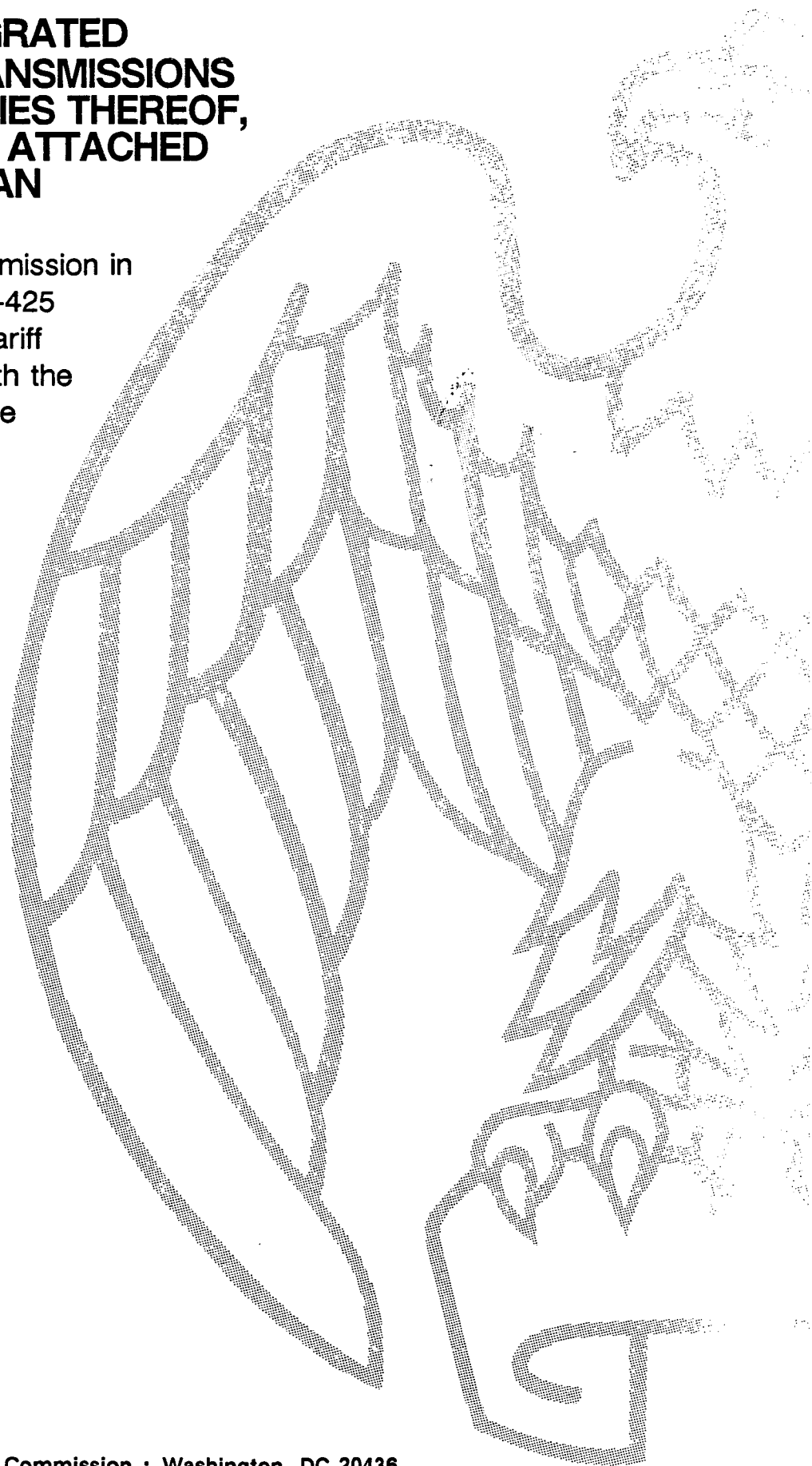


**LIGHT-DUTY INTEGRATED
HYDROSTATIC TRANSMISSIONS
AND SUBASSEMBLIES THEREOF,
WITH OR WITHOUT ATTACHED
AXLES, FROM JAPAN**

Determination of the Commission in
Investigation No. 731-TA-425
(Preliminary) Under the Tariff
Act of 1930, Together With the
Information Obtained in the
Investigation

USITC PUBLICATION 2149

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UNITED STATES INTERNATIONAL TRADE COMMISSION

COMMISSIONERS

Anne E. Brunsdale, Acting Chairman

Alfred E. Eckes

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Ronald A. Cass

Don E. Newquist

Staff assigned:

Janine Wedel, Investigator

Michael Hagey, Commodity-Industry Analyst

William Shpiece, Economist

James Stewart, Accountant/Financial Analyst

Timothy Reif, Attorney

Robert Carpenter, Supervisory Investigator

**Address all communications to
Kenneth R. Mason, Secretary to the Commission
United States International Trade Commission
Washington, DC 20436**

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Note.--Information that would reveal confidential operations of individual concerns may not be published and therefore has been deleted from this report. Such deletions are indicated by asterisks.

UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation No. 731-TA-425 (Preliminary)

LIGHT-DUTY INTEGRATED HYDROSTATIC TRANSMISSIONS AND SUBASSEMBLIES THEREOF,
WITH OR WITHOUT ATTACHED AXLES, FROM JAPAN

Determination

On the basis of the record 1/ developed in the subject investigation, the Commission determines 2/, pursuant to section 733(a) of the Tariff Act of 1930 (19 U.S.C. (1673b(a))), that there is no reasonable indication that an industry in the United States is materially injured or threatened with material injury, or that the establishment of an industry in the United States is materially retarded, by reason of imports from Japan of light-duty integrated hydrostatic transmissions and subassemblies thereof, with or without attached axles 3/, provided for in items 660.85, 660.97, 666.00 and 666.10 of the Tariff Schedules of the United States (TSUS), and classifiable in subheadings 8412.29.80, 8412.90.90, 8413.60.00, 8413.81.00, 8432.90.00, 8433.90.10, 8433.90.50, 8434.90.00, and 8436.99.00 of the Harmonized Tariff Schedule of the United States (HTS), that are alleged to be sold in the United States at less than fair value (LTFV).

1/ The record is defined in sec. 207.2(i) of the Commission's Rules of Practice and Procedure (19 CFR (207.2(i))).

2/ Commission Cass dissenting.

3/ The subject articles, which have a maximum input horsepower of twenty or fewer, comprise the following: parts and subassemblies of non-electric engines and motors not specially provided for (TSUS item 660.85 and HTS subheadings 8412.29.80 and 8412.90.90); pumps for liquids, liquid elevators, and parts thereof, the foregoing not specially provided for (TSUS item 660.97 and HTS subheadings 8413.60.00 and 8413.81.00); other parts, not specially provided for, of machinery for soil preparation and cultivation (TSUS item 666.00 and HTS subheadings 8432.90.00, 8433.90.50, 8434.90.00, and 8436.99.00); and parts of lawnmowers (TSUS item 666.10 and HTS subheading 8433.90.10) (Federal Register of Dec. 16, 1988 (53 F.R. 48987)).

Background

On November 22, 1988, a petition was filed with the Commission and the Department of Commerce by Eaton Corp., Eden Prairie, Minnesota, alleging that an industry in the United States is materially injured and is threatened with material injury, by reason of LTFV imports of light-duty integrated hydrostatic transmissions and subassemblies thereof, with or without attached axles, from Japan. Accordingly, effective November 22, 1988, the Commission instituted preliminary antidumping investigation No. 731-TA-425 (Preliminary).

Notice of the institution of the Commission's investigation and of a public conference 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 in the Federal Register of December 16, 1988 (53 F.R. 48987). The conference was held in Washington, DC, on December 14, 1988, and all persons who requested the opportunity were permitted to appear in person or by counsel.

VIEWS OF THE COMMISSION

Based on the information obtained in this preliminary investigation, we determine that there is no reasonable indication that industries in the United States are materially injured or are threatened with material injury, or that the establishment of industries in the United States are materially retarded, by reason of imports from Japan of light duty integrated hydrostatic transmissions and subassemblies thereof, with or without attached axles. ^{1/}

I. LIKE PRODUCT AND DOMESTIC INDUSTRY

To determine whether there exists a "reasonable indication of material injury," the Commission must first make factual determinations with respect to the "like product(s)" and "domestic industry(ies)" corresponding to the imported merchandise under investigation. ^{2/} Section 771(10) of the Tariff

^{1/} Material retardation is not at issue in this investigation and will not be discussed further.

^{2/} While the Commission must accept the Department of Commerce's determination as to which merchandise is within the class of merchandise allegedly sold at less than fair value ("LTFV"), the Commission determines what domestic products are like the ones in the class defined by Commerce. See *Algoma Steel Corp. Ltd. v. United States*, 12 CIT ___, Slip op. 88-118, at 9-10 (1988), affirmed, Court No. 88-1491 (Fed. Cir., Jan. 4, 1989). The Court of International Trade has affirmed the Commission's authority to subdivide a single class of merchandise into several domestic industries producing different like products, see *Badger-Powhatan v. United States*, 9 CIT 213, 608 F. Supp. 653, 656-657 (1985), and it has indicated that the Commission is permitted to consider defining an industry more broadly than the class of merchandise under investigation. *Asociacion Colombiana de Exportadores de Flores, et. al. v. United States ("ASCOFLORES")*, Slip op. 88-91 at 6-7) (Ct. Int'l Trade, July 14, 1988). See also *Citrosuco Paulista S.A. v. United States*, Slip op. 88-176 at 28 (December 30, 1988).

Act of 1930 defines the "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." ^{3/} The domestic industry is defined, in turn, as "the domestic producers as a whole of a like product, or those producers whose collective output of the like product constitutes a major proportion of the total domestic production of that product." ^{4/}

A. Like Product

The imported articles subject to this investigation are "light duty integrated hydrostatic transmissions (maximum input horsepower of twenty or fewer) and subassemblies thereof, with or without attached axles." ^{5/}

The Commission's decision regarding the appropriate like product(s) in an investigation is essentially a factual determination. ^{6/} The

^{3/} 19 U.S.C. § 1677(10).

^{4/} 19 U.S.C. § 1677(4)(A).

^{5/} The "article subject to an investigation" is defined by the scope of the investigation established by Commerce. Commerce has defined the scope of this investigation to include: "light duty integrated hydrostatic transmissions and subassemblies thereof, with or without attached axles, provided for in items 660.85, 660.97, 666.00 and 666.10 of the Tariff Schedules of the United States ("TSUS"), and classifiable in subheadings 8412.29.80, 8412.90.90, 8413.60.00, 8413.81.00, 8432.90.00, 8433.90.10, 8433.90.50, 8434.90.00, and 8436.99.00 of the [Harmonized Tariff Schedule (the "HTS")]. The subject articles, which have a maximum horsepower of twenty or fewer, comprise the following: parts and subassemblies of non-electric engines and motors not specially provided for; pumps for liquids, liquid elevators, and parts thereof, the foregoing not specially provided for; other parts, not specially provided for, of machinery for soil preparation and cultivation; and parts of lawn mowers." 53 Fed. Reg. 50564 (December 16, 1988).

^{6/} ASCOFLORES, 693 F. Supp. at 1169. See also Yuasa-General Battery Corp. v. United States, 661 F. Supp. 1214, 1217 (1987).

Commission examines which domestic product(s) is (are) "like" or "most similar in characteristics and uses with" the imported article(s) on a case-by-case basis. 7/

In analyzing like product issues, the Commission examines the characteristics and uses of the merchandise, including factors such as: (1) physical appearance and characteristics; (2) end uses; (3) customer or producer perceptions; (4) common manufacturing facilities, production employees and production processes; (5) channels of distribution; (6) interchangeability of the products; and, in some cases, (7) price. 8/ No single factor is dispositive, and the Commission considers other factors that it deems relevant based on the facts of a given investigation. The Commission looks for clear dividing lines between like products; 9/ minor distinctions are an insufficient basis for finding separate like products. 10/

7/ ASCOFLORES, 693 F. Supp. at 1169 & n.5 (like product issue essentially one to be based on the unique facts of each case).

8/ See, e.g., Certain All-Terrain Vehicles from Japan, Inv. No. 731-TA-388 (Preliminary), USITC Pub. No. 2071 at 6 (March 1988); Color Picture Tubes from Canada, Japan, the Republic of Korea and Singapore, Inv. Nos. 731-TA-367 - 370 (Final), USITC Pub. No. 2046 at 3-4 (December 1987); Certain Television Receivers from the Republic of Korea and Taiwan, Inv. Nos. 731-TA-134 & 135 (Final), USITC Pub. No. 1514 at 3-6 (April 1984). See also ASCOFLORES, 693 F. Supp. at 1170 n.8.

9/ See Operators for Jalousie and Awning Windows from El Salvador, Inv. Nos. 701-TA-272 & 731-TA-319 (Final), USITC Pub. No. 1934 at 4 n.4 (January 1987).

10/ ASCOFLORES, 693 F. Supp. at 1168-1169 (it is up to the Commission to determine objectively what is a minor difference). See also S. Rep. No. 249, 96th Cong., 1st Sess. 90-91 (1979).

In this preliminary investigation, we considered two principal questions relating to the definition of the like product: (1) what constitutes a "light duty" integrated hydrostatic transmission (an "IHST") and, in particular, should Sundstrand-Sauer's ("Sundstrand's") Model 15 be included within the definition of the like product; ^{11/ 12/} and (2) are IHSTs and light duty integrated hydrostatic transaxles (the "transaxles") a single like product. ^{13/}

1. "Light duty" IHSTs and Sundstrand's Model 15

There are three basic classes of IHSTs: light, medium and heavy duty. In general, light duty IHSTs have a maximum input horsepower of 20 or fewer, a total expected operating life of 500 to 1,000 hours and are used principally in "riding lawn mowers and limited- or non-ground-engaging lawn and garden tractors." ^{14/} In contrast, medium duty IHSTs have a maximum

^{11/} Sundstrand is a domestic producer of hydrostatic transmissions. In this investigation, Sundstrand was also the principal importer of the articles subject to investigation. Report at A-10 - A-11 & A-13 - A-14.

^{12/} An "integrated" HST is one in which the pump and motor are enclosed in a common housing whereas in a "nonintegrated" HST the pump and motor are separated and connected by a hose through which hydraulic fluid is moved. Report at A-1 - A-2. C.f., Transcript of Commission Conference, 731-TA-425 (Preliminary) ("Tr.") at 48-49 & 60-61 (Messrs. Cullen and Warburton).

^{13/} There are currently no imports of transaxles and petitioner Eaton is the only domestic manufacturer of that product. The scope of the investigation as initiated by the Department of Commerce, which includes IHSTs "with or without attached axles," includes transaxles. Therefore, the question presented is whether IHSTs and transaxles are a single like product or are two separate like products.

^{14/} Petition at 12; Sundstrand Post-Conference Brief at 8.

input horsepower of between 20 and 50, expected durability of 3,000 hours, are designed for heavier work (commonly in ground engaging tractors and other heavier duty industrial vehicles such as skid steer loaders, large road rollers, harvestors, hay cutters and other agricultural equipment) and cost at least \$200 more than light duty IHSTs. ^{15/} Similarly, heavy duty IHSTs generally are rated with greater than 50 horsepower, an operating life of 5,000 to 10,000 working hours, are used in combines, cement trucks, excavators, asphalt pavers and other heavy construction equipment and sell for approximately \$1,000 more than light duty IHSTs. ^{16/}

Petitioner and respondent agree that the Commission should find that the like product in this investigation is light duty IHSTs. ^{17/} The only question is where to draw the line between light and medium duty IHSTs and, in particular, whether Sundstrand's Model 15 series IHST should be considered a "light duty" IHST for purposes of this investigation.

Petitioner Eaton argued that Sundstrand's Model 15 series should not be included in the like product definition because the Model 15: ^{18/}

^{15/} Petition at 12-13.

^{16/} Id. at 13.

^{17/} Petition at 12; Sundstrand Post-Conference Brief at 8. As we discuss below, petitioner argues that the like product definition should also include transaxles while respondent argues that the Commission should find that transaxles are a separate like product from IHSTs. See Petition at 16-18; Sundstrand's Post-Conference Brief at 25; Tr. at 139 (Mr. Gibson).

^{18/} In the petition, Eaton argued that all light duty IHSTs comprise one like product. At the conference and in its post-conference submission, Eaton argued that, if we were to find that the Model 15 was a light duty IHST, we should find two like products: one consisting of light duty

(continued...)

(1) has input horsepower of 24; 19/ (2) has a "significant additional capacity and function" when compared with light duty IHSTs, namely, the capacity to deliver sustained force for plowing or other ground-engaging functions; 20/ (3) sells at a substantially higher price than the highest horsepower capacity model import; 21/ and (4) is not marketed competitively by Sundstrand with the imported "Bantam Duty" ("BDU") models. 22/

Respondent Sundstrand counters that the Model 15 should be considered a

18/(...continued)

IHSTs with maximum input horsepower of up to 10 (to include Eaton's Model 6, 7, 750, 770, 780 and 850) and a second consisting of light duty IHSTs with maximum input horsepower of between 11 and 20 (to include Eaton's Model 11 and 1150 as well as Sundstrand's Model 15). Eaton Post-Conference Brief at 12 n.3. See also Tr. at 101 (Mr. Cullen). This late suggestion by Eaton was inconsistent with its assertions in the petition that light duty IHSTs--the Model 11 included--constitute a distinct product line. Petition at 12. Moreover, we find that there is no clear line separating light duty IHSTs with greater than 10 horsepower from those with 10 or fewer horsepower. See Color Television Receivers from the Republic of Korea and Taiwan, Inv. No. 731-TA-134 & 135 (Final), USITC Pub. No. 1514 at 4-6 (April 1984).

19/ Tr. at 72-73 (Mr. Cullen) (counsel for petitioner Eaton acknowledged that this assertion appeared to contradict a chart presented at Exhibit 3, page 2 of the Petition).

20/ Eaton Post-Conference Brief at 4. We also note that Eaton argues that the transaxle is not a separate like product from an IHST despite the fact that the transaxle can perform an additional function, namely turning the wheels of the vehicle.

21/ Eaton Post-Conference Brief at 4.

22/ Tr. at 74-77 & 101 (Mr. Cullen). Although Eaton argued that all of its models--including those with a horizontal and those with a vertical input shaft--were the same like product (see below), Eaton also argued that Sundstrand's Model 15 should be considered a separate like product in part because it has a horizontal input shaft whereas the imported BDU models have a vertical input shaft. Eaton Post-Conference Brief at 9. These positions would appear to be inconsistent.

light duty transmission because the unit: (1) is advertised as having fewer than 20 horsepower; 23/ (2) is used principally to cut grass; 24/ (3) is priced in a range comparable to other units of similar capabilities; 25/ and (4) has an average annual use and a product use life comparable to those of other light duty IHSTs. 26/

The Model 15 is similar in several important respects to the imports subject to investigation as well as to light duty IHSTs in general. One principal characteristic of an IHST is its horsepower capacity range. Sundstrand advertises its Model 15 as having a range of between 5 and 18 horsepower. 27/ This falls within the range of light duty IHSTs commonly used in garden tractors. 28/ In addition, the average annual use and product use life of the Model 15 are comparable to those of other light duty IHSTs, including the imported products. 29/

23/ Tr. at 128 (Mr. Gilchrist). See also Petition, Exhibit 3 at 2.

24/ Tr. at 160 (Mr. Gilchrist).

25/ See also Sundstrand Post-Conference Brief at 12.

26/ Tr. at 161 (Mr. Gilchrist). See also Petition, Exhibit 3 at 2.

27/ See Petition, Exhibit 3; Tr. at 128 (Mr. Gilchrist).

28/ While the Model 15 may be installed on vehicles with a horsepower rating of greater than 20, it appears that the same is true of Eaton's Model 11, which has been installed in a tractor that has a 23 horsepower engine. Tr. at 126 & 129 (Mr. Gilchrist). C.f., Letter from David Schryver, counsel to Eaton, to Kenneth R. Mason, Secretary USITC (December 20, 1988) (Attachment at 1). Eaton acknowledged that, in any event, the 20 horsepower limit is not a rigid one. Tr. at 51 (Mr. Cullen).

29/ Tr. at 127 & 151 (Mr. Gilchrist). See also Report at A-5.

The Sundstrand Model 15, like other light duty IHSTs, is designed for use in garden tractors, a class of vehicles that, in general, uses light duty transmissions. ^{30/} While the Model 15 is capable of pulling a plow as well as cutting grass, more than 95 percent of the application of garden tractors in which the Model 15 is installed is cutting grass. ^{31/} In addition, original equipment manufacturers ("OEMs") consider the Model 15 to be a light duty product, ^{32/} the Model 15 is sold through identical channels of distribution as the imported BDUs ^{33/} and the two products are interchangeable in use.

In sum, the Model 15 is similar to the imported products in terms of physical characteristics (including horsepower capacity range, average annual usage and product use-life), end uses, channels of distribution and interchangeability of the products. The products are dissimilar in terms of production facilities and employees. ^{34/} In addition, the Model 15 is generally priced higher than the imported articles and, to a lesser extent,

^{30/} Petition, Exhibit 3 at 2.

^{31/} Tr. at 160 (Mr. Gilchrist). We note that Eaton conceded that its "model 1150 competes with the BDU model 21 for a small segment of the limited, ground-engaging garden tractor market." Eaton Post-Conference Brief at 13. See also Tr. at 19 (Mr. Warburton). As we discuss below, we do not consider Eaton's Model 1150 transaxle to be the same like product as light duty IHSTs. Nonetheless, the Model 1150 has a horsepower rating that is comparable to Eaton's Model 11, which is a like product. Report at A-6, table 1.

^{32/} Report at A-10.

^{33/} Tr. at 150 (Messrs. Gibson & Gilchrist).

^{34/} The Model 15 is currently being assembled and will be produced in the same facility as the BDUs, but on separate production lines.

Eaton's Model 11; however, we accorded limited weight to this data because direct price comparisons cannot be made between the horizontally-oriented U.S.-produced IHSTs and the vertically-oriented imports. 35/

Based on the information obtained in this investigation, there appears to be a clear dividing line between IHSTs designed for use in garden tractors and IHSTs designed for use in utility vehicles. 36/ 37/ The Model 15 clearly appears designed for use in garden tractors. Moreover, the attributes of the Model 15 most closely resemble those of other light duty IHSTs rather than IHSTs designed for use in heavier or more heavily used vehicles. Thus, while the line between light and medium duty IHSTs is not completely straight when drawn on the basis of individual criteria, 38/ based upon all the factors described above, we find that the characteristics and uses of Sundstrand's Model 15 are similar to those of other light duty IHSTs and, therefore, that Sundstrand's Model 15 should be

35/ Report at A-35 - A-36 & table 16.

36/ Utility tractors (unlike lawn and garden tractors) have large wheels with tires capable of providing heavy traction. Such tractors are used typically for utility work on a farm such as hauling implements and loads or pulling a car. In addition, utility tractors are similar to farm tractors in engineering, whereas garden tractors and lawn tractors are used principally to cut grass. Tr. at 159-160 (Mr. Gilchrist).

37/ See, e.g., Forged Steel Crankshafts from the Federal Republic of Germany and the United Kingdom, Inv. Nos. 701-TA-282 & 731-TA-350-353, USITC Pub. No. 2014 at 3-10 (September 1987); Erasable Programmable Read Only Memories from Japan, Inv. No. 731-TA-288 (Final), USITC Pub. No. 1927 at 4 (December 1986); Certain Radio Paging and Alerting Devices from Japan, Inv. No. 731-TA-102 (Final), USITC Pub. No. 1410, at 7 (August 1983).

38/ Tr. at 96 (Mr. Warburton). See also Tr. at 50-53 (Mr. Cullen); id. at 127 & 151 (Mr. Gilchrist).

included within the definition of the like product in this investigation. We also find that the like product includes all light duty IHSTs. ^{39/}

2. Light duty hydrostatic transaxles

Petitioner argues that its light duty integrated hydrostatic transaxle (the "transaxle") and light duty IHSTs constitute a single like product because the transaxles "share the same performance parameters, uses, customers and channels of distribution as competitive IHSTs with axles attached by the OEMs." ^{40/} Respondent argues that the transaxle is not the same like product as a light duty IHST because the transaxle performs additional functions, contains a substantial number of additional parts and subassemblies, ^{41/} is larger and more costly to produce and serves a different function. ^{42/ 43/}

^{39/} See n.18, above.

^{40/} Eaton Post-Conference Brief at 13.

^{41/} Tr. 114 (Mr. Gibson) & 137 (Mr. Gilchrist). See also Tr. at 78 (Mr. Warburton). Eaton argued that IHST's are a separate like product from mechanical transmissions in part because "[I]HST's contain fewer component parts than mechanical transmission. [Sic]" Tr. at 18 (Mr. Warburton).

^{42/} Sundstrand Post-Conference Brief at 25. See also Tr. at 139 & 156 (Mr. Gibson).

^{43/} See, e.g., Eaton Post-Conference Brief at 35-36; Petition at 28 n.29 & 50 n.47; Sundstrand Post-Conference Brief at 30. The parties also presented arguments as to whether the Eaton transaxle should be included in the definition of the like product on the basis of whether the transaxle is "an advanced or derivative version" (within the meaning of section 1328 of the Omnibus Trade and Competitiveness Act of 1988 (the "1988 Act")) of Eaton's IHST models. The relevant portion of the text of section 1328 is quoted below at n.114. Whatever the merits of these arguments, their proper application is to the Commission's material injury and causation or
(continued...)

An IHST is clearly different from a transaxle in four significant respects. First, the two products have different physical characteristics. A transaxle does not look like an IHST and is based on a different design, although the two products are based on essentially the same basic hydrostatic technology. ^{44/}

In addition, the parts, components and subassemblies of a transaxle are distinct from those of an IHST. ^{45/} For example, petitioner Eaton stated that the principal subassemblies of a transaxle included a pump, housing, two motors, "a planetary gear reduction" and "an axle extension" whereas in the petition Eaton listed the principal subassemblies of an IHST to include only "any combination of . . . pump, [one] motor or a . . . housing. ^{46/} Moreover, to the extent the two products share the same types of subassemblies--e.g., motor(s), pump(s) and housing--the value of each of

^{43/}(...continued)
threat of material injury analysis rather than to its like product analysis. Neither the language of section 1328 nor its legislative history suggests that the section was meant to alter the statutory definition of like product or the manner in which the Commission conducts its like product analysis. Therefore, whether the Eaton transaxle is "a derivative or more advanced version" of the Eaton IHST within the meaning of section 1328 is irrelevant to the Commission's like product determination in this investigation.

^{44/} Report at A-10 - A-11.

^{45/} Compare Tr. at 78-79 (Messrs. Cullen and Warburton) with Petition at 15. See also Report at A-4 & A-9. For example, a transaxle has 20 gears and 2 motors whereas an IHST has only 10 gears and one motor. Tr. at 78 (Mr. Warburton), 114 (Mr. Gibson) & 137 (Mr. Gilchrist). In addition, a transaxle is also approximately 40 percent heavier than an imported IHST with an axle attached. Id.

^{46/} Compare Tr. at 78-79 (Messrs. Cullen and Warburton) with Petition at 15. See also Tr. at 114 (Mr. Gibson).

the components or subassemblies relative to the value of the finished I varies considerably from the value of each corresponding component or subassembly relative to the value of the transaxle. 47/

We have noted in the past that inclusion of parts, components or subassemblies within the scope of an investigation may be an important consideration in arriving at an appropriate definition of the like product. 48/ In this investigation, the significant differences between the major subassemblies of a transaxle and those of an IHST reflect substantial differences in the physical characteristics of the two articles.

A transaxle and an IHST are distinct also in terms of end uses. A transaxle has three primary end use functions: (1) transmitting horsepower from the engine to the axle; (2) driving the axle; and (3) turning the wheels of the vehicle. 49/ In contrast, an IHST can perform only the two functions and is, therefore, different in a significant respect. 50/ Thus, an IHST and a transaxle also are not interchangeable in use. 51/

47/ See letter from Schryver to Mason (December 20, 1988) at 2. C.f., Tr. at 83 (Mr. Warburton).

48/ See Shock Absorbers and Parts, Components, and Subassemblies Thereof from Brazil, Inv. No. 731-TA-421 (Preliminary), USITC Pub. No. 2128 at 11-12 (September 1988).

49/ See Report at A-10.

50/ See Certain Radio Paging and Alerting Receiving Devices from Japan, Inv. No. 731-TA-102 (Final), USITC Pub. No. 1410 at 7 (August 1983).

51/ A transaxle would be interchangeable in use only with an IHST bolted to an axle. When OEMs purchase IHSTs and axles (to be bolted together)

(continued...)

Finally, OEM purchasers report that transaxles and IHSTs are not comparable in terms of price. Indeed, an OEM typically will compare the price of a transaxle to the price of an IHST bolted to an axle rather than to the price of an IHST alone. ^{52/} In addition, transaxles are priced, on average, substantially higher than imported IHSTs of comparable horsepower capability. ^{53/}

When examined in terms of two additional factors--customer perceptions, and common production processes and employees--IHSTs and transaxles have both similarities and differences. For example, as noted, OEMs indicated that transaxles and IHSTs are not comparable products both from the vantage point of price and in terms of whether a purchaser prefers single- or dual-sourcing of transmissions and axles. ^{54/} On the other hand, OEMs regard the Eaton transaxle and the imported BDU units as being similar to the extent that both are designed for use with vertical engines. ^{55/}

^{51/}(...continued)
from different suppliers, the price of an axle assembly is substantial relative to the price of the IHST, ranging, in general, from 70 percent of the price of an IHST to more than 200 percent of the IHST price. See Report at tables 17-23.

^{52/} Report at A-37 & n.3.

^{53/} Id. at A-36 - A-38 & table 17. See also tables 18-21. We accorded this price evidence limited weight. See n.52, above.

^{54/} Report at A-38. Because the transaxle is made only by Eaton and is an integrated product that does not contain a separate or separable IHST, OEMs become locked into at least one supplier relationship if they purchase a transaxle rather than an IHST. Tr. at 113, 115 & 156 (Mr. Gibson).

^{55/} Tr. at 16 & 94 (Mr. Warburton).

In addition, Eaton manufactures the transaxle on a different production line from its IHST models and none of the subassemblies of the transaxle is identical to or precisely interchangeable with any subassembly in an IHST. Finally, transaxles and IHSTs are sold through the same channels of trade. ^{56/}

We find that, based on the information in the record, significant differences between transaxles and IHSTs in physical characteristics, end use functions and interchangeability outweigh the similarities in channels of distribution. ^{57/} Thus, we conclude that transaxles are a separate like product from IHSTs.

^{56/} Eaton Post-Conference Brief at 14 & n.5, citing Tr. at 157 (Mr. Gilchrist).

^{57/} We find that these differences are more than "minor variations" between the two products and provide a reasonable basis on which we may draw a "clear dividing line" between IHSTs and transaxles. See, e.g., Erasable Programmable Read Only Memories from Japan, Inv. No. 731-TA-288 (Final), USITC Pub. No. 1927 at 4 n.6 (December 1986); Certain Radio Paging and Alerting Receiving Devices from Japan, Inv. No. 731-TA-102 (Final), USITC Pub. No. 1410 at 7 (August 1983) ("Radio Pagers"). In Radio Pagers, for example, the Commission found that tone-only pagers and display pagers were separate like products in part because display pagers "include additional components and require more processing than tone-only pagers," have superior message capabilities, may incorporate a printout device or may be used in conjunction with a computer. Radio Pagers, USITC Pub. No. 1410 at 7-9. In that determination, the Commission observed that the additional capabilities of display pagers permitted them to have additional end use functions different from those of tone-only pagers, which were primarily "alerting devices." Id. at 8. Transaxles, like display pagers, have additional capabilities that permit them to perform additional end use functions (namely, turning the wheels of a vehicle rather than merely driving an axle) that IHSTs are unable to perform. Similarly, transaxles have a substantial number of additional components.

3. Additional like product issues:

In addition to the issues discussed above, we also considered whether: (1) light duty mechanical transmissions ("MTs") are the same like product as light duty IHSTs; (2) light duty electrical transmissions are the same like product as light duty IHSTs; (3) subassemblies of light duty IHSTs and transaxles, respectively, are the same like products as light duty IHSTs and transaxles; and (4) IHSTs designed for use with a horizontal input shaft are the same like product as IHSTs designed for use with a vertical input shaft. With respect to each of these issues, petitioner Eaton and respondent Sundstrand are in agreement.

Mechanical transmissions.--An IHST transmits power to drive an axle through hydraulic pressure whereas an MT utilizes interlocking mechanical gears to transmit power. ^{58/} In addition, IHSTs are easier to operate, in part because they permit the driver to change speeds automatically and to shift from forward to reverse without changing gears. ^{59/} In light of the information obtained in this investigation and the positions of the

^{58/} Tr. at 11 (Mr. Warburton).

^{59/} Id. at 17 (Mr. Warburton). C.f., Report at A-8 n.2 (describing limited production of an MT with "infinitely variable" speed).

parties, 60/ we find that light duty MTs are not the same like product as light duty IHSTs.

Electrical transmissions.--Electrical transmissions are not, in general, used in the same classes of vehicles as light duty IHSTs and mechanical transmissions and, in fact, light duty electrical transmissions are not manufactured in the United States. 61/ Accordingly, in light of the information in the record and the parties' positions, we find that light duty electrical transmissions are a separate like product from light duty IHSTs.

Subassemblies.--Eaton included subassemblies within the scope of its petition "[i]n order to prevent dumping of such subassemblies and to prevent any circumvention of an antidumping duty order limited to only imports of complete light duty" IHSTs. 62/ Sundstrand does not contest inclusion of subassemblies within the like product definition. 63/

60/ Tr. at 11 & 17 (Mr. Warburton) and Tr. at 154 (Mr. Gibson). Eaton also emphasized that light duty IHSTs have fewer component parts than light duty mechanical transmissions, "look different" and cost approximately twice as much. Id. at 18. Cf., Eaton also argued that IHSTs are the same like product as transaxles despite the fact that the transaxles apparently contain 40 percent more components.

61/ Petition at 7 & Exhibit 1; Tr. at 89 (Messrs. Warburton & Cullen) & 155 (Mr. Gilchrist).

62/ Petition at 15 (emphasis in original). As we have discussed, Eaton's description of what constitutes a subassembly of an IHST or of an "IHST with attached axles," in the words of the petition, has varied and at times been inconsistent.

63/ Tr. at 152 (Mr. Gibson). See also Post-Conference Brief of Sundstrand at 20.

We have previously examined a number of factors in considering whether subassemblies or components that are at an earlier stage of the production process of the finished product are "like" the finished product. 64/ In this investigation, it is not clear--particularly in light of past Commission practice--that subassemblies of an IHST are the same like product as a completed IHST or that subassemblies of the transaxle are the same like product as that completed article. 65/ However, in view of the

64/ These factors have included: (1) the necessity for and the costs of further processing; (2) the degree of substitutability or interchangeability of the articles at the different stages of production; (3) the degree to which the article at an earlier stage is dedicated to use in the finished product; (4) whether there exists a significant independent use or an independent commercial market for the article at an earlier stage of production; and (5) whether the article at an earlier stage of production embodies an essential characteristic of the finished product or imparts such a characteristic to the final product. See Erasable Programmable Read Only Memories from Japan, Inv. No. 731-TA-288 (Preliminary), USITC Pub. No. 1778 at 6-7 (November 1985). See also Antifriction Bearings (Other than Tapered Roller Bearings) and Parts Thereof from the Federal Republic of Germany, France, Italy, Japan, Romania, Singapore, Sweden, Thailand, and the United Kingdom, Inv. Nos. 303-TA-19 & 20 & 731-TA-391-399 (Preliminary), USITC Pub. No. 2083 (May 1988); Dynamic Random Access Memory Semiconductors of 256K Kilobits and Above from Japan, Inv. No. 731-TA-300 (Preliminary), USITC Pub. No. 1803 at 5-13 (January 1986); Thermostatically Controlled Appliance Plugs and Probe Thermostats Therefor from Canada, Hong Kong, Japan, Malaysia, and Taiwan, Inv. Nos. 701-TA-290-292 (Preliminary), USITC Pub. No. 2087 at 5-6 & n.13 (June 1988); Erasable Programmable Read Only Memories from Japan, Inv. No. 731-TA-288 (Final), USITC Pub. No. 1927 at 10 (December 1986).

65/ See, e.g., Digital Readout Systems and Subassemblies Thereof from Japan, Inv. No. 731-TA-390 (Preliminary), USITC Pub. No. 1848 at 8-9 (Views of Chairman Susan Liebler, Vice Chairman Anne E. Brunsdale and Commissioner Ronald A. Cass) and 36-37 (Dissenting Views of Commissioners Alfred Eckes, Seeley Lodwick and David Rohr) (May 1986); Offshore Platform Jackets and Piles from the Republic of Korea and Japan, Inv. Nos. 701-TA-248 (Final) & 731-TA-259-260 (Final), USITC Pub. No. 1848 (May 1986); Cellular Mobile Telephones and Subassemblies Thereof from Japan, Inv. No. 731-TA-207 (Final), USITC Pub. No. 1786 (December 1985); and Certain

(continued...)

fact that respondent did not, in this preliminary investigation, challenge petitioner's proposed inclusion of subassemblies, we include subassemblies in our definition of the respective like products.

Horizontal and Vertical IHSTs.--On the basis of the information of record and the parties' positions, we find that IHSTs designed to accommodate a horizontal input shaft are the same like product as vertically-oriented IHSTs. 66/

Based upon the above analysis, we determine that there are two like products in this investigation: both vertically- and horizontally-oriented (1) IHSTs and subassemblies thereof and (2) transaxles and subassemblies thereof. There are currently no imports of transaxles or IHSTs "with attached axles" or subassemblies thereof. Thus, it follows that there is no reasonable indication that the domestic industry producing those articles is materially injured by reason of any allegedly LTFV imports. Accordingly, we do not discuss that like product or the corresponding domestic industry further. 67/

65/(...continued)

Valves, Nozzles, and Connectors of Brass from Italy for Use in Fire Protection Systems, Inv. No. 731-TA-165 (Final), USITC Pub. No. 1649 (February 1985).

66/ Tr. at 15 (Mr. Warburton); Tr. at 92-94 (Messrs. Cullen and Warburton); Tr. at 156 (Mr. Gibson); Sundstrand Post-Conference Brief at 19.

67/ In addition, although petitioner claimed that at least two Japanese companies may at some point in the future commence exports of that product to the United States, information obtained by the Commission in this investigation indicates that there is no likelihood that any such exports will commence in the near future. See discussion of threat of material

(continued...)

B. DOMESTIC INDUSTRY

In light of our conclusion that Sundstrand's Model 15 is a like product for purposes of this investigation, we find, accordingly, that there are currently two U.S. producers of the like product: petitioner Eaton and respondent Sundstrand. ^{68/} Together, these firms accounted for nearly all domestic production of the like product over the period of investigation. ^{69/}

In this investigation, one of the two U.S. producers--Sundstrand--was also the principal importer of the products subject to investigation. Thus, the question arises as to whether data for Sundstrand should be excluded from domestic industry data under the related parties provision of the statute. ^{70/}

^{67/}(...continued)

injury, below. Thus, we find that there is no reasonable indication that the domestic industry producing transaxles or IHSTs "with attached axles" is threatened with material injury by reason of any imports or likely imports of that article in the near future. See Stainless Steel Pipes and Tubes from Sweden, Inv. No. 731-TA-354 (Final), USITC Pub. No. 2033 (November 1987), on appeal Sandvik v. United States, Court No. 87-12-01206 and Trent Tube v. United States, Court Nos. 87-12-01189 & 87-12-01211.

^{68/} Report at A-10 - A-11; id. A-19.

^{69/} Id. at A-10 - A-11 & Table 3.

^{70/} Section 771(4)(B) of the Tariff Act of 1930, 19 U.S.C. § 1677(4)(B). The related parties provision states:

(B) Related parties.--When some producers are related to the exporters or importers, or are themselves importers of the allegedly subsidized or dumped merchandise, the term "industry" may be applied in appropriate circumstances by excluding such producers from those included in that industry.

(continued...)

Under the related parties provision, the Commission may in appropriate circumstances exclude from domestic industry data, data for any U.S. producer that is also "related to the exporters or importers, or [is itself an importer] of the allegedly dumped merchandise." In determining whether "appropriate circumstances" exist to exclude a company's data, we have found that a central question is whether the related party imported the product subject to investigation principally to benefit from the unfair trade practice or in order to enable the domestic producer to compete in the domestic market. ^{71/} In addition, we have examined the following factors, among others: ^{72/}

- (1) the position of the related producers vis-a-vis the rest of the domestic industry;
- (2) the reasons why the domestic producers have chosen to import the product under investigation--to benefit from the unfair trade practice, or to enable them to continue production and compete in the domestic market; and

70/(...continued)

19 U.S.C. § 1677(4)(B); S. Rep. No. 249, 96th Cong., 1st Sess. 83 (1979). See also Empire Plow Co., Inc. v. United States, 11 CIT ___, 675 F. Supp. 1348, 1353 (1987); Butt-Weld Pipe Fittings from Brazil and Taiwan, Inv. Nos. 731-TA-308 & 310 (Final), USITC Pub. No. 1918 at 9-10 (December 1986).

71/ See, e.g., Empire Plow Co., Inc. v. United States, 675 F. Supp. at 1353, affirming Agricultural Tillage Tools from Brazil, Inv. No. 701-TA-223 (Final), USITC Pub. No. 1761 (October 1985).

72/ See Certain All-Terrain Vehicles from Japan, Inv. No. 731-TA-388 (Preliminary), USITC Pub. No. 2071 at 13 (March 1988) ("ATVs"). See also Granular Polytetrafluoroethylene Resin from Italy and Japan, Inv. Nos. 731-TA-385 & 386 (Final), USITC Pub. No. 2112 at 15 (August 1988); Granular Polytetrafluoroethylene Resin from Italy and Japan, Inv. Nos. 731-TA-385 & 386 (Preliminary), USITC Pub. No. 2043 at 9 (December 1987); Empire Plow v. United States, 675 F. Supp. at 1353-1354.

(3) the percentage of domestic production attributable to the related producers. 73/

We have also considered whether each company's records are maintained separately from its "relations" and whether the primary interests of the related producers lie in domestic production or in importation. 74/

We conclude that Sundstrand should not be "excluded" from the domestic industry for three principal reasons. First, Sundstrand appears to have imported in order to continue to compete in the expanding U.S. market for light duty IHSTs rather than to benefit from the alleged unfair trade practice or to shield Sundstrand's U.S. production of the Model 15. Sundstrand states that, in the early 1980s, in response to requests from OEMs for development of a light duty hydrostatic transmission that could be used in front engine lawn and garden tractors and that could be interchangeable with a light duty mechanical transmission, it designed, developed and tested the BDU transmission. However, in 1984, when Sundstrand was prepared to commence production of the BDU, it was unable to

73/ In its analysis on this point, the Commission has considered whether the related party is primarily in the position of a domestic producer or an importer and whether inclusion of a firm's data would skew overall industry data. See Butt-Weld Pipe Fittings from Brazil and Taiwan, Inv. Nos. 731-TA-308 & 310 (Final), USITC Pub. No. 1918 at 9-10 & n.27. The Commission has examined the following factors, among others: (1) the amount of the U.S. producer's domestic output relative to the amount imported by the U.S. producer; and (2) the relationship between the products produced in the United States and those produced abroad, including (a) which products or product lines are produced in the United States and which are produced abroad and (b) where in the United States sales of the domestically and foreign-produced merchandise are made.

74/ ATVs at 13 & n.44, citing Rock Salt from Canada, Inv. No. 731-TA-239 (Final), USITC Pub. No. 1798 (January 1986).

invest sufficient capital due to heavy investment at the time in Sundstrand's U.S. production facilities for medium and heavy duty hydrostatic transmissions. ^{75/} Thus, Sundstrand subcontracted the manufacture of the BDU unit to the Japanese exporter Daikin "until such time as the U.S. market justified high volume investment . . . and the investment capital was available." ^{76/}

Eaton disputes Sundstrand's description of the reasons why it entered into the licensing agreement with Daikin, arguing that Sundstrand has simply used the Daikin imports "to fill out its line and to establish substantial customer relationships" in the U.S. IHST market. ^{77/} In our view, the information obtained by the Commission supports Sundstrand's description of the market and of its ultimate commitment to U.S. production. ^{78/}

For example, Sundstrand does not appear to have used its BDU series "to establish substantial customer relationships." Rather, the opposite appears to be true. Sundstrand seems to have used a superior pre-existing distribution network to market its BDU series. ^{79/} Thus, rather than using

^{75/} Sundstrand Post-Conference Brief at 6. Sundstrand has provided information to the Commission detailing its investments. See Report at Appendix C.

^{76/} Sundstrand Post-Conference Brief at 6.

^{77/} Eaton Post-Conference Brief at 21.

^{78/} See Report at A-13 - A-14, citing Appendix C.

^{79/} Tr. at 41 & 42 (Mr. Finan). Eaton itself has repeatedly acknowledged Sundstrand's superior distribution network. Id. See also Petition at 44 & (continued...)

low-priced imports to gain a distribution foothold in the domestic market, Sundstrand appears to have used a strong domestic position to facilitate sales of its BDU series.

Moreover, even if Sundstrand used the BDU imports to "fill out its product line," in this case we do not find that this fact provides a basis for "exclusion" of Sundstrand under the related parties provision. This is because it appears that Sundstrand subcontracted production of the BDU series precisely in order to enable it to compete fully in the U.S. market for light duty IHSTs, which Sundstrand regards as having continued strong growth potential. ^{80/} The Commission has stated that this motivation does not constitute a basis on which to exclude a firm under the related parties provision. ^{81/}

^{79/}(...continued)

n.42 (stating that Sundstrand's distribution network, established to service sales of light, medium and heavy duty IHSTs, "dwarfs Eaton's"). Eaton has stated that Sundstrand has already made substantial inroads in sales of the BDU series to large OEMs and stands poised to use its distribution network to sell to smaller OEMs. Id.

^{80/} Sundstrand Post-Conference Brief at 28. Sundstrand argued that one of the reasons it chose to import its BDU units was in order to expand the U.S. market for IHSTs relative to MTs, stating that it regarded the market for mechanical and hydrostatic transmissions in the United States as similar to the market for standard and automatic transmissions in automobiles at the beginning of the 1950s. Tr. at 141 (Mr. Gilchrist). In addition, Sundstrand noted that the price differential between mechanical transmissions ("MTs") and IHSTs has fallen approximately 15 percent over the last five years, as IHSTs have gained increased acceptance in the marketplace. Sundstrand foresees continued growth of IHSTs' market share relative to MTs'. Report at A-13 - A-14 & A-16.

^{81/} Rock Salt from Canada, Inv No. 731-TA-239, USITC Pub. No. 1798 at 10, cited with approval in Empire Plow Co., Inc. v. United States, 675 F. Supp. at 1353.

A second reason that we have determined not to "exclude" Sundstrand from the domestic industry is that the information obtained by the Commission does not support Eaton's view that Sundstrand's imports of the BDU series "shield" its production of the Model 15 series. ^{82/} In fact, industry data indicate that the nature of competition (or lack thereof) in the marketplace between Sundstrand's Model 15 and the imported BDUs is no different than competition between Eaton's larger models such as the 11 and its smaller models such as the 6 and 7. ^{83/}

Finally, Sundstrand's production of the Model 15 represents a significant portion of U.S. production of the like product and it appears that Sundstrand's primary interest lies in domestic production. ^{84/} Sundstrand has already made a substantial commitment to U.S. production, investing heavily in plant and equipment for production of the BDU in the United States. In fact, Sundstrand ceased importing completed BDU units in 1988 and has already commenced limited production of such units. ^{85/} While such production remains relatively small in terms of criteria such as value added, the investment and early activities demonstrate that Sundstrand made

^{82/} Eaton Post-Conference Brief at 19-20 & 22.

^{83/} Report at A-7, Table 2.

^{84/} Id. at A-10 - A-14 & Table 3. See also Sundstrand Post-Conference Brief at 15-16; Tr. at 110-111 (Mr. Gibson). We note that Sundstrand stated that it maintains separate records from Daikin and reaches separate commercial decisions.

^{85/} Report at A-19 & table 5 n.1 & Appendix C. In addition, based on purchase orders submitted to the Commission, it is clear that Sundstrand's commitments to purchase the equipment to produce the BDU series in the United States were made long before the filing of this petition.

a significant commitment to, commenced and is expanding its U.S. manufacturing activities of the BDU series and is continuing to produce the Model 15. 86/

In light of the foregoing, we determine that Sundstrand should not be "excluded" from the domestic industry for purposes of this preliminary investigation.

II. CONDITION OF THE DOMESTIC INDUSTRY

In determining the condition of the domestic industry, the Commission considers, among other factors, the domestic consumption of the product, U.S. production, capacity and capacity utilization, shipments, inventories, employment, financial performance and existing development and production efforts, within the context of the business cycle and conditions of competition that are distinctive to the domestic industry. 87/ The period of the Commission's investigation covers the years 1985 through 1987 and January to September 1988 ("interim 1988").

The data collected and analyzed in the investigation show that most of the principal economic indicators for the domestic industry producing IHSTs improved over the period of investigation. As we have noted, there were only two U.S. producers of the like product in this investigation,

86/ Granular Polytetrafluoroethylene Resin from Italy and Japan, Inv. No. 731-TA-385 (Final), USITC Pub. No. 2112 at 16 (August 1988).

87/ 19 U.S.C. § 1677(7)(C)(iii), as amended by section 1328 of the 1988 Act. We consider the impact of imports on only those operations of the domestic industry that are located in the United States. See 19 U.S.C. § 1677(7), as amended by section 1328 of the 1988 Act.

petitioner Eaton and respondent Sundstrand. Therefore, much of the data on the various indicators of the condition of the domestic industry is confidential and can be discussed only in general terms.

U.S. apparent consumption of IHSTs--measured in both unit terms and by value--increased throughout the period of investigation, growing most strongly from 1986 to 1987 and in interim 1988 as compared with interim 1987. 88/ Domestic production and shipments both increased strongly over the period 1985 to 1987, then declined in interim 1988 over interim 1987. 89/ U.S. producers' capacity increased between 1985 and 1987 and in the interim 1988 period. 90/ Capacity utilization also increased during the period of investigation, growing from 1985 to 1987, then declining slightly in interim 1988 compared to interim 1987. 91/

Employment indicators for U.S. producers, while mixed, by and large reflected the industry's growth and economic health. 92/ The number of production and related workers first increased slightly from 1985 to 1987,

88/ Report at A-16 & Table 4. U.S. apparent consumption by value fell slightly from 1985 to 1986, increasing sharply in 1987 and in interim 1988 over interim 1987, and ending substantially higher than in the base year. Id.

89/ Report at A-18 - A-23 and tables 5 - 7.

90/ Id. at A-18 & table 5.

91/ Despite the interim decline, capacity utilization, whether measured to include Sundstrand's nascent production of the BDU series or exclusive of production of those units, was higher at the close of the period than at the beginning. Report at A-18, table 5.

92/ Data on the inventories of domestic producers are confidential. Report at A-23.

then declined in interim 1988 as compared to interim 1987. ^{93/} Hours worked by and wages and total compensation paid to production and related workers declined from 1985 to 1986, increased strongly from 1986 to 1987, then fell slightly in interim 1988 from the interim 1987 level. Average hourly wages increased throughout the period. Output per worker grew steadily from 1985 to 1987, then dropped from interim 1987 to interim 1988, but closed the period still substantially higher than in the base year. ^{94/}

Finally, the financial experience of U.S. producers also reflected the industry's general health. Net sales (by value) dropped slightly in 1986 over 1985, then grew strongly in 1987, falling slightly again in interim 1988 over interim 1987. Operating income was strong throughout the period, growing steadily as a share of net sales. ^{95/}

Based on the foregoing, it is evident that almost all of the major indicators of the condition of the domestic industry were healthy and improved steadily throughout the full period of investigation. Therefore, we find that the condition of the domestic industry is healthy and, in most respects, improving and, on this basis, that there is no reasonable indication that the domestic industry producing IHSTs is materially injured

^{93/} Report at A-23 - A-26 & table 9.

^{94/} Id.

^{95/} Id. at A-26 - A-29 & table 11. Operating income in absolute terms fell marginally in 1986 from 1985, then grew strongly throughout the remainder of the period. Id.

by reason of the imports subject to investigation. 96/ 97/ 98/ In view of our determination with respect to the condition of the industry, we do not examine causation.

III. NO REASONABLE INDICATION OF THREAT OF MATERIAL INJURY
BY REASON OF IMPORTS

Section 771(7)(F) directs the Commission to determine whether a U.S. industry is threatened with material injury "on the basis of evidence that the threat of material injury is real and that actual injury is

96/ American Spring Wire Corp. v. United States, 8 CIT 20, 590 F. Supp. 1273 (1984), aff'd sub nom. Armco, Inc. v. United States, 760 F.2d 249 (Fed. Cir. 1985); National Association of Mirror Manufacturers v. United States, 12 CIT ___, Slip op. 88-113 at 18-19 (August 25, 1988):

97/ Had we found that light duty IHSTs and transaxles were a single like product and conducted our analysis of the condition of the domestic industry accordingly, we would have reached the same conclusion. In specific, data on U.S. production would have shown stronger growth in 1987 and in interim 1988 as compared with interim 1987, data on shipments would have shown a larger increase from 1986 to 1987 and an increase (rather than a decline) in interim 1988 as compared with interim 1987, practically all of the employment data would have shown an improvement in 1987 and a substantial improvement in interim 1988 over the earlier interim period, net sales would have shown significant growth in 1987 as well as in interim 1988 as compared with interim 1987 and operating income, while remaining strong throughout the period of investigation, would have been less strong for the interim 1988 period.

98/ Acting Chairman Brunsdale believes that the description of the domestic industry is accurate and relevant to her decision on the existence of a reasonable indication of material injury or threat of material injury by reason of the allegedly LTFV imports. She finds that, based on most of the primary indicators of the industry--including domestic production, shipments, capacity, capacity utilization, several employment indicators and financial performance--the industry is healthy. For reasons set forth in her Additional Views, she determines that there is no reasonable indication that the domestic industry has been materially injured or is threatened with material injury by reason of the imports subject to investigation.

imminent." 99/ The statute further directs the Commission to consider, in reaching its material injury determination, ten factors "among other relevant economic factors:" 100/ The factors relevant to this investigation are:

- (1) the ability and likelihood of the foreign producers to increase the level of exports to the United States due to increased production capacity or unused capacity;
- (2) any rapid increase in penetration of the U.S. market by imports and the likelihood that the penetration will increase to injurious levels;
- (3) the probability that imports of the merchandise will enter the United States at prices that will have a depressing or suppressing effect on domestic prices of the merchandise;
- (4) any substantial increase in inventories of the merchandise in the United States;
- (5) underutilized capacity for producing the merchandise in the exporting country;
- (6) any other demonstrable adverse trends that indicate the probability that importation of the merchandise will be the cause of actual injury;
- (7) the potential for product shifting;
- (8) the actual and potential negative effects on the existing development and production efforts of the domestic industry, including the efforts to develop a

99/ 19 U.S.C. § 1677(7)(F)(ii).

100/ 19 U.S.C. § 1677(F)(i), as amended by section 1329 of the 1988 Act. See also H.R. Rep. No. 1156, 89th Cong., 2d Sess. 174-175 (1984). Section 1329 of the 1988 Act provides that the Commission shall request information regarding dumping in third countries of the merchandise manufactured by a party whose imports to the United States are subject to investigation. The first factor relates to the nature of the alleged subsidies in a countervailing duty investigation and, therefore, does not apply in this case.

derivative or more advanced version of the like product.

Any threat must be real and actual injury imminent, and a determination on threat must not be made on the basis of mere conjecture or supposition. 101/

We find that there is no reasonable indication that there will be a rapid increase in U.S. market penetration or that penetration will increase to an injurious level in the near future. In fact, the opposite is true. Imports of completed units and subassemblies of IHSTs by Sundstrand, the primary importer in this investigation, ceased in 1988. 102/ Since that time, the U.S. value added to the product assembled by Sundstrand (using largely imported parts and components supplied by Daikin) has risen steadily. Imports of most remaining parts and components are scheduled to end over the next few months. 103/

101/ 19 U.S.C. § 1677(F)(i)(I)-(VIII).

102/ Thus, while inventories of the BDU units grew sharply between interim 1987 and interim 1988, we find that this increase does not support an affirmative threat determination in view of the cessation of imports of completed BDU units and major subassemblies. See Report at A-30 - A-31.

103/ Report at A-13, A-19 n.1 & A-30 - A-31. Sundstrand has stated that "the only future imports of subject merchandise from Japan will consist of sporadic shipments of units" and some continuing shipments of components. Sundstrand Post-Conference Brief at 36. The Commission does not, in general, rely on the representations of parties as to possible future courses of action, however immediate. Matsushita Electric Industrial Co. v. United States, 750 F.2d 927, 933-934 (Fed. Cir. 1984). However, in this investigation, Sundstrand provided the Commission with extensive documentation detailing expenditures made, committed and planned with respect to production of the BDU units in the United States. A substantial portion of the planned investment in plant and equipment for producing the BDU series in the United States has been spent or committed. Sundstrand
(continued...)

Moreover, as Eaton acknowledges, the terms of the licensing agreement between Sundstrand and Daikin prohibit Daikin from selling the BDU units in the United States other than through Sundstrand. ^{104/} Thus, in view of Sundstrand's domestic BDU production operations, which were begun in 1988, as well as its commitment to increased U.S. production of those units, there is little likelihood that Daikin will resume sales of the BDU units in the United States in amounts comparable to those of the past two years and it is extremely unlikely that Daikin will increase the level of its exports to the United States due to any increased or unused production capacity.

Finally, we find that possible exports in any significant volume in the near future by two additional Japanese producers named in the petition--Kayaba Industry Co., Ltd. and Kawasaki Heavy Industries, Ltd.--are

^{103/}(...continued)

provided to the Commission purchase orders covering the funds "committed." See Report, Appendix C at B-10. See also Tr. at 132-133 (Mr. Gilchrist).

^{104/} Eaton Post-Conference Brief at 18 & 21-24. See also Report at Appendix C. Daikin also stated that it had ceased exports of the subject merchandise in July 1988, and that, due to the terms of its licensing agreement with Sundstrand, Daikin "cannot resume exporting except to [Sundstrand]" and that "Daikin will make no more than sporadic sales in unusual situations." Report, Appendix C at B-14. See also Tr. at 132 (Mr. Gilchrist). Commission staff requested that Daikin provide more specific data; however, Daikin indicated that it was unable to do so. In any event, in view of the cessation of importation of completed units and Sundstrand's demonstrated commitment to U.S. production of and its ability to produce the BDU units as well as the terms of the licensing agreement, we did not regard such data as being essential to our determination that there is no reasonable indication that the domestic industry is threatened with material injury by reason of imports.

unlikely. 105/ Kayaba's exports to the United States during the period of investigation were not significant and information supplied by that firm indicates no likelihood of substantial additional sales to the U.S. market in the near future. 106/ Turning to Kawasaki, there were no exports by that firm of IHSTs or transaxles to the United States during the period of investigation and no exports of either product are planned. 107/

In addition, based on the pricing data obtained during the investigation, there is no likelihood that any future imports will enter the United States at prices that will have a depressing or suppressing effect on domestic IHST prices. 108/ 109/ In specific, data were presented on domestic average unit price ranges for (1) sales of greater than 50

105/ Petition at 55 & 58 n.53.

106/ Report at A-31 - A-32.

107/ Id. See also Tr. at 59-60 (Mr. Cullen). Similarly, there is no evidence that any of the Japanese producers are able to shift production from other products to production of light duty IHSTs or transaxles.

108/ Report at A-34 - A-39. In particular, it is notable both that (1) prices for the imports did not--as might be expected--decline as their market share expanded and (2) price trends for domestic products were mixed throughout the period and did not vary greatly between the 1985-1986 period, when the imports' presence was relatively small and the 1986-1988 period when import penetration surged. See Report at A-61, table 16, Appendix D, table d-2.

109/ We note that, thanks to the efforts of the staff, the pricing data--as well as other data in this investigation--are extraordinarily complete, particularly for a preliminary investigation. For example, the report states that both U.S. producers, both importers and eight OEM's accounting for the vast majority of purchases by OEM's in 1987 and 1988 (the period for which pricing data were requested and obtained) provided usable data, including price data, to the Commission in this investigation. Report at A-36 - A-37.

units (per calendar year) and (2) all sales to OEM's. 110/ With respect to each set of data, average unit price ranges reported for the U.S. product increased modestly in the case of two products and declined somewhat in the case of two other products. 111/ Prices for imported products either increased or remained stable. 112/ The absence of significant price effects during the period of investigation is reflected also in the information on lost sales and lost revenues. 113/

Finally, Eaton argued that its new transaxle is a "derivative or more advanced version of the like product," within the meaning of section 1328 of the 1988 Act, and that the Commission is, therefore, required to pay particular attention to harm or potential harm to petitioner's development of the transaxle in assessing the impact of imports on the domestic

110/ Report at A-36 - A-38 & table 16; Report, Appendix E, table E-2.

111/ Id.

112/ Id. In addition, in this investigation, we were unable to draw meaningful comparisons between prices for U.S.-manufactured IHSTs and prices for the imported BDU IHSTs because the domestic products all were designed for use with horizontal input shafts whereas the imports were designed to accommodate a vertical shaft. Report at A-36 - A-37. The fact that these price comparisons could not be made does not mean that adequate data were not obtained or that any additional data permitting such comparisons might have been obtained in a final investigation. To the contrary, the problem was not that complete data were not available, but rather that, due to the nature of competition between the imports and the domestically produced IHSTs--viz., the nature of competition between horizontally oriented and vertically oriented IHSTs--such data simply do not yield meaningful comparisons.

113/ Report at A-38. With respect to the petitioner's allegations of lost sales and lost revenues, we note that Commission staff contacted all of the purchasers named by petitioner in its lost sales and lost revenue allegations. Report at A-38 - A-39.

industry. 114/ 115/ The language of section 1328 makes clear that the Commission consider harm to "derivative or more advanced versions of the like product" only if such "versions of the like product" themselves fall (or, in the case of a product not yet designed or in production, are likely to fall) within the Commission's like product definition. 116/

As noted, in this case we determined that the transaxle is not the same like product as the IHST. Therefore, since the transaxle is not a derivative or more advanced version of the like product, we did not consider harm to that product in our analysis of reasonable indication of

114/ Section 1328 of the 1988 Act provides (in relevant part):

(iii) **Impact on Affected Domestic Industry.**--In examining the impact required to be considered under subparagraph B(iii), the Commission shall evaluate all relevant economic factors which have a bearing on the state of the industry in the United States, including but not limited to--

(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 like product.

19 U.S.C. § 1677(7)(C)(iii)(IV), as amended by section 1328 of the 1988 Act. See also S. Rep. No. 71, 100th Cong., 1st Sess. 117 (1987).

115/ Eaton Post-Conference Brief at 30-36.

116/ The statute requires that we assess the effects of imports "in relation to . . . production of a like product," 19 U.S.C. § 1677(4)(D). An earlier version of section 1328, which was contained in S. 490 and which may have lent itself to a more expansive interpretation, was not adopted in conference. See S. 490, §§ 329 & 330; H.R. Rep. No. 576, 100th Cong., 2d Sess. 617-618 & 619 (1988). We note that if a product or potential product were not within the definition of the like product, then producers of that product would constitute a separate domestic industry. Thus, with respect to such a product, a petition could be filed alleging material retardation of the establishment of an industry in the United States.

) threat of material injury. ^{117/} Thus, in the absence of any likelihood of additional sales by Kayaba or Kawasaki, we find no actual or potential negative effects on any existing development and production efforts by either the domestic industry of a "derivative or more advanced version" of the like product.

In light of the foregoing, we determine that there is no reasonable indication that the domestic industry producing IHSTs is threatened with material injury by reason of the imports subject to investigation.

^{117/} See Report at A-38 - A-39. See also Sundstrand Post-Conference Brief at 30.

ADDITIONAL VIEWS OF ACTING CHAIRMAN ANNE E. BRUNSDALE

Light-Duty Integrated Hydrostatic Transmissions and
Subassemblies Thereof, With or Without Attached Axles,
from Japan

Inv. No. 731-TA-425 (Preliminary)

January 6, 1989

In this investigation, I agree with the Commission's definition of the like product and domestic industry, and with its description of the domestic industry's condition. I also agree with the Commission's conclusion that the domestic industry producing light-duty integrated hydrostatic transmissions (IHSTs) is not threatened with material injury by reason of allegedly unfair imports from Japan. My interpretation of the importance of the industry's condition and my understanding of causation issues are, however, somewhat different from those of my colleagues. I therefore offer these additional views to explain my reasoning in this case.^{1/}

In this investigation, the data obtained by the Commission indicate that IHST consumers are shifting their purchases away from products with a horizontally oriented input shaft (both Sundstrand's and Eaton's domestic

^{1/} I interpret some of my colleagues' opinions to mean that if a domestic industry is healthy, material injury has not occurred and the causation question need not be examined. In contrast, I believe that causation issues must be examined in most cases. In those cases where the domestic industry is healthy, if the petition is to prevail, the impact of the unfair imports on the domestic industry will have to be larger.

production) to products with a vertically oriented shaft (the imports as well as Eaton's transaxle).^{2/} I believe it is this shift in demand, and not dumping by the importers, that is responsible for the inroads currently being made into the domestic market by imports.^{3/}

Imports of the vertically oriented IHSTs rose sharply in absolute terms, by value as well as units throughout the period of investigation, increasing [*****] percent between 1986 and 1987, then more than [*****] from interim 1987 to interim 1988.^{4/} Imports also increased as a

^{2/} See Report at A-39. This shift away from horizontally-oriented products is reflected in the IHST production data submitted by the U.S. producers. See Report at A-19 (Table 5) and A-20 (Table 6). The shift is reflected also in the employment data. See *id.* at A-25 (Table 9). For example, while, as noted, U.S. apparent consumption increased strongly throughout the period, it is evident that this growth in demand was almost entirely for the vertically-oriented products--namely, the BDU model imports and the Eaton transaxle--at the expense of both Eaton's and Sundstrand's domestic production of the IHST.

^{3/} It is notable that this dynamic has been described by both petitioner Eaton and respondent Sundstrand and, therefore, appears beyond dispute as to the parties. For example, both parties acknowledged that in the early 1980s, they were approached by OEMs and requested to develop a new type of hydrostatic transmission. Tr. at 94 (Mr. Warburton) & 130 (Mr. Gilchrist). Thereafter, Sundstrand developed the BDU series and subcontracted production to Daikin while Eaton developed its transaxle. Although we have determined that the transaxle is not the same like product as the IHST, Eaton has stated that it has, over the past 12 to 18 months, sought to replace sales of IHSTs with sales of transaxles, thereby causing sales of its older IHST models to decline. Tr. at 76-77 (Mr. Cullen).

^{4/} Report at A-32 (Tables 14 & 15). While these percentage increases are large, the rate of growth reflects the fact that imports first entered the U.S. market in late 1986 and,
(continued...)

percentage of U.S. apparent consumption, growing from [****] in 1985 to [***] percent in 1986 and [***] percent in 1987. Imports' market share increased too, rising from [***] percent in interim 1987 to [****] percent in interim 1988.^{5/} I determine, however, that these increases are not attributable to dumping. The record makes it clear that consumers are increasingly turning to vertical-shaft IHSTs, a fact that accounts for the increases in relative and absolute terms of imports.

Examining the effect of the subject imports on the prices in the United States for the like product, I find that, despite the sharp rise in import volume and the number of OEMs purchasing the imported product, there has been no

^{4/}(...continued)

therefore, 1987 was the first full year during which imports were entering the market. In addition, overall penetration was less than 10 percent in 1987 and exceeded that level only during the interim 1988 period, during which imports began to decline sharply.

As in the case of domestic producers, there were only two importers and, therefore, much of the data on import volume is confidential.

^{5/} Report at A-51 (Table 15). In evaluating the import data, we note that imports of BDU models by Sundstrand accounted for practically all of the imports over the period of investigation and that, as discussed above, all of the BDU models were designed for use with a vertical shaft. Despite this record of increases, imports of completed BDU units and even of the principal subassemblies of the BDU IHSTs ceased in mid-1988 and imports of parts and components for BDU units currently being assembled by Sundstrand in the United States have been declining steadily.

significant effect on U.S. prices.^{6/} More specifically, data were presented on average unit price ranges for (1) sales of greater than 50 units (per calendar year) and (2) all sales to OEMs.^{7/} With respect to each set of data, average unit price ranges reported for the U.S. product increased modestly in the case of two products and declined somewhat in the case of two other products.^{8/} Prices for imported products either increased or remained stable.^{9/}

The statute also directs us to determine whether there was significant price underselling by the subject imports.^{10/} Meaningful direct price comparisons between U.S.-manufactured IHSTs and the imported BDU IHSTs cannot be made, however, because the domestic products are designed for use with

^{6/} See 19 U.S.C. § 1677(7)(C)(ii)(II), as amended by the 1988 Act. Thanks to the efforts of the staff, the pricing data--as well as other data in this investigation--are extraordinarily complete, particularly for a preliminary investigation. For example, the report states that both U.S. producers, both importers, and eight OEMs accounting for the vast majority of purchases by OEMs in 1987 and 1988 (the period for which pricing data were requested and obtained) provided usable data, including price data, to the Commission in this investigation. Report at A-36.

^{7/} Report at A-36, A-36 (Table 16); id., Appendix E, Table E-2.

^{8/} Id.

^{9/} Id.

^{10/} 19 U.S.C. § 1677(7)(C)(ii)(I), as amended by the 1988 Act. See also USX v. United States, 12 CIT ____, __ F. Supp. __ (Sept 88 slip op); Copperweld Corp. v. United States, 12 CIT ____, 682 F. Supp. 552 (1988). Under the statute, any price underselling must be significant.

horizontal input shafts whereas the imports are designed to accommodate a vertical shaft.^{11/}

The lack of significant price effects is reflected also in the information on lost sales and lost revenues obtained in the investigation.^{12/} In [****] instance where Eaton alleged lost sales or lost revenues, information obtained indicated that a factor or factors other than the existence or price of the imported product were primarily, or at least equally, responsible for any lost sale or revenue.^{13/} As reported by purchasers, non-price factors that played an

^{11/} Report at A-36. The fact that these price comparisons could not be made for purposes of evaluating the existence of significant price underselling does not mean that adequate data were not obtained or that any additional data permitting such comparisons might have been obtained in a final investigation. To the contrary, the problem was not that complete data were not available, but rather that, due to the nature of competition between the imports and the domestically-produced IHSTs--viz., the nature of competition between horizontally-oriented and vertically-oriented IHSTs--such data simply do not yield meaningful comparisons.

^{12/} In most cases, I am concerned about the use of lost sales allegations because of the difficulties involved in collecting accurate data on the subject. See, e.g., Cold-Rolled Carbon Steel Plates and Sheets from Argentina, Inv. No. 731-TA-175 (Final) (Remand), USITC Pub. 1967 (March 1987). In this investigation, where there are a limited number of purchasers and where all sales were made either by Eaton or Sundstrand, I believe lost sales data are more useful. For another instance when I believed the use of lost sales data was appropriate, see Offshore Platform Jackets and Piles from the Republic of Korea and Japan, Inv. Nos. 701-TA-248 (Final) and 731-TA-259 and 260 (Final) (May 1986), USITC Pub. 1848.

With respect to the petitioner's allegations of lost sales and lost revenues, I note that Commission staff contacted all of the purchasers cited by petitioner. Report at A-39.

^{13/} Report at A-39.

important role -- collectively if not individually more important than price -- included (1) product design specifications, (2) performance, including durability and reliability, (3) manufacturer and product familiarity and track record in the industry, (4) interchangeability with other products, (5) technical support by the vendor, (6) manufacturer's willingness to adapt the product and ease of adaptation, (7) serviceability, and (8) delivery and lead times.^{14/}

Thus, I find no apparent relationship between the growth in import volume and trends in domestic prices and reports of lost sales or lost revenues.^{15/} Instead, it is the process of substitution in the domestic market, which Eaton acknowledged that it helped create and continues to foster,^{16/} that explains the price effects observed and the instances of lost sales or lost revenues. Since imports

^{14/} Report at A-39.

^{15/} Both Eaton and Sundstrand agree that light duty mechanical transmissions (MTs) play a limited role in IHST pricing, see Petition at 27 n.28; see also Sundstrand Post-Conference Brief at 33-36; Report at A-32; and Sundstrand stated that MTs and IHSTs compete head to head in the marketplace, are used interchangeably by OEMs, and share identical frames and mountings. Tr. at 131 (Mr. Gilchrist). See also Sundstrand Post-Conference Brief at 33 & n.16.

MTs account for approximately 80 percent of the market for all light duty transmissions, while IHSTs account for the remaining 20 percent. See Tr. at 37 (Mr. Finan). IHSTs' share of the market has doubled over the last five years, Petition at 29, and may climb to 50 percent of the light duty transmission market over the next five years. Tr. at 88 (Mr. Warburton).

^{16/} Tr. at 76-77 (Mr. Cullen).

consist of vertically oriented models and domestic production consists of horizontally oriented models,17/ it is the shift in consumer choice that accounts for any declines in the domestic industry.18/ The facts gathered in this investigation thus lead me to conclude that there is no reasonable indication that the domestic IHST industry is suffering material injury by reason of unfair imports.

Even if I were to assume that the substitutability between the vertical and horizontal shaft IHSTs were higher and that sales of vertical-shaft IHST imports did affect sales of domestic, horizontal-shaft IHSTs, the level of imports is not sufficient in this case, given the strong performance of the domestic industry, to cause material injury to the domestic industry. As the Commission notes, the domestic industry in this case is quite healthy. Domestic consumption, production, and capacity utilization all increased strongly over the period of investigation.19/ Employment figures were mixed, but generally improved.20/ Sales and operating income were both at healthy levels throughout the period and were higher in 1987 than in

17/ Tr. at 14 (Mr. Warburton).

18/ See Lone Star Steel Company v. United States, 10 CIT ___, 650 F. Supp. 183, 185-186 (1986).

19/ See Report at A-17 (Table 4), A-19 (Table 5).

20/ See id. at A-25 (Table 9).

1985.^{21/} In an investigation where the vast majority of indicators point to a domestic industry that is doing very well, I believe that import volume and the effect of the unfair imports on domestic prices and producers must be substantial to justify a finding that the domestic industry is suffering material injury caused by the unfair imports. A review of the facts leads me to conclude that this is clearly not the case in this investigation.

Although import sales increased throughout the period of investigation, they did not reach a level high enough to support the assertion that this healthy domestic industry is performing materially less well than it would be in the absence of unfair imports in the market.^{22/} In addition, imports had no significant effect on domestic prices,^{23/} and also did not affect production or the financial performance of the domestic industry. I conclude that even if sales of imported IHSTs did affect the domestic industry, the impact was not material, as evidenced by the domestic industry's strong, unfaltering performance. Thus, even under the above

^{21/} See id at A-27 (Table 11).

^{22/} Imports increased from [***] percent in 1986, their first year in the market, to [***] percent in 1987, and [****] percent for the first nine months of 1988. See Report at A-33 (Table 15).

^{23/} See id. at A-34 - A-39. See supra notes 10-11 and accompanying text. In addition, it appears that domestic horizontal-axis IHSTs could not replace vertical-axis IHSTs immediately, so the effect of increasing the price of imported IHSTs would not necessarily mean that those sales would be replaced by domestic IHSTs.

set of assumptions, I find no reasonable indication that the domestic industry is suffering material injury by reason of unfair imports.

DISSENTING VIEWS OF COMMISSIONER CASS

Light Duty Integrated Hydrostatic Transmissions
and Subassemblies Thereof, With or Without
Attached Axles, from Japan

Inv. No. 731-TA-425 (Preliminary)

I dissent from the negative determination reached by the Commission in this investigation. The facts presently on the record in this investigation can plausibly be understood to suggest an injury from the imports subject to investigation that lies well within the boundaries that have defined material injury in previous preliminary investigations. In light of the legal standard that governs the disposition of preliminary investigations, this matter should be allowed to proceed to the next stage of investigation, at which the Department of Commerce would evaluate the existence of sales of imports of light duty hydrostatic transmissions at less than fair value. My reasons for this determination are set forth below.

I. Legal Standard Governing Disposition of Preliminary Investigations

Our reviewing courts have made it plain that Congress intended to "weight the scales in favor of affirmative and against negative determinations" in preliminary investigations

under Title VII of the Tariff Act of 1930.^{1/} This intention is manifest in the Congressional direction that the Commission reach an affirmative determination whenever there exists a "reasonable indication" that an industry in the United States has been materially injured, or is threatened with material injury, or that the development of an industry in the United States has been materially retarded, by reason of imports that have allegedly been sold at less than fair value (LTFV or "dumped") or subsidized.^{2/}

Commission interpretation of this statutory language, approved by our reviewing courts,^{3/} has been that it is appropriate to reach negative determinations in preliminary investigations only when the record as a whole plainly does not support a determination that an industry has suffered material injury by reason of the assertedly unfairly traded imports and, further, there is very little likelihood that sufficient supporting evidence will be presented to reach a different conclusion in a final investigation.^{4/} As I have previously

^{1/} American Lamb Co. v. United States, 785 F.2d 994, 1001 (Fed. Cir. 1986); see also Yuasa-General Battery Corp. v. United States, slip op. 88-89 (Ct. Int'l Trade, July 12, 1988), at 5.

^{2/} 19 U.S.C. §§ 1671b(a), 1673b(a). For the purposes of this discussion, the term "injury" also encompasses material retardation.

^{3/} See American Lamb, supra; Yuasa-General Battery Corp., supra.

^{4/} See American Lamb, supra n. 1, 785 F.2d at 994.

emphasized,^{5/} when the Commission reaches a negative determination, as it has in this case, it must be clear that the evidence supporting the petition does not, standing alone, amount to a reasonable indication of material injury or the threat of material injury, or that the contrary evidence is so clear and convincing that the evidence supporting the petition cannot be said to provide reasonable indication of injury.^{6/}

For that reason, the preponderance of the evidence need not be in favor of a petitioner in a preliminary investigation before an affirmative determination may be reached.^{7/} Put differently, substantially less than a fifty percent probability of such a final determination will constitute a reasonable indication of injury by reason of unfairly traded imports.^{8/} Necessarily, then, the standard to be applied in preliminary investigations must be considerably less stringent than that applied in a final investigation. While the evidence before us might not support an affirmative determination were this a final investigation, I believe it does satisfy the evidentiary standard for preliminary investigations.

^{5/} New Steel Rails from Canada, Inv. Nos. 731-TA-297 and 731-TA-422, USITC Pub. 2135 (Preliminary) (November 1988) (Additional Views of Commissioner Cass).

^{6/} Id., at 30.

^{7/} Id., at 21.

^{8/} Generic Cephalixin Capsules from Canada, Inv. No. 731-TA-433 (Preliminary) USITC Pub. 2143 (December 1988) (Additional Views of Commissioner Cass), at 41.

II. Domestic Like Product/Domestic Industry

To determine whether the allegedly LTFV imports have materially injured "an industry in the United States,"^{9/} we must begin by identifying the industry to be examined. The statute defines that industry as the producers of the product "like, or in the absence of like, most similar" to the imports subject to investigation.^{10/} This definition presents two sorts of issues: what product constitutes the domestic "like product" and who counts as a domestic producer of that product.

The parties to this investigation agree that the appropriate like product definition in this investigation is light duty integrated hydrostatic transmissions ("IHSTs").^{11/} Furthermore, the characteristics of light duty IHSTs are not, broadly speaking, a matter of dispute.^{12/} The parties do, however,

^{9/} 19 U.S.C. § 1673b(a)(1).

^{10/} 19 U.S.C. § 1677(10).

^{11/} Petition at 12; Sundstrand Post-Conference Br. at 8. This accords with the scope of the investigation as defined by the Department of Commerce, defined as "light duty integrated hydrostatic transmissions and subassemblies thereof, with or without attached axles." Department of Commerce, Initiation of Antidumping Duty Investigation (December 12, 1988).

^{12/} Hydrostatic transmissions come in a variety of capacities, grouped under the labels "light duty," "medium duty," and "heavy duty." The distinctions between these groups rest principally on four criteria: input or output horsepower, expected operating life, principal use of the vehicle in which the IHST is to be installed, and price. Petition at 12; Sundstrand Post Conference Br. at 8. Light duty IHSTs usually are designed to accept no more than approximately 20 horsepower from the vehicle engine, have a maximum expected operating life of less than 1000 hours, are used principally in riding lawn mowers and lawn and garden tractors

seriously contest two like product issues. First, the parties differ as to whether Respondent Sundstrand-Sauer's Model 15 should be included within the definition of the like product; and second, they disagree as to whether Petitioner Eaton's products which include a transaxle attached to the IHST should be included within the definition of the like product. Under the criteria traditionally used by the Commission,^{13/} and I believe properly,^{14/} Sundstrand-Sauer's Model 15 IHST should, and Eaton's transaxle IHST models should not, be included within the like product definition.

A. Like Product Issues

i. Sundstrand-Sauer's Model 15.

which are limited- or non-ground engaging, and cost at least \$200 less than any heavier duty IHST. Medium duty IHSTs are designed for heavier work, including ground-engaging tractors. Report at A-3.

^{13/} The Commission generally considers, among other factors, the following in analyzing like product issues: characteristics and uses, customer or producer perception, the existence of common manufacturing facilities and production employees, common production processes, channels of distribution, interchangeability of the products, and price. See, e.g., Asociacion Colombiana de Exportadores De Flores, et. al. v. United States et al., 693 F. Supp. 1165, 1169; see also Certain All-Terrain Vehicles from Japan, Inv. No. 731-TA-388 (Preliminary), USITC Pub. 2071 (March 1988); Color Picture Tubes from Canada, Japan, the Republic of Korea, and Singapore, Inv. Nos. 731-TA-367-370 (Final), USITC Pub. 2046 (December 1987).

^{14/} See, e.g., New Steel Rails, supra, at 32; Certain Brass Sheet and Strip from Japan and the Netherlands, Inv. Nos. 731-TA-379 and 380 (Final), USITC Pub. 2099 (July 1988) (Dissenting Views of Commissioner Cass), at 58; 3.5" Microdisks and Media Therefor from Japan, Inv. No. 731-TA-389 (Preliminary), USITC Pub. 2076 (April 1988) (Additional Views of Commissioner Cass) at 49.

Sundstrand-Sauer produces its Model 15 IHST in the United States; however, it imports all its other IHSTs (the BDU model from Japan, and those are the principal imports subject to this investigation. Petitioner Eaton Corp. argues that Sundstrand-Sauer's domestically-produced Model 15 IHST should be considered a medium duty IHST, and thus outside the scope of the like product definition. It advances several arguments to support this claim. First, Eaton Corp. argues that the Model 15 has, in one application, been shown to be capable of accepting an input horsepower of 24, above the level normally regarded as typical of light duty IHSTs.^{15/} Second, Eaton argues that the unit has a "significant additional capacity and function" when compared with light duty IHST's, in particular the capacity to deliver "sustained pushing force for plowing, trenching or other ground-engaging functions."^{16/} Third, Eaton argues that the unit sells for \$350 more than any imported model included in the investigation.^{17/} Finally, Eaton argues that the Model 15 is not marketed competitively with the imported BDU models which constitute the imports subject to investigation.^{18/}

Respondent Sundstrand-Sauer asserts that the Model 15 belongs in the light duty IHST category, contradicting Eaton's arguments. According to Sundstrand-Sauer, the Model 15 is

^{15/} Tr. at 73.

^{16/} Eaton Post Conference Br. at 4.

^{17/} Eaton Post Conference Br. at 4.

^{18/} Tr. at 74-77.

designed normally to accept between 5 and 18 input horsepower, and functions inadequately when used to accept a higher input horsepower.^{19/} Respondent also notes that this IHST is not an unusually heavy "work horse," having an average annual use well within the range for all light duty IHST's.^{20/} The Model 15, according to Respondent, is used in ways similar to other light duty IHST's, in particular in products designed basically to cut grass and not generally in products designed to engage the ground.^{21/} Finally Sundstrand-Sauer states that the Model 15 is priced comparably to other units of similar capability. Respondent specifically compares the Model 15 to one of the Petitioner's models, finding it similar on most grounds examined by the Commission.

The evidence of record strongly supports Respondent's argument that the Model 15 fits well within the light duty IHST like product. The Model 15 is similar in characteristics to the imported BDU's including characteristics such as horsepower capacity, to which the Petitioner directs our attention. According to material that Eaton itself submitted to the Commission, the Model 15 has a horsepower rating squarely within the accepted range of light duty IHSTs.^{22/} Its operating life is

^{19/} Tr. at 128.

^{20/} Tr. at 161; Petition at Exhibit 3, p. 2.

^{21/} Tr. at 160.

^{22/} See Petition, Exhibit 3. Eaton points out that one product in which the Model 15 generated a higher input horsepower than that which typically defines the boundary of the light duty IHST

comparable to that of other light duty IHSTs, a fact undisputed by Petitioner.^{23/} Similarly, the Sundstrand Model 15 is designed for use on a class of vehicles that generally incorporates light duty IHSTs.^{24/} While it is capable of supporting some ground-engaging uses, Eaton admits that its own light duty IHSTs also are capable of some ground-engaging uses.^{25/} Although the Model 15 does appear to command a premium over other light duty IHSTs, that premium does not appear to be so great as Petitioner suggests, nor would a price differential standing alone necessarily indicate that products are not sufficiently comparable from consumers' or producers' standpoints to be allocable to disparate product groups.^{26/} While the price of medium duty IHSTs typically exceeds that of light duty IHSTs by more than \$300, according to information collected by the Commission, the Model 15's price runs substantially below that, and indeed, sells for as little as [**] more than Eaton's closest

category. Sundstrand-Sauer retorts the product turned out to be inadequate for its intended application, and Eaton concedes that one of Eaton's own models has also been used in an application generating higher input horsepower than that same limit. Sunstrand-Sauer Post Conference Br. at 12; Eaton Post Conference Br. at 13. The parties agree, as it turns out, that the line between light and medium duty IHSTs is not completely straight when drawn solely on the basis of horsepower, end use, or any other single criterion. Tr. at 96, 50-53; Tr. at 127.

^{23/} Tr. at 127, 151.

^{24/} Petition at Exhibit 3.

^{25/} Eaton Post Conference Br. at 8.

^{26/} For example, a price differential between products may simply indicate that sales of the products are made in different unit sizes.

competing model.^{27/} Similarly, the Model 15 can be produced in the same manner and with the same facilities as other IHSTs, and it is sold through identical channels of distribution.^{28/}

Petitioner's remaining argument is that Respondent does not market the Model 15 as a product that directly competes with the subject imports. Taking this assertion as true, and even crediting it as establishing the absence of complete competition between the Model 15 and the BDU models imported by Respondent, this alone does not provide a basis for excluding the Model 15 from the like product category. Within the like product category are IHSTs that are distinguishable in some respect from one another and from the subject imports. The definition of a like product does not, however, require exact identity of products within a single category. Rather, it requires, first a substantial comparability of products from both consumer and producer perspectives and, second, where such comparability exists as between some products but not others within the relevant category, that no clear, cogent dividing line is available to segregate the products into more fully comparable subsets.^{29/} Thus, having failed to distinguish the Model 15 from

^{27/} Report at A-37.

^{28/} Tr. at 40.

^{29/} Forged Steel Crankshafts from the Federal Republic of Germany and the United Kingdom, Inv. Nos. 701-TA-282 and 731-TA-350-353, USITC Pub. 2014 (September 1987); Erasable Programmable Read-Only Memories from Japan, Inv. No. 731-TA-288 (Final), USITC Pub 1927 (December 1986); Certain Radio Paging and Alerting Devices from Japan, Inv. No. 731-TA-102 (Final), USITC Pub. 1410 (August 1983).

other light duty IHSTs, Petitioner cannot support exclusion of the Model 15 from the like product simply by showing that differences exist between that model and the imports. Other particular products included within Petitioner's proffered definition of the like product also differ in some respects from the imports. All, including the Model 15, fall on the same side of the dividing lines readily available to us.

No convincing distinction can be drawn between the Model 15 and models accepted by Petitioner as within the category of light duty IHSTs. For that reason, I regard the Sundstrand-Sauer Model 15 as within the like product definition of light duty IHSTs for purposes of this investigation.

ii. Eaton's Transaxle Models

Eaton IHSTs that incorporate a transaxle, however, are distinguishable and should not be included within the like product definition in this investigation. Petitioner Eaton Corp. argues that light duty IHSTs and its light duty hydrostatic transaxle ("IHSTA") constitute one like product because IHSTs and IHSTAs "share the same performance parameters, uses, customers, and channels of distribution as competitive IHSTs with axles attached by the OEM's."^{30/} Furthermore, Petitioner contends that the exclusion of transaxles from the like product definition would allow Japanese exporters to evade any antidumping duty

^{30/} Eaton Post-Conference Br. at 13. An OEM is an original equipment manufacturer of products in which IHSTs are used as inputs, for example a manufacturer of a riding mower.

imposed against light duty IHSTs.^{31/} Respondent argues that Eaton's IHSTA is not the same like product as an IHST because the IHSTA performs additional functions,^{32/} contains additional parts,^{33/} is larger, substantially more costly to produce, and serves a different function than light duty IHSTs.^{34/}

In my view, Respondent has much the better of the argument. Petitioner's contention that IHSTAs share a variety of characteristics with IHSTs once those IHSTs have had an axle attached to them is quite different from saying that IHSTs are sufficiently comparable with IHSTAs to constitute a single like product. IHSTs and IHSTAs are clearly different products with different uses, different customer perceptions, different production facilities, and different channels of distribution. The transaxle is a substantially more complicated product than is an IHST alone. The IHSTA is based on a different design, and contains different and additional components than an IHST alone; it is designed to transmit power to the wheels of a vehicle, while an IHST is not^{35/}; customers regard the IHSTA as comparable to an IHST bolted to an axle, but not to an IHST alone^{36/}; and

^{31/} Eaton Post Conference Br. at 15.

^{32/} Tr. at 137.

^{33/} Tr. at 15, 18, 78, 114, 137.

^{34/} Sundstrand Post Conference Br. at 25; Tr. at 139 and 156.

^{35/} Tr. at 158.

^{36/} Report at A-35; Tr. at 113, 115.

IHSTAs are not comparable in price to IHSTs.^{37/} From the point of view of a producer, the transaxle is also quite different than an IHST; the parts in an IHSTA are not interchangeable with those in an IHST.^{38/} In short, the lines between these two products seem to be reasonably clear from both consumers' and producers' perspectives, and I accordingly believe these products should not be in the same like product category for purposes of this investigation.

There also seems to be little basis for Petitioner's concern that the affected exporters will evade any antidumping order by entering into production of transaxles; the design and production of such products is a costly process which consumes at least a year or more of planning and design, and the production of new models apparently depends on the acquisition of at least some new specialized machine tools, thus requiring substantial additional investment.^{39/} There is no indication in the record that they are planning the production of transaxle models; Petitioner has offered no such evidence. Petitioner's generalized concern is an insufficient basis for the step proposed.

B. Domestic Industry and Related Parties.

Petitioner also contends that Respondent Sundstrand-Sauer Corp. should be excluded from the domestic light-duty IHST

^{37/} Report at A-33, A-37; see also Report, Tables 18-21.

^{38/} Tr. at 16.

^{39/} Report at A-11.

industry because it imports its BDU model IHSTs from Japan, where they are produced under contract with Sundstrand-Sauer by Daikin Industries, Ltd. The "related parties" provision of the statute^{40/} permits the Commission in "appropriate circumstances" to exclude from the domestic industry any producers(s) which are "related to the exporters of importers, or are themselves importers, of the allegedly . . . dumped merchandise."^{41/} We must therefore determine if the "appropriate circumstances" exist to exclude Respondent from the domestic industry.

I conclude that those appropriate circumstances do not exist in this case, and that Respondent is therefore part of the domestic industry which has allegedly been materially injured by LTFV imports. The purpose of the provision is to prevent a domestic firm from being included in the industry when it is a beneficiary of the assertedly offending import practices and is shielded from competition with the imports.^{42/} It is not enough that a "relationship" exists between the foreign and domestic firms, or that the domestic firm acts as an importer; it must also be established that the relationship or importation protects the domestic producer from the adverse effects of the unfairly

^{40/} 19 U.S.C. § 1677(4)(B).

^{41/} *Id.*

^{42/} S. Rep. No. 249, 96th Cong., 1st Sess. 83 (1979). See also *Empire Plow Co., Inc. v. United States*, 675 F. Supp. 1348, 1353 (Ct. Int'l Trade 1987); *Butt-Weld Pipe Fittings from Brazil and Taiwan*, Inv. Nos. 731-TA-308 & 310 (Final) at 9-10.

traded products, as it would if the imports were directed solely to U.S. markets in which the domestic firm did not compete.

The parties have joined issue over the application of this test. Eaton argues that both aspects of the "appropriate circumstances" exist for the Commission to exclude Sundstrand from domestic industry data because Sundstrand has derived "substantial benefit" from its imports and because the licensing agreement shields Sundstrand from the impact of the alleged dumping.^{43/} Eaton argues that Respondent benefits from the alleged dumping in two ways. First, Sundstrand has increased control over the IHST market, as it can dictate "the price, marketing, and applications of all the dumped product" in the U.S.^{44/} Second, Sundstrand receives royalties from the Daikin's domestic sales.^{45/} Moreover, according to Eaton, the "dumping campaign has been calculated precisely to protect not attack" the Model 15 which Sundstrand produces in the United States.^{46/} For its part, Sundstrand points out that it participates fully in the domestic industry, that it licensed the production of BDU models in Japan only pending development of capacity for U.S. production of those models, that it accounts for approximately half of the domestic industry, that its primary interest is in domestic

^{43/} Eaton Post Conference Br. at 18, 21-24.; Tr. at 57, 74-77.

^{44/} Eaton Post Conference Br. at 19-20 & 22.

^{45/} Eaton Post Conference Br. at 21.

^{46/} Eaton Post Conference Br. at 23.

production, and that it is unrelated to Daikin, maintaining separate records and reaching separate commercial decisions.^{47/}

It seems clearly to be the case that Sundstrand-Sauer entered into a contractual relationship with Daikin Industries to enable Sundstrand-Sauer to compete in the domestic product with a product it was considering whether to produce domestically, and not because its own products were immune from competition with the imported product. The Model 15, as I have argued above, does compete with other light duty IHSTs, and thus with the BDU units that Sundstrand-Sauer imports from Daikin.^{48/} Further, the evidence suggests a conclusion that the Sundstrand-Daikin relationship was not intended as a substitute for domestic production by Sundstrand. Sundstrand is now engaged in development of production facilities in the United States, and has notified Daikin that it will cease importing BDU models in March of 1989.^{49/} Nor does it appear that even the temporary relationship was designed to secure for Sundstrand any benefits of dumping by Daikin. The contract between those firms was made in contemplation of the exchange rate prevailing at the time of

^{47/} Sundstrand Post Conference Br. at 15-16; Tr. at 110.

^{48/} See *supra*, at 5. Information received by the Commission indicates that the nature of competition between Sundstrand's Model 15 and the imported BDU models is no different than competition between Eaton's larger models such as the 11 and the 1150 and its small models such as the 6, 7, and 750. Report at A-3.

^{49/} Letter from Counsel for Daikin Industries, Ltd., to Kenneth R. Mason, USITC, December 14, 1988 reprinted at Report, C-3.

the contract,^{50/} and Petitioner does not allege that the contract price at the time the contract between Sundstrand and Daikin was formed in any way involved less than fair value sales. Rather, Petitioner alleges that the contract price became unfair as the exchange value of the U.S. dollar depreciated.^{51/} There is thus no reason to believe that the related party (Sundstrand-Sauer) imported the product principally to benefit from the unfair trade practice.

III. Causation of Material Injury

Having defined the relevant domestic industry effects on which are to be examined, the next task is to determine whether that industry has been materially injured by reason of the unfairly traded imports. In making this determination, Commissioners are directed by the Omnibus Trade and Competitiveness Act of 1988 specifically to address the three factors set forth in the statute^{52/}; the law also requires explanation of any other unlisted factor on which a Commissioner relies in reaching a determination in a Title VII investigation.^{53/} As I have frequently indicated in the past, I believe that the factors spelled out in the law suggest a three

^{50/} Report at A-13.

^{51/} Petition, at 1.

^{52/} 19 U.S.C. § 1677(7).

^{53/} Omnibus Trade and Competitiveness Act of 1988, Pub. L. No. 100-418, § 1328(1)(B)(ii), 102 Stat. 1107, 1205 (1988).

part inquiry into the effect on the domestic industry of the imports subject to investigation.^{54/}

The first part of this inquiry examines the extent to which the volumes and prices of the subject imports were affected by the alleged dumping. This inquiry incorporates the first of the statutory factors upon which the Commission is directed to rely, that is, the volume of imports of the merchandise under investigation. The volume of allegedly unfair imports and the price that will be charged for the imports are closely related, and the initial inquiry evaluates the relation of these factors to the asserted unfair trade practice. The second statutory factor, the effect of the subject imports on prices in the United States for like products, provides the focus for the second part of the inquiry. This part examines the effect of changes in the market for the subject imports on prices (and, correlatively, on sales) of the domestic like product. Examination of the relation between the imports and domestic like product, and the nature of the markets for the production and consumption of the domestic like product, is an essential step in this evaluation of the effect of the allegedly unfair imports on the prices of the domestic like product. Third and finally, the impact of these changes in prices and sales of the domestic like product on employment and investment in the domestic industry must be considered. Again, that is essentially coincident with the third statutory factor, the impact of the subject imports on domestic

^{54/} New Steel Rails, supra, at 35.

producers of like products, including explicit attention to the various indicia of such impact listed in Title VII as subsidiary factors pertinent to this determination.

In requiring that members of the Commission explain any other factor which enters into their analysis and determination in any investigation, the 1988 Act makes clear that Commissioners are not restricted solely to the listed statutory factors.^{55/} Certain other relevant economic factors, such as data pertaining to the volume of sales made by Respondent producers in their home markets and the dumping margins (the relative amounts by which ex-factory prices for sales of the subject product in the exporters' home markets exceed comparable prices for sales in the United States), enter into my analysis in Title VII cases. Their relevance has been explained fully in earlier investigations,^{56/} an explanation that will only partially be recapitulated in the following subsections of this opinion.

A. LTFV Imports

In order to understand the extent to which the volumes and prices of the subject imports were affected by the dumping alleged to have taken place, it is necessary to examine the magnitude of the dumping. For that reason, the LTFV margin is critical to the first part of an injury analysis.

^{55/} Omnibus Trade and Competitiveness Act of 1988, Pub. L. No. 100-418, § 1328(1)(B)(ii), 102 Stat. 1107, 1205 (1988).

^{56/} See, e.g., Generic Cephalexin Capsules from Canada, supra n. 8, at 56.

In this investigation, Petitioner has alleged that the prices of the subject imports substantially decreased as a result of the alleged unfair trade practices under investigation. Petitioner has alleged a weighted average dumping margin on the merchandise alleged to be sold at less than fair value of just under 100%. The dumping margin alleged by a petitioner generally will be the best evidence on that issue in a preliminary investigation.^{57/} Even if the Commission need not take the alleged margins on faith for the purposes of a preliminary investigation, those alleged margins must at least be given substantial credence in the absence of clear and convincing evidence to the contrary.^{58/}

In the instant investigation, there is considerable basis for questioning the alleged margins were the Commission free to

^{57/} Indeed, the legislative history of the Trade Agreements Act of 1979 makes clear that, in preliminary investigations in antidumping cases, the Commission "will be guided by the description of the allegation of the margin of dumping contained in the petition or as modified by . . . [Commerce]." Statement of Administrative Action, Trade Agreements Act of 1979, at 415. See also Martial Arts Uniforms from Taiwan, Inv. No. 731-TA-424, USITC Pub. 2148 (Preliminary) (December 1988) (Additional Views of Commissioner Cass), at 22.

^{58/} This is consistent with the Commission's practice in preliminary investigations, approved by our reviewing courts, to view evidence in a light favorable to petitioners, drawing inferences adverse to petitioners' case only where the opposing evidence clearly and convincingly supported the contrary proposition. See American Lamb Co v. United States, 785 F.2d 994, 1001 (Fed. Cir. 1986); Certain Welded Carbon Steel Pipes and Tubes from the Republic of Korea and Taiwan, Inv. No. 7310TA-131 and 132 (Preliminary), USITC Pub. 1324 (June 1983); Canned Mushrooms from the Peoples' Republic of China, Inv. No. 731-TA-115 (Preliminary) (December 1982). See also Yuasa-General Battery Corp. v. United States, slip op. 88-89 (Ct. Int'l Trade, July 12, 1988), at 5.

do so. Certainly, the dumping margins alleged in the petition have been calculated in a manner that does not inspire confidence in their reliability. For one thing, Petitioner has used as the sales price in the United States the price charged by Sundstrand-Sauer to original equipment manufacturers (OEMs), and then subtracted an imputed estimated mark-up, rather than the price charged by Daikin to Sundstrand-Sauer itself, although Petitioner has acknowledged that Sundstrand-Sauer is "the first unrelated purchaser" in the United States.^{59/} For another, cargo loading fees and ocean transportation costs per exported unit have been calculated using essentially arbitrary numbers of units, and a cost already expressed in dollars apparently was reduced by a factor of .61 to account for a (not appropriate, given the use of dollar values as a starting point) conversion from yen to dollars.^{60/} The United States custom fee per unit was apparently incorrectly calculated.^{61/} In estimating the costs of transportation and sales in Japan, Petitioner stated that it has "conservatively" used the lowest possible figures, resulting in the highest possible estimates of ex-factory prices to Japanese OEMs and thus probable overestimates of the LTFV margins. And the Japanese yen to United States dollar exchange rate used in

^{59/} Petition at 37. 19 U.S.C. § 1677a(b) states that "the term 'purchase price' means the price at which merchandise is purchased, or agreed to be purchased, prior to the date of importation, from the manufacturer or producer of the merchandise for exportation to the United States."

^{60/} Petition at 39.

^{61/} Petition at 39-40.

the calculations was the average exchange rate over the period for which the dumping calculation was made,^{62/} though long term contract relationships between Daikin and Sundstrand-Sauer may have made it more appropriate to use the exchange rate expected at the time the contract was formed as more relevant to the contract price; this point was not addressed by Petitioner, though it may have dramatically affected the calculated dumping margin.

Despite these concerns, even if the law does not mandate that alleged margins be treated as the best evidence on that issue, I feel constrained to accept the margins alleged by Petitioner for purposes of this preliminary determination. For one thing, the record evidence is insufficient to support a conclusion that there is no basis for Petitioner's margin calculations. For another, Respondent has failed to challenge the alleged margins, raising the possibility that Respondent accepts those alleged margins as factually accurate. Under these circumstances, it is appropriate to conclude that the alleged margins remain the best available evidence of what the actual margins would be if the Commerce Department had the opportunity independently to calculate them.

The dumping margin alone, however, is insufficient to determine the extent to which the exporter's price is lower, and the volume of imports consequently higher, in the United States than it would be in the absence of the alleged unfair trade

^{62/} Petition at 35.

practice. As explained elsewhere, the decline in the price of the dumped imports that occurs as a result of dumping, while related to the facts subsumed within the dumping margin, generally will be less than the full amount of the dumping margin.^{63/} In any case where the differential pricing that constitutes dumping has occurred, the actual decrease in the price of the subject imports that occurred due to dumping, as a percentage of the dumping margin, will be related to the proportion of the sales of the subject foreign producers in their combined U.S. and home markets accounted for by sales in their home markets.^{64/}

Unfortunately, in this investigation evidence essential to that inquiry is not available. Daikin Industries, Ltd., of Japan, the manufacturer of the subject light duty integrated hydrostatic transmissions in Japan, has declined to make information on their sales within Japan available to the Commission.^{65/} It is therefore impossible to discern accurately

^{63/} See, e.g., Certain Internal Combustion, Industrial Forklift Trucks from Japan, Inv. No. 731-TA-377 (Final), USITC Pub. 2082 (May 1988) (Additional Views of Commissioner Cass), at 131; see also USITC Memorandum EC-L-143 (May 6, 1988) from Office of Economics at 10.

^{64/} See, e.g., Granular Polytetrafluoroethylene Resin from Japan, Inv. No. 731-TA-385 (Final), USITC Pub. 2112 (August 1988) (Additional Views of Commissioner Cass) at 74; Certain Bimetallic Cylinders from Japan, Inv. No. 731-TA-383 (Final), USITC Pub. 2080 (May 1988) (Additional Views of Commissioner Cass) at 44.

^{65/} Daikin Industries, Ltd., is not the only Japanese producer of light-duty IHSTs named in the petition. Kayaba Industry Co., Ltd., and Kawasaki Heavy Industries, Ltd., are also named. However, they are of little actual relevance to the determination in this investigation. Although Kawasaki was mentioned in the

the degree to which Daikin's home market price would have been lower, or its U.S. price higher, in the absence of dumping. In such circumstances there is a reasonable possibility that the alleged dumping margin lowered the domestic price of the subject imports by a substantial amount, possibly as much as the full amount of the dumping margin.^{66/} For purposes of this preliminary investigation, then, without evidence to the contrary, we may assume that the full weighted average dumping margin is reflected in a reduction of the U.S. price of the subject import. Given the very substantial margins, this indicates a significant reduction in price and increase in volume of imports. This conclusion is consistent with a dramatic increase in the volume of imports actually reported during the period covered by the Petitioner's allegation of dumping, a more than three-fold increase.

B. Domestic Prices and Sales

The second part of the Title VII inquiry concerns the effect of these apparent changes in the market for the subject imports

petition, the company has no known exports of light duty IHSTs to the United States, nor does it have any known plans to export the product. Report at A-48. Kayaba plays at best a minor role in the United States market. Of total light duty IHSTs exported from Japan to the United States, Kayaba accounted in 1987 for less than [**] of the total units sold. Report at A-31, A-33.

^{66/} See Martial Arts Uniforms from Taiwan, Inv. No. 731-TA-424 (Preliminary) (Additional Views of Commissioner Cass), at 7. This treatment also is consistent with general Commission practice to use the Petitioner's allegations as the best evidence available in the absence of evidence to the contrary supplied by Respondents. See American Lamb, supra n. 5, at 1001.

on prices and sales of the domestic like product. The evidence of record in this investigation strongly supports an inference that, given a decline in the price of the subject imports in the United States of the magnitude suggested above, the demand for the U.S. like product declined significantly as a result of competition from the allegedly dumped import. The evidence suggests that this decline in demand was reflected both in a relatively small decrease in the prices at which the domestic like product sold and a substantial decrease in the sales of the U.S. like product.

The record provides a fairly good picture of how the market for IHSTs operates. The demand for any particular light duty IHST model appears to be tied closely to the demand for the final product within which it is used. Each product in which an IHST will be used is designed to incorporate the characteristics of a particular transmission unit, and that design process generally takes between one and five years.^{67/} For that reason, a formal price quotation is generally requested only from the IHST supplier previously selected by the OEM. The selection of the transmission supplier need not take place at the outset of the design process, and indeed often takes place toward the end of that process; but once selected, that supplier generally will contract to provide the IHST at the quoted price for the period during which the product within which the transmission is included is produced.^{68/}

^{67/} Report at A-35.

^{68/} Report at A-35.

Competition thus takes place during the design process through informal negotiation prior to the formal quote. The parties to this investigation agree that the imported Daikin BDU units compete against the domestically-produced Eaton light duty IHSTs.^{69/} Though price is only one of the variables that determines the choice among suppliers,^{70/} nevertheless price is likely to play an important role in the competition among the products incorporating the transmissions.

The role of price in competition among IHSTs is in part derivative of the price sensitivity of demand for the more desirable, more expensive range of garden tractors, yard tractors, and front engine lawn mowers. Machines incorporating IHSTs, as compared to mechanical transmissions, routinely incorporate a variety of luxury features.^{71/} Because of the luxury quality of the products incorporating IHSTs, and because of the direct price competition afforded by products using mechanical transmissions, the demand for products using IHSTs is likely to be rather responsive to price.^{72/} Given the relationship between the demand for transmissions and for the

^{69/} See, e.g., Report at A-7 (indicating that both Eaton and Sundstrand-Sauer consider the Sundstrand-Sauer BDU models, which are imported from Japan, to be directly competitive with Eaton's domestically produced models 6, 7, and 11).

^{70/} Report at A-35.

^{71/} See Report at A-8.

^{72/} Both Petitioner and Respondent have testified that competition with mechanical transmissions is likely to have a significant suppressing effect on IHST prices. See Petition at 27, n.28; Conference Tr. at 162-63.

products that incorporate them, consumers of IHSTs exhibit substantial responsiveness to price for IHSTs themselves, even though differences among IHST models -- which incorporate different horsepower, durability, and other performance characteristics -- are reflected in price variations for the disparate IHST models.

This conclusion is confirmed by evidence respecting the pricing decisions of IHST manufacturers and the considerations that have led OEMs to purchase one or the other of the competing IHST models. For example, [* * * * *]^{73/} [* * * * *]^{74/} [* * * * *]^{75/}

Even where more expensive transmissions have been selected, the record indicates buyers' sensitivity to the price of the competing IHSTs. [* * * * *]^{76/}

Significant competition between the Japanese imports and the Eaton models is also suggested by the coincidence between rapidly rising Japanese market share in the United States and rapidly diminishing U.S. producers' market share in the United States market. Between 1985 and 1987, the share of the U.S. market held by U.S. producers fell from [*] to [*]; over the same period, Japanese imports' market share rose in an exact mirror image of

^{73/} Report at A-38.

^{74/} Report at A-38.

^{75/} Report at A-38-39.

^{76/} Report at A-43.

the U.S. producers' experience, from [*] to [*].^{77/} While such evidence is at best suggestive, and cannot conclusively demonstrate a causal relationship between rising imports and diminishing U.S. market share, this evidence does indeed provide inferential support for the conclusion that Japanese imports are used by domestic OEMs as a substitute for domestically produced IHSTs.

There is, to be sure, some evidence in the record suggesting that the U.S. like product does not compete directly with the imported Japanese models. Respondent asserts that its BDU hydrostatic transmissions were designed instead to be directly competitive with mechanical transmissions and to offer a more efficient and price competitive alternative, and thus that its sales have expanded the market for Eaton's own IHST products.

Notwithstanding this assertion, the record as a whole strongly suggests that the subject imports do compete directly with domestic IHSTs and that prices and sales of the domestic like product were significantly affected by the terms of competition with Japanese imports. Evidence concerning the responsiveness of domestic IHST supply to prices of IHSTs, including the evidence of significant unused domestic capacity for IHST production, supports the inference that competition from the subject imports had its principal effect on sales rather than prices of the domestic product. Other evidence on changes in

^{77/} Report at A-33.

prices and especially of sales of domestic and imported IHSTs, noted above, is similarly consistent with this conclusion.

C. Investment and Employment

The third inquiry to which the governing statute directs our attention is evaluation of the effects that sales of LTFV imports have had on both the labor employed in the domestic industry and on the capital invested in that industry.^{78/} Again, the evidence provides a basis for reasonably believing that the unfairly traded imports have adversely affected the domestic industry.

To be sure, the evidence does not reveal that the effect of the dumping in the instant investigation has been so great as to cause an absolute decline in the levels of employment, profitability, and investment in the domestic industry. Both employment in and the financial indicators for the industry defined above have generally improved over the period of investigation. With respect to employment, the average number of production and related workers producing light duty IHSTs in the domestic industry rose by [*] from 1985, and declined slightly in 1988.^{79/} Hours worked by such workers rose by [*] from 1985 to 1987, and continued to rise in 1988.^{80/} Total compensation to production and related workers in this industry also increased by

^{78/} 3.5 Inch Microdisks from Japan, Inv. No. 7310-TA-389 (Preliminary) (additional Views of Commissioner Cass), at 71.

^{79/} Report at A-25.

^{80/} Id.

[*] from 1985 to 1987, and continued on this trend during 1988.^{81/} Financial performance was also positive in the industry. Aggregate net sales increased by [*] from 1986 to 1987, and operating income rose by [*] over that period. Operating profits, however, declined somewhat in the first nine months of 1988 as compared to the same period in the previous year.^{82/}

These generally positive industry trends coincide with expansion of the domestic IHST industry. Eaton's total production capacity in the light duty IHST sector [**] by some [**] between the first nine months of 1987 and the same period in 1988, while Sundstrand's own domestic capacity [**] by some [**] in that same period.^{83/} Capacity utilization similarly [**] over the period of investigation.^{84/} Eaton's total capital expenditures [**] from [**] in 1985 to over [**] in 1987. Sundstrand also made [**] investments during this period, though its level of investment [**] over the period of investigation.^{85/} This evidence seems to indicate that the industry was indeed willing to make [**] capital expenditures in response to perceptions that future prospects for the industry were strong.

While there can be no doubt that the domestic IHST industry is not a failing industry, the evidence of generally rising

^{81/} Id.

^{82/} Report at A-27.

^{83/} Report at A-19.

^{84/} [* * * *]

^{85/} Report at A-28.

trends in the industry should not be confused with an absence of material injury from the dumping alleged to have occurred, as the majority seems to have concluded in this investigation. I expand on this point in the succeeding section below.

For the moment, I address the evidentiary issue: if one does not equate material injury from the unfairly traded imports with gross changes in industry finances, there is ample basis for conclusion that the record contains a reasonable indication of the injury contemplated by law. The IHST industry quite obviously has been growing because the demand for the sort of "high-end" products that use such transmissions has been growing.^{86/} Increasing demand for riding movers and light garden tractors appears to have followed from increased affluence and an increasing demand for larger lawns and gardens and less arduous means of creating and maintaining them.^{87/} Projections of just this sort of change in demand for the "up-scale" end-products that employ IHSTs supported the domestic companies' decisions to invest in increased capacity.^{88/}

The domestic industry's performance has not, however, improved in similar measure with the expansion of U.S. consumption. The modest gains in industry performance, and the substantial erosion of industry market share, coincident with the dramatic growth in consumption of IHSTs provide some

^{86/} Report at A-17; Sunstrand-Sauer Post Conference Br. at 28.

^{87/} Report at 18.

^{88/} *Id.* at 23-26.

impressionistic support for concluding that industry employment and finances would have been higher in the absence of the sales of alleged LTFV imports. This conclusion is more strongly supported by the evidence of the allegedly LTFV imports' significant adverse effect on the domestic industry's sales and prices, which reasonably can be expected to translate into lower returns to those who are employed by or who have invested in the domestic industry than otherwise would have been enjoyed. I believe that the evidence of record more than meets the test for preliminary investigations.

This conclusion does not imply that the concept of material injury -- the extent of the subject imports' adverse effects on the domestic industry -- is unrelated to the industry's performance. I have indicated elsewhere that where industry performance is declining the materiality standard might be satisfied by a lower quantum of injury to the domestic industry by reason of LTFV imports than where industry performance is improving.^{89/} Consequently, even though some injury by reason of LTFV imports is apparent, and even though it might be at the margin of materiality under some circumstances, a Commissioner might make a negative judgment, concluding that the injury is not material under all the circumstances of a particular investigation. This possibility, however, is not relevant to the

^{89/} Certain Brass Sheet and Strip from Japan and the Netherlands, Invs. Nos. 731-TA-379 and 380 (Final), USITC Pub. 2099 (July 1988) (Dissenting Views of Commissioner Cass), at 76; Nitrile Rubber from Japan, Inv. No. 731-TA-385 (Final), USITC Pub. 2090 (June 1988) (Additional Views of Commissioner Cass) at 48-49.

instant investigation. Given the magnitude of the effects suggests by the evidence of record and the relatively low evidentiary standard applied in preliminary determinations, I do not believe there can be serious doubt that there is a reasonable indication of material injury from the allegedly LTFV imports. Further evidence might have supported a negative determination in a final investigation, but I do not believe such a decision can be supported in this preliminary investigation.

IV. Injury, Health, and Industry Trends

My colleagues have, however, reached a negative determination in this investigation, some of them in seeming contradiction to their positions in other recent investigations.^{90/} So far as I can divine,^{91/} their conclusion appears to rest on the existence of upward trends in the indicators of the domestic industry's financial health. If so, their efforts to draw conclusions about the existence of injury

^{90/} See, e.g., Industrial Belts from Israel, Italy, Japan, Singapore, South Korea, Taiwan, the United Kingdom, and West Germany, Inv. No. 701-TA-293-295 (Preliminary), USITC Pub. 2113 (August 1988) (Additional Views of Commissioner Rohr), which appeared to intimate that the mere possibility of additional information would suffice to justify an affirmative determination in a preliminary investigation. See also Shock Absorbers and Parts, Components and Subassemblies Thereof from Brazil, Inv. No. 731-TA-421 (Preliminary), USITC Pub. 2128 (September 1988) (Views of Commissioner Eckes) at 33; New Steel Rails from Canada, Inv. No. 731-TA-422 (Preliminary), USITC Pub. 2135 (November 1988) (Additional Views of Commissioner Eckes) at 17-18.

^{91/} Commission practice does not provide for circulation of the majority's Views to dissenting commissioners.

merely from the direction of such indicators are, I believe, inconsistent with the law.

At the outset, the text of the Tariff Act of 1930, as amended, provides no basis for a threshold test tied to industry health. The law declares that the International Trade Commission is to determine whether "an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of" imports determined by the Department of Commerce to have been sold (or, in preliminary investigations, alleged to have been sold) at less than fair value.^{92/} The sole issue committed to this Commission is whether the unfairly traded products have had, or threaten to have, a material adverse effect on a domestic industry or have materially retarded establishment of a domestic industry. There is no separate mandate to examine the health of the industry. There is no statutory precondition that the domestic industry be in decline.

In other investigations, support for the introduction of such a requirement has been predicated on an interpretation of "injury" to mean "poor health" and treating the phrase "by reason of" the relevant class of LTFV imports as though it were introducing a concept separate from injury.^{93/} This approach

^{92/} 19 U.S.C. § 1673.

^{93/} See, e.g., Internal Combustion Engine Forklift Trucks from Japan, Inv. No. 731-TA-377 (Final), USITC Pub. 2082 (May 1988), at 22-23:

In this case, almost all of the principal indicators of the

reads the statute as if it said: the Commission must determine, first, that a domestic industry is in ill health; and, in such instances as the Commission answers this question in the affirmative, second, that imports affect the health of the industry.^{94/} The statutory text does not, however, mandate separate inquiries; it asks the Commission to determine if there is material injury by reason of the LTFV imports. Injury appears to be used in the statute in its normal sense, as the nominative form of a transitive verb, connoting a change in condition consequent to some action. The dictionary definition of injury clearly frames its meaning in these terms.^{95/} The law's provision of both a subject (the imports found or alleged to have been sold at LTFV) and an object (an industry in the United States) for "injury" appears to provide ample evidence of congressional understanding that the term was used here in accord with its plain meaning.

economic condition of the domestic industry deteriorated substantially during the period of the investigation. Therefore, we find that the domestic industry producing standard-lift IC's is suffering material injury.

See also Nitrile Rubber from Japan, Inv. No. 731-TA-384 (Final), USITC Pub. 2090 (June 1988); Sewn Cloth Headware from the Peoples' Republic of China, Inv. No. 731-TA-405 (Preliminary), USITC Pub. 2096 (July 1988); Certain Electrical Conductor Aluminum Redraw Rod from Venezuela, Inv. No. 701-TA-287 and 731-TA-378 (Final), USITC Pub. 2103 (August 1988).

^{94/} See, e.g., Nitrile Rubber from Japan, supra n. 93.

^{95/} See, e.g., Webster's II New Riverside University Dictionary (1984), at 629: "Injury . . . A wrong or damage done to a person or to his or her property, reputation, or rights when caused by the wrongful act of another."

Of course, laws are not always perfectly consistent, and we must be alert to the possibility that the statute in some other provision qualifies the direct statement of the Commission's charge. Indeed, the Tariff Act does contain a separate provision elaborating the concept of material injury from dumped or subsidized imports.^{96/} One looks in vain, however, for textual evidence that any other provision introduced a separate "healthy industry" test into the direction we are given under Title VII. To the contrary, in defining "material injury" the statute evidences an understanding of the term injury as comprehending something other than an absolute decline and also as necessarily the product of some particular source of injury. For example, the statute does not direct the Commission to consider absolute changes in prices but instead directs the Commission to consider "the effect of imports of such merchandise [the assertedly LTFV imports] on prices in the United States for like products."^{97/} More pointedly, the statute instructs the Commission to consider whether sale of LTFV imports "prevents price increases which otherwise would have occurred."^{98/} Such language is very difficult to square with a notion of injury as incorporating a freestanding requirement that industry trends decline in absolute terms.

^{96/}See 19 U.S.C. § 1677(7).

^{97/} 19 U.S.C. § 1677(7)(B)(ii).

^{98/} 19 U.S.C. § 1677(7)(C)(ii)(II).

Moreover, the inclusion of "material retardation" in the same statutory provision as material injury as an alternative basis for an affirmative finding clearly signals congressional understanding that imposition of antidumping duties would be conditioned on a determination that dumped imports were having a material adverse effect on the domestic industry. Indeed, the very notion of material retardation is inimical to a requirement that the domestic industry experience an absolute decline.

Nor is it easy to square an interpretation of material injury tied closely to industry trends with the recent addition of an instruction that the Commission "evaluate all relevant economic factors . . . within the context of the business cycle and conditions of competition that are distinctive to the affected industry."^{99/} While use of industry trend information need not violate this statutory injunction, any simple requirement that an industry's financial performance improve over an arbitrarily selected period of time strongly suggests such a risk.^{100/} The results of a trend analysis are necessarily affected by the choice of base year against which one measures industry trends.^{101/} The Commission, however, does not examine

^{99/} See Omnibus Trade and Competitiveness Act of 1988, § 1328, amending 19 U.S.C. § 1677(7)(c)(iii).

^{100/} Heavy reliance on industry trends also risks basing affirmative decisions on negative industry trends that reflect business cycles or other conditions rather than the effects of LTFV imports.

^{101/} Nitrile Rubber from Japan, Inv. No. 731-TA-384 (Final) (Additional Views of Commissioner Cass), at 31-34.

alternative base years, relying instead, without explicit rationalization, on its custom of using a three-year investigation period. This period is, as others have noted,^{102/} considerably longer than the six-month period covered by the Department of Commerce's investigation into (or a petitioner's allegation of) dumping of the subject imports, making any relation to effects of LTFV imports questionable.^{103/} But the period covered by our investigation is far shorter than the business cycle may be for many industries. We should be especially hesitant to graft onto the statute a healthy industry tied to industry trends so soon after Congress has indicated its intent that our interpretation of Title VII be sensitive to factors such trends are apt to obscure.

Given the contrary indications in the text of the statute, we should not add a healthy industry requirement to Title VII unless, at a minimum, there is plain extra-statutory explication of a legislative understanding that the congressional enactment did impose this requirement. The legislative history is considerably more extensive and less clear than the statutory text, but it certainly cannot be said to contain anything even remotely resembling a plain statement of congressional intent to deny relief under Title VII of the Tariff Act of 1930 to industries that are harmed by dumped imports but that are

^{102/} Sewn Cloth Headwear supra n. 92 (Additional Views of Commissioner Eckes).

^{103/} A particularly clear example of this problem is the Commission's decision in Nitrile Rubber from Japan, supra n. 93.

nonetheless in good financial health.^{104/} Indeed, the sole clear statement on this matter, contained in a 1968 Report by the Senate Finance Committee, directly opposed such a requirement: "An industry which is prospering can be injured by dumped imports just as surely as one which is foundering although the same degree of dumping would have relatively different impacts depending upon the economic health of the industry."^{105/} Subsequently, in enacting the Trade Agreements Act of 1979^{106/} the Committee reiterated its concern that domestic industries not be denied relief simply because its fortunes may be improving relative to some earlier period.^{107/} The Court of International Trade has criticized the Commission for departing from this understanding:

[T]he ITC should not be engaged in a determination of whether an industry is "healthy." A "healthy" industry can be experiencing injury from importations and an "unhealthy" industry can be unaffected by importations. The purpose of the ITC's investigation is to determine whether imports are a cause of any effect on an industry which would amount to "material injury."^{108/}

^{104/} Light-Walled Rectangular Pipes and Tubes from Argentina and Taiwan, Inv. No. 731-TA-409-410 (Preliminary) (July 1988) (Additional Views of Commissioner Cass); Digital Readout Systems and Subassemblies Thereof from Japan, Inv. No. 731-TA-390, USITC Pub. 2081 (May 1988) (Additional Views of Commissioner Cass), at 19-22.

^{105/} S. Rep. No. 1385, 90th Cong., 2d Sess. pt. 2, at 11 (1968), reprinted in 1968 U.S. Code Cong. & Admin. News 4548-49.

^{106/} Pub. L. No. 96-39, Title I, § 101, 93 Stat. 176.

^{107/} S. Rep. No. 249, 96th Cong., 1st Sess. 87 (1979).

^{108/} Republic Steel Corp. v. United States, 591 F. Supp. 640, 649 (Ct. Int'l Trade 1984), Rehearing denied, 9 CIT 100 (1985), dismissed (Order of August 13, 1985).

I believe that the majority's disposition of this investigation is based on the same interpretation of law criticized by the court.

V. Conclusion

For the foregoing reasons, I determine that there is a reasonable indication that a domestic injury has been materially injured by reason of allegedly LTFV imports of integrated hydrostatic transmissions from Japan. I dissent from the Commission's contrary determination.

INFORMATION OBTAINED IN THE INVESTIGATION

Introduction

On November 22, 1988, a petition was filed with the U.S. International Trade Commission and the U.S. Department of Commerce by counsel on behalf of Eaton Corp., Eden Prairie, MN. The petition alleged that imports from Japan of light-duty integrated hydrostatic transmissions (with a maximum input of 20 or fewer horsepower) and subassemblies thereof, with or without attached axles, are being sold in the United States at less than fair value (LTFV), and that an industry in the United States is materially injured and threatened with material injury by reason of such imports.

Accordingly, effective November 22, 1988, the Commission instituted preliminary antidumping investigation No. 731-TA-425 under the applicable provisions of the Tariff Act of 1930 to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports of such merchandise into the United States.

Notice of the institution of the Commission's investigation and of a public conference to be held in connection therewith was given by posting the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the Federal Register of December 5, 1988 (53 FR 48987). 1/ The conference was held in Washington, DC, on December 14, 1988. 2/ The Commission voted on this investigation on December 29, 1988.

The Commission has not conducted previous and/or related investigations of the subject product.

The Product

Description and uses

A light-duty integrated hydrostatic transmission (light-duty IHST) is a device that changes the ratio between a vehicle's engine r.p.m. (revolutions per minute) and the r.p.m. of the vehicle's driving wheels, and allows the vehicle to move in either a forward or a reverse direction through the use of one or more hydraulic pumps and one or more hydraulic motors. The vehicle operator varies the engine-to-wheel r.p.m. ratio via a control lever connected to the transmission. The operator can select an infinite number of ratios within a given range by moving the lever. By controlling the engine-to-r.p.m. ratio, the vehicle operator may select the ratio that is optimal for a

1/ Copies of the Commission's and Commerce's notices are presented in app. A.

2/ A list of witnesses appearing at the conference is presented in app. B.

particular task. Light-duty IHSTs are used primarily on small riding lawnmowers and garden tractors. 1/

Light-duty IHSTs are generally connected to an axle assembly. The axle assembly is designed to transmit power from the IHST to the driving wheels of the vehicle. 2/

A light-duty IHST operates by use of a hydraulic pump which receives power from the vehicle engine. The engine has a rotating shaft (engine output shaft) that extends from the engine and, via a belt connected to a shaft on the IHST (IHST input shaft), drives the hydraulic pump. The pump moves hydraulic fluid under high pressure to a hydraulic motor in the IHST. The hydraulic motor drives a rotating shaft that in turn drives an axle assembly which transmits power from the IHST to the driving wheels of the vehicle. A hydrostatic transmission of the "integrated" type has the pump and motor enclosed in a common housing, and fluid is moved from the hydraulic pump to the hydraulic motor through channels within the system. A hydrostatic transmission of the "nonintegrated" type has the hydraulic pump and motor contained within separate housings which are located in different parts of the vehicle. Hydraulic fluid is moved from the pump to the motor through connecting hoses. All light-duty IHSTs sold by Eaton and Sundstrand-Sauer, the * * * U.S. producer and major importer, are of the integrated type, whereas nonintegrated IHSTs are commonly used for medium- and heavy-duty applications.

There are two major designs of light-duty IHSTs. One type relies on a "radial ball piston"-type hydraulic pump and motor. The pump used in this design moves hydraulic fluid through the system via rotation of a number of steel spherical pistons inside a metal ring-shaped device (cam ring). As the pistons rotate around the inside of the cam ring they displace fluid which is forced out of the cam ring and into a similar ring and piston assembly that acts as a motor. The pressurized fluid forces the pistons in the motor to rotate. These pistons in turn rotate the shaft that directs power to the vehicle axle assembly. Vehicle speed and direction are controlled by adjusting the amount and direction of the flow of hydraulic fluid from the pump. The radial ball piston design is used on all Eaton light-duty IHSTs.

1/ According to the Outdoor Power Equipment Institute (OPEI), a small riding lawnmower (sometimes referred to as a front engine lawn tractor) is generally designed for mowing lawns and is not capable of pulling a plow. A garden tractor (sometimes referred to as a riding garden tractor) is used for general purpose lawn and garden work and is capable of pulling a plow. Any vehicle attachments must be removable. The industry recognizes the term "yard tractor" as a more powerful riding lawnmower, although this is not an official OPEI classification.

2/ Some uses for light-duty IHSTs such as machine tools do not require an axle assembly. However, the overwhelming majority of light-duty IHSTs are used on vehicles, for which an axle assembly is essential. No OEMs contacted use light-duty IHSTs without axles.

The second type of design relies on an "axial piston"-type hydraulic pump and motor. The pump used in this design moves fluid through the system via a number of cylindrical-shaped pistons that move back and forth within a rotating steel block. The back and forth movement of the pistons pumps hydraulic fluid to the IHST motor, which consists of a similar cylindrical piston assembly. The pressurized fluid forces the pistons in the motor to move back and forth, forcing the rotation of a shaft that directs power to the axle assembly of the vehicle. Vehicle speed and direction are controlled by adjusting the amount and direction of the flow of hydraulic fluid from the pump. The axial piston-type design is used in * * * light-duty IHSTs produced or sold by Sundstrand-Sauer.

Subassemblies of IHSTs.--The primary subassemblies for a light-duty IHST are the hydraulic pump, the hydraulic motor, and the housing within which both the pump and motor are contained. As noted, the pump and motor are of either a radial piston design (as used in all of Eaton's light-duty IHSTs and light-duty IHST/axle combinations), or an axial piston design (as used in * * * Sundstrand-Sauer's light-duty IHSTs).

IHST/axle assemblies.--Light-duty IHSTs are generally connected to an axle assembly that transmits power to the driving wheels of the vehicle. In most cases, the IHST and the axle assembly can be considered as separate components. For example, the manufacturer of a vehicle using a light-duty IHST can purchase the complete, self-contained IHST separately from the axle assembly, which may be purchased from, or produced by, a firm different from the IHST supplier. Eaton, however, now manufactures several models of light-duty IHSTs with an axle assembly integrated into the IHST system (transaxle). Eaton's Models 750, 850, 770, 780, and 1150 represent such assemblies. These transaxles are not, however, Eaton's Models 6, 7, and 11 IHSTs connected to an Eaton-produced axle assembly. Instead, the transaxles (particularly the Model 750, 850, 770, and 780) are highly integrated systems and represent substantially redesigned products without the traditional separation between a self-contained IHST and an axle assembly.

Applications.--IHSTs are also produced for medium- and heavy-duty applications. There is no simple definition of "light-duty," "medium-duty," or "heavy-duty" with respect to IHSTs. However, representatives of U.S. producers of IHSTs, in discussions with staff, generally classified an IHST as light-duty on the basis of the following criteria. First, light-duty IHSTs generally are not designed to accept an input of more than approximately 20 horsepower from the vehicle engine. Secondly, and related to the first criterion, the primary use of light-duty IHSTs is on small riding lawnmowers and garden tractors that generally have engines producing approximately 20 horsepower or less. In many cases, and particularly for riding lawnmowers, the input horsepower from the engine to the IHST is substantially less than the actual horsepower rating of the engine. This is because a portion of the engine's power is often used to drive vehicle accessories such as the mower blades on a riding lawnmower. ^{1/} Thus, even a vehicle with over 20 horsepower

^{1/} It is common for 60 to 75 percent of the horsepower of an engine to be directed toward accessory equipment rather than the light-duty IHST.

might use a light-duty IHST if the engine power is also used to drive accessory equipment. 1/ Similarly, the operating life of an IHST is largely a function of input horsepower and operating time; that is, an IHST designed to accept a maximum of 20 horsepower would have a relatively short operating life if it routinely received an input of 20 horsepower versus, for example, 10 horsepower. Finally, the vehicles that use light-duty IHSTs are used primarily for applications that involve non-ground-engaging, or only limited ground-engaging operations such as plowing or digging. 2/ Medium- and heavy-duty IHSTs, on the other hand, are used primarily on heavier vehicles such as skid steer loaders, large road rollers, harvesters, hay cutters, combines, cement trucks, and other heavy agricultural and construction equipment. 3/

Sundstrand-Sauer's model 15-U--Eaton Corp., the petitioner, claims that the model 15-U produced by Sundstrand-Sauer Corp., the major importer of light-duty IHSTs, is a medium-duty IHST. 4/ The petitioner claims that the model 15-U is designed to accept an input of 24 horsepower; however, Sundstrand-Sauer advertises the 15-U as most suitable for use in vehicles with 5-18 horsepower, and in practice the model is used primarily in small riding lawnmowers and garden tractors with engines of no more than 20 horsepower. 5/ Furthermore, both the petitioner and Sundstrand-Sauer indicate that when used in riding lawnmowers and garden tractors, the life of the model 15-U would be unreasonably short (less than one year) were it routinely to accept an input of over 18 horsepower, 6/ and that medium-duty IHSTs are used primarily on vehicles other than small riding lawnmowers and garden tractors. 7/ Moreover, OEMs contacted during this investigation consider the 15-U a light-duty IHST.

1/ Additionally, some vehicles use two light-duty IHSTs; thus, only half of the total engine power directed toward the driving wheels is routed through either of the light-duty IHSTs.

2/ Although the petition states that light-duty IHSTs are not used in ground-engaging vehicles, * * *, certain ground-engaging vehicles direct less than 20 horsepower to the IHST, and it is appropriate to use light-duty IHSTs in such vehicles. * * *.

3/ Some riding lawnmowers for commercial use have relatively long operating hours, and may require medium-duty hydrostatic transmissions.

4/ Transcript of conference, p. 73.

5/ Unlike Eaton, Sundstrand-Sauer does not advertise its light-duty IHSTs as having a particular maximum input horsepower. Instead, Sundstrand-Sauer provides information on the expected operating life of its light-duty IHST models under given horsepower inputs and total operating hours (petition, exhibit 3).

6/ Petition, exhibit 3 (see graph) and pp. 12-13; conference transcript, p. 165.

7/ Petition, exhibit 3 (see graph) and pp. 12-13.

Competing light-duty IHST models. --Table 1 describes each U.S.-produced light-duty IHST model. Table 2 lists the products sold by Eaton and Sundstrand-Sauer that are alleged by the two companies to compete in the U.S. market.

Representatives of Eaton and Sundstrand-Sauer differ in explaining how each firm's models compete with the other's. The table is only an approximation of how the various models compete because not every model has a direct competitor. For example, Eaton asserts that Sundstrand-Sauer's model 15-U is a medium-duty IHST, and does not consider the 15-U to compete with any of Eaton's light-duty IHSTs. Sundstrand-Sauer claims that Eaton's transaxles (Models 750, 770, 780, 850, and 1150) do not compete with any of Sundstrand-Sauer's models, contending that Eaton's transaxles are not a "like product." Sundstrand-Sauer contends that its models compete with Eaton's transaxles only when they are connected to an axle assembly. 1/

Sundstrand-Sauer maintains that none of its models compete with Eaton's models 770 and 780. Transaxles and axle assemblies generally have two axle shafts that direct power to each driving wheel of the vehicle; however, Eaton's model 770 has only one axle shaft. * * *. * * *. 2/

There is disagreement as to how similar Eaton's light-duty IHSTs with integrated axles, or transaxles (Models 750, 770, 780, 850, and 1150), are to Sundstrand-Sauer's light-duty IHSTs and to Eaton's light-duty IHSTs without integrated axle assemblies (as represented in the firm's Models 6, 7, and 11). Eaton's light-duty transaxles are different in two important respects from Sundstrand-Sauer's light-duty IHSTs without an axle assembly, and from traditional light-duty IHST/axle combinations. First, Eaton's light-duty transaxles are able to transmit power to the driving wheels of the vehicle, whereas Sundstrand-Sauer's light-duty IHSTs cannot perform this function unless they are attached to an axle assembly. Second, Eaton's light-duty transaxles represent a significant design departure from traditional light-duty IHST/axle combinations. Traditionally, light-duty IHSTs are complete, self-contained units that are removable from the axle assembly both in physical and functional terms. There is no distinct physical and functional separability between the light-duty IHST and the axle assembly on Eaton's light-duty transaxles. Therefore, Eaton's light-duty transaxles can be conceptualized as a single assembly, rather than as a light-duty IHST connected to an axle assembly.

Eaton claims that its light-duty transaxles are similar to light-duty IHSTs without attached axle assemblies because OEMs will purchase the

1/ Staff telephone conversations with Sundstrand-Sauer representatives, Dec. 16 and 19, 1988; transcript of conference, p. 113.

2/ Staff telephone conversations with Sundstrand-Sauer representatives, Dec. 19, 1988.

Table 1
Light-duty IHSTs: Description of models, by producer

Producer	Model	Maximum input horsepower	Input shaft position	Axle assembly	Primary end use 1/ 2/ 3/
Eaton	6, 7	4	Horizontal	Must be purchased	* * *
Eaton	11	20	Horizontal	Must be purchased	* * *
Eaton	750	4	Vertical	Integrated	* * *
Eaton	770	4	Vertical	Integrated	* * *
Eaton	780	4	Vertical	Integrated	* * *
Eaton	850	9	Vertical	Integrated	* * *
Eaton	1150	20	Vertical	Integrated	* * *
Sund- strand-Sauer	BDU-10S	4	Vertical	Must be purchased	* * *
Sund- strand-Sauer	BDU-10L	4	Vertical	Must be purchased	* * *
Sund- strand-Sauer	BDU-21	9	Vertical	Must be purchased	* * *
Sund- strand-Sauer	15-U	18	Horizontal	Must be purchased	* * *

1/ According to the Outdoor Power Equipment Institute, a front-engine lawn tractor is generally designed for mowing lawns and is not capable of pulling a plow.

2/ According to the Outdoor Power Equipment Institute, a riding garden tractor is used for general purpose lawn and garden work and is capable of pulling a plow. Any vehicle attachments must be removable.

3/ Twin path vehicles that use light-duty IHSTs generally refer to commercial mowers that have a mower assembly mounted in front of the vehicle.

Source: Industry literature and interviews with industry representatives.

Table 2
 Light-duty IHSTs: Competing light-duty IHST models, according to U.S. producers

Producer	Product/Model number	Competing models according to:	
		Eaton	Sundstrand-Sauer
Eaton	<u>IHST w/o axle assembly</u>		
	6	* * *	* * *
	7	* * *	* * *
	11	* * *	* * *
Eaton	<u>IHST with axle assembly</u>		
	750	* * *	* * *
	770	* * *	* * *
	780	* * *	* * *
	850	* * *	* * *
	1150	* * *	* * *
Sundstrand-Sauer	<u>IHST w/o axle assembly</u>		
	BDU-10(S)	* * *	* * *
	BDU-10(L)	* * *	* * *
	BDU-21	* * *	* * *
	15-U	* * *	* * *
Sundstrand-Sauer	<u>IHST with axle assembly</u>		
	BDU-10(S)/axle	* * *	* * *
	BDU-10(L)/axle	* * *	* * *
	BDU-21/axle	* * *	* * *
	15-U/axle	* * *	* * *

Source: Compiled from fieldwork, interviews, and the conference.

light-duty IHST and subsequently attach it to an axle assembly. ^{1/} Indeed, when light-duty IHSTs are connected to an axle assembly they perform the same function as Eaton's light-duty transaxle, despite major design differences between the two types of products.

Manufacturing process

The manufacturing process for light-duty IHSTs is essentially the same for both U.S. and foreign producers. The manufacturing process involves three basic steps: machining of forged and cast steel and aluminum parts, assembly of the parts, and testing of the finished light-duty IHST.

Machine tools cut, grind, and polish various parts of an IHST. The major parts include pistons, cylinder blocks, cam rings, swash plates, bearings, shafts, center sections, and housings.

The machined parts, as well as various other parts such as bolts, gaskets, seals, and springs (many of which are purchased from independent suppliers), come together at an assembly line where they are combined into the finished product. Upon completion of the assembly process, each unit is tested by being filled with hydraulic fluid and having power applied to the IHST motor. As the IHST operates, a machine is used to make various measurements (such as r.p.m., torque, and fluid displacement). At this point, the operator of the test equipment also checks the IHST for pressure leaks. If the unit fails any of the tests, it is set aside for later repair and retesting.

Mechanical and electrical transmissions

Light-duty IHSTs are a deluxe feature on small riding lawnmowers and garden tractors. The majority of these vehicles (approximately 80-87 percent) do not have a light-duty IHST, but instead utilize a light-duty mechanical transmission (light-duty MT). Although MTs are less expensive than light-duty IHSTs, MTs lack several convenience and performance advantages of IHSTs. For example, whereas an operator of a vehicle with an IHST may change the speed and direction of the vehicle by simply moving a lever, the same vehicle equipped with an MT would require that the operator manually switch gears using a gearshift and clutch mechanism to change vehicle speed and direction. Additionally, because an MT has only a limited number of gears, it lacks the range of engine-to-r.p.m. ratios available on an IHST. Consequently, IHSTs provide the vehicle with smoother low-speed operation and higher starting torque than MTs. ^{2/} Although riding lawnmowers or garden tractors can be

^{1/} Staff telephone interview with counsel for the petitioner, Dec. 16, 1988.

^{2/} A U.S. producer of MTs sells an "infinitely variable" MT for very small riding lawnmowers. The infinitely variable MT offers the same basic convenience and performance features of an IHST. There are still technological barriers to using the infinitely variable MT on larger riding lawnmowers or garden tractors that use IHSTs; thus, this type of MT does not appear to compete with, or substitute for, light-duty IHSTs across a broad range of products.

equipped with either an IHST or an MT, the vehicle is produced for only one or the other product. 1/

The third major type of transmission is known as the electrical transmission (ET). ETs are used primarily on heavy industrial machinery and military vehicles, and thus do not appear to compete with or substitute for light-duty IHSTs.

U.S. tariff treatment

Imports of light-duty IHSTs with or without axles, and light-duty IHST housings, are classified in item 666.00 and reported under statistical annotation 666.0075 of the Tariff Schedules of the United States Annotated (TSUSA) (when designated for use on garden tractors) and TSUSA item 666.1040 (when designated for use on riding lawnmowers). The corresponding Harmonized Tariff Schedule of the United States (HTS) subheadings (with statistical reporting numbers) are 8432.90.0080 and 8433.90.1000, respectively. The remaining subassemblies (besides housings) covered in this investigation are hydraulic motors and hydraulic pumps. Hydraulic pumps used in light-duty IHSTs are classified under TSUSA item 660.9710 (HTS subheading 8413.50.0080), and hydraulic motors used in light-duty IHSTs are classified under TSUSA item 660.8520 (HTS subheading 8412.29.8045). 2/

There are differences of opinion as to the proper classification of the subject product. 3/ The importer of light-duty IHSTs has indicated that the complete IHSTs were first (prior to April of 1987) imported under TSUSA item 660.9710. The importer's brokers then determined that light-duty IHSTs were more appropriately classified under TSUSA item 660.9756. The importer states that individual parts and the housing subassemblies have been imported under TSUSA item 660.9760, but that hydraulic pump and motor subassemblies have not been imported.

The column 1 or most-favored-nation duty rate for TSUS item 666.00 (which covers light-duty IHSTs and parts thereof for use in garden tractors) is free. Likewise, the duty rate for imports under column 2, applicable to Communist countries, is free. There is no special duty rate for any other

1/ Different models of riding lawnmowers and garden tractors are sometimes identical except for the type of transmission on each vehicle.

Sundstrand-Sauer states that OEMs can change an assembly line to produce a vehicle with one or the other type of transmission in less than one day.

2/ Classification of hydraulic pumps and hydraulic motors used in light-duty IHSTs under the HTS requires that a distinction be made between radial piston and axial piston design. Such a distinction is not made under the TSUSA. The HTS subheadings listed in the text are based on the axial piston hydraulic pump and motor because that is the design used in the imported items covered in this investigation. The radial piston design is used in the petitioner's product. To include any future imports of the items covered in this investigation with a radial ball piston design, HTS subheadings 8413.50.007 (covering pumps) and 8412.29.830 (covering motors) may also be relevant.

3/ The TSUSA and HTS numbers pertaining to the products covered in this investigation were derived through discussions with U.S. Customs officials in New York, NY, on Nov. 17, 18, 21, and 23, 1988.

countries. The column 1 duty rate for TSUS item 666.10 (which covers light-duty IHSTs and parts thereof for use in riding lawnmowers) is 4 percent ad valorem, the column 2 rate is 30 percent ad valorem. Imports under this tariff item are also designated as being eligible for duty-free entry under the Generalized System of Preferences (GSP), the United States-Israel Free Trade Area (FTA) Implementation Act of 1985, and the Caribbean Basin Economic Recovery Act (CBERA).

TSUS item 660.97 (covering hydraulic pump subassemblies) has a column 1 duty rate of 3 percent ad valorem, and a column 2 rate of 35 percent ad valorem. Imports under this tariff item are designated as being eligible for duty-free entry under the GSP, the United States-Israel FTA, and the CBERA. The column 1 duty rate for TSUS item 660.85 (covering hydraulic motor subassemblies) is 3.4 percent ad valorem, and the column 2 duty rate is 27.5 percent ad valorem. Again, imports under this tariff item are designated as being eligible for duty-free entry under the GSP, the United States-Israel FTA, and the CBERA.

Nature and Extent of Alleged Sales at LTFV

The petition alleges that producers or exporters of light-duty IHSTs in Japan are selling the subject product at LTFV. Petitioners calculated the LTFV margins by comparing the U.S. price with the constructed value of the Sundstrand-Sauer/Daikin BDU-10 and BDU-21 series, the product line imported by Sundstrand-Sauer, the major importer, from Daikin, a Japanese producer. Petitioners allege that the LTFV margins on sales in the United States are 120 percent for the BDU-10 and 48 percent for the BDU-21. They computed the weighted-average margin of sales at LTFV for Japanese light-duty IHSTs at 99 percent.

The U.S. Market

U.S. producers

Eaton Corp., Eden Prairie, MN, claims to be the only U.S. manufacturer of light-duty IHSTs. However, Sundstrand-Sauer, Ames, IA, the major importer of light-duty IHSTs, disputes this claim. Sundstrand-Sauer maintains that it is a principal producer of the product and has been involved in the light-duty IHST industry since the product was developed.

As previously mentioned, Sundstrand-Sauer contends that its model 15-U is a light-duty IHST. Eaton disputes Sundstrand-Sauer's claim. ^{1/} However, OEMs contacted during this investigation regard the 15-U as a light-duty product, and, based on criteria used by industry sources, the 15-U falls within the light-duty range. (See the "Description and uses" section for a discussion of model 15-U with respect to industry criteria for light-duty classification, and see the "Prices" section for pricing and purchasing information concerning the product.)

^{1/} Transcript of conference, p. 73.

The shares of U.S.-produced domestic shipments and apparent U.S. consumption of light-duty IHSTs accounted for by the two companies in 1987 are presented in table 3. Separate totals are presented for the domestic industry, both including and omitting Sundstrand-Sauer's model 15-U.

Development of the industry.--Although basic hydrostatic transmission technology has been available for approximately 70 years, prior to the early 1960s, light-duty IHSTs were not produced or widely marketed in the United States. In the 1950s, both Eaton and Sundstrand-Sauer began research and development on light-duty IHSTs. In 1964, Sundstrand-Sauer began producing the Hydrogear model light-duty IHST. During the mid-1960s, various other models of IHSTs were introduced by Sundstrand-Sauer and Eaton.

The basic technology for light-duty IHSTs has not changed substantially since the introduction of the product in the 1960s. Both producers do, however, continually conduct research and development and testing to improve the performance and quality characteristics of their light-duty IHSTs.

There has been a significant change in the design of light-duty IHSTs in recent years. Original equipment manufacturers of vehicles that use light-duty IHSTs (OEMs) are increasing their use of engines with output shafts that extend from the engine in a vertical position. This engine output shaft provides power to the IHST by rotating a shaft (input shaft) on the IHST via a belt that connects both shafts. Until recently, there was no substantial use of engines with output shafts positioned vertically, and at that time, all light-duty IHSTs (Eaton's Models 6, 7, and 11, and Sundstrand-Sauer's 15-U) were designed with horizontal input shafts to facilitate linkage of the engine and IHST shafts with a belt. When OEMs began using engines with vertical output shafts, linking the engine to IHSTs with horizontal input shafts was somewhat problematic, creating added costs to the OEMs and to the consumer. Hence, demand developed for IHSTs with vertical input shafts that would easily link up to the engine output shaft. Sundstrand-Sauer responded to this market change by designing the BDU-10 and BDU-21 series of IHSTs, which are designed with vertical input shafts. Eaton also responded to the market change by producing various transaxles (the 750, 850, 770, 780, 1150) that have vertical input shafts. 1/ 2/

* * *. * * *. Sundstrand-Sauer assembles the BDU-15 and BDU-21 in its Ames, IA, plant, but imports all the major parts (housings and major pump and motor parts) from Daikin Industries Ltd., of Japan. The company maintains it will begin manufacturing major parts in the United States by March 1989. Sundstrand-Sauer reports that it plans to spend \$* * * in new manufacturing equipment specifically for the BDU series. * * * percent of these funds are committed; * * * percent have already been spent. Sundstrand-Sauer's investment schedule is included in appendix C. Commission staff have received copies of purchase orders from * * * firms corresponding to these investments.

1/ Eaton states that all its light-duty IHST/axle combinations can also be mounted in a vehicle so that the IHST input shaft is positioned horizontally.

2/ Transcript of the conference, p. 95.

Table 3

Light-duty IHSTs: U.S. producers' shares of the quantity of U.S.-produced domestic shipments and apparent U.S. consumption, by firms, 1987

Firm	Share of U.S.-produced domestic shipments	Share of apparent U.S. consumption
Quantity (in percent)		
Excluding model 15-U		
Eaton Corp.....	100.0	***
Sundstrand-Sauer.....	0	***
Total.....	100.0	***
Including model 15-U		
Eaton Corp.....	***	***
Sundstrand-Sauer.....	***	***
Total.....	100.0	***
Value (in percent)		
Excluding model 15-U		
Eaton Corp.....	100.0	***
Sundstrand-Sauer.....	0	***
Total.....	100.0	***
Including model 15-U 1/		
Eaton Corp.....	***	***
Sundstrand-Sauer.....	***	***
Total.....	100.0	***

1/ The differences in market share represented by quantity and value figures can be accounted for by the fact that Sundstrand-Sauer's model 15-U is priced * * * than Eaton's product line.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Note.--Because of rounding, figures may not add to the totals shown.

Plant facilities and products manufactured.--* * * machine work performed by Eaton for the production of its light-duty IHSTs takes place at its Spencer, IA, facility. Sundstrand-Sauer * * * its machining operations * * *. In these plants, various production operations are also performed on the producers' medium- and heavy-duty integrated and nonintegrated IHSTs. Although a portion of each facility's employees and equipment is used to fabricate parts for light-duty IHSTs, there is frequently enough flexibility in the operations that employees and equipment may be involved in the production of any one of the various models of light-duty IHSTs as well as medium- and heavy-duty integrated or nonintegrated IHSTs at any given time.

U.S. importers

The Commission received questionnaire responses from two importers of light-duty IHSTs, Sundstrand-Sauer, Ames, IA, and KYB Corp. of America, Lombard, IL. Sundstrand-Sauer has been discussed in this report as a producer of light-duty IHSTs. The company's imports of this product account for * * * of all imports from Japan. Another importer, KYB Corp., purchases light-duty IHSTs from its parent company, Kayaba Industry Co., Ltd., Tokyo, Japan. * * * during the period under investigation KYB's imports accounted for * * * of all U.S. imports of light-duty IHSTs.

Sundstrand-Sauer, * * *, is a joint venture of Sundstrand Corp., Rockford, IL, and Sauer Getriebe AG, Neumuenster, Federal Republic of Germany. The joint venture combines the hydraulic power transmission business of both parties.

Sundstrand-Sauer purchases light-duty IHSTs from the Japanese firm, Daikin, in Osaka, Japan. Collaboration between Sundstrand-Sauer and Daikin extends back several decades. Since 1967 Sundstrand-Sauer has had a licensing arrangement with Daikin to manufacture products under license for sale in the Far East.

Daikin has exported light-duty IHSTs to the United States under license from Sundstrand-Sauer, and under the terms of the agreement, Daikin is not authorized to sell light-duty IHSTs or their subassemblies directly to the U.S. market. The Sundstrand-Sauer-Daikin agreement grants Sundstrand-Sauer exclusive rights to sell in the replacement market to all end users in the United States. Daikin sells this product in Japan and pays royalties to Sundstrand-Sauer on these sales in the Japanese market.

During the period of investigation, Sundstrand-Sauer's purchases from Daikin have consisted of the BDU series (10 and 21), a product line developed by Sundstrand-Sauer. During this period, the majority of the imported products have been fully assembled by Daikin before being shipped to the United States. However, in 1988, Sundstrand-Sauer began the transition from importing to production and thus imported a small number of parts and components which the company then assembled in its Ames, IA, plant for sale in the domestic market.

Sundstrand-Sauer initiated the subcontracting arrangement in 1985 by proposing to Daikin that Daikin "undertake initial production" of the BDU-10 and BDU-21 series. ^{1/} According to Sundstrand-Sauer and Daikin, Sundstrand-Sauer had developed the series to meet its requirements for the U.S. market. Sundstrand-Sauer asked Daikin to supply certain components and parts, and, as part of the transition from Sundstrand-Sauer's foreign to domestic production of the BDU series, Daikin agreed to the arrangement. According to Daikin, Sundstrand-Sauer advised Daikin from the outset that Sundstrand-Sauer planned to invest in production of the BDU series in the United States, provided there was sufficient U.S. market demand.

^{1/} See letter to the Commission from counsel for Daikin dated Dec. 14, 1988, which is included in app. C.

Sundstrand-Sauer subsequently advised Daikin that Sundstrand-Sauer would begin to manufacture BDUs in the United States. The company has been investing in plant and machinery in order to do so. 1/

Sundstrand-Sauer * * *. 2/ Since August 1988 Sundstrand-Sauer has imported a decreasing portion of parts and components for use in the U.S. production of the BDU series. According to both companies, imports by Sundstrand-Sauer from Daikin will cease as of March 1989. After this date Daikin will supply Sundstrand-Sauer with only two types of parts, purchased by Daikin in Japan for resale to Sundstrand-Sauer. According to counsel for Daikin, and representatives of Sundstrand-Sauer, the parts will comprise only a small fraction of the sales price of the final product. Representatives of Sundstrand-Sauer reported that by March 1989, only shafts and pistons amounting to * * * percent of the sales price of the finished product will be imported. In 1990, this figure is estimated to decrease to * * * percent or less, due to domestic production of shafts and pistons. 3/

Prior to January 1988, Sundstrand-Sauer imported only fully-assembled BDU-10 and BDU-21 units. After January 1988, the company imported only the housings and the parts for the product. Thus the only component that has been imported is the housing. The other two subassemblies (pumps and motors) have not been imported, although the parts (mainly pistons, cylinder blocks, and shafts) are imported for assembly at Sundstrand-Sauer's Ames, IA, plant. 4/

Currently, domestic assembly and testing of the BDU series is fully in place. As of March 1989, Sundstrand-Sauer will make * * *. * * *. * * *. 5/

KYB Corp. of America is the importer of record for Kayaba-produced light-duty IHSTs. Kayaba sells the product directly to an OEM, * * *. In the U.S. market Kayaba sells * * *. This product competes with * * *. 6/

1/ See letter to the Commission from counsel for Daikin dated Dec. 14, 1988, which is included in app. C.

2/ Fieldwork in Ames, IA, on Dec. 9, 1988; conversation with Mr. Patrick Gilchrist, Marketing Manager for Sundstrand-Sauer, Dec. 20, 1988.

3/ Conversation with Mr. Patrick Gilchrist, Marketing Manager for Sundstrand-Sauer, Dec. 21, 1988.

4/ Fieldwork on Dec. 6, 1988 and conversation with Mr. Patrick Gilchrist, Marketing Manager for Sundstrand-Sauer, Dec. 20, 1988.

5/ During fieldwork on Dec. 6, 1988, staff was shown Sundstrand-Sauer's * * *. Sundstrand-Sauer is in the process of equipping its plants with machine tools that will be used to fabricate many of the parts used in the BDU-10 and BDU-21. The company plans to begin manufacturing major parts in the United States by March 1989. Sundstrand-Sauer's investment schedule is included in appendix C. Commission staff have received copies of purchase orders from * * * firms corresponding to these investments. The orders are for equipment for Sundstrand-Sauer's new production lines in * * *, where the BDU series will be manufactured.

6/ Staff conversation with counsel for Kayaba, Dec. 9, 1988.

There are no other known importers of light-duty IHSTs from Japan or any other country.

Channels of distribution

The overwhelming majority of sales in the U.S. market of light-duty IHSTs, U.S.-produced or imported, are to end users. In 1987, sales to end users comprised 95.6 percent of total domestic shipments, whereas sales of light-duty IHSTs to distributors accounted for only 4.4 percent of the total U.S. sales of the product. During the same year * * * percent of all U.S.-produced light duty IHSTs were shipped to end users, and * * * percent of all imported light duty IHSTs were sold to end users. In 1987 Eaton's and Sundstrand-Sauer's shipments to end users accounted for * * * percent and * * * percent, respectively, of the firms' total sales of light duty IHSTs, as shown in the following tabulation (in units):

Item	Estimated shipments made to--	
	Distributors	End users
U.S.-produced light-duty IHSTs:		
Eaton.....	***	***
Sundstrand-Sauer <u>1/</u>	***	***
Subtotal.....	***	***
Imported light-duty IHSTs:		
Sundstrand-Sauer	***	***
KYB Corp.....	***	***
Subtotal.....	***	***
Total.....	***	***

1/ This figure includes Sundstrand-Sauer's model 15-U.

Demand and trends in the U.S. market

Since 1981 there has been a significant increase in U.S. sales of light-duty IHSTs associated with a surge in the sales of riding lawnmowers and garden tractors, as indicated by Outdoor Power Equipment Institute (OPEI) annual statistics. 1/ Sales of riding lawnmowers and garden tractors have been stable throughout 1988; in addition, there has been a dramatic rise in the demand for deluxe models that use light-duty IHSTs. 2/

1/ Outdoor Power Equipment Institute Media Release, November 28, 1988 (conference, exhibit 1).

2/ Outdoor Power Equipment Institute Media Release, November 28, 1988 (conference, exhibit 1); conference transcript, p. 42; and petition, p. 29.

There is a substantial discrepancy between Eaton's and Sundstrand-Sauer's predictions of future sales of light-duty IHSTs. Eaton anticipates a sharp downturn in the light-duty IHST market, largely because of certain declining economic indicators. 1/ Sundstrand-Sauer, on the other hand, predicts increasing sales in the industry, primarily because of internal projections for sustained strength in light-duty IHST sales as compared to light-duty mechanical transmission sales. 2/

Apparent U.S. consumption

The data on apparent U.S. consumption of light-duty IHSTs appearing in table 4 are composed of U.S. producers' domestic shipments of light-duty IHSTs and shipments of imports of this product reported in questionnaire responses. Apparent U.S. consumption of light-duty IHSTs, including Sundstrand-Sauer's model 15-U, rose consistently during the period of investigation, from * * * units in 1985 to * * * in 1986, or by 8.8 percent, and to * * * units in 1987, an increase of 43.0 percent. As measured by quantity, consumption was 22.3 percent higher during January-September 1988 than during the corresponding period of 1987.

In terms of value, apparent U.S. consumption of light-duty IHSTs fell by 2.5 percent from 1985 to 1986, and then increased by 35.2 percent from 1986 to 1987. Consumption was 17.0 percent higher during January-September 1988 than during the corresponding period of 1987.

Further discussion of apparent U.S. consumption and of the market share of imports appears in the section of this report entitled "Market penetration of imports."

Consideration of Alleged Material Injury

The information in this section of the report was compiled from responses to questionnaires of the U.S. International Trade Commission. Each of the two U.S. producers provided the requested data in response to the Commission's questionnaire. Accordingly, the data appearing in this section of the report represent 100 percent of the U.S. industry producing light-duty IHSTs during the period covered by the investigation.

Commission staff also gathered information on the axle industry because of the possibility that the Commission may want to include the axle industry in the domestic industry. Data on operations relating to the production of axles for use with light-duty IHSTs are shown in Appendix D.

Reported capacity, production, employment, inventory, and financial data include Sundstrand-Sauer's 15-U model. Data on shipments of light-duty IHSTs are presented both with and without Sundstrand-Sauer's 15-U model.

1/ Conference, exhibit 1, sales graph.

2/ Conference, exhibits 6 and 7; notes from fieldwork in Ames, IA, Dec. 6, 1988.

Table 4

Light-duty IHSTs: Apparent U.S. consumption, 1985-87, January-September 1987, and January-September 1988

Item	1985	1986	1987	Jan. - Sept. --	
				1987	1988
<u>Quantity (in units)</u>					
U.S. producers' domestic shipments:					
Excluding 15-U 1/.....	***	***	***	***	***
Including 15-U and excluding BDU series..	***	***	***	***	***
Of light-duty IHSTs (BDUs) imported as parts.....	***	***	***	***	***
Subtotal					
Including 15-U and including BDU series	***	***	***	***	***
U.S. shipments of imports:					
Of light-duty IHSTs imported separately.....	***	***	***	***	***
Of light-duty IHSTs (BDUs) imported as parts.....	***	***	***	***	***
Subtotal					
including imported parts	***	***	***	***	***
Total apparent consumption:					
Total 1 (excluding 15-U)..	***	***	***	***	***
Total 2 (including 15-U)..	***	***	***	***	***
<u>Value (1,000 dollars)</u>					
U.S. producers' domestic shipments:					
Excluding 15-U 1/.....	***	***	***	***	***
Including 15-U and excluding BDU series..	***	***	***	***	***
Of light-duty IHSTs (BDUs) imported as parts.....	***	***	***	***	***
Subtotal:					
Including 15-U and including BDU series	***	***	***	***	***
U.S. shipments of imports:					
Of light-duty IHSTs imported separately.....	***	***	***	***	***
Of light-duty IHSTs (BDUs) imported as parts.....	***	***	***	***	***
Subtotal					
including imported parts	***	***	***	***	***
Total apparent consumption:					
Total 1 (Excluding 15-U)..	***	***	***	***	***
Total 2 (Including 15-U)..	***	***	***	***	***

1/ Category includes Eaton's shipments only. Petitioner disputes that the 15-U manufactured by Sundstrand-Sauer should be included in the domestic industry.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

U.S. production, capacity, and capacity utilization

Data on U.S. production, capacity, and capacity utilization for light-duty IHSTs are presented in table 5. Aggregate U.S. production of light-duty IHSTs rose steadily from 1985 to 1987, increasing by * * * percent during the period. U.S. production of light-duty IHSTs further increased by * * * percent during January-September 1988 as compared with the level of production during the corresponding period of 1987.

Eaton Corp. * * * its production of light-duty IHSTs during the period of investigation. Eaton's production * * * from 1985 to 1987. The company's production of light-duty IHSTs was * * * in January-September 1988 than during the corresponding period in 1987. Sundstrand-Sauer's production of light-duty IHSTs * * * from 1985 to 1986, but * * * from 1986 to 1987 * * *. The company's production * * * from January-September 1987 to the corresponding period in 1988.

Production data for each kind of light-duty IHST manufactured in the United States are presented in table 6.

U.S. producers' aggregate average-for-period capacity to manufacture light-duty IHSTs remained stable from 1985 to 1986, then rose by * * * percent in 1987. Capacity increased by * * * percent during January-September 1988 compared with the level of capacity in the corresponding period of 1987. Eaton's capacity to manufacture light-duty IHSTs * * * from 1985 to 1987, then * * * in January-September 1988 as compared to the corresponding period of 1987. While Sundstrand-Sauer's capacity * * * from 1985 to 1987, the company's capacity * * * from January-September 1987 to the corresponding period in 1988.

U.S. producers' aggregate capacity utilization increased by * * * percentage points from 1985 to 1987. Capacity utilization in January-September 1988 was * * * percentage points lower than in January-September 1987, but remained well above 1985 and 1986 levels. Eaton's capacity utilization * * * from 1985 to 1987. The company's capacity utilization * * * from January-September of 1987 to the corresponding period in 1988. Sundstrand-Sauer's capacity utilization * * * from 1985 to 1987. * * * the company's capacity utilization was * * * in January-September 1988 than during the corresponding period of 1987.

U.S.-produced domestic shipments and export shipments

Data on U.S.-produced domestic shipments and exports of light-duty IHSTs are presented in table 7. The quantity and value of total industry shipments of light-duty IHSTs declined slightly from 1985 to 1986, but increased in 1987 to well above 1985 levels. The slight decline in shipments from 1985 to 1986 was due to a decline in * * *. Eaton's shipments * * * from 1985 to 1987. Total industry shipments during January-September 1988 were * * * percent higher by quantity and * * * percent higher by value than during January-September 1987.

Table 5
Light-duty IHSTs: U.S. producers' production, average capacity, and capacity utilization, 1985-87, January-September 1987, and January-September 1988

Item	1985	1986	1987	Jan.-Sept.--	
				1987	1988
Quantity (units)					
Production:					
Eaton.....	***	***	***	***	***
Sundstrand-Sauer.....	***	***	***	***	1/ ***
Total.....	***	***	***	***	2/ ***
Average-for-period capacity: 3/					
Eaton	***	***	***	***	***
Sundstrand-Sauer	***	***	***	***	***
Total.....	***	***	***	***	***
Percent					
Capacity utilization:					
Eaton.....	***	***	***	***	***
Sundstrand-Sauer	***	***	***	***	3/ ***
Average.....	***	***	***	***	4/ ***

1/ The figure for the January-September 1988 period includes * * * units of Sundstrand-Sauer's BDU 10 and 21. For this period, Sundstrand-Sauer lists these products as part of its own production. Daikin manufactured the major components in Japan, and Sundstrand-Sauer subsequently assembled the finished light-duty IHSTs at its Ames, IA, plant. Sundstrand-Sauer began this assembly operation in * * *. The company estimates the U.S. value added of the U.S. operation was * * * percent in * * *, * * * percent in * * *, * * * percent in * * *, and * * * percent in * * *. (These figures were derived by subtracting the selling price from the landed cost of materials from Daikin, dividing by the selling price, and multiplying by one hundred.) If the BDU 10 & 21 were not included in domestic production, Sundstrand's total production for the period would be * * * units.

2/ Eaton bases its capacity figures on operations of * * * hours per week, * * * weeks per year. For Sundstrand-Sauer these estimates were * * * hours per week, * * * weeks per year.

3/ If the BDU 10 and 21 were not included in Sundstrand-Sauer's production, the capacity utilization figure would be * * * percent.

4/ If the BDU 10 and 21 were not included in Sundstrand-Sauer's production, the total capacity utilization figure for this period would be * * * percent.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 6

Light-duty IHSTs: U.S. producers' production, by company and products, 1985-87, January-September 1987, and January-September 1988

(In units)					
Company and products	1985	1986	1987	Jan. - Sept. - -	
				1987	1988
Eaton:					
Light-duty IHSTs					
without axles 1/.....	***	***	***	***	***
Transaxles 2/.....	***	***	***	***	***
Sundstrand-Sauer:					
15-U series.....	***	***	***	***	***
BDU 10 & 21 3/.....	***	***	***	***	***

1/ Eaton's models 6, 7, and 11.

2/ Eaton's models 750, 850, 770, 780, and 1150.

3/ Sundstrand-Sauer considers this product for the January-September 1988 period to be part of its own production. During this period, Daikin manufactured the major components in Japan, and Sundstrand-Sauer subsequently assembled the finished light-duty IHSTs at its Ames, IA, plant. Sundstrand-Sauer began this assembly operation * * *. The company estimates the U.S. value added of the U.S. operation was * * * percent in * * *, * * * percent in * * *, * * * percent in * * *, and * * * percent in * * *. (These figures were derived by subtracting the selling price from the landed cost of materials from Daikin, dividing by the selling price, and multiplying by one hundred.) * * *.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 7

Light-duty IHSTs: U.S. producers' domestic and export shipments of U.S.-produced products, 1985-87, January-September 1987, and January-September 1988

Company and product	1985	1986	1987	Jan.-Sept.--	
				1987	1988
Quantity (in units)					
Eaton:					
Light-duty IHSTs					
without axles:					
Domestic shipments <u>1/</u> .	***	***	***	***	***
Export shipments.....	***	***	***	***	***
Total.....	***	***	***	***	***
Transaxles:					
Domestic shipments <u>1/</u> .	***	***	***	***	***
Export shipments.....	***	***	***	***	***
Total.....	***	***	***	***	***
Total domestic shipments..	***	***	***	***	***
Total export shipments....	***	***	***	***	***
Company total.....	***	***	***	***	***
Sundstrand-Sauer:					
15U series:					
Domestic shipments <u>2/</u> .	***	***	***	***	***
Export shipments.....	***	***	***	***	***
Total.....	***	***	***	***	***
BDU 10 & 21:					
Domestic shipments <u>2/</u> .	***	***	***	***	***
Export shipments.....	***	***	***	***	***
Total.....	***	***	***	***	***
Total domestic shipments..	***	***	***	***	***
Total export shipments....	***	***	***	***	***
Company total.....	***	***	***	***	<u>3/</u> ***
Total domestic shipments....	***	***	***	***	***
Total export shipments.....	***	***	***	***	***
Total industry shipments....	***	***	***	***	<u>4/</u> ***

-Continued on next page-

Table 7--Continued
 Light-duty IHSTs: U.S. producers' domestic and export shipments of
 U.S.-produced products, 1985-87, January-September 1987, and January-September
 1988

Company and product	1985	1986	1987	Jan.-Sept.--	
				1987	1988
Value (in thousands of dollars)					
Eaton:					
Light-duty IHSTs					
without axles:					
Domestic shipments <u>1/</u> .	***	***	***	***	***
Export shipments.....	***	***	***	***	***
Total.....	***	***	***	***	***
Transaxles:					
Domestic shipments <u>1/</u> .	***	***	***	***	***
Export shipments.....	***	***	***	***	***
Total.....	***	***	***	***	***
Total domestic shipments..	***	***	***	***	***
Total export shipments....	***	***	***	***	***
Company total.....	***	***	***	***	***
Sundstrand-Sauer:					
15-U series:					
Domestic shipments <u>2/</u> .	***	***	***	***	***
Export shipments.....	***	***	***	***	***
Total.....	***	***	***	***	***
BDU 10 & 21:					
Domestic shipments <u>2/</u> .	***	***	***	***	***
Export shipments.....	***	***	***	***	***
Total.....	***	***	***	***	***
Total domestic shipments..	***	***	***	***	***
Total export shipments....	***	***	***	***	***
Company total.....	***	***	***	***	<u>5/</u> ***
Total domestic shipments....	***	***	***	***	***
Total export shipments.....	***	***	***	***	***
Total industry shipments....	***	***	***	***	<u>6/</u> ***

1/ Includes a negligible amount of company transfers.

2/ Sundstrand-Sauer reports * * * during the period under investigation.

3/ Figure includes Sundstrand-Sauer's shipments of BDUs. If Sundstrand-Sauer's shipments of BDUs are not included in the domestic industry, this figure is * * * units.

4/ Figure includes Sundstrand-Sauer's shipments of BDUs. If Sundstrand-Sauer's shipments of BDUs are not included in the domestic industry, this figure is * * * units.

5/ Figure includes Sundstrand Sauer's shipments of BDUs. If Sundstrand-Sauer's shipments of BDUs are not included in the domestic industry, this figure is \$* * *.

6/ Figure includes Sundstrand Sauer's shipments of BDUs. If Sundstrand-Sauer's shipments of BDUs are not included in the domestic industry, this figure is \$* * *.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

The quantity of U.S. producers' aggregate domestic shipments of light-duty IHSTs (i.e., intracompany transfers plus commercial shipments) increased by * * * percent from 1985 to 1986, and further rose by * * * percent in 1987. The value of shipments of light-duty IHSTs declined from \$* * * in 1985 to \$* * * in 1986, a decrease of * * * percent, but rose to \$* * * in 1987, an increase of * * * percent from 1985. Domestic shipments further rose * * * percent by quantity and * * * percent by value during January-September 1988 compared with the level in the corresponding period of 1987. Eaton's domestic shipments * * * from 1985 to 1987, and * * * from January-September 1987 to January-September 1988.

The average unit values of shipments of U.S.-manufactured light-duty IHSTs are shown in table 8. The average unit value of light duty IHSTs declined from 1985 to 1987, but increased from January-September 1987 to the corresponding period in 1988. Information about pricing of specific products during the period of investigation is presented in the pricing section.

U.S. producers' export shipments of light-duty IHSTs declined by both quantity and value from 1985 to 1986, rose from 1986 to 1987, and further increased during January-September 1988 compared with the level of export shipments in the corresponding period of 1987. Eaton's export shipments * * *.

Eaton's principle export markets are * * *, whereas Sundstrand-Sauer exports * * *. Eaton exports * * *. 1/

U.S. producers' inventories

* * * * *

Employment, wages, and productivity

The employment-related data obtained from the two U.S. producers of light-duty IHSTs are presented in table 9. The number of production and related workers producing light duty IHSTs, hours worked, wages, and total compensation paid declined from 1985 to 1986, but increased from 1986 to 1987. There were slight fluctuations in these indicators from January-September 1987 to the corresponding period in 1988. The average number of production and related workers producing light-duty IHSTs rose by * * * percent from 1985 to 1987, but declined by * * * percent from January-September 1987 to January-September 1988. Hours worked by such workers rose by * * * percent from 1985 to 1987, and further increased by * * * percent in January-September 1988 compared with the number of hours

1/ Staff telephone conversation with counsel for Eaton, Dec. 19, 1988.

Table 8
 Light-duty IHSTs: Average unit value of shipments of U.S.-produced products,
 1985-87, January-September 1987, and January-September 1988

Company and product	(Per unit)				
	1985	1986	1987	Jan.-Sept.-- 1987	1988
Eaton:					
Light duty IHSTs					
without axles.....	\$***	\$***	\$***	\$***	\$***
Transaxles	***	***	***	***	***
Average.....	***	***	***	***	***
Sundstrand-Sauer:					
15-U series.....	***	***	***	***	***
BDU 10 & 21	***	***	***	***	***
Average.....	***	***	***	***	<u>1/</u> ***
Average for domestic					
industry.....	***	***	***	***	<u>2/</u> ***

1/ The figure for the January-September 1988 period does not include * * * IHST units of Sundstrand-Sauer's BDU 10 and 21. Sundstrand-Sauer considers this product for the January-September 1988 period to be part of its own production. During this period, Daikin manufactured the major components in Japan, and Sundstrand-Sauer subsequently assembled the finished light-duty IHSTs at its Ames, IA, plant. Sundstrand-Sauer began this assembly operation in * * *. The company estimates the U.S. value added of the U.S. operation was * * * percent in * * *, * * * percent in * * *, * * * percent in * * *, and * * * percent in * * *. (These figures were derived by subtracting the selling price from the landed cost of materials from Daikin, dividing by the selling price, and multiplying by one hundred.) * * *. If the BDUs were included in domestic production for the January-September period, this figure would be \$* * *.

2/ If the BDUs were included in domestic production, this figure would be \$* * *.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 9

Light-duty IHSTs: Average number of U.S. producers' total employees and production and related workers producing all products and those producing light-duty IHSTs; hours worked by, wages paid to, average hourly wages paid to, and total compensation paid to such workers; and productivity, 1985-87, January-September 1987, and January-September 1988

Item	1985	1986	1987	Jan.-Sept.--	
				1987	1988
Average number of employees....	***	***	***	***	***
Production and related workers producing:					
All products.....	***	***	***	***	***
Light-duty IHSTs without axles.....	***	***	***	***	***
Light-duty IHSTs with axles.....	***	***	***	***	***
Hours worked by production and related workers producing:					
All products (1,000 hours)...	***	***	***	***	***
Light-duty IHSTs without axles (1,000 hours)	***	***	***	***	***
Light-duty IHSTs with axles (1,000 hours)...	***	***	***	***	***
Wages paid to production and related workers producing:					
All products (1,000 dollars).	***	***	***	***	***
Light-duty IHSTs without axles (1,000 dollars).....	***	***	***	***	***
Light-duty IHSTs with axles (1,000 dollars).....	***	***	***	***	***
Average hourly wages paid to production and related workers producing:					
All products.....	\$***	\$***	\$***	\$***	\$***
Light-duty IHSTs without axles.....	***	***	***	***	***
Light-duty IHSTs with axles.....	***	***	***	***	***
Total compensation paid to production and related workers producing:					
All products (1,000 dollars).	***	***	***	***	***
Light-duty IHSTs without axles (1,000 dollars).....	***	***	***	***	***
Light-duty IHSTs with axles (1,000 dollars).	***	***	***	***	***
Output per hour worked					
Light-duty IHSTs without axles (units per hour).....	***	***	***	***	***
Light-duty IHSTs with axles (units per hour).....	***	***	***	***	***

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

worked in the corresponding period of 1987. Total compensation paid to such workers increased by * * * percent from 1985 to 1987, and by * * * percent in January-September 1988 as compared with the levels in the corresponding period of 1987.

Sundstrand-Sauer's employment information relating to the company's * * * BDU units assembled in the Ames, IA, plant (from parts mostly imported from Daikin) is not included in table 8. The company reported that an average of * * * employees have been assigned to the production of BDUs since the BDU operation began in * * *. Currently * * * employees are engaged in the production of BDUs.

Financial experience of U.S. producers

Two producers, accounting for 100 percent of U.S. production of light-duty IHSTs with or without axles, submitted income-and-loss data for their U.S. light-duty IHST operations. Sundstrand-Sauer is a joint venture of Sundstrand Corp. (a U.S. corporation) and Sauer Getriebe A.G. of the Federal Republic of Germany. The two companies merged their interest in the Hydraulic Power System Products businesses as of January 1, 1987. Eaton Corp., the petitioner, is the only reporting U.S. producer of light-duty IHSTs with axles (transaxles).

Operations on light-duty IHSTs with and without axles.--The combined income-and-loss experience of the two producers of light-duty IHSTs with and without axles is presented in table 10. Aggregate net sales declined by * * * percent from \$* * * in 1985 to \$* * * in 1986. Such sales rose by * * * percent to \$* * * in 1987. Operating income of \$* * * in 1985 decrease to \$* * * in 1986 and increased to \$* * * in 1987. Operating income, as a percent of net sales, was * * * in 1985, * * * in 1986, and * * * in 1987. Net sales for the 1988 interim period were \$* * *, an increase of * * * percent over the 1987 interim period sales of \$* * *. In interim 1988 an operating profit of \$* * * was achieved, compared with an operating profit of \$* * * in interim 1987. Operating income margins, as a percent of net sales, were * * * for interim 1987 and * * * for interim 1988.

Operations on light-duty IHSTs without axles.--The combined income-and-loss experience of the two producers of light-duty IHSTs without axles is presented in table 11. Net aggregate sales decreased by * * * from \$* * * in 1985 to \$* * * in 1986. Sales rose * * * percent to \$* * * in 1987. Operating income was \$* * * in 1985, \$* * * in 1986, and \$* * * in 1987. Operating income margins, as a percent of sales, were * * * in 1985, * * * in 1986, and * * * in 1987. Net sales for the interim period ended September 30, 1988, were \$* * *, a decrease of * * * percent from the interim period 1987 sales of \$* * *. Operating income was \$* * * and \$* * * for interim 1987 and interim 1988, respectively. Operating income margins, as a percent of sales, were * * * in interim 1987 and * * * in interim 1988.

Operations on light-duty IHSTs with axles.--The income-and-loss experience of Eaton Corp., the only reporting U.S. producer of light-duty IHSTs with axles, is presented in table 12. Net sales * * *. * * *. * * *.

Table 10
Income-and-loss experience of U.S. producers on their operations producing light-duty IHSTs with and without axles, accounting years 1985-87 and interim periods ended September 30, 1987, and September 30, 1988

* * * * *

Table 11
Income-and-loss experience of U.S. producers on their operations producing light-duty IHSTs without axles, accounting years 1985-87 and interim periods ended September 30, 1987, and September 30, 1988

* * * * *

Table 12
Income-and-loss experience of Eaton Corp. on its operations producing light-duty IHSTs with axles, accounting years 1985-87 and interim periods ended September 30, 1987, and September 30, 1988 1/

* * * * *

* * *. * * *. Net sales for the interim period ended September 30, 1988, were \$* * *. * * *. * * *. * * *.

Submission of exhibits.--Eaton Corp. submitted two exhibits on December 12, 1988, one presenting cumulative pre-tax * * * and the other * * * as a percent of sales of light-duty IHSTs. Presented in the tabulation below is a comparison of the amounts presented in the exhibits with operating income or loss as presented in Eaton's questionnaire:

* * * * *

Value of plant, property, and equipment.--The data provided by the producers on their end-of-period investment in facilities producing light-duty IHSTs with and without axles are shown in the following tabulation (in thousands of dollars):

* * * * *

Capital expenditures.--The data provided by the U.S. producers relative to their capital expenditures for land, buildings, and machinery and equipment used in the manufacture of light-duty IHSTs are shown in the following tabulation (in thousands of dollars):

* * * * *

Research and development expenses.--Research and development expenses relating to light-duty IHSTs for the U.S. producers are shown in the following tabulation (in thousands of dollars):

* * * * *

Capital and investment.--The Commission requested U.S. producers to describe any actual or potential negative effects of imports of light-duty IHSTs from Japan on their firms' growth, investment, development and production efforts, and ability to raise capital. Eaton Corp. provided the following response: * * *.

Consideration of the Question of
Threat of Material Injury

Section 771(7)(F)(i) of the Tariff Act of 1930 (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 any merchandise, the Commission shall consider, among other relevant factors 1/--

(I) If a 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 subsidy is an export subsidy inconsistent with the Agreement),

(II) any increase in production capacity or existing unused capacity in the exporting country likely to result in a significant increase in imports of the merchandise to the United States,

(III) any rapid increase in United States market penetration and the likelihood that the penetration will increase to an injurious level,

(IV) the probability that imports of the merchandise will enter the United States at prices that will have a depressing or suppressing effect on domestic prices of the merchandise,

(V) any substantial increase in inventories of the merchandise in the United States,

(VI) the presence of underutilized capacity for producing the merchandise in the exporting country,

(VII) any other demonstrable adverse trends that indicate the probability that the importation (or sale for importation) of the merchandise (whether or not it is actually being imported at the time) will be the cause of actual injury, and

(VIII) the potential for product-shifting if production facilities owned or controlled by the foreign manufacturers, which can be used to produce products subject to investigation(s) under section 701 or 731 or to final orders under section 736, are also used to produce the merchandise under investigation,

1/ Section 771(7)(F)(ii) of the act (19 U.S.C. (1677(7)(F)(ii)) provides that "Any determination by the Commission under this title that an industry in the United States is threatened with material injury shall be made on the basis of evidence that the threat of material injury is real and that actual injury is imminent. Such a determination may not be made on the basis of mere conjecture or supposition."

(IX) 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), and

(X) 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 like product. 1/

With regard to item (I) above, no subsidies are involved in these investigations. The available data on foreign producers' operations (items (II) and (VI) above) and on the potential for "product-shifting" (item (VIII)) are presented in the section of this report entitled "Foreign producers." Information on the volume, U.S. market penetration, and pricing of imports of the subject merchandise (items (III) and (IV) above) is presented in the section entitled "Consideration of the Causal Relationship Between Allegedly LTFV Imports and the Alleged Material Injury or Threat Thereof." Data on U.S. inventories of the subject products (item (V)) are presented below. Information on the effects of imports of the subject merchandise on U.S. producers' existing development and production efforts (item (X)) is presented in the section entitled "Consideration of Alleged Material Injury."

U.S. importers' inventories and current orders

Sundstrand-Sauer's inventories of imported light-duty IHSTs are shown in table 13. The company's yearend inventories of imports from Japan of this product * * *. * * *. Inventories of imports * * *.

Deliveries by Daikin to Sundstrand-Sauer of light-duty IHSTs have ceased, and deliveries of major components and parts are to be discontinued by March 1989. (See section of the report entitled "Development of the Industry" for further information.)

KYB Corp. reported * * *.

1/ 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 GATT 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."

Table 13

Light-duty IHSTs: Sundstrand-Sauer's inventories of imported products as of December 31 of 1984-87, September 30, 1987, and September 30, 1988

* * * * *

Foreign producers

The United States is the largest market in the world for light-duty IHSTs. Light duty IHSTs are used by OEMs that manufacture products such as small riding lawnmowers that are sold primarily in the U.S. market. When these machines are sold outside of the United States, mechanical transmissions are more often selected than light-duty IHSTs.

The petition names three Japanese producers of light-duty IHSTs, Daikin Industries, Ltd., Kayaba Industry Co., Ltd., and Kawasaki Heavy Industries, Ltd. All of these companies primarily manufacture * * * for home markets. In terms of the U.S. light-duty IHST market, Daikin * * *, and Kayaba * * *. Although Kawasaki was mentioned in the petition, the company has no known exports of light-duty IHSTs to the United States nor any known plans to export the product.

The Commission requested counsel for Daikin and Kayaba to provide information on their firms' light-duty IHST production operations abroad. The information requested consisted of the number and names of producing firms; production, capacity, capacity utilization, home-market shipments, exports to the United States, exports to other major markets, and total exports, for each of the periods covered by the investigation; projected changes in production, capacity, or capacity utilization in 1989; and intentions or projections as to the quantity of exports of light-duty IHSTs to the United States and to other major markets in 1989. The Commission requested similar data from the U.S. embassy in Japan.

Daikin submitted a letter describing the company's exports to the United States of light-duty IHSTs. The letter outlines its licensing arrangements with Sundstrand-Sauer and the fact that Daikin can export to the United States only through Sundstrand-Sauer. Daikin maintains that its exports to Sundstrand-Sauer of components and subassemblies will cease as of March 1989, when Sundstrand-Sauer commences U.S. production of the BDU series. Given Daikin's plans to cease exporting light-duty IHSTs to Sundstrand-Sauer, Daikin declined to supply further information about its operations in Japan. 1/

Kayaba exports * * * to the United States. The product is sold directly to * * *, but KYB, a subsidiary of Kayaba, is the importer of record.

1/ Daikin submitted two letters to the Commission, which are included in app. C., along with Sundstrand-Sauer's investment schedule relating to U.S. production of the BDU series. See the section of the report entitled "Development of the industry" for further details.

Kayaba is one of the world's largest producers of shock absorbers. Traditionally the company has also had a large hydraulic department, of which a standard product has been hydrostatic transmissions. These have consisted mostly of * * *. Hydrostatic transmissions manufactured by Kayaba are used primarily in * * *. 1/

Kayaba supplied the Commission with information about the company's world sales, as shown in the tabulation below:

* * * * *

Kawasaki, a Japanese producer named in the petition as a potential exporter of light-duty IHSTs, denied the petitioner's claims in a letter to the Commission. The petition states that Kawasaki "may begin exporting such light duty HST/axle combinations with engines to the United States." (Emphasis added.) Kawasaki contends that these products are outside the scope of the investigation. The company acknowledges that it has entered into agreement with an OEM under which Kawasaki will sell the company an engine assembly, or "power unit" which includes a light-duty non-integrated hydrostatic transmission. Kawasaki emphasized that the company has no plans to export light-duty IHSTs to the United States. 2/

At the conference, the petitioner was unable, when requested by staff, to present information in support of its claim that "Kawasaki is interested in supplying similar light-duty IHST/axle combinations to John Deere." 3/

Consideration of the Causal Relationship Between Allegedly LTFV Imports and the Alleged Material Injury or Threat Thereof

U.S. imports

Data on U.S imports of light-duty IHSTs are shown in table 14. The data presented in the table were compiled from responses to the Commission's questionnaire by two U.S. importers that accounted for all imports during the period under investigation.

There were no imports of light-duty IHSTs during 1985. Sundstrand-Sauer began to purchase from Daikin in 1986, and from 1986 to 1987, Sundstrand-Sauer's imports * * *. From January-September 1987 to January-September 1988, Sundstrand-Sauer's imports * * *. KYB imported * * *. KYB reported * * *, and in 1987 the company's imports accounted for * * * percent by value and * * * percent by quantity of all imports.

1/ Information obtained from counsel to Kayaba, Dec. 19, 1988.
2/ Letter to the Commission, Dec. 16, 1988.
3/ Petition, p. 33; transcript of conference, pp. 59-60.

Table 14

Light-duty IHSTs: U.S. imports from Japan, 1985-87, January-September 1987, and January-September 1988

* * * * *

Market penetration of imports

Shares of apparent consumption accounted for by imports of light-duty IHSTs are shown in table 15. Separate figures are presented for the domestic industry, both omitting and including Sundstrand-Sauer's model 15-U. ^{1/} If model 15-U is included, imports rose from * * * percent of the U.S. market in 1986 to * * * percent in 1987, as measured by quantity. Imports increased from * * * percent of market share during January-September 1987 to * * * percent during January-September 1988. The value of imports of light-duty IHSTs increased from * * * percent of the U.S. market in 1986 to * * * percent in 1987, and continued to rise to * * * percent in January-September 1988, as compared with * * * percent of the U.S. market during January-September 1987.

Table 15

Light-duty IHSTs: Market shares of domestic shipments of U.S.-produced and imported products, 1985-87, January-September 1987, and January-September 1988

* * * * *

^{1/} Separate data are also presented with and without Eaton's transaxle included in consumption.

Prices

Demand for light-duty IHSTs is derived from the demand for the upper, more expensive product range of U.S.-produced garden tractors, yard tractors, and front engine lawn mowers. IHSTs improve the ease of handling and maneuvering of a vehicle by providing infinitely variable speeds while avoiding gear shifting, similar to an automobile's automatic transmission. Mechanical transmissions serve a similar purpose for the lower, less expensive product range of tractors and lawn mowers, but require the shifting of gears. Both the petitioner and respondent agree that hydrostatic and mechanical transmissions compete against each other on some level, but that price is not the major element of this competition. 1/ The original equipment manufacturer (OEM) of tractors and lawn mowers will base its IHST purchasing decision on its forecast of the demand for vehicles with IHSTs. The OEM will initially indicate to potential suppliers whether a new tractor model will use an IHST or a mechanical transmission. 2/

Light-duty IHSTs can also be purchased with an axle incorporated into the housing of the unit (the transaxle). The petitioner, Eaton Corp., is the only supplier of a transaxle in the United States. Demand for transaxles depends on the OEM's evaluation of this product in comparison with the package of an IHST and axle from other suppliers. OEMs who purchased the imported IHST stated that the U.S.-produced transaxle is the only product that could compete with the imported IHST. The standard U.S.-produced IHST models are not considered competitive alternatives for installation in new models by these OEMs because they have horizontal output shafts. 3/ Both the domestic transaxle and imported IHST have vertical output shafts that match the vertically aligned engines these OEMs have been purchasing for their new models. OEMs concur that an IHST without an axle is not comparable to a transaxle and OEMs must take into account the total cost of the imported IHST and an adjoining axle.

Light-duty IHSTs are sold on a per-unit basis and are priced according to whether an axle is attached, performance characteristics (as measured by input/output horsepower), and any additional options desired by the customer (e.g. brakes, auxiliary pumps, filters). IHSTs are sold * * *. Sales terms are typically * * *.

Over 90 percent of light-duty IHSTs are sold to OEMs, with the remainder being sold to distributors who sell to smaller OEMs or as replacements for the aftermarket. Although OEMs purchase the light-duty IHST product via a formal

1/ While an OEM will be more likely to select IHSTs for new models if the price for IHSTs were lower in relation to the price for mechanical transmissions, the decision is still primarily affected by projections for the end-user market. Currently, IHST prices are approximately double the mechanical transmission prices.

2/ While most OEMs specify the transmission type by model, some OEMs, e.g. * * *, have models that can be fitted with either IHSTs or mechanical transmissions. These OEMs will still usually indicate whether an IHST will be used, thereby narrowing the competition to only IHST suppliers.

3/ Although the IHST that has horizontal output shafts can be adapted for vertically aligned engines at additional expense, OEMs reported that they prefer not to undertake this task.

quote process, the formal quote is generally requested only from the selected supplier. Once a supplier is selected, it becomes the sole source of the IHST for the duration of that model (approximately 3 to 5 years). 1/

There are four stages in the production process of a new model tractor or lawn mower: concept, design, testing, and production. This process generally takes approximately 2 years, although it can be as short as 1 year and as long as 5 years. A supplier could be selected at any time during this process, but it will usually occur during the latter part of the design stage or during the testing stage. After a supplier is selected, the OEM will continue negotiating with the selected IHST producer or importer for other options to be included on the IHST (i.e., oil filters, fans, etc.). This may include changes to the IHST to better fit the tractor design, thereby making that specific design unique. The supplier will provide additional quotes depending on the options required. The request for a formal quote does not always signify that the IHST will be purchased or that the new model will be produced. But if the new model is produced, that supplier will provide the IHST at either the quoted price or a new quotation.

Because a formal quote is usually submitted by only the selected supplier, the competition between IHST suppliers occurs prior to the formal quote through verbal contact and informal negotiations. Through each stage prior to production, the OEM is continually in touch with the IHST suppliers analyzing the capabilities of their IHSTs in the new model design. Factors that are important to the OEM during this informal negotiation process include:
* * * *. 2/ Some OEMs have also stated a preference for a transaxle product because of the value of dealing with only one supplier. Although the IHST supplier must price its product within an acceptable range to be considered by the OEM, non-price factors will generally determine the IHST supplier.

The performance requirements or type of application of the new tractor or lawn mower will usually dictate the type of IHST that must be used and the sources of supply. For example, if the new model is a front engine lawn mower that does not need a large amount of horsepower, the OEM would consider light-duty IHSTs with an input horsepower under 6 (Eaton's models 6, 7, 750 or Sundstrand-Sauer's imported model BDU 10S or 10L). 3/ However, if the OEM requires a vertical output shaft on the IHST, the OEM would consider only Eaton's transaxle (the model 750) and Sundstrand-Sauer's imported product and not Eaton's models 6 and 7. As stated earlier, the transaxle would then be compared with the combination of Sundstrand-Sauer's IHST and an adjoining axle from an axle producer.

The OEM may not go through the competitive process if only one type of IHST fits the OEM's requirement. If the OEM requires an IHST that is currently produced, it may only approach that supplier. Or if the OEM requires a slight

1/ Although the petitioner and respondent both state that the OEM has the potential to switch suppliers during the model life cycle, * * *.

2/ These factors are also used in analyzing the adjoining axle if the OEM is comparing the imported IHST with the transaxle.

3/ See section of this report entitled "Description and uses" for a description of the suppliers' models.

variation to a currently purchased IHST, it may choose to work with the supplier to make the necessary design change.

OEMs will usually purchase the light-duty IHSTs on an as-needed basis pursuant to annual schedules. The model year in the tractor and lawn mower industry runs between September and March for most OEMs so the estimated delivery schedules are developed between June and August. Some large OEMs (e.g. * * *) command the negotiations for light-duty IHSTs due to their purchasing size. They often set design requirements and specifications for the IHST product, require potential suppliers to meet specific quality and technology standards, establish delivery and supply reliability standards, and insist on a low price. The formal quote is made on the basis of a specified quantity level, * * *. Questionnaire responses indicated that a large-volume sale is approximately * * * annually, a medium-volume sale is * * * annually, and a small-volume sale is between * * * annually. In its questionnaire response, * * *.

OEM pricing.--U.S. producers and importers of light-duty IHSTs were requested to provide information on all their formal quotes and IHST sales to OEMs between January 1985 and September 1988. 1/ OEMs were requested to provide all quotes received on their light-duty IHST business awarded to domestic and Japanese suppliers. Both U.S. producers, Eaton and Sundstrand-Sauer, and importers, Sundstrand-Sauer and KYB, submitted information on the quote process and provided detailed information on specific projects. In addition, eight OEMs provided purchaser questionnaire responses. 2/

The following section analyzes IHST suppliers' pricing to all OEMs and concentrates specifically on those OEMs that purchased the imported product or received a formal quote from the U.S. importer. * * * reported that it has sold U.S.-produced IHSTs to * * * OEMs and U.S.-produced transaxles to * * * OEMs during the period of investigation, January 1985-September 1988. Transaxles were first quoted and sold to OEMs beginning in * * *. * * * reported that it sold U.S.-produced IHSTs to * * * OEMs during the period of investigation and Japanese-produced IHSTs to * * * OEMs during * * *, the * * * years for which it reported import sales. 3/ * * * submitted formal quotes for its Japanese-produced IHSTs to * * * OEMs during the period of investigation. * * * reported sales of Japanese-produced IHSTs to * * * during * * *, the * * * years for which it reported import sales.

1/ * * * reports in its questionnaire response that * * * percent of its shipments of light-duty IHSTs went to OEMs in 1987. * * * reports that * * * percent of its U.S.-produced light-duty IHSTs and * * * percent of its Japanese-produced light-duty IHSTs went to OEMs in 1987. (For the first three quarters of 1988, * * * reported shipping over * * * percent of its Japanese-produced light-duty IHSTs to OEMs.) * * * reports that * * * of its shipments of its Japanese-produced light-duty IHSTs went to * * * in 1987.

2/ The eight OEMs who submitted purchaser questionnaires accounted for over 70 percent of all sales to OEMs in 1987 and over 80 percent of all sales to OEMs in January-September 1988.

3/ * * * also reported that it sold U.S.-assembled IHSTs from Japanese parts to * * * OEMs during January-September 1988.

U.S. producers and importers reported all prices of IHSTs and transaxles sold to OEMs by model for the period under investigation. A range of the lowest and highest unit price is presented for annual sales to OEMs of greater than 50 units (table 16). ^{1/} For the older U.S.-produced IHSTs that have horizontal output shafts (Eaton's model 6, 7, 11 and Sundstrand-Sauer's model 15U), the low price in the price range * * * for the model * * * and * * * for the model * * *. However, the low price in the price range * * * for the model * * * and * * * for the model * * *. For the U.S.-produced transaxles (Eaton model 750, 770, 780, 850, and 1150) that have vertical output shafts, the low price in the price range * * * for the model * * * and * * *, respectively, between 1987 and 1988. * * *. Sale prices for * * *. ^{2/}

Table 16

Light-duty IHSTs: Range of unit prices for annual sales to OEMs of greater than 50 units

* * * * *

Direct price comparisons cannot be made between the U.S.-produced and Japanese-produced IHSTs. OEMs report that the import's only direct competing U.S.-produced IHST is the petitioner's transaxle because both products have a vertical output shaft. However, OEM's must add an adjoining axle to the imported product to make it comparable to the U.S.-produced transaxle. ^{3/} Because the transaxle can only be compared to the IHST/axle combination, quote and price information for the U.S.-produced transaxle is shown in tables 17-23 along with the constructed value for the imported IHST/axle as reported by OEMs. Quote and price information for other light-duty IHSTs and their adjoining axles is also reported for these OEMs. * * * OEMs have purchased the imported product from Sundstrand-Sauer and * * * OEMs have received formal quotations from Sundstrand-Sauer but have not purchased the imported product. For * * * OEMs that purchased the imported product, the total constructed cost of the imported IHST with adjoining axle was * * * than the competing Eaton transaxle.

^{1/} Table 16 presents average unit price ranges for sales of greater than 50 units for each calendar year. (See app. E for the volumes associated with these price ranges and for the average unit price ranges of all sales to OEMs). Because pricing to OEMs is generally based on a model year (September to August), calendar year pricing may differ somewhat from model year pricing. However, * * *.

^{2/} * * *.

^{3/} The axle is supplied by a third party. The OEM will assess the axle product separately prior to analyzing the IHST/axle combination. The results of this axle assessment may prevent the sale of an IHST.

Table 17

Light-duty IHSTs: Quote and price information to * * *, January 1986-September 1988

* * * * *

Table 18

Light-duty IHSTs: Quote and price information to * * *, January 1986-September 1988

* * * * *

Table 19

Light-duty IHSTs: Quote and price information to * * *, January 1986-September 1988

* * * * *

Table 20

Light-duty IHSTs: Quote and price information to * * *, January 1986-September 1988

* * * * *

Table 21

Light-duty IHSTs: Quote and price information to * * *, January 1986-September 1988

* * * * *

Table 22

Light-duty IHSTs: Quote and price information to * * *, January
1986-September 1988

* * * * *

Table 23

Light-duty IHSTs: Quote and price information to * * *, January
1986-September 1988

* * * * *

OEMs who purchased the imported product

* * * * *

OEMs who have received formal price quotes on the imported product

* * * * *

Exchange rates

Quarterly data reported by the International Monetary Fund indicate that during the period January 1985 through September 1988 the value of the Japanese yen advanced sharply, by 93.2 percent, against the U.S. dollar (table 24). ^{1/} Adjusted for relative movements in producer price indices in the United States and Japan, the real value of the Japanese currency appreciated 57.7 percent relative to the dollar from January-March 1985 through the third quarter of 1988.

Lost sales/lost revenues

* * * allegations of lost sales and * * * allegations of lost revenues were supplied to the Commission by * * *. Alleged lost sales amounted to * * * and alleged lost revenues amounted to * * *. Petitioner argues that since the lost sales and lost revenues cover the life of the new model, the actual amount lost to Eaton is three to five times greater, or * * * and * * * in total over the next 3 to 5 years. * * * lost sale allegations involve * * * product and * * *. * * * of the lost sale allegations involved a * * *. Commission staff contacted all * * * of the OEMs cited by * * * in allegations of lost sales and lost revenues. ^{2/}

^{1/} International Financial Statistics, October 1988.

^{2/} * * *.

Table 24

U.S.-Japanese exchange rates: 1/ Nominal exchange rates of the Japanese yen in U.S. dollars, real exchange-rate equivalents, and producer price indicators in the United States and Japan, 2/ indexed by quarters, January 1985-September 1988

Period	U.S. Producer Price Index	Japanese Producer Price Index	Nominal exchange rate index -----US dollars/yen-----	Real exchange rate index ^{3/}
1985:				
January-March.....	100.0	100.0	100.0	100.0
April-June.....	100.1	98.8	102.8	101.5
July-September.....	99.4	97.5	108.0	106.0
October-December....	100.0	94.7	124.4	117.8
1986:				
January-March.....	98.5	92.8	137.2	129.2
April-June.....	96.6	89.4	151.5	140.1
July-September.....	96.2	87.0	165.4	149.7
October-December....	96.5	86.1	160.8	143.5
1987:				
January-March.....	97.7	85.6	168.2	147.4
April-June.....	99.2	84.9	180.6	154.5
July-September.....	100.3	86.0	175.4	150.2
October-December....	100.8	85.7	189.8	161.3
1988:				
January-March.....	101.2	84.7	201.3	168.4
April-June.....	103.0	84.4	205.1	168.1
July-September ^{4/} ...	104.2	85.1	193.2	157.7

1/ Exchange rates expressed in U.S. dollars per unit of yen.

2/ Producer price indicators--intended to measure final product prices--are based on average quarterly indices presented in line 63 of the International Financial Statistics.

3/ The indexed real exchange rate represents the nominal exchange rate adjusted for relative movements in Producer Price Indices in the United States and Japan. Producer prices in the United States increased 4.2 percent between January 1985 and August 1988 compared to a 14.9-percent decrease in Japan during the same period.

4/ Data are derived from exchange rate and Producer Price Indices reported for July-August.

Note.--January-March 1985=100.

Source: International Monetary Fund, International Financial Statistics, October 1988.

* * *, a manufacturer of lawn and garden tractors, was named by * * * in lost revenues involving * * * during * * *. * * *, senior purchasing agent for * * *, stated that during that period * * * was very interested in purchasing * * *. * * * stated that * * * did reduce the price for * * *. * * *.

* * * purchases * * *. * * * engineering division specifies the vendor to be selected on the basis of the following criteria: * * *. * * * comments that * * *. * * *.

* * *, a producer of * * * lawn and garden tractors, was cited by * * * in a lost revenue allegation involving * * *. * * *, the purchaser of IHSTs for * * *, confirmed that * * * did reduce its price for the * * * during that time frame, and the existence of the imported product may have caused a portion of the price reduction. * * * states that * * * was testing the imported product at that time, but determined that the product was of inferior quality to * * *. The testing never went beyond the preliminary stage. * * * never requested any firm prices for the imported product.

* * * stated that * * * also offered the price reduction as an incentive to * * *. * * * would help * * * in return for a reduced price * * *. * * *.

* * *, a manufacturer of * * * lawnmowers, was named by * * * in a lost sale allegation for * * *. * * *. * * *, an engineer * * *, stated that there was * * *. * * * comments that it would have taken a major redesign * * *. * * *.

* currently purchases * * *. It purchases approximately * * *.

APPENDIX A

FEDERAL REGISTER NOTICES OF THE
U.S. INTERNATIONAL TRADE COMMISSION AND THE DEPARTMENT OF COMMERCE

**INTERNATIONAL TRADE
COMMISSION**

[Investigation No. 731-TA-425
(Preliminary)]

**Light Duty Integrated Hydrostatic
Transmissions and Subassemblies
Thereof With or Without Attached
Axles From Japan**

AGENCY: United States International
Trade Commission.

ACTION: Institution of a preliminary
antidumping investigation and
scheduling of a conference to be held in
connection with the investigation.

SUMMARY: The Commission hereby gives
notice of the institution of preliminary
antidumping investigation No. 731-TA-
425 (Preliminary) under section 733(a) of
the Tariff Act of 1930 (19 U.S.C.
1673b(a)) to determine whether there is
a reasonable indication that an industry
in the United States if materially
injured, or is threatened with material
injury, or the establishment of an
industry in the United States is
materially retarded, by reason of
imports from Japan of light duty
integrated hydrostatic transmissions
and subassemblies thereof, with or
without attached axles,¹ provided for in
items 660.85, 660.97, 666.00, and 668.10 of
the Tariff Schedules of the United States
(TSUS), and classifiable in subheadings
8412.29.80, 8412.90.90, 8413.60.00,
8413.81.00, 8432.90.00, 8433.90.10,
8433.90.50, 8434.90.00, and 8436.99.00 of
the Harmonized Tariff Schedule of the
United States (HTS), that are alleged to
be sold in the United States at less than
fair value. As provided in section 733(a),
the Commission must complete
preliminary antidumping investigations
in 45 days, or in this case by January 6,
1989.

For further information concerning the

¹ The subject articles, which have a maximum
input horsepower of twenty or fewer, comprise the
following: Parts and subassemblies of non-electric
engines and motors not specially provided for
(TSUS item 660.85 and HTS subheadings 8412.29.80
and 8412.90.90); pumps for liquids, liquid elevators,
and parts thereof, the foregoing not specially
provided for (TSUS item 660.97 and HTS
subheadings 8413.60.00 and 8413.81.00); other parts,
not specially provided for, of machinery for soil
preparation and cultivation (TSUS item 666.00 and
HTS subheadings 8432.90.00, 8433.90.50, 8434.90.00,
and 8436.99.00); and parts of lawn mowers (TSUS
item 666.10 and HTS subheading 8433.90.10).

conduct of this investigation and rules of
general application, consult the
Commission's Rules of Practice and
Procedure, Part 207, Subparts A and B
(19 CFR Part 207), and Part 201, Subparts
A through E (19 CFR Part 201).

EFFECTIVE DATE: November 22, 1988.

FOR FURTHER INFORMATION CONTACT:
Janine Wedel (202-252-1178), Office of
Investigations, U.S. International Trade
Commission, 500 E Street SW.,
Washington, DC 20436. Hearing-
impaired individuals are advised that
information on this matter can be
obtained by contacting the
Commission's TDD terminal on 202-252-
1810. Persons with mobility impairments
who will need special assistance in
gaining access to the Commission
should contact the Office of the
Secretary at 202-252-1000.

SUPPLEMENTARY INFORMATION:
Background

This investigation is being instituted
in response to a petition filed on
November 22, 1988, by Eaton
Corporation, Eden Prairie, Minnesota.

Participation in the Investigation

Persons wishing to participate in
this investigation as parties must file an
entry of appearance with the Secretary
to the Commission, as provided in
§ 201.11 of the Commission's rules (19
CFR 201.11) not later than seven (7) days
after publication of this notice in the
Federal Register. Any entry of
appearance filed after this date will be
referred to the Chairman, who will
determine whether to accept the late
entry for good cause shown by the
person desiring to file the entry.

Service list

Pursuant to § 201.11(d) of the
Commission's rules (19 CFR 201.11(d)),
the Secretary will prepare a service list
containing the names and addresses of
all persons, or their representatives,
who are parties to this investigation
upon the expiration of the period for
filing entries of appearance. In
accordance with §§ 201.16(c) and 207.3
of the rules (19 CFR 201.16(c) and 207.3,
as amended, 53 FR 33034, 33041 (August
29, 1988), each document filed by a party
to the investigation must be served on
all other parties to the investigation (as
identified by the service list), and a
certificate of service must accompany
the document. The Secretary will not
accept a document for filing without a
certificate of service.

Limited Disclosure of Business Proprietary Information Under a Protective Order

Pursuant to § 207.7(a) of the Commission's rules (19 CFR 207.7(a) as amended, 53 FR 33041), the Secretary will make available business proprietary information gathered in this preliminary investigation to authorized applicants under a protective order, provided that the application be made not later than seven (7) days after the publication of this notice in the Federal Register. A separate service list will be maintained by the Secretary for those parties authorized to receive business proprietary information under a protective order. The Secretary will not accept any submission by parties containing business proprietary information without a certificate of service indicating that it has been served on all the parties that are authorized to receive such information under a protective order.

Conference

The Director of Operations of the Commission has scheduled as conference in connection with this investigation for 9:30 a.m. on December 14, 1988, at the U.S. International Trade Commission Building, 500 E Street SW., Washington, DC. Parties wishing to participate in the conference should contact Janine Wedel (202-252-1178) not later than December 12, 1988, to arrange for their appearance. Parties in support of the imposition of antidumping duties in this investigation and parties in opposition to the imposition of such duties will each be collectively allocated one hour within which to make an oral presentation at the conference.

Written Submissions

Any person may submit to the Commission on or before December 16, 1988, a written brief containing information and arguments pertinent to the subject matter of the investigation, as provided in § 207.15 of the Commission's rules (19 CFR 207.15). A signed original and fourteen (14) copies of each submission must be filed with the Secretary to the Commission in accordance with § 201.8 of the rules (19 CFR 201.8). All written submissions except for business proprietary data will be available for public inspection during regular business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary to the Commission.

Any information for which business proprietary treatment is desired must be submitted separately. The envelope and

all pages of such submissions must be clearly labeled "Business Proprietary Information." Business proprietary submissions and requests for business proprietary treatment must conform with the requirements of §§ 201.8 and 207.7 of the Commission's rules (19 CFR 201.8 and 207.7 as amended, 53 FR 33041).

Parties which obtain disclosure of business proprietary information pursuant to § 207.7(a) of the Commission's rules (19 CFR 207.7(a)) may comment on such information in their written brief, and may also file additional written comments on such information no later than December 19, 1988. Such additional comments must be limited to comments on business proprietary information received in or after the written briefs.

Authority: This investigation is being conducted under authority of the Tariff Act of 1930, title VII. This notice is published pursuant to § 207.12 of the Commission's rules (19 CFR 207.12).

By order of the Commission.

Issued: November 29, 1988.

Kenneth R. Mason,

Secretary.

[FR Doc. 88-27900 Filed 12-2-88; 8:45 am]

BILLING CODE 7020-02-M

make a preliminary determination on or before May 1, 1989.

EFFECTIVE DATE: December 16, 1988.

FOR FURTHER INFORMATION CONTACT: Raymond Busen or Louis Apple, Office of Antidumping Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone (202) 377-3464 or (202) 377-1769.

SUPPLEMENTARY INFORMATION:

The Petition:

On November 22, 1988, we received a petition filed in proper form by Eaton Corporation on behalf of the domestic industry engaged in the production of light duty integrated HSTs. In compliance with the filing requirements of 19 CFR 353.36, petitioner alleges that imports of light duty integrated HSTs from Japan are being, or are likely to be, sold in the United States at less than fair value within the meaning of section 731 of the Tariff Act of 1930, as amended (the Act), and that these imports materially injure, or threaten material injury to, a U.S. industry.

If any interested party as described under paragraphs (C), (D), (E), or (F) of section 771(9) of the Act wishes to register support of or opposition to this petition, please file written notification with the Commerce official cited in the "For Further Information Contact" section of this notice.

United States Price and Foreign Market Value

United States price was based on U.S. selling prices to original equipment manufacturers. Petitioner deducted distributor mark-up, Japanese inland freight, Japanese Customs process fee, cargo loading fee, ocean freight, marine insurance, U.S. Customs brokerage fees, U.S. import duties, and U.S. inland transportation.

Petitioner based foreign market value on a manufacturer's price to Japanese original equipment manufacturers. Deductions were made for foreign inland freight and foreign packaging, while U.S. packaging costs were added in.

Based on a comparison of United States price and foreign market value, petitioner alleges dumping margins ranging from 45 to 114 percent.

Initiation of Investigation

Under section 732(c) of the Act, we must determine, within 20 days after a petition is filed, whether it sets forth the allegations necessary for the initiation of an antidumping duty investigation,

and whether it contains information reasonably available to the petitioner supporting the allegations.

We examined the petition on light duty integrated HSTs from Japan and found that it meets the requirements of section 732(b) of the Act. Therefore, in accordance with section 732 of the Act, we are initiating an antidumping duty investigation to determine whether imports of light duty integrated HSTs from Japan are being, or are likely to be, sold in the United States at less than fair value. If our investigation proceeds normally, we will make our preliminary determination by May 1, 1989.

Scope of Investigation

The United States has developed a system of tariff classification based on the international harmonized system of customs nomenclature. On January 1, 1989, the U.S. tariff schedules will be fully converted to the *Harmonized Tariff Schedule (HTS)* and all merchandise entered or withdrawn from warehouse for consumption on or after this date will be classified solely according to the appropriate HTS item number(s). Until that time, however, the Department will be providing both the appropriate *Tariff Schedules of the United States Annotated (TSUSA)* item number(s) and the appropriate HTS item number(s), with its product descriptions. As with the TSUSA, the HTS item numbers are provided for convenience and customs purposes. The written description remains dispositive as to the scope of the product coverage.

We are requesting petitioners to include the appropriate HTS item number(s) as well as the TSUSA item number(s) in all petitions filed with the Department through the end of this year. A reference copy of the HTS is available for consultation in the Central Records Unit, Room B-099, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230. Additionally, all U.S. Customs officers have reference copies and petitioners may contact the Import Specialist at their local Customs office to consult the schedule.

The products covered by this investigation are light duty integrated hydrostatic transmissions and subassemblies thereof, with or without attached axles, provided for in items 660.85, 660.97, 666.00, and 666.10 of the *Tariff Schedules of the United States (TSUS)*, and classifiable in subheadings 8412.29.80, 8412.90.90, 8413.60.00, 8413.81.00, 8432.90.00, 8433.90.10, 8433.90.50, 8434.90.00, and 8436.99.00 of the HTS. The subject articles, which have a maximum horsepower of twenty

International Trade Administration

[A-568-808]

Initiation of Antidumping Duty Investigation; Light Duty Integrated Hydrostatic Transmissions and Subassemblies Thereof, With or Without Attached Axles From Japan

AGENCY: Import Administration, International Trade Administration, Commerce.

ACTION: Notice.

SUMMARY: On the basis of a petition filed in proper form with the U.S. Department of Commerce, we are initiating an antidumping duty investigation to determine whether imports of light duty integrated hydrostatic transmissions (HSTs) and subassemblies thereof, with or without attached axles, from Japan are being, or are likely to be, sold in the United States at less than fair value. We are notifying the U.S. International Trade Commission (ITC) of this action so that it may determine whether imports of this product materially injure, or threaten material injury to, a U.S. industry. If this investigation proceeds normally, the ITC will make its preliminary determination on or before January 6, 1989. If that determination is affirmative, we will

or fewer, comprise the following: Parts and subassemblies if non-electric engines and motors not specially provided for (TSUS item 660.85 and HTS subheadings 8412.29.80 and 8412.90.90); pumps for liquids, liquid elevators, and parts thereof, the foregoing not specially provided for (TSUS items 660.97 and HTS subheadings 8413.60.00 and 8413.81.00); other parts, not specially provided for, of machinery for soil preparation and cultivation (TSUS item 660.00 and HTS subheadings 8432.90.00, 8433.90.50, 8434.90.00, and 8436.99.00); and parts of lawn mowers (TSUS item 666.10 and HTS subheading 8433.90.10).

Notification of ITC

Section 732(d) of the Act requires us to notify the ITC of this action and to provide it with the information we used to arrive at this determination. We will notify the ITC and make available to it all nonprivileged and nonproprietary information. We will allow the ITC access to all privileged and business proprietary information in our files, provided it confirms in writing that it will not disclose such information either publicly or under administrative protective order without the written consent of the Assistant Secretary for Import Administration.

Preliminary Determination by ITC

The ITC will determine by January 6, 1989 whether there is a reasonable indication that imports of light duty integrated HSTs from Japan materially injure, or threaten material injury to, a U.S. industry. If its determination is negative, the investigation will be terminated; otherwise, it will proceed according to the statutory and regulatory procedures.

This notice is published pursuant to section 732(c)(2) of the Act.

December 12, 1988.

Jan W. Mares,

Assistant Secretary for Import Administration.

[FR Doc. 88-29004 Filed 12-15-88; 8:45 am]

BILLING CODE 3510-05-M

APPENDIX B
WITNESSES AT THE CONFERENCE

CALENDAR OF PUBLIC CONFERENCE

Investigation No. 731-TA-425 (Preliminary)

LIGHT DUTY INTEGRATED HYDROSTATIC TRANSMISSIONS AND SUBASSEMBLIES THEREOF
WITH OR WITHOUT ATTACHED AXLES FROM JAPAN

Those listed below appeared at the United States International Trade Commission's conference which was held in connection with the subject investigation on December 14, 1988, in the Hearing Room of the USITC Building, 500 E Street, SW., Washington, DC.

In support of the imposition of antidumping duties

Jones, Day, Reavis & Pogue--Counsel
Washington, DC
on behalf of--

Eaton Corp.

Mr. Arthur J. Warburton, Vice President-Hydraulic Operations,
Eaton Corp.
Dr. William F. Finan, Quick Finan & Associates, Inc., Washington, DC

Thomas F. Cullen, Jr., Esq.--OF COUNSEL
David G. Schryver, Esq.--OF COUNSEL
Robert C. Bowman, Esq.--OF COUNSEL

In opposition to the imposition of antidumping duties

Arent, Fox, Kintner, Plotkin & Kahn--Counsel
Washington, DC
on behalf of--

Sundstrand-Sauer

Mr. Patrick J. Gilchrist, Director of Business Development,
Sundstrand-Sauer
Mr. Stephen Andrychuk, Marketing Manager - Lawn and Garden Products,
Sundstrand-Sauer

Stephen L. Gibson, Esq.--OF COUNSEL
Maryanne Courtney Esq.--OF COUNSEL

APPENDIX C

MATERIALS PERTAINING TO SUNDSTRAND-SAUER'S AND DAIKIN'S
OPERATIONS AND AGREEMENTS

Investment Summary of Sundstrand-Sauer for BDU Series

* * * * *

B-11

O'MELVENY & MYERS

400 SOUTH HOPE STREET
LOS ANGELES, CALIFORNIA 90071-2899
TELEPHONE (213) 669-6000
FAX 674122 · FACSIMILE (213) 669-6407
1800 CENTURY PARK EAST
LOS ANGELES, CALIFORNIA 90067-1589
TELEPHONE (213) 553-6700
TELEX 674097 · FACSIMILE (213) 552-3090

610 NEWPORT CENTER DRIVE
NEWPORT BEACH, CALIFORNIA 92660-6429
TELEPHONE (714) 760-9600 · (213) 669-6000
TELEX 4722088 · FACSIMILE (714) 669-6994

WRITER'S DIRECT DIAL NUMBER

(202) 383-5371

555 13TH STREET, N. W.
WASHINGTON, D. C. 20004-1109
TELEPHONE (202) 383-5300
TELEX 89622 · FACSIMILE (202) 383-5414

December
14th
1 9 8 8

CITICORP CENTER
153 EAST 53RD STREET
NEW YORK, NEW YORK 10022-4611
TELEPHONE (212) 326-2000
TELEX 129165 · FACSIMILE (212) 326-2061
10 FINSBURY SQUARE
LONDON EC2A 1LA
TELEPHONE 01-256 8451
TELEX 918859 · FACSIMILE 01-638 8205
AKASAKA TWIN TOWER, EAST 18TH FLOOR
2-17-22 AKASAKA, MINATO-KU
TOKYO 107, JAPAN
TELEPHONE (03) 587-2800
TELEX J23775 QMNTOKYO · FACSIMILE (03) 587-9738

OUR FILE NUMBER

194,620-007

Mr. Kenneth R. Mason
Secretary
U.S. International Trade Commission
500 E. Street, S.W.
Room 112
Washington, D.C. 20436

RECEIVED

DEC 14 1988

OFFICE OF THE SECRETARY
U.S. INTL. TRADE COMMISSION

Re: Light Duty Integrated Hydrostatic Transmissions
and Subassemblies Thereof With or Without
Attached Axles from Japan;
Inv. No. 731-TA-425 (Preliminary).

Dear Mr. Mason:

We represent Daikin Industries, Ltd. ("Daikin") in connection with this antidumping proceeding.

Although we will not appear on behalf of Daikin at the Conference scheduled for December 14, 1988, we would like to submit on behalf of Daikin the following comments on the antidumping petition ("Petition") filed by Eaton Corporation ("Eaton") on November 22, 1988.

BACKGROUND

Daikin has had a licensing relationship with Sundstrand-Sauer Company ("SSC"), an unrelated corporation, since 1967 and has produced products under this license for sale in the Far East. Daikin was approached by SSC in 1984 to undertake initial production of the BDU-10S, BDU-10L and BDU-21 light duty hydrostatic transmission ("HST") to meet SSC's requirements for the United States market and, as noted by Eaton, Daikin has produced and exported the BDU to the United States under license from SSC. Petition at 33. Under the terms of the license agreement with SSC, Daikin has no right to sell these HST's or their subassemblies directly to

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the U.S. market. Accordingly, as to the U.S. market, Daikin has produced solely for sale to SSC. Since 1987, Daikin has produced and sold these HST's in Japan and has paid a royalty to SSC on these sales in the Japanese market.

While the petition makes no mention of this fact, SSC is a long-established U.S. producer of light duty integrated HSTs, having produced and sold over a million units of its 15 Series in the United States. Petition Exhibit 3. The BDU also was developed by SSC, and when Daikin began producing the BDU, it was advised that SSC planned to invest in production of the BDU in the United States, provided that there was sufficient market demand. SSC subsequently advised Daikin that it had decided to commence the manufacture in the United States of the BDU and was making the required investment in plant and machinery to accomplish this objective. In order to facilitate the transition to U.S. production, SSC requested Daikin to supply certain parts and components during the start-up phase of its U.S. production. Daikin agreed to this request and, since August of this year, Daikin has exported only a declining portion of the parts and components used by SSC in its U.S. production of BDUs. It is Daikin's understanding of the manufacturing plan of SSC that the shift to U.S. production will be virtually complete in March 1989. From that time onward, it is SSC's intention to request Daikin to supply only two types of parts, which will constitute only a small fraction of the cost of the final product. Indeed, these products are not even produced by Daikin, but simply purchased by Daikin for resale to SSC.

As a result of the above, the only conceivable future export of "subject merchandise" would be sporadic shipments of a small quantity of finished units to fill unexpected orders that could not be met at that moment by the U.S. production of SSC. Daikin intends to concentrate on expanding its sales in the Japanese market as the U.S. market is foreclosed to it under the terms of the license agreement with SSC.

COMMENTS ON THE PETITION

Like Product Definition

We note that the petition seeks to compare the BDU with Eaton's new hydrostatic transaxle. Petition at 53-54. Daikin believes that the two products are not comparable in either content or configuration. The BDU is solely an HST, which is designed to be bolted to an axle (actually a

Page 3 - Kenneth R. Mason - 12/14/88

gear/axle assembly). Petition Exhibit 3. The axle is produced by an entirely different industry than the BDU and normally is procured separately by the customer. The Eaton hydrostatic transaxle, on the other hand, is a single package, which must be purchased by the customer as a unit; the hydrostatic function is only a portion of the transaxle. Petition Exhibit 2A (Models 750, 850, 770, 780). Since the hydrostatic portion is not (and cannot be) offered separately to customers, the commercial considerations affecting this include also the axles and gears, as well as the integrated design configuration.

U.S. Industry

Eaton's assertion that "no United States manufacturer, other than Eaton, now produces the light duty HST for commercial sales" is simply incorrect. SSC (and its predecessor, the Sundstrand Hydro-transmission Division) has been a leading producer in the United States light duty integrated HST market for more than 20 years. Moreover, SSC now has initiated U.S. production of the very product that is the subject of Eaton's petition. Yet, Eaton's discussion of injury totally ignores the existence of SSC as a part of the domestic industry.

Material Injury

Even with respect to its own operations, we note that Eaton fails to discuss in its petition a number of important elements of material injury such as actual and potential decline in output, sales, productivity, capacity utilization, cash flow, inventories, employment, wages, and investment. With respect to profitability, Eaton merely posits a "projected decline" in "operating" profit. Petition at 45. The weakness of Eaton's injury case is further betrayed by Eaton's explanation that the "more positive results" for some of its models have "helped to balance" the alleged adverse effect on newer products. Petition at 45. In sum, Eaton's argument for a finding of material injury appears to be based primarily upon an acknowledgement that a substantial part of its product line is not suffering injury at all and speculation that the remaining part of its product may not be quite as profitable as before. Even if the new product line has not been as successful as the old, a lack of resounding success in a newly introduced product may well be the result of poor marketing or a number of other factors totally unrelated to sales by SSC.

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Daikin respectfully submits that the Commission will find during its investigation that Eaton's claims of material injury as to both itself and the U.S. industry are unfounded.

Threat of Material Injury

Daikin finds Eaton's claims of threat of material injury even more difficult to understand. Daikin's exports to the U.S. market of subject merchandise ceased in July 1988. The facts that Daikin cannot resume exporting except to SSC and SSC's commitment to U.S. production mean that Daikin will make no more than sporadic sales in unusual situations. As for the putative threat posed by other Japanese manufacturers, Daikin submits that the conjecture about future production offered by Eaton shows neither that the threat is real nor that actual injury is imminent.

CONCLUSION

This petition is a request for relief for a healthy industry from import competition which no longer exists and which was non-injurious in any event. Daikin, which has assisted a U.S. company in moving part of its production to the United States, is frankly bewildered at being made the target of Eaton's unfair trade complaint.

For the foregoing reasons, Daikin respectfully submits that the Commission should find that there is no reasonable indication of material injury, or threat thereof, to the U.S. industry by reason of imports of HST's.

Yours very truly,


Greyson Bryan

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O'MELVENY & MYERS

400 SOUTH HOPE STREET
LOS ANGELES, CALIFORNIA 90071-2899
TELEPHONE (213) 669-8000
TELEX 674122 · FACSIMILE (213) 669-6407
1800 CENTURY PARK EAST
LOS ANGELES, CALIFORNIA 90067-1589
TELEPHONE (213) 553-8700
TELEX 674097 · FACSIMILE (213) 552-3090
610 NEWPORT CENTER DRIVE
NEWPORT BEACH, CALIFORNIA 92660-6429
TELEPHONE (714) 760-9600 · (213) 669-8000
TELEX 4722088 · FACSIMILE (714) 669-6994

555 13TH STREET, N. W.
WASHINGTON, D. C. 20004-1109
TELEPHONE (202) 383-5300
TELEX 89822 · FACSIMILE (202) 383-5414

CITICORP CENTER
153 EAST 53RD STREET
NEW YORK, NEW YORK 10022-4611
TELEPHONE (212) 326-2000
TELEX 129185 · FACSIMILE (212) 326-2081
10 FINSBURY SQUARE
LONDON EC2A 1LA
TELEPHONE 01-256 8451
TELEX 918859 · FACSIMILE 01-638 8205
AKASAKA TWIN TOWER, EAST 18TH FLOOR
2-17-22 AKASAKA, MINATO-KU
TOKYO 107, JAPAN
TELEPHONE (03) 587-2800
TELEX J23775 OMMTOKYO · FACSIMILE (03) 587-9738

December
15th
1 9 8 8

WRITER'S DIRECT DIAL NUMBER

(202) 383-5371

OUR FILE NUMBER

194-620-007

DEC 15 1988
DOCKET/USITC

Mr. Kenneth R. Mason
Secretary
U.S. International Trade Commission
500 E Street, S.W.
Room 112
Washington, D.C. 20436

Re: Light Duty Integrated Hydrostatic Transmissions
and Subassemblies Thereof With or Without
Attached Axles from Japan;
Inv. No. 731-TA-425 (Preliminary)

Dear Mr. Mason:

We represent Daikin Industries, Ltd. ("Daikin") in connection with this antidumping proceeding.

This letter is submitted to make a minor correction to information submitted to the Commission in Daikin's letter dated December 14, 1988.

The sentence in the third full paragraph on page one of that letter should be changed so that the year "1985" replaces the year "1984." The corrected sentence should read: "Daikin was approached in 1985 to undertake initial production . . .".

We apologize for any inconvenience this error may have caused.

Yours very truly,

Greyson Bryan
Greyson Bryan

B-16

O'MELVENY & MYERS

400 SOUTH HOPE STREET
LOS ANGELES, CALIFORNIA 90071-2899
TELEPHONE (213) 669-6000
TELEX 674122 · FACSIMILE (213) 669-6407

1800 CENTURY PARK EAST
LOS ANGELES, CALIFORNIA 90067-1589
TELEPHONE (213) 553-6700
TELEX 674097 · FACSIMILE (213) 552-3090

610 NEWPORT CENTER DRIVE
NEWPORT BEACH, CALIFORNIA 92660-6429
TELEPHONE (714) 760-9600 · (213) 669-8000
TELEX 4722088 · FACSIMILE (714) 669-6994

WRITER'S DIRECT DIAL NUMBER

(202) 383-5371

555 13TH STREET, N. W.
WASHINGTON, D. C. 20004-1109

TELEPHONE (202) 383-5300
TELEX 89622 · FACSIMILE (202) 383-5414

December
16th
1 9 8 8

CITICORP CENTER
153 EAST 53RD STREET
NEW YORK, NEW YORK 10022-4611
TELEPHONE (212) 326-2000
TELEX 129165 · FACSIMILE (212) 326-2061

10 FINSBURY SQUARE
LONDON EC2A 1LA
TELEPHONE 01-256 8451
TELEX 918859 · FACSIMILE 01-638 8205

AKASAKA TWIN TOWER, EAST 18TH FLOOR
2-17-22 AKASAKA, MINATO-KU
TOKYO 107, JAPAN

TELEPHONE (03) 587-2800
TELEX J23775 OMMTOKYO · FACSIMILE (03) 587-9738

OUR FILE NUMBER

194 620-007

DEC 16 1988 10:59

Mr. Kenneth R. Mason
Secretary
U.S. International Trade Commission
500 E Street, S.W.
Room 112
Washington, D.C. 20436

Re: Light Duty Integrated Hydrostatic
Transmissions and Subassemblies Thereof With
or Without Attached Axles from Japan;
Inv. No. 731-TA-425 (Preliminary)

Dear Mr. Mason:

We represent Daikin Industries, Ltd. ("Daikin") in connection with this antidumping proceeding.

We received from the Commission's Office of Investigations yesterday, December 15, 1988, a letter requesting certain information regarding our client's operations in connection with the above-referenced investigation. The letter requested a response by no later than December 16, 1988.

In a written statement submitted to the Commission on December 14, 1988, Daikin described its operations regarding imports into the United States of the merchandise under investigation in this proceeding. Given the situation described therein, Daikin must respectfully decline the Commission's request to provide further information.

Yours very truly,

Jerome M. Lehrman
Jerome M. Lehrman

cc: Janine Wedel
Office of Investigations

APPENDIX D

INFORMATION ON AXLES PRODUCED FOR USE WITH
LIGHT-DUTY IHSTs

Commission staff gathered information on the axle industry because of the possibility that the Commission may want to include the axle industry in the domestic industry. There are two kinds of domestically produced light-duty IHSTs--integrated hydrostatic transmissions with attached axles, or "transaxles," and integrated hydrostatic transmissions without attached axles. (See page 3 of staff report for further description of the differences between the two kinds.) Both transaxles and IHSTs without attached axles are sold directly to OEMs. However, since light-duty IHSTs are almost never used without axles, OEMs incorporating light-duty IHSTs into the machinery they manufacture must also purchase axles. No domestic manufacturer of light-duty IHSTs produces axles for separate sale. OEM's who purchase light-duty IHSTs without axles must buy axles to be used with the IHSTs from entirely separate suppliers.

Commission staff identified five possible producers of axles for use with light-duty IHSTs, and sent questionnaires to these companies. Three of the companies in fact manufacture axles for use with light-duty IHSTs, and submitted information about their operations related to the production of axles. These companies, which are believed to account for all of the domestic industry, are Agri-Fab, Inc., Sullivan, IL; Dana Corp., Toledo, OH; and Peerless Gear & Machine Division of Tecumseh Products Co., Clinton, MI. Agri-Fab, accounting for * * * percent of domestic production in 1987, and Peerless Geer, accounting for * * * percent of domestic production during the same year, supplied the Commission with complete information. Aggregate figures for the two companies are shown in the following table. Dana Corp., which accounted for * * * percent of domestic production in 1987, provided the company's production figures, which are presented separately.

Table D-1

Aggregate data on operations relating to the production of axles for use with light-duty IHSTs by Agri-Fab, Inc. and Peerless Gear & Machinery Division, 1985-87, January-September 1987, and January-September 1988

Item	1985	1986	1987	Jan.-Sept.--	
				1987	1988
Beginning-of-period					
inventories (in units)....	***	***	***	***	***
Capacity (in units).....	***	***	***	***	***
Production (in units).....	***	***	***	***	***
Capacity utilization					
(in percent).....	***	***	***	***	***
End-of-period inventories					
(in units).....	***	***	***	***	***
U.S. producers' domestic shipments:					
Company transfers:					
Quantity (in units)...	***	***	***	***	***
Value (in thousands of dollars).....	***	***	***	***	***
Domestic shipments:					
Quantity (in units)...	***	***	***	***	***
Value (in thousands of dollars).....	***	***	***	***	***
Export shipments:					
Quantity (in units)...	***	***	***	***	***
Value (in thousands of dollars).....	***	***	***	***	***
Imports:					
Quantity (in units)...	***	***	***	***	***
Value (in thousands of dollars).....	***	***	***	***	***
Production and related workers:.....	***	***	***	***	***
Financial information:					
Net sales.....	***	***	***	***	***
Cost of goods sold.....	***	***	***	***	***
Gross profit/ (loss).....	***	***	***	***	***
General, selling and admin. expenses.....	***	***	***	***	***
Net operating profit.....	***	***	***	***	***

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table D-2

Data relating to Dana Corp.'s production of axles for use with light-duty IHSTs, 1985-87, January-September 1987, and January-September 1988

* * * * *

APPENDIX E

LIGHT-DUTY IHSTs: TOTAL VOLUME SOLD TO OEMS FOR ANNUAL SALES
GREATER THAN 50 UNITS AND FULL RANGE OF PRICES OF ALL SALES TO OEMS

Table E-1
Light-duty IHSTs: Total volume sold to OEMs for annual sales greater than
50 units

* * * * *

Table E-2
Light-duty IHSTs: Range of unit prices for annual sales to OEMs

* * * * *

APPENDIX F

LIGHT-DUTY IHSTs: ***

