.S. shipments, by product category, 2020

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Table J-3**MAE: Terminal year U.S. producers' and U.S. importers' U.S. shipments, by product type and by source, 2020**

Value in 1,000 dollars

Product type	U.S. producers	China	Nonsubject sources	All import sources	All sources
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-3 Continued

MAE: Terminal year U.S. producers' and U.S. importers' U.S. shipments, by product type and by source, 2020

Share across of value in percent

Product type	U.S. producers	China	Nonsubject sources	All import sources	All sources
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-3 Continued

MAE: Terminal year U.S. producers' and U.S. importers' U.S. shipments, by product type and by source, 2020

Share down of value in percent

Product type	U.S. producers	China	Nonsubject sources	All import sources	All sources
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: U.S. importers' U.S. shipments from nonsubject sources include some complete MAE that contained Chinese-origin subassemblies. As such, U.S. importers' U.S. shipments from nonsubject sources are overstated and U.S. importers' U.S. shipments from subject sources are understated. Data on these subassemblies of Chinese-origin are presented in part IV tables under the source row labeled "China indirect." In appendix J figures, "China direct" corresponds to the appendix J table columns labeled "China" and "Other than China direct" corresponds to the appendix J table columns labeled "nonsubject sources."

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "--".

Figure J-9
Complete and finished MAE: U.S. producers' and U.S. importers' U.S. shipments, by type of complete MAE, 2020

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Figure J-10
Complete but unfinished MAE and MAE subassemblies: U.S. producers' and U.S. importers' U.S. shipments, by type of MAE subassembly, 2020

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Figure J-11

MAE: Share of U.S. producers' and U.S. importers' U.S. shipments, by type of assembly, 2020

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Figure J-12

MAE: Share of U.S. producers' and U.S. importers' U.S. shipments, by product category, 2020

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Table J-4**MAE: Value per short ton in terminal year, U.S. producers' and U.S. importers' U.S. shipments, by product type and by source, 2020**

Unit value in dollars per short ton

Product type	U.S. producers	China	Nonsubject sources	All import sources	All sources
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: U.S. importers' U.S. shipments from nonsubject sources include some complete MAE that contained Chinese-origin subassemblies. As such, U.S. importers' U.S. shipments from nonsubject sources are overstated and U.S. importers' U.S. shipments from subject sources are understated. Data on these subassemblies of Chinese-origin are presented in part IV tables under the source row labeled "China indirect." In appendix J figures, "China direct" corresponds to the appendix J table columns labeled "China" and "Other than China direct" corresponds to the appendix J table columns labeled "nonsubject sources."

Note: Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Figure J-13

Complete and finished telehandlers: Shares and AUVs based on short tons for U.S. producers' and U.S. importers' U.S. shipments, by source, 2020

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Figure J-14

Complete and finished scissor lifts: Shares and AUVs based on short tons for U.S. producers' and U.S. importers' U.S. shipments, by source, 2020

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Figure J-15

Complete and finished boom lifts: Shares and AUVs based on short tons for U.S. producers' and U.S. importers' U.S. shipments, by source, 2020

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Figure J-16

Complete and finished MAE: Shares and AUVs based on short tons for U.S. producers' and U.S. importers' U.S. shipments, by source, 2020

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Figure J-17

Complete but unfinished MAE and MAE subassemblies: Shares and AUVs based on short tons for U.S. producers' and U.S. importers' U.S. shipments, by source, 2020

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Figure J-18

MAE: Shares and AUVs based on short tons for U.S. producers' and U.S. importers' U.S. shipments, by source, 2020

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Table J-5**MAE: Terminal year per unit value of U.S. producers' and U.S. importers' U.S. shipments, by product type and by source, 2020**

Unit value in dollars per unit

Product type	U.S. producers	China	Nonsubject sources	All import sources	All sources
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: U.S. importers' U.S. shipments from nonsubject sources include some complete MAE that contained Chinese-origin subassemblies. As such, U.S. importers' U.S. shipments from nonsubject sources are overstated and U.S. importers' U.S. shipments from subject sources are understated. Data on these subassemblies of Chinese-origin are presented in part IV tables under the source row labeled "China indirect." In appendix J figures, "China direct" corresponds to the appendix J table columns labeled "China" and "Other than China direct" corresponds to the appendix J table columns labeled "nonsubject sources."

Note: Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Figure J-19

Complete and finished telehandlers: Shares and AUVs based on units for U.S. producers' and U.S. importers' U.S. shipments, by source, 2020

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Figure J-20

Complete and finished scissor lifts: Shares and AUVs based on units for U.S. producers' and U.S. importers' U.S. shipments, by source, 2020

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Figure J-21

Complete and finished boom lifts: Shares and AUVs based on units for U.S. producers' and U.S. importers' U.S. shipments, by source, 2020

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Figure J-22

Complete and finished MAE: Shares and AUVs based on units for U.S. producers' and U.S. importers' U.S. shipments, by source, 2020

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Figure J-23

Complete but unfinished MAE and MAE subassemblies: Shares and AUVs based on units for U.S. producers' and U.S. importers' U.S. shipments, by source, 2020

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Figure J-24

MAE: Shares and AUVs based on units for U.S. producers' and U.S. importers' U.S. shipments, by source, 2020

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Table J-6

MAE: Short tons per unit of terminal year U.S. producers' and U.S. importers' U.S. shipments, by product type and by source, 2020

Ratio short tons per unit

Product type	U.S. producers	China	Nonsubject sources	All import sources	All sources
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: U.S. importers' U.S. shipments from nonsubject sources include some complete MAE that contained Chinese-origin subassemblies. As such, U.S. importers' U.S. shipments from nonsubject sources are overstated and U.S. importers' U.S. shipments from subject sources are understated. Data on these subassemblies of Chinese-origin are presented in part IV tables under the source row labeled "China indirect." In appendix J figures, "China direct" corresponds to the appendix J table columns labeled "China" and "Other than China direct" corresponds to the appendix J table columns labeled "nonsubject sources."

Note: Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table J-7
MAE: U.S. producers' U.S. shipments, by product type and by period

Quantity in short tons

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-7 Continued
MAE: U.S. producers' U.S. shipments, by product type and by period

Share of quantity based on short tons

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-7 Continued
MAE: U.S. producers' U.S. shipments, by product type and by period

Quantity in units

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-7 Continued
MAE: U.S. producers' U.S. shipments, by product type and by period

Share of quantity based on units

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-7 Continued
MAE: U.S. producers' U.S. shipments, by product type and by period

Value in 1,000 dollars

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-7 Continued
MAE: U.S. producers' U.S. shipments, by product type and by period

Share of value

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-7 Continued
MAE: U.S. producers' U.S. shipments, by product type and by period

Unit value in dollars per short ton

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-7 Continued

MAE: U.S. producers' U.S. shipments, by product type and by period

Unit value in dollars per unit

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-7 Continued
MAE: U.S. producers' U.S. shipments, by product type and by period

Ratio short tons per unit

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-7 Continued
MAE: U.S. producers' U.S. shipments, by product type and by period

Source share out of all sources in percent, based on quantity data in short tons

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-7 Continued

MAE: U.S. producers' U.S. shipments, by product type and by period

Source share out of all sources in percent, based on quantity data in units

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-7 Continued

MAE: U.S. producers' U.S. shipments, by product type and by period

Source share out of all sources in percent, based on value data

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table J-8**MAE: U.S. importers' U.S. shipments of imports from China direct, by product type and by period**

Quantity in short tons

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-8 Continued**MAE: U.S. importers' U.S. shipments of imports from China direct, by product type and by period**

Share of quantity based on short tons

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-8 Continued**MAE: U.S. importers' U.S. shipments of imports from China direct, by product type and by period**

Quantity in units

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-8 Continued**MAE: U.S. importers' U.S. shipments of imports from China direct, by product type and by period**

Share of quantity based on units

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-8 Continued**MAE: U.S. importers' U.S. shipments of imports from China direct, by product type and by period**

Value in 1,000 dollars

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-8 Continued**MAE: U.S. importers' U.S. shipments of imports from China direct, by product type and by period**

Share of value

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-8 Continued**MAE: U.S. importers' U.S. shipments of imports from China direct, by product type and by period**

Unit value in dollars per short ton

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-8 Continued**MAE: U.S. importers' U.S. shipments of imports from China direct, by product type and by period**

Unit value in dollars per unit

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-8 Continued**MAE: U.S. importers' U.S. shipments of imports from China direct, by product type and by period**

Ratio short tons per unit

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-8 Continued**MAE: U.S. importers' U.S. shipments of imports from China direct, by product type and by period**

Source share out of all sources in percent, based on quantity data in short tons

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-8 Continued**MAE: U.S. importers' U.S. shipments of imports from China direct, by product type and by period**

Source share out of all sources in percent, based on quantity data in units

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-8 Continued**MAE: U.S. importers' U.S. shipments of imports from China direct, by product type and by period**

Source share out of all sources in percent, based on value data

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: U.S. importers' U.S. shipments from nonsubject sources include some complete MAE that contained Chinese-origin subassemblies. As such, U.S. importers' U.S. shipments from subject sources are understated. Data on these subassemblies of Chinese-origin are presented in part IV tables under the source row labeled "China indirect."

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table J-9**MAE: U.S. importers' U.S. shipments of imports from sources other than China direct, by product type and by period**

Quantity in short tons

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-9 Continued

MAE: U.S. importers' U.S. shipments of imports from sources other than China direct, by product type and by period

Share of quantity based on short tons

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-9 Continued

MAE: U.S. importers' U.S. shipments of imports from sources other than China direct, by product type and by period

Quantity in units

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-9 Continued

MAE: U.S. importers' U.S. shipments of imports from sources other than China direct, by product type and by period

Share of quantity based on units

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-9 Continued

MAE: U.S. importers' U.S. shipments of imports from sources other than China direct, by product type and by period

Value in 1,000 dollars

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-9 Continued

MAE: U.S. importers' U.S. shipments of imports from sources other than China direct, by product type and by period

Share of value

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-9 Continued

MAE: U.S. importers' U.S. shipments of imports from sources other than China direct, by product type and by period

Unit value in dollars per short ton

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-9 Continued

MAE: U.S. importers' U.S. shipments of imports from sources other than China direct, by product type and by period

Unit value in dollars per unit

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-9 Continued

MAE: U.S. importers' U.S. shipments of imports from sources other than China direct, by product type and by period

Ratio short tons per unit

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-9 Continued

MAE: U.S. importers' U.S. shipments of imports from sources other than China direct, by product type and by period

Source share out of all sources in percent, based on quantity data in short tons

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-9 Continued

MAE: U.S. importers' U.S. shipments of imports from sources other than China direct, by product type and by period

Source share out of all sources in percent, based on quantity data in units

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-9 Continued

MAE: U.S. importers' U.S. shipments of imports from sources other than China direct, by product type and by period

Source share out of all sources in percent, based on value data

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: U.S. importers' U.S. shipments from nonsubject sources include some complete MAE that contained Chinese-origin subassemblies. As such, U.S. importers' U.S. shipments from nonsubject sources are overstated. Data on these subassemblies of Chinese-origin are presented in part IV tables under the source row labeled "China indirect."

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table J-10**MAE: U.S. importers' U.S. shipments of imports from all import sources, by product type and by period**

Quantity in short tons

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-10 Continued

MAE: U.S. importers' U.S. shipments of imports from all import sources, by product type and by period

Share of quantity based on short tons

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-10 Continued

MAE: U.S. importers' U.S. shipments of imports from all import sources, by product type and by period

Quantity in units

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-10 Continued

MAE: U.S. importers' U.S. shipments of imports from all import sources, by product type and by period

Share of quantity based on units

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-10 Continued

MAE: U.S. importers' U.S. shipments of imports from all import sources, by product type and by period

Value in 1,000 dollars

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-10 Continued

MAE: U.S. importers' U.S. shipments of imports from all import sources, by product type and by period

Share of value

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-10 Continued

MAE: U.S. importers' U.S. shipments of imports from all import sources, by product type and by period

Unit value in dollars per short ton

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-10 Continued

MAE: U.S. importers' U.S. shipments of imports from all import sources, by product type and by period

Unit value in dollars per unit

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-10 Continued

MAE: U.S. importers' U.S. shipments of imports from all import sources, by product type and by period

Ratio short tons per unit

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-10 Continued

MAE: U.S. importers' U.S. shipments of imports from all import sources, by product type and by period

Source share out of all sources in percent, based on quantity data in short tons

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-10 Continued

MAE: U.S. importers' U.S. shipments of imports from all import sources, by product type and by period

Source share out of all sources in percent, based on quantity data in units

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-10 Continued

MAE: U.S. importers' U.S. shipments of imports from all import sources, by product type and by period

Source share out of all sources in percent, based on value data

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table J-11
MAE: U.S. shipments from all sources (domestic and imported), by product type and by period

Quantity in short tons

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-11 Continued

MAE: U.S. shipments from all sources (domestic and imported), by product type and by period

Share of quantity based on short tons

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-11 Continued

MAE: U.S. shipments from all sources (domestic and imported), by product type and by period

Quantity in units

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-11 Continued**MAE: U.S. shipments from all sources (domestic and imported), by product type and by period**

Share of quantity based on units

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-11 Continued**MAE: U.S. shipments from all sources (domestic and imported), by product type and by period**

Value in 1,000 dollars

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-11 Continued**MAE: U.S. shipments from all sources (domestic and imported), by product type and by period**

Share of value

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-11 Continued**MAE: U.S. shipments from all sources (domestic and imported), by product type and by period**

Unit value in dollars per short ton

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-11 Continued**MAE: U.S. shipments from all sources (domestic and imported), by product type and by period**

Unit value in dollars per unit

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Table continued.

Table J-11 Continued

MAE: U.S. shipments from all sources (domestic and imported), by product type and by period

Ratio short tons per unit

Product type	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Complete and finished: Telehandler	***	***	***	***	***
Complete and finished: Scissor	***	***	***	***	***
Complete and finished: Boom	***	***	***	***	***
Complete and finished: Other	***	***	***	***	***
Complete and finished: All types	***	***	***	***	***
Complete but unfinished: Telehandler	***	***	***	***	***
Complete but unfinished: Scissor	***	***	***	***	***
Complete but unfinished: Boom	***	***	***	***	***
Complete but unfinished: Other	***	***	***	***	***
Complete but unfinished: All types	***	***	***	***	***
Subassemblies: Chassis	***	***	***	***	***
Subassemblies: Scissor arm	***	***	***	***	***
Subassemblies: Boom arm	***	***	***	***	***
Subassemblies: Boom turntable	***	***	***	***	***
Subassemblies: Other	***	***	***	***	***
Subassemblies: All types	***	***	***	***	***
All in-scope product types	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

APPENDIX K

TRADE DATA, RELATED PARTY EXCLUSION EXCLUDING * UNDER A SINGLE LIKE
PRODUCT CO-EXTENSIVE WITH THE SCOPE**

Table K-1

MAE: U.S. producers' capacity, production and capacity utilization excluding *, by period**

Quantities short tons; ratio in percent

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Capacity	Quantity	***	***	***	***	***
Production	Quantity	***	***	***	***	***
Capacity utilization	Ratio	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Figure K-1

MAE: U.S. producers' capacity, production and capacity utilization excluding *, by period**

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Table K-2**MAE: U.S. producers' shipments excluding ***, by location of shipment and period**

Quantity in short tons; value in 1,000 dollars; unit values in dollars per short ton; shares in percent

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
U.S. shipments	Quantity	***	***	***	***	***
Export shipments	Quantity	***	***	***	***	***
Total shipments	Quantity	***	***	***	***	***
U.S. shipments	Value	***	***	***	***	***
Export shipments	Value	***	***	***	***	***
Total shipments	Value	***	***	***	***	***
U.S. shipments	Unit value	***	***	***	***	***
Export shipments	Unit value	***	***	***	***	***
Total shipments	Unit value	***	***	***	***	***
U.S. shipments	Share of quantity	***	***	***	***	***
Export shipments	Share of quantity	***	***	***	***	***
Total shipments	Share of quantity	100.0	100.0	100.0	100.0	100.0
U.S. shipments	Share of value	***	***	***	***	***
Export shipments	Share of value	***	***	***	***	***
Total shipments	Share of value	100.0	100.0	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Table K-3**MAE: U.S. producers' inventories and inventory ratios excluding ***, by period**

Quantity in short tons; inventory ratios in percent

Item	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
End-of-period inventory quantity	***	***	***	***	***
Inventory ratio to U.S. production	***	***	***	***	***
Inventory ratio to U.S. shipments	***	***	***	***	***
Inventory ratio to total shipments	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table K-4**MAE: U.S. producers' U.S. shipments for use in apparent consumption excluding ***, by period**

Quantity in short tons; value in 1,000 dollars

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
U.S. shipments	Quantity	***	***	***	***	***
U.S. shipments fully domestic	Value	***	***	***	***	***
U.S. shipments value added to imports	Value	***	***	***	***	***
U.S. shipments total	Value	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: The quantity for U.S. producers' U.S. shipments reflects the quantity sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies regardless of whether the MAE were sold as subassemblies or as complete units. The value for U.S. producers' U.S. shipments reflects the value sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies plus the additional value added to either U.S.-produced or imported subassemblies from domestic assembly operations. Fully domestic value includes the additional value added by domestic assembly operations on U.S.-produced subassemblies, while the value added to imports includes the additional value added by domestic assembly operations on imported subassemblies. In measuring consumption and market share this methodology avoids reclassifying and/or double counting merchandise already reported once by U.S. producers or by U.S. importers. The unit value of U.S. producers' U.S. shipments is based on the fully domestic value

Table K-5**MAE: U.S. producers' employment related data excluding ***, by period**

Item	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Production and related workers (PRWs) (number)	***	***	***	***	***
Total hours worked (1,000 hours)	***	***	***	***	***
Hours worked per PRW (hours)	***	***	***	***	***
Wages paid (\$1,000)	***	***	***	***	***
Hourly wages (dollars per hour)	***	***	***	***	***
Productivity (pounds per hour)	***	***	***	***	***
Unit labor costs (dollars per short ton)	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table K-6
MAE: Apparent U.S. consumption excluding *, by source and by period**

Quantity in short tons; value in 1,000 dollars

Source	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Included U.S. producers	Quantity	***	***	***	***	***
Excluded U.S. producers	Quantity	***	***	***	***	***
All U.S. producers	Quantity	***	***	***	***	***
China direct	Quantity	***	***	***	***	***
China indirect	Quantity	***	***	***	***	***
China	Quantity	***	***	***	***	***
Canada	Quantity	***	***	***	***	***
Mexico	Quantity	***	***	***	***	***
All other sources	Quantity	***	***	***	***	***
Nonsubject sources	Quantity	***	***	***	***	***
All import sources	Quantity	***	***	***	***	***
All sources	Quantity	***	***	***	***	***
Included U.S. producers	Value	***	***	***	***	***
Excluded U.S. producers	Value	***	***	***	***	***
All U.S. producers	Value	***	***	***	***	***
China direct	Value	***	***	***	***	***
China indirect	Value	***	***	***	***	***
China	Value	***	***	***	***	***
Canada	Value	***	***	***	***	***
Mexico	Value	***	***	***	***	***
All other sources	Value	***	***	***	***	***
Nonsubject sources	Value	***	***	***	***	***
All import sources	Value	***	***	***	***	***
All sources	Value	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: The quantity for U.S. producers' U.S. shipments reflects the quantity sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies regardless of whether the MAE were sold as subassemblies or as complete units. The value for U.S. producers' U.S. shipments reflects the value sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies plus the additional value added to either U.S.-produced or imported subassemblies from domestic assembly operations.

Note: Import sources are based on U.S. importers' U.S. shipments of imports from the specified source.

Table K-7
MAE: Market shares excluding *, by source and by period**

Shares in percent

Source	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Included U.S. producers	Share of quantity	***	***	***	***	***
Excluded U.S. producers	Share of quantity	***	***	***	***	***
All U.S. producers	Share of quantity	***	***	***	***	***
China direct	Share of quantity	***	***	***	***	***
China indirect	Share of quantity	***	***	***	***	***
China	Share of quantity	***	***	***	***	***
Canada	Share of quantity	***	***	***	***	***
Mexico	Share of quantity	***	***	***	***	***
All other sources	Share of quantity	***	***	***	***	***
Nonsubject sources	Share of quantity	***	***	***	***	***
All import sources	Share of quantity	***	***	***	***	***
All sources	Share of quantity	100.0	100.0	100.0	100.0	100.0
Included U.S. producers	Share of value	***	***	***	***	***
Excluded U.S. producers	Share of value	***	***	***	***	***
All U.S. producers	Share of value	***	***	***	***	***
China direct	Share of value	***	***	***	***	***
China indirect	Share of value	***	***	***	***	***
China	Share of value	***	***	***	***	***
Canada	Share of value	***	***	***	***	***
Mexico	Share of value	***	***	***	***	***
All other sources	Share of value	***	***	***	***	***
Nonsubject sources	Share of value	***	***	***	***	***
All import sources	Share of value	***	***	***	***	***
All sources	Share of value	100.0	100.0	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

APPENDIX L
TELEHANDLER TRADE DATA

Table L-1
Telehandlers: U.S. producers' capacity, production and capacity utilization, by period

Quantity in short tons; ratio in percent

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Capacity	Quantity	***	***	***	***	***
Production	Quantity	***	***	***	***	***
Capacity utilization	Ratio	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Figure L-1
Telehandlers: U.S. producers' capacity, production and capacity utilization, by period

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Table L-2
Telehandlers: U.S. producers' shipments, by location of shipment and period

Quantity in short tons; value in 1,000 dollars; unit values in dollars per short ton; shares in percent

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
U.S. shipments	Quantity	***	***	***	***	***
Export shipments	Quantity	***	***	***	***	***
Total shipments	Quantity	***	***	***	***	***
U.S. shipments	Value	***	***	***	***	***
Export shipments	Value	***	***	***	***	***
Total shipments	Value	***	***	***	***	***
U.S. shipments	Unit value	***	***	***	***	***
Export shipments	Unit value	***	***	***	***	***
Total shipments	Unit value	***	***	***	***	***
U.S. shipments	Share of quantity	***	***	***	***	***
Export shipments	Share of quantity	***	***	***	***	***
Total shipments	Share of quantity	100.0	100.0	100.0	100.0	100.0
U.S. shipments	Share of value	***	***	***	***	***
Export shipments	Share of value	***	***	***	***	***
Total shipments	Share of value	100.0	100.0	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Table L-3
Telehandlers: U.S. producers' U.S. shipments for use in apparent consumption by period

Quantity in short tons; value in 1,000 dollars

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
U.S. shipments	Quantity	***	***	***	***	***
U.S. shipments fully domestic	Value	***	***	***	***	***
U.S. shipments value added to imports	Value	***	***	***	***	***
U.S. shipments total	Value	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: The quantity for U.S. producers' U.S. shipments reflects the quantity sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies regardless of whether the MAE were sold as subassemblies or as complete units. The value for U.S. producers' U.S. shipments reflects the value sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies plus the additional value added to either U.S.-produced or imported subassemblies from domestic assembly operations. Fully domestic value includes the additional value added by domestic assembly operations on U.S.-produced subassemblies, while the value added to imports includes the additional value added by domestic assembly operations on imported subassemblies. In measuring consumption and market share this methodology avoids reclassifying and/or double counting merchandise already reported once by U.S. producers or by U.S. importers. The unit value of U.S. producers' U.S. shipments is based on the fully domestic value.

Table L-4
Telehandlers: U.S. producers' inventories and inventory ratios, by period

Quantity in short tons; inventory ratios in percent

Item	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
End-of-period inventory quantity	***	***	***	***	***
Inventory ratio to U.S. production	***	***	***	***	***
Inventory ratio to U.S. shipments	***	***	***	***	***
Inventory ratio to total shipments	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table L-5
Telehandlers: U.S. producers' employment related data, by period

Item	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Production and related workers (PRWs) (number)	***	***	***	***	***
Total hours worked (1,000 hours)	***	***	***	***	***
Hours worked per PRW (hours)	***	***	***	***	***
Wages paid (\$1,000)	***	***	***	***	***
Hourly wages (dollars per hour)	***	***	***	***	***
Productivity (pounds per hour)	***	***	***	***	***
Unit labor costs (dollars per short ton)	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table L-6
Telehandlers: U.S. imports, by source and by period

Quantity in short tons; value in 1,000 dollars; unit values in dollars per short ton

Source	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
China direct	Quantity	***	***	***	***	***
China indirect	Quantity	***	***	***	***	***
China	Quantity	***	***	***	***	***
Canada	Quantity	***	***	***	***	***
Mexico	Quantity	***	***	***	***	***
All other sources	Quantity	***	***	***	***	***
Nonsubject sources	Quantity	***	***	***	***	***
All import sources	Quantity	***	***	***	***	***
China direct	Value	***	***	***	***	***
China indirect	Value	***	***	***	***	***
China	Value	***	***	***	***	***
Canada	Value	***	***	***	***	***
Mexico	Value	***	***	***	***	***
All other sources	Value	***	***	***	***	***
Nonsubject sources	Value	***	***	***	***	***
All import sources	Value	***	***	***	***	***
China direct	Unit value	***	***	***	***	***
China indirect	Unit value	***	***	***	***	***
China	Unit value	***	***	***	***	***
Canada	Unit value	***	***	***	***	***
Mexico	Unit value	***	***	***	***	***
All other sources	Unit value	***	***	***	***	***
Nonsubject sources	Unit value	***	***	***	***	***
All import sources	Unit value	***	***	***	***	***

Table continued.

Table L-6 Continued
Telehandlers: U.S. imports, by source and by period

Shares in percent

Source	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
China direct	Share of quantity	***	***	***	***	***
China indirect	Share of quantity	***	***	***	***	***
China	Share of quantity	***	***	***	***	***
Canada	Share of quantity	***	***	***	***	***
Mexico	Share of quantity	***	***	***	***	***
All other sources	Share of quantity	***	***	***	***	***
Nonsubject sources	Share of quantity	***	***	***	***	***
All import sources	Share of quantity	100.0	100.0	100.0	100.0	100.0
China direct	Share of value	***	***	***	***	***
China indirect	Share of value	***	***	***	***	***
China	Share of value	***	***	***	***	***
Canada	Share of value	***	***	***	***	***
Mexico	Share of value	***	***	***	***	***
All other sources	Share of value	***	***	***	***	***
Nonsubject sources	Share of value	***	***	***	***	***
All import sources	Share of value	100.0	100.0	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Table L-7
Telehandlers: U.S. imports in the 12-month period preceding the petitions by source, February 2020 through January 2021

Quantity in short tons

Source	Quantity	Share of quantity
China direct	***	***
China indirect	***	***
China	***	***
Canada	***	***
Mexico	***	***
All other sources	***	***
Nonsubject sources	***	***
All import sources	***	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Table L-8
Telehandlers: Apparent U.S. consumption, by source and by period

Quantity in short tons; value in 1,000 dollars

Source	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
U.S. producers	Quantity	***	***	***	***	***
China direct	Quantity	***	***	***	***	***
China indirect	Quantity	***	***	***	***	***
China	Quantity	***	***	***	***	***
Canada	Quantity	***	***	***	***	***
Mexico	Quantity	***	***	***	***	***
All other sources	Quantity	***	***	***	***	***
Nonsubject sources	Quantity	***	***	***	***	***
All import sources	Quantity	***	***	***	***	***
All sources	Quantity	***	***	***	***	***
U.S. producers fully domestic value	Value	***	***	***	***	***
U.S. producers value added to imports	Value	***	***	***	***	***
U.S. producers total	Value	***	***	***	***	***
China direct	Value	***	***	***	***	***
China indirect	Value	***	***	***	***	***
China	Value	***	***	***	***	***
Canada	Value	***	***	***	***	***
Mexico	Value	***	***	***	***	***
All other sources	Value	***	***	***	***	***
Nonsubject sources	Value	***	***	***	***	***
All import sources	Value	***	***	***	***	***
All sources	Value	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: The quantity for U.S. producers' U.S. shipments reflects the quantity sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies regardless of whether the MAE were sold as subassemblies or as complete units. The value for U.S. producers' U.S. shipments reflects the value sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies plus the additional value added to either U.S.-produced or imported subassemblies from domestic assembly operations. Fully domestic value includes the additional value added by domestic assembly operations on U.S.-produced subassemblies, while the value added to imports includes the additional value added by domestic assembly operations on imported subassemblies. In measuring consumption and market share this methodology avoids reclassifying and/or double counting merchandise already reported once by U.S. producers or by U.S. importers. The unit value of U.S. producers' U.S. shipments is based on the fully domestic value.

Note: Import sources are based on U.S. importers' U.S. shipments of imports from the specified source.

Figure L-2
Telehandlers: Apparent U.S. consumption, by source and by period

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Table L-9
Telehandlers: Market shares, by source and by period

Shares in percent

Source	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
U.S. producers	Share of quantity	***	***	***	***	***
China direct	Share of quantity	***	***	***	***	***
China indirect	Share of quantity	***	***	***	***	***
China	Share of quantity	***	***	***	***	***
Canada	Share of quantity	***	***	***	***	***
Mexico	Share of quantity	***	***	***	***	***
All other sources	Share of quantity	***	***	***	***	***
Nonsubject sources	Share of quantity	***	***	***	***	***
All import sources	Share of quantity	***	***	***	***	***
All sources	Share of quantity	100.0	100.0	100.0	100.0	100.0
U.S. producers fully domestic value	Share of value	***	***	***	***	***
U.S. producers value added to imports	Share of value	***	***	***	***	***
U.S. producers total	Share of value	***	***	***	***	***
China direct	Share of value	***	***	***	***	***
China indirect	Share of value	***	***	***	***	***
China	Share of value	***	***	***	***	***
Canada	Share of value	***	***	***	***	***
Mexico	Share of value	***	***	***	***	***
All other sources	Share of value	***	***	***	***	***
Nonsubject sources	Share of value	***	***	***	***	***
All import sources	Share of value	***	***	***	***	***
All sources	Share of value	100.0	100.0	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

APPENDIX M

ALL OTHER MAE TRADE DATA

Table M-1
All other MAE: U.S. producers' capacity, production and capacity utilization, by period

Quantity in short tons; ratio in percent

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Capacity	Quantity	***	***	***	***	***
Production	Quantity	***	***	***	***	***
Capacity utilization	Ratio	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Figure M-1
All other MAE: U.S. producers' capacity, production, and capacity utilization, by period

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Table M-2
All other MAE: U.S. producers' shipments, by location of shipment and period

Quantity in short tons; value in 1,000 dollars; unit values in dollars per short ton; shares in percent

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
U.S. shipments	Quantity	***	***	***	***	***
Export shipments	Quantity	***	***	***	***	***
Total shipments	Quantity	***	***	***	***	***
U.S. shipments	Value	***	***	***	***	***
Export shipments	Value	***	***	***	***	***
Total shipments	Value	***	***	***	***	***
U.S. shipments	Unit value	***	***	***	***	***
Export shipments	Unit value	***	***	***	***	***
Total shipments	Unit value	***	***	***	***	***
U.S. shipments	Share of quantity	***	***	***	***	***
Export shipments	Share of quantity	***	***	***	***	***
Total shipments	Share of quantity	100.0	100.0	100.0	100.0	100.0
U.S. shipments	Share of value	***	***	***	***	***
Export shipments	Share of value	***	***	***	***	***
Total shipments	Share of value	100.0	100.0	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Table M-3
All other MAE: U.S. producers' U.S. shipments for use in apparent consumption by period

Quantity in short tons; value in 1,000 dollars

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
U.S. shipments	Quantity	***	***	***	***	***
U.S. shipments fully domestic	Value	***	***	***	***	***
U.S. shipments value added to imports	Value	***	***	***	***	***
U.S. shipments total	Value	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: The quantity for U.S. producers' U.S. shipments reflects the quantity sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies regardless of whether the MAE were sold as subassemblies or as complete units. The value for U.S. producers' U.S. shipments reflects the value sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies plus the additional value added to either U.S.-produced or imported subassemblies from domestic assembly operations. Fully domestic value includes the additional value added by domestic assembly operations on U.S.-produced subassemblies, while the value added to imports includes the additional value added by domestic assembly operations on imported subassemblies. In measuring consumption and market share this methodology avoids reclassifying and/or double counting merchandise already reported once by U.S. producers or by U.S. importers.

Table M-4
All other MAE: U.S. producers' inventories and inventory ratios, by period

Quantity in short tons; inventory ratios in percent

Item	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
End-of-period inventory quantity	***	***	***	***	***
Inventory ratio to U.S. production	***	***	***	***	***
Inventory ratio to U.S. shipments	***	***	***	***	***
Inventory ratio to total shipments	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table M-5
All other MAE: U.S. producers' employment related data, by period

Item	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Production and related workers (PRWs) (number)	***	***	***	***	***
Total hours worked (1,000 hours)	***	***	***	***	***
Hours worked per PRW (hours)	***	***	***	***	***
Wages paid (\$1,000)	***	***	***	***	***
Hourly wages (dollars per hour)	***	***	***	***	***
Productivity (pounds per hour)	***	***	***	***	***
Unit labor costs (dollars per short ton)	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table M-6
All other MAE: U.S. imports, by source and by period

Quantity in short tons; value in 1,000 dollars; unit values in dollars per short ton

Source	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
China direct	Quantity	***	***	***	***	***
China indirect	Quantity	***	***	***	***	***
China	Quantity	***	***	***	***	***
Canada	Quantity	***	***	***	***	***
Mexico	Quantity	***	***	***	***	***
All other sources	Quantity	***	***	***	***	***
Nonsubject sources	Quantity	***	***	***	***	***
All import sources	Quantity	***	***	***	***	***
China direct	Value	***	***	***	***	***
China indirect	Value	***	***	***	***	***
China	Value	***	***	***	***	***
Canada	Value	***	***	***	***	***
Mexico	Value	***	***	***	***	***
All other sources	Value	***	***	***	***	***
Nonsubject sources	Value	***	***	***	***	***
All import sources	Value	***	***	***	***	***
China direct	Unit value	***	***	***	***	***
China indirect	Unit value	***	***	***	***	***
China	Unit value	***	***	***	***	***
Canada	Unit value	***	***	***	***	***
Mexico	Unit value	***	***	***	***	***
All other sources	Unit value	***	***	***	***	***
Nonsubject sources	Unit value	***	***	***	***	***
All import sources	Unit value	***	***	***	***	***

Table continued.

Table M-6 Continued
All other MAE: U.S. imports, by source and by period

Shares in percent

Source	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
China direct	Share of quantity	***	***	***	***	***
China indirect	Share of quantity	***	***	***	***	***
China	Share of quantity	***	***	***	***	***
Canada	Share of quantity	***	***	***	***	***
Mexico	Share of quantity	***	***	***	***	***
All other sources	Share of quantity	***	***	***	***	***
Nonsubject sources	Share of quantity	***	***	***	***	***
All import sources	Share of quantity	100.0	100.0	100.0	100.0	100.0
China direct	Share of value	***	***	***	***	***
China indirect	Share of value	***	***	***	***	***
China	Share of value	***	***	***	***	***
Canada	Share of value	***	***	***	***	***
Mexico	Share of value	***	***	***	***	***
All other sources	Share of value	***	***	***	***	***
Nonsubject sources	Share of value	***	***	***	***	***
All import sources	Share of value	100.0	100.0	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Table M-7
All other MAE: U.S. imports in the 12-month period preceding the petitions by source, February 2020 through January 2021

Quantity in short tons

Source	Quantity	Share of quantity
China direct	***	***
China indirect	***	***
China	***	***
Canada	***	***
Mexico	***	***
All other sources	***	***
Nonsubject sources	***	***
All import sources	***	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Table M-8
All other MAE: Apparent U.S. consumption, by source and by period, other MAE

Quantity in short tons; value in 1,000 dollars

Source	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
U.S. producers	Quantity	***	***	***	***	***
China direct	Quantity	***	***	***	***	***
China indirect	Quantity	***	***	***	***	***
China	Quantity	***	***	***	***	***
Canada	Quantity	***	***	***	***	***
Mexico	Quantity	***	***	***	***	***
All other sources	Quantity	***	***	***	***	***
Nonsubject sources	Quantity	***	***	***	***	***
All import sources	Quantity	***	***	***	***	***
All sources	Quantity	***	***	***	***	***
U.S. producers fully domestic value	Value	***	***	***	***	***
U.S. producers value added to imports	Value	***	***	***	***	***
U.S. producers total	Value	***	***	***	***	***
China direct	Value	***	***	***	***	***
China indirect	Value	***	***	***	***	***
China	Value	***	***	***	***	***
Canada	Value	***	***	***	***	***
Mexico	Value	***	***	***	***	***
All other sources	Value	***	***	***	***	***
Nonsubject sources	Value	***	***	***	***	***
All import sources	Value	***	***	***	***	***
All sources	Value	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: The quantity for U.S. producers' U.S. shipments reflects the quantity sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies regardless of whether the MAE were sold as subassemblies or as complete units. The value for U.S. producers' U.S. shipments reflects the value sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies plus the additional value added to either U.S.-produced or imported subassemblies from domestic assembly operations. Fully domestic value includes the additional value added by domestic assembly operations on U.S.-produced subassemblies, while the value added to imports includes the additional value added by domestic assembly operations on imported subassemblies. In measuring consumption and market share this methodology avoids reclassifying and/or double counting merchandise already reported once by U.S. producers or by U.S. importers. The unit value of U.S. producers' U.S. shipments is based on the fully domestic value.

Note: Import sources are based on U.S. importers' U.S. shipments of imports from the specified source.

Figure M-2
All other MAE: Apparent U.S. consumption, by source and by period

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Table M-9
All other MAE: Market shares, by source and by period

Shares in percent

Source	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
U.S. producers	Share of quantity	***	***	***	***	***
China direct	Share of quantity	***	***	***	***	***
China indirect	Share of quantity	***	***	***	***	***
China	Share of quantity	***	***	***	***	***
Canada	Share of quantity	***	***	***	***	***
Mexico	Share of quantity	***	***	***	***	***
All other sources	Share of quantity	***	***	***	***	***
Nonsubject sources	Share of quantity	***	***	***	***	***
All import sources	Share of quantity	***	***	***	***	***
All sources	Share of quantity	100.0	100.0	100.0	100.0	100.0
U.S. producers fully domestic value	Share of value	***	***	***	***	***
U.S. producers value added to imports	Share of value	***	***	***	***	***
U.S. producers total	Share of value	***	***	***	***	***
China direct	Share of value	***	***	***	***	***
China indirect	Share of value	***	***	***	***	***
China	Share of value	***	***	***	***	***
Canada	Share of value	***	***	***	***	***
Mexico	Share of value	***	***	***	***	***
All other sources	Share of value	***	***	***	***	***
Nonsubject sources	Share of value	***	***	***	***	***
All import sources	Share of value	***	***	***	***	***
All sources	Share of value	100.0	100.0	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Table M-10

All other MAE: U.S. producers' capacity, production and capacity utilization excluding *, by period**

Quantities short tons; ratio in percent

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Capacity	Quantity	***	***	***	***	***
Production	Quantity	***	***	***	***	***
Capacity utilization	Ratio	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Figure M-3

All other MAE: U.S. producers' capacity, production, and capacity utilization excluding *, by period**

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Table M-11**All other MAE: U.S. producers' shipments excluding ***, by location of shipment and period**

Quantity in short tons; value in 1,000 dollars; unit values in dollars per short ton; shares in percent

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
U.S. shipments	Quantity	***	***	***	***	***
Export shipments	Quantity	***	***	***	***	***
Total shipments	Quantity	***	***	***	***	***
U.S. shipments	Value	***	***	***	***	***
Export shipments	Value	***	***	***	***	***
Total shipments	Value	***	***	***	***	***
U.S. shipments	Unit value	***	***	***	***	***
Export shipments	Unit value	***	***	***	***	***
Total shipments	Unit value	***	***	***	***	***
U.S. shipments	Share of quantity	***	***	***	***	***
Export shipments	Share of quantity	***	***	***	***	***
Total shipments	Share of quantity	100.0	100.0	100.0	100.0	100.0
U.S. shipments	Share of value	***	***	***	***	***
Export shipments	Share of value	***	***	***	***	***
Total shipments	Share of value	100.0	100.0	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Table M-12**All other MAE: U.S. producers' U.S. shipments for use in apparent consumption by period**

Quantity in short tons; value in 1,000s

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
U.S. shipments	Quantity	***	***	***	***	***
U.S. shipments fully domestic	Value	***	***	***	***	***
U.S. shipments value added to imports	Value	***	***	***	***	***
U.S. shipments total	Value	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: The quantity for U.S. producers' U.S. shipments reflects the quantity sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies regardless of whether the MAE were sold as subassemblies or as complete units. The value for U.S. producers' U.S. shipments reflects the value sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies plus the additional value added to either U.S.-produced or imported subassemblies from domestic assembly operations. Fully domestic value includes the additional value added by domestic assembly operations on U.S.-produced subassemblies, while the value added to imports includes the additional value added by domestic assembly operations on imported subassemblies. In measuring consumption and market share this methodology avoids reclassifying and/or double counting merchandise already reported once by U.S. producers or by U.S. importers. The unit value of U.S. producers' U.S. shipments is based on the fully domestic value.

Table M-13**All other MAE: U.S. producers' inventories and inventory ratios excluding ***, by period**

Quantity in short tons; inventory ratios in percent

Item	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
End-of-period inventory quantity	***	***	***	***	***
Inventory ratio to U.S. production	***	***	***	***	***
Inventory ratio to U.S. shipments	***	***	***	***	***
Inventory ratio to total shipments	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table M-14**All other MAE: U.S. producers' employment related data excluding ***, by period**

Item	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Production and related workers (PRWs) (number)	***	***	***	***	***
Total hours worked (1,000 hours)	***	***	***	***	***
Hours worked per PRW (hours)	***	***	***	***	***
Wages paid (\$1,000)	***	***	***	***	***
Hourly wages (dollars per hour)	***	***	***	***	***
Productivity (pounds per hour)	***	***	***	***	***
Unit labor costs (dollars per short ton)	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table M-15
All other MAE: Apparent U.S. consumption excluding *, by source and by period**

Quantity in short tons; value in 1,000 dollars

Source	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Included U.S. producers	Quantity	***	***	***	***	***
Excluded U.S. producers	Quantity	***	***	***	***	***
All U.S. producers	Quantity	***	***	***	***	***
China direct	Quantity	***	***	***	***	***
China indirect	Quantity	***	***	***	***	***
China	Quantity	***	***	***	***	***
Canada	Quantity	***	***	***	***	***
Mexico	Quantity	***	***	***	***	***
All other sources	Quantity	***	***	***	***	***
Nonsubject sources	Quantity	***	***	***	***	***
All import sources	Quantity	***	***	***	***	***
All sources	Quantity	***	***	***	***	***
Included U.S. producers	Value	***	***	***	***	***
Excluded U.S. producers	Value	***	***	***	***	***
All U.S. producers	Value	***	***	***	***	***
China direct	Value	***	***	***	***	***
China indirect	Value	***	***	***	***	***
China	Value	***	***	***	***	***
Canada	Value	***	***	***	***	***
Mexico	Value	***	***	***	***	***
All other sources	Value	***	***	***	***	***
Nonsubject sources	Value	***	***	***	***	***
All import sources	Value	***	***	***	***	***
All sources	Value	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: The quantity for U.S. producers' U.S. shipments reflects the quantity sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies regardless of whether the MAE were sold as subassemblies or as complete units. The value for U.S. producers' U.S. shipments reflects the value sold in the United States by U.S. producers of MAE using U.S.-produced subassemblies plus the additional value added to either U.S.-produced or imported subassemblies from domestic assembly operations. Fully domestic value includes the additional value added by domestic assembly operations on U.S.-produced subassemblies, while the value added to imports includes the additional value added by domestic assembly operations on imported subassemblies. In measuring consumption and market share this methodology avoids reclassifying and/or double counting merchandise already reported once by U.S. producers or by U.S. importers. The unit value of U.S. producers' U.S. shipments is based on the fully domestic value.

Note: Import sources are based on U.S. importers' U.S. shipments of imports from the specified source.

Table M-16
All other MAE: Market shares excluding *, by source and by period**

Shares in percent

Source	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Included U.S. producers	Share of quantity	***	***	***	***	***
Excluded U.S. producers	Share of quantity	***	***	***	***	***
All U.S. producers	Share of quantity	***	***	***	***	***
China direct	Share of quantity	***	***	***	***	***
China indirect	Share of quantity	***	***	***	***	***
China	Share of quantity	***	***	***	***	***
Canada	Share of quantity	***	***	***	***	***
Mexico	Share of quantity	***	***	***	***	***
All other sources	Share of quantity	***	***	***	***	***
Nonsubject sources	Share of quantity	***	***	***	***	***
All import sources	Share of quantity	***	***	***	***	***
All sources	Share of quantity	100.0	100.0	100.0	100.0	100.0
Included U.S. producers	Share of value	***	***	***	***	***
Excluded U.S. producers	Share of value	***	***	***	***	***
All U.S. producers	Share of value	***	***	***	***	***
China direct	Share of value	***	***	***	***	***
China indirect	Share of value	***	***	***	***	***
China	Share of value	***	***	***	***	***
Canada	Share of value	***	***	***	***	***
Mexico	Share of value	***	***	***	***	***
All other sources	Share of value	***	***	***	***	***
Nonsubject sources	Share of value	***	***	***	***	***
All import sources	Share of value	***	***	***	***	***
All sources	Share of value	100.0	100.0	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

APPENDIX N

RAW MATERIAL AND CONSTRUCTION DATA

Table N-1
MAE raw materials and construction spending: Steel hot-rolled coil and cut-to-length plate, Carbon grade, f.o.b. U.S. mill average mid-price, and seasonally adjusted U.S. non-residential construction spending, January 2018-June 2021

Steel prices in dollars per short ton, construction spending in millions of dollars

Period	Hot-rolled coil, fob mill, average-mid	Cut-to-length plate, carbon grade, fob mill, average-mid	U.S. non-residential construction spending
January 2018	***	***	763,178
February 2018	***	***	775,890
March 2018	***	***	772,146
April 2018	***	***	777,353
May 2018	***	***	780,219
June 2018	***	***	769,074
July 2018	***	***	770,167
August 2018	***	***	779,660
September 2018	***	***	766,049
October 2018	***	***	764,515
November 2018	***	***	750,725
December 2018	***	***	763,071
January 2019	***	***	778,903
February 2019	***	***	795,613
March 2019	***	***	807,834
April 2019	***	***	829,780
May 2019	***	***	829,631
June 2019	***	***	836,961
July 2019	***	***	850,536
August 2019	***	***	855,514
September 2019	***	***	860,686
October 2019	***	***	860,689
November 2019	***	***	870,183
December 2019	***	***	868,853
January 2020	***	***	885,688
February 2020	***	***	882,733
March 2020	***	***	880,477
April 2020	***	***	846,095
May 2020	***	***	844,517
June 2020	***	***	835,355
July 2020	***	***	821,455
August 2020	***	***	812,971
September 2020	***	***	801,652
October 2020	***	***	798,556
November 2020	***	***	793,406
December 2020	***	***	790,192
January 2021	***	***	809,038
February 2021	***	***	794,969
March 2021	***	***	794,416
April 2021	***	***	791,959
May 2021	***	***	792,242
June 2021	***	***	785,534

Source: ***, retrieved September 21, 2021, and U.S. Census Bureau, Total Construction Spending: Nonresidential (TLNRESCONS), retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/TLNRESCONS>, September 23, 2021.

APPENDIX O
NONSUBJECT COUNTRY PRICE DATA

Three importers reported price data for Canada and Mexico for products 1-3: *** for Canada and *** for Mexico.¹ Price data reported by these firms accounted for *** percent of U.S. commercial shipments of complete MAE from Canada and *** percent of complete MAE from Mexico in 2020. These price items and accompanying data are comparable to those presented in tables V-4 to V-9. Price and quantity data for Canada and Mexico are shown in tables O-1 to O-6 and in figures O-1 to O-6 (with domestic and subject sources).² The pricing data tables contain data for Canada in two ways: those that are MAE that do not contain any Chinese subassemblies, labeled “Canada only” in the tables, and those MAE imported from Canada that include Chinese subassemblies, which are labeled “Canada Plus.”

In comparing nonsubject country pricing data with U.S. producer pricing data, prices for product imported from Canada were lower than prices for U.S.-produced product in *** instances (*** units) and higher in *** (*** units). Prices for product imported from Mexico were lower than prices for U.S.-produced product in 11 of 33 instances (*** units) and higher in 22 instances (*** units).

Table O-7 compares nonsubject prices to those from China, both for imports from China and imports of MAE from Canada including Chinese subassemblies. Table O-8, on the other hand, presents data excluding imports of MAE from Canada which include Chinese subassemblies as a comparator, leaving those imports classified as Canadian imports. Table O-7 show that product imported from China (including Canadian imports with Chinese subassemblies) were lower than product imported from Canada in *** instances (*** units from Canada) and higher in *** instances (*** units from Canada). When comparing prices for product imported from Canada with prices for MAE imported from China (excluding those from Canada with Chinese subassemblies), product from China were priced lower in *** instances (*** units) and higher in the other *** instances (*** units), as demonstrated in table O-8.

¹ *** reported data totaling ***, ***.

² Data in the figures are presented including imports from China, Canada Plus (which are ***), and China Plus (which are imports from China plus the ***).

Prices for product imported from China were lower than those imported from Mexico in more than three-quarters of the comparisons, whether or not including Canadian imports containing Chinese subassemblies are used as a benchmark source – ***. Despite this disparity, the quantities of nonsubject imports from Mexico that were sold during *** quarters when the price of MAE imported from Mexico was lower than the price of MAE imported from China were slightly higher than the quantities of nonsubject imports from Mexico imported during the *** quarters when subject imports from China were priced lower (tables O-7 and O-8).

Table O-1
MAE: Weighted-average f.o.b. prices and quantities of domestic and imported nonsubject product 1, by quarter

Price in dollars per unit, quantity in units.

Period	US price	US quantity	Canada only price	Canada only quantity	Canada Plus price	Canada Plus quantity	Mexico price	Mexico quantity
2018 Q1	***	***	***	***	***	***	--	0
2018 Q2	***	***	***	***	***	***	--	0
2018 Q3	***	***	***	***	***	***	--	0
2018 Q4	***	***	***	***	***	***	--	0
2019 Q1	***	***	***	***	***	***	--	0
2019 Q2	***	***	***	***	***	***	--	0
2019 Q3	***	***	***	***	***	***	--	0
2019 Q4	***	***	***	***	***	***	--	0
2020 Q1	***	***	***	***	***	***	--	0
2020 Q2	***	***	***	***	***	***	***	***
2020 Q3	***	***	***	***	***	***	***	***
2020 Q4	***	***	***	***	***	***	***	***
2021 Q1	***	***	***	***	***	***	***	***
2021 Q2	***	***	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 1: Battery-powered scissor lift, with electric or hydraulic drive, with 12'-14' platform height elevation and 500 lb. to 600 lb. maximum lift capacity

Table O-2**MAE: Weighted-average f.o.b. prices and quantities of domestic and imported nonsubject product 2 by quarter**

Price in dollars per unit, quantity in units.

Period	US price	US quantity	Canada only price	Canada only quantity	Canada Plus price	Canada Plus quantity	Mexico price	Mexico quantity
2018 Q1	***	***	***	***	***	***	***	***
2018 Q2	***	***	***	***	***	***	***	***
2018 Q3	***	***	***	***	***	***	***	***
2018 Q4	***	***	***	***	***	***	***	***
2019 Q1	***	***	***	***	***	***	***	***
2019 Q2	***	***	***	***	***	***	***	***
2019 Q3	***	***	***	***	***	***	***	***
2019 Q4	***	***	***	***	***	***	***	***
2020 Q1	***	***	***	***	***	***	***	***
2020 Q2	***	***	***	***	***	***	***	***
2020 Q3	***	***	***	***	***	***	***	***
2020 Q4	***	***	***	***	***	***	***	***
2021 Q1	***	***	***	***	***	***	***	***
2021 Q2	***	***	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: ***.

Note: Product 2: Battery-powered scissor lift, with electric or hydraulic drive, with 18'-20' platform height elevation and 500 lb. to 600 lb. maximum lift capacity

Table O-3**MAE: Weighted-average f.o.b. prices and quantities of domestic and imported nonsubject product 3, by quarter**

Price in dollars per unit, quantity in units.

Period	US price	US quantity	Canada only price	Canada only quantity	Canada Plus price	Canada Plus quantity	Mexico price	Mexico quantity
2018 Q1	***	***	***	***	***	***	***	***
2018 Q2	***	***	***	***	***	***	***	***
2018 Q3	***	***	***	***	***	***	***	***
2018 Q4	***	***	***	***	***	***	***	***
2019 Q1	***	***	***	***	***	***	***	***
2019 Q2	***	***	***	***	***	***	***	***
2019 Q3	***	***	***	***	***	***	***	***
2019 Q4	***	***	***	***	***	***	***	***
2020 Q1	***	***	***	***	***	***	***	***
2020 Q2	***	***	***	***	***	***	***	***
2020 Q3	***	***	***	***	***	***	***	***
2020 Q4	***	***	***	***	***	***	***	***
2021 Q1	***	***	***	***	***	***	***	***
2021 Q2	***	***	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: ***. ***.

Note: Product 3: Battery-powered scissor lift, with electric or hydraulic drive, with 38'-42' platform height elevation and a width of less than 50 inches

Table O-4
MAE: Weighted-average f.o.b. prices and quantities of domestic and imported nonsubject product 4, by quarter

Price in dollars per unit, quantity in units.

Period	US price	US quantity	Canada only price	Canada only quantity	Canada Plus price	Canada Plus quantity	Mexico price	Mexico quantity
2018 Q1	***	***	***	***	***	***	***	***
2018 Q2	***	***	***	***	***	***	***	***
2018 Q3	***	***	***	***	***	***	***	***
2018 Q4	***	***	***	***	***	***	***	***
2019 Q1	***	***	***	***	***	***	***	***
2019 Q2	***	***	***	***	***	***	***	***
2019 Q3	***	***	***	***	***	***	***	***
2019 Q4	***	***	***	***	***	***	***	***
2020 Q1	***	***	***	***	***	***	***	***
2020 Q2	***	***	***	***	***	***	***	***
2020 Q3	***	***	***	***	***	***	***	***
2020 Q4	***	***	***	***	***	***	***	***
2021 Q1	***	***	***	***	***	***	***	***
2021 Q2	***	***	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 4: Diesel-powered four- or all-wheel drive articulating boom lift, with 44'-46' platform height elevation and 500 lb. to 1,000 lb. maximum lift capacity ***.

Table O-5**MAE: Weighted-average f.o.b. prices and quantities of domestic and imported nonsubject product 5, by quarter**

Price in dollars per unit, quantity in units.

Period	US price	US quantity	Canada only price	Canada only quantity	Canada Plus price	Canada Plus quantity	Mexico price	Mexico quantity
2018 Q1	***	***	***	***	***	***	***	***
2018 Q2	***	***	***	***	***	***	***	***
2018 Q3	***	***	***	***	***	***	***	***
2018 Q4	***	***	***	***	***	***	***	***
2019 Q1	***	***	***	***	***	***	***	***
2019 Q2	***	***	***	***	***	***	***	***
2019 Q3	***	***	***	***	***	***	***	***
2019 Q4	***	***	***	***	***	***	***	***
2020 Q1	***	***	***	***	***	***	***	***
2020 Q2	***	***	***	***	***	***	***	***
2020 Q3	***	***	***	***	***	***	***	***
2020 Q4	***	***	***	***	***	***	***	***
2021 Q1	***	***	***	***	***	***	***	***
2021 Q2	***	***	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 5: Diesel-powered four- or all-wheel drive telescoping boom lift, with 64'-67' platform height elevation including jib option and 500 lb. to 1,000 lb. maximum lift capacity. ***.

Table O-6
MAE: Weighted-average f.o.b. prices and quantities of domestic and imported nonsubject product 6, by quarter

Price in dollars per unit, quantity in units.

Period	US price	US quantity	Canada only price	Canada only quantity	Canada Plus price	Canada Plus quantity	Mexico price	Mexico quantity
2018 Q1	***	***	***	***	***	***	***	***
2018 Q2	***	***	***	***	***	***	***	***
2018 Q3	***	***	***	***	***	***	***	***
2018 Q4	***	***	***	***	***	***	***	***
2019 Q1	***	***	***	***	***	***	***	***
2019 Q2	***	***	***	***	***	***	***	***
2019 Q3	***	***	***	***	***	***	***	***
2019 Q4	***	***	***	***	***	***	***	***
2020 Q1	***	***	***	***	***	***	***	***
2020 Q2	***	***	***	***	***	***	***	***
2020 Q3	***	***	***	***	***	***	***	***
2020 Q4	***	***	***	***	***	***	***	***
2021 Q1	***	***	***	***	***	***	***	***
2021 Q2	***	***	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 6: Diesel-powered four- or all-wheel drive material telehandler, with 53'-57' maximum lift height and 10,000-lb. maximum lift capacity. ***.

Figure O-1
MAE: Weighted-average prices and quantities of domestic and imported product 1, by quarter

Price

* * * * *

Volume

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 1: Battery-powered scissor lift, with electric or hydraulic drive, with 12'-14' platform height elevation and 500 lb. to 600 lb. maximum lift capacity

Figure O-2
MAE: Weighted-average prices and quantities of domestic and imported product 2, by quarter

Price

* * * * *

Volume

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 2: Battery-powered scissor lift, with electric or hydraulic drive, with 18'-20' platform height elevation and 500 lb. to 600 lb. maximum lift capacity

Figure O-3
MAE: Weighted-average prices and quantities of domestic and imported product 3, by quarter

Price

* * * * *

Volume

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 3: Battery-powered scissor lift, with electric or hydraulic drive, with 38'-42' platform height elevation and a width of less than 50 inches. China Plus includes data from China and Canada Plus.

Figure O-4
MAE: Weighted-average prices and quantities of domestic and imported product 4, by quarter

Price

* * * * *

Volume

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 4: Diesel-powered four- or all-wheel drive articulating boom lift, with 44'-46' platform height elevation and 500 lb. to 1,000 lb. maximum lift capacity. China Plus includes data from China and Canada Plus.

Figure O-5
MAE: Weighted-average prices and quantities of domestic and imported product 5, by quarter

Price

* * * * *

Volume

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 5: Diesel-powered four- or all-wheel drive telescoping boom lift, with 64'-67' platform height elevation including jib option and 500 lb. to 1,000 lb. maximum lift capacity. China Plus includes data from China and Canada Plus.

Figure O-6
MAE: Weighted-average prices and quantities of domestic and imported product 6, by quarter

Price

* * * * *

Volume

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 5: Diesel-powered four- or all-wheel drive telescoping boom lift, with 64'-67' platform height elevation including jib option and 500 lb. to 1,000 lb. maximum lift capacity. China Plus includes data from China and Canada Plus.

Table O-7**MAE: Summary of higher/(lower) unit values using China Plus as the benchmark source, by source, January 2018-June 2021**

Quantity in units

Nonsubject source	Benchmark source	Number of quarters nonsubject lower	Quantity of nonsubject lower	Number of quarters nonsubject higher	Quantity of nonsubject higher
Canada only	United States	***	***	***	***
Mexico	United States	***	***	***	***
Canada only	China Plus	***	***	***	***
Mexico	China Plus	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Benchmark China Plus includes (1) imports which were produced in China, imported directly to the United States from China and sold by U.S. importers to unaffiliated U.S. customers; plus (2) imports that were produced in Canada using one or more Chinese-origin subassemblies, imported from Canada into the United States, and sold by U.S. importers to unaffiliated U.S. customers. Whereas Canada only includes only (1) imports that were produced in Canada without any Chinese-origin subassemblies, imported from Canada into the United States, and sold by U.S. importers to unaffiliated U.S. customers.

Table O-8**MAE: Summary of higher/(lower) unit values using China as the benchmark source, by source, January 2018-June 2021**

Quantity in units

Nonsubject source	Benchmark source	Number of quarters nonsubject lower	Quantity of nonsubject lower	Number of quarters nonsubject higher	Quantity of nonsubject higher
Canada Plus	United States	***	***	***	***
Mexico	United States	***	***	***	***
Canada Plus	China	***	***	***	***
Mexico	China	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Benchmark China includes only (1) imports which were produced in China, imported directly to the United States from China and sold by U.S. importers to unaffiliated U.S. customers. Whereas Canada plus includes (1) imports that were produced in Canada using one or more Chinese-origin subassemblies, imported from Canada into the United States, and sold by U.S. importers to unaffiliated U.S. customers; and (2) imports that were produced in Canada without any Chinese-origin subassemblies, imported from Canada into the United States, and sold by U.S. importers to unaffiliated U.S. customers

APPENDIX P

PRICE DATA FINDING IF EXCLUDING * FROM THE
DOMESTIC INDUSTRY FOR INSUFFICIENT PRODUCTION-RELATED ACTIVITIES**

This appendix presents pricing data if *** are found not to have sufficient production-related activities to be included in the domestic industry. The quarterly data which *** submitted in *** would therefore be classified as imports for ***. These data are analogous to those found in tables V-4 – V-9 presented earlier in this report, and are shown in tables P-1 – P-6 and figures P-1 – P-6. Data in the tables and figures are presented using the data for MAE imported directly from China (“China”), those that incorporated Chinese subassemblies into MAE imported from nonsubject countries (“Canada with China”), and the sum of those two sets of data (“China Plus”).¹ Calculations pertaining to the margins of underselling and overselling are presented in tables P-7 and P-8. Table P-7 presents margin calculations comparing U.S. prices to those for imports imported directly from China, whereas table P-8 presents margin calculations comparing U.S. prices to those for imports both imported directly from China and for imports of MAE from nonsubject countries which contain MAE subassemblies. ***.

¹ ***.

Table P-1

MAE: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 with * having insufficient production-related activities and margins of underselling/(overselling), by quarter**

Price in dollars per unit, quantity in units, margin in percent.

Period	US price	US quantity	China price	China quantity	China margin
2018 Q1	***	***	***	***	***
2018 Q2	***	***	***	***	***
2018 Q3	***	***	***	***	***
2018 Q4	***	***	***	***	***
2019 Q1	***	***	***	***	***
2019 Q2	***	***	***	***	***
2019 Q3	***	***	***	***	***
2019 Q4	***	***	***	***	***
2020 Q1	***	***	***	***	***
2020 Q2	***	***	***	***	***
2020 Q3	***	***	***	***	***
2020 Q4	***	***	***	***	***
2021 Q1	***	***	***	***	***
2021 Q2	***	***	***	***	***

Table continued.

Period	Canada with China price	Canada with China quantity	Canada with China margin	China Plus price	China Plus quantity	China Plus margin
2018 Q1	--	0	--	***	***	***
2018 Q2	--	0	--	***	***	***
2018 Q3	--	0	--	***	***	***
2018 Q4	--	0	--	***	***	***
2019 Q1	--	0	--	***	***	***
2019 Q2	--	0	--	***	***	***
2019 Q3	--	0	--	***	***	***
2019 Q4	--	0	--	***	***	***
2020 Q1	--	0	--	***	***	***
2020 Q2	--	0	--	***	***	***
2020 Q3	--	0	--	***	***	***
2020 Q4	--	0	--	***	***	***
2021 Q1	--	0	--	***	***	***
2021 Q2	--	0	--	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 1: Battery-powered scissor lift, with electric or hydraulic drive, with 12'-14' platform height elevation and 500 lb. to 600 lb. maximum lift capacity

Table P-2

MAE: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 with * having insufficient production-related activities and margins of underselling/(overselling), by quarter**

Price in dollars per unit, quantity in units, margin in percent.

Period	US price	US quantity	China price	China quantity	China margin
2018 Q1	***	***	***	***	***
2018 Q2	***	***	***	***	***
2018 Q3	***	***	***	***	***
2018 Q4	***	***	***	***	***
2019 Q1	***	***	***	***	***
2019 Q2	***	***	***	***	***
2019 Q3	***	***	***	***	***
2019 Q4	***	***	***	***	***
2020 Q1	***	***	***	***	***
2020 Q2	***	***	***	***	***
2020 Q3	***	***	***	***	***
2020 Q4	***	***	***	***	***
2021 Q1	***	***	***	***	***
2021 Q2	9,364	1,963	***	***	***

Table continued.

Period	Canada with China price	Canada with China quantity	Canada with China margin	China Plus price	China Plus quantity	China Plus margin
2018 Q1	--	0	--	***	***	***
2018 Q2	--	0	--	***	***	***
2018 Q3	--	0	--	***	***	***
2018 Q4	--	0	--	***	***	***
2019 Q1	--	0	--	***	***	***
2019 Q2	--	0	--	***	***	***
2019 Q3	--	0	--	***	***	***
2019 Q4	--	0	--	***	***	***
2020 Q1	--	0	--	***	***	***
2020 Q2	--	0	--	***	***	***
2020 Q3	--	0	--	***	***	***
2020 Q4	--	0	--	***	***	***
2021 Q1	--	0	--	***	***	***
2021 Q2	--	0	--	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 2: Battery-powered scissor lift, with electric or hydraulic drive, with 18'-20' platform height elevation and 500 lb. to 600 lb. maximum lift capacity

Table P-3

MAE: Weighted-average f.o.b. prices and quantities of domestic and imported product 3 with * having insufficient production-related activities and margins of underselling/(overselling), by quarter**

Price in dollars per unit, quantity in units, margin in percent.

Period	US price	US quantity	China price	China quantity	China margin
2018 Q1	***	***	***	***	***
2018 Q2	***	***	***	***	***
2018 Q3	***	***	***	***	***
2018 Q4	***	***	***	***	***
2019 Q1	***	***	***	***	***
2019 Q2	***	***	***	***	***
2019 Q3	***	***	***	***	***
2019 Q4	***	***	***	***	***
2020 Q1	***	***	***	***	***
2020 Q2	***	***	***	***	***
2020 Q3	***	***	***	***	***
2020 Q4	***	***	***	***	***
2021 Q1	***	***	***	***	***
2021 Q2	***	***	***	***	***

Table continued.

Period	Canada with China price	Canada with China quantity	Canada with China margin	China Plus price	China Plus quantity	China Plus margin
2018 Q1	***	***	***	***	***	***
2018 Q2	***	***	***	***	***	***
2018 Q3	***	***	***	***	***	***
2018 Q4	***	***	***	***	***	***
2019 Q1	***	***	***	***	***	***
2019 Q2	***	***	***	***	***	***
2019 Q3	***	***	***	***	***	***
2019 Q4	***	***	***	***	***	***
2020 Q1	***	***	***	***	***	***
2020 Q2	***	***	***	***	***	***
2020 Q3	***	***	***	***	***	***
2020 Q4	***	***	***	***	***	***
2021 Q1	***	***	***	***	***	***
2021 Q2	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: ***.

Note: Product 3: Battery-powered scissor lift, with electric or hydraulic drive, with 38'-42' platform height elevation and a width of less than 50 inches

Table P-4

MAE: Weighted-average f.o.b. prices and quantities of domestic and imported product 4 with * having insufficient production-related activities and margins of underselling/(overselling), by quarter**

Price in dollars per unit, quantity in units, margin in percent.

Period	US price	US quantity	China price	China quantity	China margin
2018 Q1	***	***	***	***	***
2018 Q2	***	***	***	***	***
2018 Q3	***	***	***	***	***
2018 Q4	***	***	***	***	***
2019 Q1	***	***	***	***	***
2019 Q2	***	***	***	***	***
2019 Q3	***	***	***	***	***
2019 Q4	***	***	***	***	***
2020 Q1	***	***	***	***	***
2020 Q2	***	***	***	***	***
2020 Q3	***	***	--	0	--
2020 Q4	***	***	***	***	***
2021 Q1	***	***	***	***	***
2021 Q2	***	***	***	***	***

Table continued.

Period	Canada with China price	Canada with China quantity	Canada with China margin	China Plus price	China Plus quantity	China Plus margin
2018 Q1	***	***	***	***	***	***
2018 Q2	***	***	***	***	***	***
2018 Q3	***	***	***	***	***	***
2018 Q4	***	***	***	***	***	***
2019 Q1	***	***	***	***	***	***
2019 Q2	***	***	***	***	***	***
2019 Q3	***	***	***	***	***	***
2019 Q4	***	***	***	***	***	***
2020 Q1	***	***	***	***	***	***
2020 Q2	***	***	***	***	***	***
2020 Q3	***	***	***	***	***	***
2020 Q4	***	***	***	***	***	***
2021 Q1	***	***	***	***	***	***
2021 Q2	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 4: Diesel-powered four- or all-wheel drive articulating boom lift, with 44'-46' platform height elevation and 500 lb. to 1,000 lb. maximum lift capacity

Table P-5

MAE: Weighted-average f.o.b. prices and quantities of domestic and imported product 5 with * having insufficient production-related activities and margins of underselling/(overselling), by quarter**

Price in dollars per unit, quantity in units, margin in percent.

Period	US price	US quantity	China price	China quantity	China margin
2018 Q1	***	***	***	***	***
2018 Q2	***	***	***	***	***
2018 Q3	***	***	***	***	***
2018 Q4	***	***	--	0	--
2019 Q1	***	***	***	***	***
2019 Q2	***	***	***	***	***
2019 Q3	***	***	***	***	***
2019 Q4	***	***	***	***	***
2020 Q1	***	***	--	0	--
2020 Q2	***	***	***	***	***
2020 Q3	***	***	--	0	--
2020 Q4	***	***	***	***	***
2021 Q1	***	***	***	***	***
2021 Q2	***	***	***	***	***

Table continued.

Period	Canada with China price	Canada with China quantity	Canada with China margin	China Plus price	China Plus quantity	China Plus margin
2018 Q1	***	***	***	***	***	***
2018 Q2	***	***	***	***	***	***
2018 Q3	***	***	***	***	***	***
2018 Q4	***	***	***	***	***	***
2019 Q1	***	***	***	***	***	***
2019 Q2	***	***	***	***	***	***
2019 Q3	***	***	***	***	***	***
2019 Q4	***	***	***	***	***	***
2020 Q1	***	***	***	***	***	***
2020 Q2	***	***	***	***	***	***
2020 Q3	***	***	***	***	***	***
2020 Q4	***	***	***	***	***	***
2021 Q1	***	***	***	***	***	***
2021 Q2	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 5: Diesel-powered four- or all-wheel drive telescoping boom lift, with 64'-67' platform height elevation including jib option and 500 lb. to 1,000 lb. maximum lift capacity

Table P-6

MAE: Weighted-average f.o.b. prices and quantities of domestic and imported product 6 with * having insufficient production-related activities and margins of underselling/(overselling), by quarter**

Price in dollars per unit, quantity in units, margin in percent.

Period	US price	US quantity	China price	China quantity	China margin
2018 Q1	***	***	--	0	--
2018 Q2	***	***	--	0	--
2018 Q3	***	***	--	0	--
2018 Q4	***	***	--	0	--
2019 Q1	***	***	--	0	--
2019 Q2	***	***	--	0	--
2019 Q3	***	***	--	0	--
2019 Q4	***	***	--	0	--
2020 Q1	***	***	--	0	--
2020 Q2	***	***	--	0	--
2020 Q3	***	***	***	***	***
2020 Q4	***	***	***	***	***
2021 Q1	***	***	***	***	***
2021 Q2	***	***	***	***	***

Table continued.

Period	Canada with China price	Canada with China quantity	Canada with China margin	China Plus price	China Plus quantity	China Plus margin
2018 Q1	***	***	***	***	***	***
2018 Q2	***	***	***	***	***	***
2018 Q3	***	***	***	***	***	***
2018 Q4	***	***	***	***	***	***
2019 Q1	***	***	***	***	***	***
2019 Q2	***	***	***	***	***	***
2019 Q3	***	***	***	***	***	***
2019 Q4	***	***	***	***	***	***
2020 Q1	***	***	***	***	***	***
2020 Q2	***	***	***	***	***	***
2020 Q3	***	***	***	***	***	***
2020 Q4	***	***	***	***	***	***
2021 Q1	***	***	***	***	***	***
2021 Q2	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 6: Diesel-powered four- or all-wheel drive material telehandler, with 53'-57' maximum lift height and 10,000-lb. maximum lift capacity

Figure P-1
MAE: Weighted-average prices and quantities of domestic and imported product 1 with * having insufficient production-related activities, by quarter**

Price

* * * * *

Volume

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 1: Battery-powered scissor lift, with electric or hydraulic drive, with 12'-14' platform height elevation and 500 lb. to 600 lb. maximum lift capacity

Figure P-2
MAE: Weighted-average prices and quantities of domestic and imported product 2 with * having insufficient production-related activities, by quarter**

Price

* * * * *

Volume

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 2: Battery-powered scissor lift, with electric or hydraulic drive, with 18'-20' platform height elevation and 500 lb. to 600 lb. maximum lift capacity

Figure P-3

MAE: Weighted-average prices and quantities of domestic and imported product 3 with * having insufficient production-related activities, by quarter**

Price

* * * * *

Volume

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 3: Battery-powered scissor lift, with electric or hydraulic drive, with 38'-42' platform height elevation and a width of less than 50 inches

Figure P-4

MAE: Weighted-average prices and quantities of domestic and imported product 4 with * having insufficient production-related activities, by quarter**

Price

* * * * *

Volume

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 4: Diesel-powered four- or all-wheel drive articulating boom lift, with 44'-46' platform height elevation and 500 lb. to 1,000 lb. maximum lift capacity

Figure P-4

MAE: Weighted-average prices and quantities of domestic and imported product 5 with * having insufficient production-related activities, by quarter**

Price

* * * * *

Volume

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 5: Diesel-powered four- or all-wheel drive telescoping boom lift, with 64'-67' platform height elevation including jib option and 500 lb. to 1,000 lb. maximum lift capacity

Figure P-6
MAE: Weighted-average prices and quantities of domestic and imported product 6 with * having insufficient production-related activities, by quarter**

Price

* * * * *

Volume

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 6: Diesel-powered four- or all-wheel drive material telehandler, with 53'-57' maximum lift height and 10,000-lb. maximum lift capacity

Table P-7

MAE: Instances of underselling and the range and average of margins and margins of underselling/(overselling) with respect to China pricing products, with * having insufficient production-related activities, by product**

Quantity in units; margin in percent

Product	Number of quarters	Quantity	Average margin	Min margin	Max margin
Product 1 (scissor lift)	14	***	***	***	***
Product 2 (scissor lift)	4	***	***	***	***
Product 3 (scissor lift)	5	***	***	***	***
Product 4 (boom lift)	5	***	***	***	***
Product 5 (boom lift)	11	***	***	***	***
Product 6 (telehandler)	4	***	***	***	***
Total, underselling	43	13,904	7.7	0.3	26.9
Product 1 (scissor lift)	0	---	---	---	---
Product 2 (scissor lift)	10	***	***	***	***
Product 3 (scissor lift)	9	***	***	***	***
Product 4 (boom lift)	8	***	***	***	***
Product 5 (boom lift)	0	---	---	---	---
Product 6 (telehandler)	0	---	---	---	---
Total, overselling	27	12,141	(8.4)	(0.01)	(49.5)

Source: Compiled from data submitted in response to Commission questionnaires.

Note: These data include only quarters in which there is a comparison between the U.S. and subject product.

Note: ***.

Note: ***.

Table P-8

MAE: Instances of underselling and the range and average of margins and margins of underselling/(overselling) with respect to China Plus pricing products, with * having insufficient production-related activities, by product**

Quantity in units; margin in percent

Product	Number of quarters	Quantity	Average margin	Min margin	Max margin
Product 1 (scissor lift)	14	***	***	***	***
Product 2 (scissor lift)	4	***	***	***	***
Product 3 (scissor lift)	5	***	***	***	***
Product 4 (boom lift)	0	---	---	---	---
Product 5 (boom lift)	10	***	***	***	***
Product 6 (telehandler)	13	***	***	***	***
Total, underselling	46	***	***	***	***
Product 1 (scissor lift)	0	---	---	---	---
Product 2 (scissor lift)	10	***	***	***	***
Product 3 (scissor lift)	9	***	***	***	***
Product 4 (boom lift)	14	***	***	***	***
Product 5 (boom lift)	4	***	***	***	***
Product 6 (telehandler)	1	***	***	***	***
Total, overselling	38	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: These data include only quarters in which there is a comparison between the U.S. and subject product.

Note: ***.

Note: ***.

APPENDIX Q

PRICE DATA IF EXCLUDING *
UNDER THE RELATED PARTIES PROVISION**

This appendix presents pricing data if *** are found to be excluded under the related parties provision. The quarterly data which *** submitted in *** was removed from the domestic producers' data set. These data are analogous to those found in tables V-4 – V-9 presented earlier in this report, and are shown in tables Q-1 – Q-6 and figures Q-1 – Q-6. Data in the tables and figures are presented using the data for MAE imported directly from China (“China”), those that incorporated Chinese subassemblies into MAE imported from nonsubject countries (“Canada with China”), and the sum of those two sets of data (“China Plus”).¹ Calculations pertaining to the margins of underselling and overselling are presented in tables Q-7 and Q-8. Table Q-7 presents margin calculations comparing U.S. prices to those for imports imported directly from China, whereas table Q-8 presents margin calculations comparing U.S. prices to those for imports both imported directly from China and for imports of MAE from nonsubject countries which contain MAE subassemblies.

¹ ***.

Table Q-1**MAE: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 with *** being excluded and margins of underselling/(overselling), by quarter**

Price in dollars per unit, quantity in units, margin in percent.

Period	US price	US quantity	China price	China quantity	China margin
2018 Q1	***	***	***	***	***
2018 Q2	***	***	***	***	***
2018 Q3	***	***	***	***	***
2018 Q4	***	***	***	***	***
2019 Q1	***	***	***	***	***
2019 Q2	***	***	***	***	***
2019 Q3	***	***	***	***	***
2019 Q4	***	***	***	***	***
2020 Q1	***	***	***	***	***
2020 Q2	***	***	***	***	***
2020 Q3	***	***	***	***	***
2020 Q4	***	***	***	***	***
2021 Q1	***	***	***	***	***
2021 Q2	***	***	***	***	***

Table continued.

Period	Canada with China price	Canada with China quantity	Canada with China margin	China Plus price	China Plus quantity	China Plus margin
2018 Q1	--	0	--	***	***	***
2018 Q2	--	0	--	***	***	***
2018 Q3	--	0	--	***	***	***
2018 Q4	--	0	--	***	***	***
2019 Q1	--	0	--	***	***	***
2019 Q2	--	0	--	***	***	***
2019 Q3	--	0	--	***	***	***
2019 Q4	--	0	--	***	***	***
2020 Q1	--	0	--	***	***	***
2020 Q2	--	0	--	***	***	***
2020 Q3	--	0	--	***	***	***
2020 Q4	--	0	--	***	***	***
2021 Q1	--	0	--	***	***	***
2021 Q2	--	0	--	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 1: Battery-powered scissor lift, with electric or hydraulic drive, with 12'-14' platform height elevation and 500 lb. to 600 lb. maximum lift capacity

Table Q-2

MAE: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 with * being excluded and margins of underselling/(overselling), by quarter**

Price in dollars per unit, quantity in units, margin in percent.

Period	US price	US quantity	China price	China quantity	China margin
2018 Q1	***	***	***	***	***
2018 Q2	***	***	--	0	--
2018 Q3	***	***	***	***	***
2018 Q4	***	***	***	***	***
2019 Q1	***	***	***	***	***
2019 Q2	***	***	***	***	***
2019 Q3	***	***	***	***	***
2019 Q4	***	***	***	***	***
2020 Q1	***	***	***	***	***
2020 Q2	***	***	***	***	***
2020 Q3	***	***	***	***	***
2020 Q4	***	***	***	***	***
2021 Q1	***	***	***	***	***
2021 Q2	***	***	***	***	***

Table continued.

Period	Canada with China price	Canada with China quantity	Canada with China margin	China Plus price	China Plus quantity	China Plus margin
2018 Q1	--	0	--	***	***	***
2018 Q2	--	0	--	--	0	--
2018 Q3	--	0	--	***	***	***
2018 Q4	--	0	--	***	***	***
2019 Q1	--	0	--	***	***	***
2019 Q2	--	0	--	***	***	***
2019 Q3	--	0	--	***	***	***
2019 Q4	--	0	--	***	***	***
2020 Q1	--	0	--	***	***	***
2020 Q2	--	0	--	***	***	***
2020 Q3	--	0	--	***	***	***
2020 Q4	--	0	--	***	***	***
2021 Q1	--	0	--	***	***	***
2021 Q2	--	0	--	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 2: Battery-powered scissor lift, with electric or hydraulic drive, with 18'-20' platform height elevation and 500 lb. to 600 lb. maximum lift capacity

Table Q-3

MAE: Weighted-average f.o.b. prices and quantities of domestic and imported product 3 with * being excluded and margins of underselling/(overselling), by quarter**

Price in dollars per unit, quantity in units, margin in percent.

Period	US price	US quantity	China price	China quantity	China margin
2018 Q1	***	***	***	***	***
2018 Q2	***	***	***	***	***
2018 Q3	***	***	***	***	***
2018 Q4	***	***	***	***	***
2019 Q1	***	***	***	***	***
2019 Q2	***	***	***	***	***
2019 Q3	***	***	***	***	***
2019 Q4	***	***	***	***	***
2020 Q1	***	***	***	***	***
2020 Q2	***	***	***	***	***
2020 Q3	***	***	***	***	***
2020 Q4	***	***	***	***	***
2021 Q1	***	***	***	***	***
2021 Q2	***	***	***	***	***

Table continued.

Period	Canada with China price	Canada with China quantity	Canada with China margin	China Plus price	China Plus Quantity	China Plus margin
2018 Q1	***	***	***	***	***	***
2018 Q2	***	***	***	***	***	***
2018 Q3	***	***	***	***	***	***
2018 Q4	***	***	***	***	***	***
2019 Q1	***	***	***	***	***	***
2019 Q2	***	***	***	***	***	***
2019 Q3	***	***	***	***	***	***
2019 Q4	***	***	***	***	***	***
2020 Q1	***	***	***	***	***	***
2020 Q2	***	***	***	***	***	***
2020 Q3	***	***	***	***	***	***
2020 Q4	***	***	***	***	***	***
2021 Q1	***	***	***	***	***	***
2021 Q2	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: ***. Product 3: Battery-powered scissor lift, with electric or hydraulic drive, with 38'-42' platform height elevation and a width of less than 50 inches

Table Q-4

MAE: Weighted-average f.o.b. prices and quantities of domestic and imported product 4 with * being excluded and margins of underselling/(overselling), by quarter**

Price in dollars per unit, quantity in units, margin in percent.

Period	US price	US quantity	China price	China quantity	China margin
2018 Q1	***	***	--	0	--
2018 Q2	***	***	--	0	--
2018 Q3	***	***	--	0	--
2018 Q4	***	***	--	0	--
2019 Q1	***	***	--	0	--
2019 Q2	***	***	--	0	--
2019 Q3	***	***	--	0	--
2019 Q4	***	***	--	0	--
2020 Q1	***	***	--	0	--
2020 Q2	***	***	--	0	--
2020 Q3	***	***	--	0	--
2020 Q4	***	***	***	***	***
2021 Q1	***	***	***	***	***
2021 Q2	***	***	***	***	***

Table continued.

Period	Canada with China price	Canada with China quantity	Canada with China margin	China Plus price	China Plus quantity	China Plus margin
2018 Q1	***	***	***	***	***	***
2018 Q2	***	***	***	***	***	***
2018 Q3	***	***	***	***	***	***
2018 Q4	***	***	***	***	***	***
2019 Q1	***	***	***	***	***	***
2019 Q2	***	***	***	***	***	***
2019 Q3	***	***	***	***	***	***
2019 Q4	***	***	***	***	***	***
2020 Q1	***	***	***	***	***	***
2020 Q2	***	***	***	***	***	***
2020 Q3	***	***	***	***	***	***
2020 Q4	***	***	***	***	***	***
2021 Q1	***	***	***	***	***	***
2021 Q2	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 4: Diesel-powered four- or all-wheel drive articulating boom lift, with 44'-46' platform height elevation and 500 lb. to 1,000 lb. maximum lift capacity

Table Q-5

MAE: Weighted-average f.o.b. prices and quantities of domestic and imported product 5 with * being excluded and margins of underselling/(overselling), by quarter**

Price in dollars per unit, quantity in units, margin in percent.

Period	US price	US quantity	China price	China quantity	China margin
2018 Q1	***	***	***	***	***
2018 Q2	***	***	***	***	***
2018 Q3	***	***	***	***	***
2018 Q4	***	***	--	0	--
2019 Q1	***	***	***	***	***
2019 Q2	***	***	***	***	***
2019 Q3	***	***	***	***	***
2019 Q4	***	***	***	***	***
2020 Q1	***	***	--	0	--
2020 Q2	***	***	***	***	***
2020 Q3	***	***	--	0	--
2020 Q4	***	***	***	***	***
2021 Q1	***	***	***	***	***
2021 Q2	***	***	***	***	***

Table continued.

Period	Canada with China price	Canada with China quantity	Canada with China margin	China Plus price	China Plus quantity	China Plus margin
2018 Q1	***	***	***	***	***	***
2018 Q2	***	***	***	***	***	***
2018 Q3	***	***	***	***	***	***
2018 Q4	***	***	***	***	***	***
2019 Q1	***	***	***	***	***	***
2019 Q2	***	***	***	***	***	***
2019 Q3	***	***	***	***	***	***
2019 Q4	***	***	***	***	***	***
2020 Q1	***	***	***	***	***	***
2020 Q2	***	***	***	***	***	***
2020 Q3	***	***	***	***	***	***
2020 Q4	***	***	***	***	***	***
2021 Q1	***	***	***	***	***	***
2021 Q2	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 5: Diesel-powered four- or all-wheel drive telescoping boom lift, with 64'-67' platform height elevation including jib option and 500 lb. to 1,000 lb. maximum lift capacity

Table Q-6

MAE: Weighted-average f.o.b. prices and quantities of domestic and imported product 6 with * being excluded and margins of underselling/(overselling), by quarter**

Price in dollars per unit, quantity in units, margin in percent.

Period	US price	US quantity	China price	China quantity	China margin
2018 Q1	***	***	--	0	--
2018 Q2	***	***	--	0	--
2018 Q3	***	***	--	0	--
2018 Q4	***	***	--	0	--
2019 Q1	***	***	--	0	--
2019 Q2	***	***	--	0	--
2019 Q3	***	***	--	0	--
2019 Q4	***	***	--	0	--
2020 Q1	***	***	--	0	--
2020 Q2	***	***	--	0	--
2020 Q3	***	***	***	***	***
2020 Q4	***	***	***	***	***
2021 Q1	***	***	***	***	***
2021 Q2	***	***	***	***	***

Table continued.

Period	Canada with China price	Canada with China quantity	Canada with China margin	China Plus price	China Plus quantity	China Plus margin
2018 Q1	***	***	***	***	***	***
2018 Q2	***	***	***	***	***	***
2018 Q3	***	***	***	***	***	***
2018 Q4	***	***	***	***	***	***
2019 Q1	***	***	***	***	***	***
2019 Q2	***	***	***	***	***	***
2019 Q3	***	***	***	***	***	***
2019 Q4	***	***	***	***	***	***
2020 Q1	***	***	***	***	***	***
2020 Q2	***	***	***	***	***	***
2020 Q3	***	***	***	***	***	***
2020 Q4	***	***	***	***	***	***
2021 Q1	***	***	***	***	***	***
2021 Q2	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 6: Diesel-powered four- or all-wheel drive material telehandler, with 53'-57' maximum lift height and 10,000-lb. maximum lift capacity

Figure Q-1
MAE: Weighted-average prices and quantities of domestic and imported product 1 excluding *,**
by quarter

Price

* * * * *

Volume

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 1: Battery-powered scissor lift, with electric or hydraulic drive, with 12'-14' platform height elevation and 500 lb. to 600 lb. maximum lift capacity

Figure Q-2
MAE: Weighted-average prices and quantities of domestic and imported product 2 excluding *,**
by quarter

Price

* * * * *

Volume

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 2: Battery-powered scissor lift, with electric or hydraulic drive, with 18'-20' platform height elevation and 500 lb. to 600 lb. maximum lift capacity

Figure Q-3
MAE: Weighted-average prices and quantities of domestic and imported product 3 excluding *,**
by quarter

Price

* * * * *

Volume

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 3: Battery-powered scissor lift, with electric or hydraulic drive, with 38'-42' platform height elevation and a width of less than 50 inches

Figure Q-4
MAE: Weighted-average prices and quantities of domestic and imported product 4 excluding *,**
by quarter

Price

* * * * *

Volume

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 4: Diesel-powered four- or all-wheel drive articulating boom lift, with 44'-46' platform height elevation and 500 lb. to 1,000 lb. maximum lift capacity

Figure Q-5

MAE: Weighted-average prices and quantities of domestic and imported product 5 excluding *, by quarter**

Price

* * * * *

Volume

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 5: Diesel-powered four- or all-wheel drive telescoping boom lift, with 64'-67' platform height elevation including jib option and 500 lb. to 1,000 lb. maximum lift capacity

Figure Q-6
MAE: Weighted-average prices and quantities of domestic and imported product 6 excluding *,**
by quarter

Price

* * * * *

Volume

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 6: Diesel-powered four- or all-wheel drive material telehandler, with 53'-57' maximum lift height and 10,000-lb. maximum lift capacity

Table Q-7

MAE: Instances of underselling and the range and average of margins and margins of underselling/(overselling) with respect to China pricing products, with * being excluded, by product**

Quantity in units; margin in percent

Product	Number of quarters	Quantity	Average margin	Min margin	Max margin
Product 1 (scissor lift)	14	***	***	***	***
Product 2 (scissor lift)	7	***	***	***	***
Product 3 (scissor lift)	7	***	***	***	***
Product 4 (boom lift)	2	***	***	***	***
Product 5 (boom lift)	11	***	***	***	***
Product 6 (telehandler)	4	***	***	***	***
Total, underselling	45	***	***	***	***
Product 1 (scissor lift)	0	0	---	---	---
Product 2 (scissor lift)	6	***	***	***	***
Product 3 (scissor lift)	7	***	***	***	***
Product 4 (boom lift)	1	***	***	***	***
Product 5 (boom lift)	0	0	---	---	---
Product 6 (telehandler)	0	0	---	---	---
Total, overselling	14	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: These data include only quarters in which there is a comparison between the U.S. and subject product.

Note: ***.

Table Q-8

MAE: Instances of underselling and the range and average of margins and margins of underselling/(overselling) with respect to China Plus pricing products, with * being excluded, by product**

Quantity in units; margin in percent

Product	Number of quarters	Quantity	Average margin	Min margin	Max margin
Product 1 (scissor lift)	14	***	***	***	***
Product 2 (scissor lift)	7	***	***	***	***
Product 3 (scissor lift)	5	***	***	***	***
Product 4 (boom lift)	0	0	---	---	---
Product 5 (boom lift)	10	***	***	***	***
Product 6 (telehandler)	13	***	***	***	***
Total, underselling	49	***	***	***	***
Product 1 (scissor lift)	0	0	---	---	---
Product 2 (scissor lift)	6	***	***	***	***
Product 3 (scissor lift)	9	***	***	***	***
Product 4 (boom lift)	14	***	***	***	***
Product 5 (boom lift)	4	***	***	***	***
Product 6 (telehandler)	1	***	***	***	***
Total, overselling	34	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: These data include only quarters in which there is a comparison between the U.S. and subject product.

Note: ***.

APPENDIX R

FINANCIAL DATA EXCLUDING ***

Table R-1**MAE: Results of operations of U.S. producers by item and period excluding U.S. producers *****

Quantity in short tons; value in 1,000 dollars; ratios in percent and represent ratios to net sales value

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Total net sales	Quantity	***	***	***	***	***
Total net sales	Value	***	***	***	***	***
Raw material costs	Value	***	***	***	***	***
Direct labor costs	Value	***	***	***	***	***
Other factory costs	Value	***	***	***	***	***
Cost of goods sold	Value	***	***	***	***	***
Gross profit or (loss)	Value	***	***	***	***	***
SG&A expenses	Value	***	***	***	***	***
Operating income or (loss)	Value	***	***	***	***	***
Other expense / (income), net	Value	***	***	***	***	***
Net income or (loss)	Value	***	***	***	***	***
Depreciation/amortization	Value	***	***	***	***	***
Cash flow	Value	***	***	***	***	***
Raw material costs	Ratio	***	***	***	***	***
Direct labor costs	Ratio	***	***	***	***	***
Other factory costs	Ratio	***	***	***	***	***
Cost of goods sold	Ratio	***	***	***	***	***
Gross profit	Ratio	***	***	***	***	***
SG&A expense	Ratio	***	***	***	***	***
Operating income or (loss)	Ratio	***	***	***	***	***
Net income or (loss)	Ratio	***	***	***	***	***

Table continued.

Table R-1 Continued

MAE: Results of operations of U.S. producers by item and period excluding U.S. producers ***

Shares in percent and represent share of cost of goods sold; unit values in dollars per short ton; count in number of firms reporting

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Raw material costs	Share	***	***	***	***	***
Direct labor costs	Share	***	***	***	***	***
Other factory costs	Share	***	***	***	***	***
Cost of goods sold	Share	***	***	***	***	***
Total net sales	Unit value	***	***	***	***	***
Raw material costs	Unit value	***	***	***	***	***
Direct labor costs	Unit value	***	***	***	***	***
Other factory costs	Unit value	***	***	***	***	***
Cost of goods sold	Unit value	***	***	***	***	***
Gross profit or (loss)	Unit value	***	***	***	***	***
SG&A expenses	Unit value	***	***	***	***	***
Operating income or (loss)	Unit value	***	***	***	***	***
Net income or (loss)	Unit value	***	***	***	***	***
Operating losses	Count	***	***	***	***	***
Net losses	Count	***	***	***	***	***
Data	Count	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table R-2**MAE: Changes in average unit values between comparison periods excluding U.S. producers *****

Changes in percent

Item	2018-20	2018-19	2019-20	Jan-Jun 2020-21
Total net sales	***	***	***	***
Raw material costs	***	***	***	***
Direct labor costs	***	***	***	***
Other factory costs	***	***	***	***
Cost of goods sold	***	***	***	***

Table continued.

Table R-2 Continued**MAE: Changes in average unit values between comparison periods excluding U.S. producers *****

Changes in dollars per short ton

Item	2018-20	2018-19	2019-20	Jan-Jun 2020-21
Total net sales	***	***	***	***
Raw material costs	***	***	***	***
Direct labor costs	***	***	***	***
Other factory costs	***	***	***	***
Cost of goods sold	***	***	***	***
Gross profit or (loss)	***	***	***	***
SG&A expense	***	***	***	***
Operating income or (loss)	***	***	***	***
Net income or (loss)	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

APPENDIX S

FINANCIAL RESULTS OF U.S. PRODUCERS' TELEHANDLER OPERATIONS

Table S-1
Telehandlers: Results of operations of U.S. producers, by item and period

Quantity in short tons; value in 1,000 dollars; ratios in percent and represent ratios to net sales value

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Total net sales	Quantity	***	***	***	***	***
Total net sales	Value	***	***	***	***	***
Raw material costs	Value	***	***	***	***	***
Direct labor costs	Value	***	***	***	***	***
Other factory costs	Value	***	***	***	***	***
Cost of goods sold	Value	***	***	***	***	***
Gross profit or (loss)	Value	***	***	***	***	***
SG&A expenses	Value	***	***	***	***	***
Operating income or (loss)	Value	***	***	***	***	***
Other expense / (income), net	Value	***	***	***	***	***
Net income or (loss)	Value	***	***	***	***	***
Depreciation/amortization	Value	***	***	***	***	***
Cash flow	Value	***	***	***	***	***
Raw material costs	Ratio	***	***	***	***	***
Direct labor costs	Ratio	***	***	***	***	***
Other factory costs	Ratio	***	***	***	***	***
Cost of goods sold	Ratio	***	***	***	***	***
Gross profit	Ratio	***	***	***	***	***
SG&A expense	Ratio	***	***	***	***	***
Operating income or (loss)	Ratio	***	***	***	***	***
Net income or (loss)	Ratio	***	***	***	***	***

Table continued.

Table S-1 Continued

Telehandlers: Results of operations of U.S. producers, by item and period

Shares in percent and represent share of cost of goods sold; unit values in dollars per short ton; count in number of firms reporting

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Raw material costs	Share	***	***	***	***	***
Direct labor costs	Share	***	***	***	***	***
Other factory costs	Share	***	***	***	***	***
Cost of goods sold	Share	***	***	***	***	***
Total net sales	Unit value	***	***	***	***	***
Raw material costs	Unit value	***	***	***	***	***
Direct labor costs	Unit value	***	***	***	***	***
Other factory costs	Unit value	***	***	***	***	***
Cost of goods sold	Unit value	***	***	***	***	***
Gross profit or (loss)	Unit value	***	***	***	***	***
SG&A expenses	Unit value	***	***	***	***	***
Operating income or (loss)	Unit value	***	***	***	***	***
Net income or (loss)	Unit value	***	***	***	***	***
Operating losses	Count	***	***	***	***	***
Net losses	Count	***	***	***	***	***
Data	Count	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table S-2**Telehandlers: Changes in average unit values between comparison periods**

Changes in percent

Item	2018-20	2018-19	2019-20	Jan-Jun 2020-21
Total net sales	***	***	***	***
Raw material costs	***	***	***	***
Direct labor costs	***	***	***	***
Other factory costs	***	***	***	***
Cost of goods sold	***	***	***	***

Table continued.

Table S-2 Continued**Telehandlers: Changes in average unit values between comparison periods**

Changes in dollars per short ton

Item	2018-20	2018-19	2019-20	Jan-Jun 2020-21
Total net sales	***	***	***	***
Raw material costs	***	***	***	***
Direct labor costs	***	***	***	***
Other factory costs	***	***	***	***
Cost of goods sold	***	***	***	***
Gross profit or (loss)	***	***	***	***
SG&A expense	***	***	***	***
Operating income or (loss)	***	***	***	***
Net income or (loss)	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table S-3**Telehandlers: U.S. producers' count of subassembly procurement, by type and source**

Count in number of firms reporting

Type	Internally produced	Domestic purchases	Foreign purchases or imports
Bucket attachment	0	3	1
Carriage attachment	3	1	0
Fork attachment	0	2	1
Boom	3	0	0
Cab	3	0	0
Chassis	1	1	1
Other subassemblies	2	0	0

Source: Compiled from data submitted in response to Commission questionnaires.

APPENDIX T

FINANCIAL RESULTS OF U.S. PRODUCERS' ALL OTHER MAE OPERATIONS

Table T-1**All other MAE: Results of operations of U.S. producers, by item and period**

Quantity in short tons; value in 1,000 dollars; ratios in percent and represent ratios to net sales value

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Total net sales	Quantity	***	***	***	***	***
Total net sales	Value	***	***	***	***	***
Raw material costs	Value	***	***	***	***	***
Direct labor costs	Value	***	***	***	***	***
Other factory costs	Value	***	***	***	***	***
Cost of goods sold	Value	***	***	***	***	***
Gross profit or (loss)	Value	***	***	***	***	***
SG&A expenses	Value	***	***	***	***	***
Operating income or (loss)	Value	***	***	***	***	***
Other expense / (income), net	Value	***	***	***	***	***
Net income or (loss)	Value	***	***	***	***	***
Depreciation/amortization	Value	***	***	***	***	***
Cash flow	Value	***	***	***	***	***
Raw material costs	Ratio	***	***	***	***	***
Direct labor costs	Ratio	***	***	***	***	***
Other factory costs	Ratio	***	***	***	***	***
Cost of goods sold	Ratio	***	***	***	***	***
Gross profit	Ratio	***	***	***	***	***
SG&A expense	Ratio	***	***	***	***	***
Operating income or (loss)	Ratio	***	***	***	***	***
Net income or (loss)	Ratio	***	***	***	***	***

Table continued.

Table T-1 Continued

All other MAE: Results of operations of U.S. producers, by item and period

Shares in percent and represent share of cost of goods sold; unit values in dollars per short ton; count in number of firms reporting

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Raw material costs	Share	***	***	***	***	***
Direct labor costs	Share	***	***	***	***	***
Other factory costs	Share	***	***	***	***	***
Cost of goods sold	Share	***	***	***	***	***
Total net sales	Unit value	***	***	***	***	***
Raw material costs	Unit value	***	***	***	***	***
Direct labor costs	Unit value	***	***	***	***	***
Other factory costs	Unit value	***	***	***	***	***
Cost of goods sold	Unit value	***	***	***	***	***
Gross profit or (loss)	Unit value	***	***	***	***	***
SG&A expenses	Unit value	***	***	***	***	***
Operating income or (loss)	Unit value	***	***	***	***	***
Net income or (loss)	Unit value	***	***	***	***	***
Operating losses	Count	***	***	***	***	***
Net losses	Count	***	***	***	***	***
Data	Count	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table T-2**All other MAE: Changes in average unit values between comparison periods**

Changes in percent

Item	2018-20	2018-19	2019-20	Jan-Jun 2020-21
Total net sales	***	***	***	***
Raw material costs	***	***	***	***
Direct labor costs	***	***	***	***
Other factory costs	***	***	***	***
Cost of goods sold	***	***	***	***

Table continued.

Table R-2 Continued**All other MAE: Changes in average unit values between comparison periods**

Changes in dollars per short ton

Item	2018-20	2018-19	2019-20	Jan-Jun 2020-21
Total net sales	***	***	***	***
Raw material costs	***	***	***	***
Direct labor costs	***	***	***	***
Other factory costs	***	***	***	***
Cost of goods sold	***	***	***	***
Gross profit or (loss)	***	***	***	***
SG&A expense	***	***	***	***
Operating income or (loss)	***	***	***	***
Net income or (loss)	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table T-3**All other MAE: U.S. producers' count of subassembly procurement, by type and source**

Count in number of firms reporting

Type	Internally produced	Domestic purchases	Foreign purchases or imports
Scissor arm	3	2	2
Stack arm	3	1	2
Chassis	3	2	3
Chassis frame	2	2	2
Turntable	2	1	1
Turntable frame	2	2	2
Boom sections	2	1	1
Boom weldment	2	2	1
Other subassemblies	1	0	1

Source: Compiled from data submitted in response to Commission questionnaires.

Table T-4

All other MAE: Results of operations of U.S. producers excluding U.S. producers *, by item and period**

Quantity in short tons; value in 1,000 dollars; ratios in percent and represent ratios to net sales value

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Total net sales	Quantity	***	***	***	***	***
Total net sales	Value	***	***	***	***	***
Raw material costs	Value	***	***	***	***	***
Direct labor costs	Value	***	***	***	***	***
Other factory costs	Value	***	***	***	***	***
Cost of goods sold	Value	***	***	***	***	***
Gross profit or (loss)	Value	***	***	***	***	***
SG&A expenses	Value	***	***	***	***	***
Operating income or (loss)	Value	***	***	***	***	***
Other expense / (income), net	Value	***	***	***	***	***
Net income or (loss)	Value	***	***	***	***	***
Depreciation/amortization	Value	***	***	***	***	***
Cash flow	Value	***	***	***	***	***
Raw material costs	Ratio	***	***	***	***	***
Direct labor costs	Ratio	***	***	***	***	***
Other factory costs	Ratio	***	***	***	***	***
Cost of goods sold	Ratio	***	***	***	***	***
Gross profit	Ratio	***	***	***	***	***
SG&A expense	Ratio	***	***	***	***	***
Operating income or (loss)	Ratio	***	***	***	***	***
Net income or (loss)	Ratio	***	***	***	***	***

Table continued.

Table T-4 Continued

All other MAE: Results of operations of U.S. producers excluding U.S. producers *, by item and period**

Shares in percent and represent share of cost of goods sold; unit values in dollars per short ton; count in number of firms reporting

Item	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Raw material costs	Share	***	***	***	***	***
Direct labor costs	Share	***	***	***	***	***
Other factory costs	Share	***	***	***	***	***
Cost of goods sold	Share	***	***	***	***	***
Total net sales	Unit value	***	***	***	***	***
Raw material costs	Unit value	***	***	***	***	***
Direct labor costs	Unit value	***	***	***	***	***
Other factory costs	Unit value	***	***	***	***	***
Cost of goods sold	Unit value	***	***	***	***	***
Gross profit or (loss)	Unit value	***	***	***	***	***
SG&A expenses	Unit value	***	***	***	***	***
Operating income or (loss)	Unit value	***	***	***	***	***
Net income or (loss)	Unit value	***	***	***	***	***
Operating losses	Count	***	***	***	***	***
Net losses	Count	***	***	***	***	***
Data	Count	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table T-5**All other MAE: Changes in average unit values between comparison periods excluding U.S. producers**

Changes in percent

Item	2018-20	2018-19	2019-20	Jan-Jun 2020-21
Total net sales	***	***	***	***
Raw material costs	***	***	***	***
Direct labor costs	***	***	***	***
Other factory costs	***	***	***	***
Cost of goods sold	***	***	***	***

Table continued.

Table T-5 Continued**All other MAE: Changes in average unit values between comparison periods excluding U.S. producers**

Changes in dollars per short ton

Item	2018-20	2018-19	2019-20	Jan-Jun 2020-21
Total net sales	***	***	***	***
Raw material costs	***	***	***	***
Direct labor costs	***	***	***	***
Other factory costs	***	***	***	***
Cost of goods sold	***	***	***	***
Gross profit or (loss)	***	***	***	***
SG&A expense	***	***	***	***
Operating income or (loss)	***	***	***	***
Net income or (loss)	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

APPENDIX U
DESCRIPTION OF CHINA INDIRECT DATA

U.S. importer Skyjack imports complete MAE from Canada that include Chinese subassemblies. The U.S. Department of Commerce has found that the Chinese subassemblies embodied in the MAE that Skyjack manufactures in Canada will be subject to these investigations regardless of the inclusion of non-Chinese components and the additional value added in Canada to the complete and finished MAE. Table U-1 presents information on Skyjack's U.S. shipments of imports from Canada that contain subassemblies from China.

Table U-1
Complete and finished MAE: Skyjack's U.S. shipments of imports from Canada, by type of embodied subassembly and by period

Quantity in units; shares in percent

Canada complete units	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
With Chinese subassemblies	Quantity	***	***	***	***	***
Without Chinese subassemblies	Quantity	***	***	***	***	***
All subassemblies of all origins	Quantity	***	***	***	***	***
With Chinese subassemblies	Share of quantity	***	***	***	***	***
Without Chinese subassemblies	Share of quantity	***	***	***	***	***
All subassemblies of all origins	Share of quantity	100.0	100.0	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "--". Skyjack reported pricing data for ***. These pricing data accounted for between *** percent of the complete units imported and sold with an embodied Chinese subassembly by Skyjack.

Tables U-2 and U-3 present information on Skyjack's U.S. shipments of imports from Canada that contain Chinese subassemblies, by the estimated weight and the estimated value of the in-scope Chinese subassemblies.

Table U-2
Complete and finished MAE: Skyjack's U.S. shipments of imports from Canada that contain Chinese subassemblies, by input type and by period

Quantity in short tons; shares in percent

Canada complete units with Chinese assemblies	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Chinese subassemblies (elsewhere labeled "China indirect")	Quantity	***	***	***	***	***
Other material inputs	Quantity	***	***	***	***	***
Complete units with Chinese subassemblies	Quantity	***	***	***	***	***
Chinese subassemblies	Share of quantity	***	***	***	***	***
Other material inputs	Share of quantity	***	***	***	***	***
Complete units with Chinese subassemblies	Share of quantity	100.0	100.0	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---". Note the first line of this table is what is reported as "China indirect" within this report. Also note that while this table presents U.S. shipments data, the data for Skyjack for the "China indirect" line is the same for both U.S. imports and U.S. shipments.

Table U-3
Complete and finished MAE: Skyjack's U.S. shipments of imports from Canada that contain Chinese subassemblies, by input type and by period

Value in 1,000 dollars; shares in percent

Canada complete units with Chinese assemblies	Measure	2018	2019	2020	Jan-Jun 2020	Jan-Jun 2021
Chinese subassemblies (elsewhere labeled "China indirect")	Value	***	***	***	***	***
Other material inputs and valued added in Canada	Value	***	***	***	***	***
Complete units with Chinese subassemblies	Value	***	***	***	***	***
Chinese subassemblies	Share of value	***	***	***	***	***
Other material inputs and valued added in Canada	Share of value	***	***	***	***	***
Complete units with Chinese subassemblies	Share of value	100.0	100.0	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---". Note the first line of this table is what is reported as "China indirect" within this report. Also note that while this table presents U.S. shipments data, the data for Skyjack for the "China indirect" line is the same for both U.S. imports and U.S. shipments.

