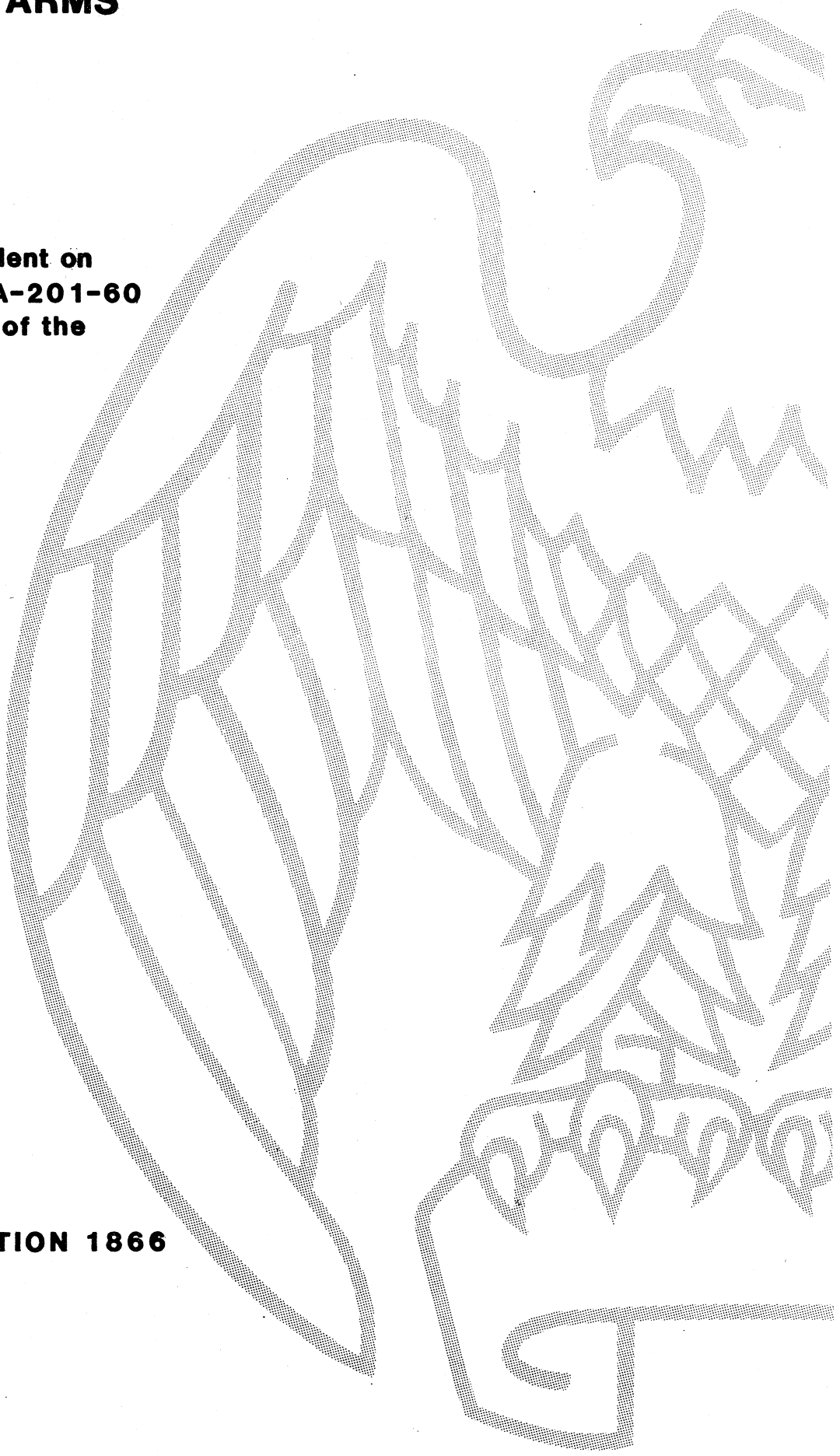
STEEL FORK ARMS

Report to the President on Investigation No. TA-201-60 Under Section 201 of the Trade Act of 1974



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UNITED STATES INTERNATIONAL TRADE COMMISSION

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REPORT TO THE PRESIDENT
ON INVESTIGATION NO. TA-201-60
STEEL FORK ARMS

UNITED STATES INTERNATIONAL TRADE COMMISSION
July 17, 1986

Determination

On the basis of the information developed in the subject investigation, the Commission has determined that steel fork arms, provided for in item 692.40 of the Tariff Schedules of the United States, are not being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing an article like or directly competitive with the imported article.

Background

The United States International Trade Commission instituted investigation No. TA-201-60 under section 201(b)(1) of the Trade Act of 1974 (19 U.S.C. 2251(b)(1)) to determine whether steel fork arms are being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or threat thereof, to the domestic steel fork arm industry. This investigation resulted from a petition filed with the Commission on January 17, 1986, on behalf of the Ad Hoc Committee of Steel Fork Arm Producers. The Committee is constituted of the only two commercial producers of steel fork arms in the United States, Joseph Dyson & Sons, Inc. (Dyson), Painesville, OH, and GCN, Inc. (GCN), Seattle, WA. Steel fork arms are used on forklift trucks and similar lift equipment.

Notice of the institution of this investigation and the scheduling of a hearing 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 February 13, 1986 (51 F.R. 5420). The

hearing was held on May 7, 1986, and all persons who requested the opportunity were permitted to appear in person or by counsel. The Commission announced its determination on this investigation in a public session on June 4, 1986.

This report is being furnished to the President in accordance with section 201(d)(1) of the Trade Act of 1974. The information in the report was obtained from responses to Commission questionnaires, fieldwork and interviews by members of the Commission's staff, other agencies, information presented at the public hearing, briefs submitted by interested parties, the Commission's files, and other sources. There have been no previous investigations by the Commission concerning steel fork arms.

VIEWS OF THE COMMISSION [1] [2]

We determine that steel fork arms [3] are not being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing an article like or directly competitive with the imported article. Having made a negative determination, we do not reach the question of remedy.

Section 201 of the Trade Act requires that we find each of three criteria to be satisfied in order to make an affirmative determination:

> (1) the imported article subject to investigation is entering the United States in increased quantities;
>
> (2) the domestic industry producing an article like or directly competitive with the imported article is being seriously injured or threatened with serious injury; and
>
> (3) the increased imports are a substantial cause of the serious injury or threat thereof to the domestic industry. [4]

In this case, the Commission finds that although the domestic industry has experienced economic difficulties, it is not seriously injured or threatened with serious injury.

Domestic industry

The relevant domestic industry, for purposes of section 201, is that

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1/ Chairman Liebeler joins only the discussion of the domestic industry. Her additional views contain a discussion of increased imports and serious injury and her reasons for concluding that the domestic industry is not experiencing serious injury.

2/ Commissioner Eckes concurs in the discussion of the domestic industry and increased imports. His additional views explain his finding that the domestic industry is not experiencing serious injury.

3/ Steel fork arms for forklift trucks and similar vehicles are provided for in item 692.40 of the Tariff Schedules of the United States.

4/ 19 U.S.C. § 2251(b)(1).

which produces an article like or directly competitive with the imported article. [5/] The legislative history of section 201 defines the terms "like" and "directly competitive" as follows:

> "[L]ike" articles are those which are substantially identical in inherent or intrinsic characteristics (i.e., materials from which made, appearance, quality, texture, etc.), and "directly competitive" articles are those which, although not substantially identical in their inherent or intrinsic characteristics, are substantially equivalent for commercial purposes, that is, are adapted to the same uses and are essentially interchangeable therefor. [6/]

Steel fork arms are fabricated from steel bars using one of six production methods. [7/] They are used on forklift trucks and other heavy material-handling vehicles for lifting pallets or for lifting a load directly. [8/] Domestic steel fork arms are produced commercially and are also manufactured by captive producers for use on the forklift trucks they make. [9/] Forks come in thousands of sizes. A pair of forks is ordinarily ordered for use on a single forklift truck, and is often paired with the truck for the operating life of that truck. A pair of steel fork arms is,

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5/ 19 U.S.C. § 2251(b)(1).

6/ H.R. Rep. No. 571, 93rd Cong., 1st Sess. 45 (1973); S. Rep. No. 1298, 93rd Cong., 2d Sess. 122 (1974).

7/ Report at A-2 and A-8-A-11.

8/ Report at A-4-A-7.

9/ During the period of investigation there were as many as six domestic producers of forks. The petitioners, Joseph Dyson & Sons, Inc. (Dyson) and GCN, Inc. (GCN), are the sole domestic commercial producers of forks. Four firms, Yale Materials Handling Corp. (Yale); Harlo Products Inc. (Harlo); Clark Material Handling Products Co. (Clark); and Hyster Co. (Hyster) were captive producers of steel fork arms. During the period of investigation both Clark and Hyster ceased domestic production and began to import steel fork arms for use on their forklift trucks. Report at A-21-A-24.

therefore, functionally specific to the use of a particular truck. The industry categorizes fork arms as either "standard" or "special," depending on their function. 10/ Each of the methods for making them can be adapted to the production of both standard and special forks. 11/ Both kinds of forks are made in the same plants, on the same equipment, and by the same workers. 12/ Fork arms are presently produced domestically by four firms, Joseph Dyson & Sons (Dyson); GCN, Inc. (GCN); Yale Materials Handling Corporation (Yale); and Harlo Products, Inc. (Harlo).

In view of the above, we conclude that the appropriate domestic industry 13/ consists of the domestic facilities of the above-named four

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10/ Standard forks arms are hook-mounted pallet forks with standardized mounting dimensions classified by load-bearing capacity. Special fork arms are those that do not fall within the industry classifications for standard hook-mounted pallet forks. Most of the forks consumed in the United States are standard forks. Report at A-2 and A-4-A-7.

11/ It does not appear that any one method of production produces forks of a superior or inferior quality or with intrinsically different characteristics from those produced by other methods. The Commission has found no close substitute products for steel fork arms, and no one argued to the contrary. Report at A-2-A-11 and A-22.

12/ Id. at A-2-A-11.

13/ For purposes of defining the domestic industry, we also considered whether or not the two captive producers that ceased production during the period of investigation, Clark and Hyster, are appropriately included in the domestic industry. Clark ceased production in 1982, and Hyster ceased production in mid-1985. Report at A-24. The emphasis of section 201 is on the domestic productive resources involved in the production of an article. H.R. Rep. No. 571, 93rd Cong., 2d Sess. 46 (1973); S. Rep. No. 1298, 93rd Cong., 2d Sess. 122 (1974). As a general rule, the Commission has included within the industry productive facilities idled yet capable of producing the domestic article. See Birch Plywood Door Skins (Inv. No. TA-201-1), USITC Pub. 743 (Oct. 1975) (View of Vice Chairman Minchew); Nonelectric Cooking Ware (Inv. No. TA-201-39), USITC Pub. 1008 (Nov. 1979) at 9-11; Nonrubber Footwear (Inv. No. TA-201-55), USITC Pub. 1717 (July 1985). The Commission has included data concerning Clark's and Hyster's domestic production for the pertinent years and has fully evaluated the reason why each firm ceased production for purposes of its analysis of serious injury.

firms that produce steel fork arms, whether classified as standard or special and whether produced for commercial sale or captive use. 14/

Increased imports

The first of the three criteria requires a finding that imports are entering the United States in increased quantities. The imports subject to this investigation increased in both absolute terms and relative to domestic production. 15/ From 1981 to 1985, the volume of imports of steel fork arms rose by 155 percent and the value of the imports by 45 percent, 16/ the ratio of imports to domestic production increased by 95 percent. 17/ Imports clearly increased.

14/ Section 201(b)(3)(A) provides that the Commission may, in the case of a domestic producer that also imports, treat as part of the domestic industry only its domestic production. 19 U.S.C. § 2251(b)(3)(A). During the investigatory period, Dyson, the principal commercial producer of steel forks, imported forks from Toyoshima Special Steel Co., Ltd. Dyson has also exchanged letters of intent with Daewoo Heavy Industries (Daewoo) to import forks. Report at A-25-A-57. Accordingly, the Commission has included only Dyson's domestic production as part of the domestic steel fork arms industry.

15/ Commissioner Brunsdale finds it unnecessary in this case to decide whether a relative increase in market share is sufficient for purposes of the statutory criteria in section 201 because imports increased both in absolute terms and relative to domestic production.

16/ Report at A-27-A-28.

17/ Report at A-28.

Serious injury or threat thereof

Section 201 does not define the term "serious injury or threat thereof" but instead directs that the Commission consider certain economic factors to reach a determination. The statute provides that the Commission is to take into account all economic factors that it considers relevant, including (but not limited to):

> (A) with respect to serious injury, the significant idling of productive facilities in the industry, the inability of a significant number of firms to operate at a reasonable level of profit, and significant unemployment or underemployment in the industry;
>
> (B) with respect to threat of serious injury, a decline in sales, a higher and growing inventory (whether maintained by domestic producers, importers, wholesalers, or retailers), and a downward trend in production, profits, wages, or employment (or increasing underemployment) in the domestic industry concerned. . . . 18/

The presence or absence of any enumerated factor is not dispositive. 19/

To determine if there is serious injury or threat thereof, the Commission evaluates the economic experience of the industry as a whole. The Commission has considered the experience of individual firms when it is indicative of overall industry experience or trends within the industry.

In the present investigation, we find that the domestic industry, although experiencing economic difficulties, is not seriously injured within the meaning of the statutory language and legislative history of section 201.

18/ 19 U.S.C. § 2251(b)(2).

19/ 19 U.S.C. § 2251(b)(2)(D).

Likewise, in light of recent trends that indicate a strengthened domestic industry, we do not find that the industry is threatened with serious injury. 20/ In making our finding, we have examined, among other data, industry production, capacity, capacity utilization, employment, sales, wages, profitability, and inventories.

As preface to analyzing serious injury, certain background information is important. The forklift truck industry is a separate industry, not subject to this investigation. Demand for steel fork arms is, however, directly related to the demand for forklift trucks. 21/ Consequently, increases in the

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20/ S. Rep. No. 1298, 93rd Cong., 2d Sess. 121 (1974) ("It is the intention of the Committee that the threat of serious injury exists when serious injury, although not yet existing, is clearly imminent if imports trends continued (sic) unabated.")

21/ Report at A-72-A-74. New forklift trucks accounted for the majority of the apparent consumption of steel fork arms during the investigatory
(Footnote continued from previous page)
period. During 1981-83, the forklift truck industry was adversely affected by the recession. Decreased demand for forklift trucks "bottomed out" in 1982, but the impact continued into 1983. Apparent consumption of forklift trucks declined by 24 percent from 1981-82, and apparent consumption of fork arms essentially mirrored that decline.

In 1983-84, the domestic forklift truck industry experienced some measure of recovery. During that period, apparent consumption of forklift trucks increased by 63 percent. From 1983-85, apparent consumption increased by 72 percent, and in 1984 and 1985, domestic shipments of forklift trucks surpassed the prerecession levels of 1981. Notwithstanding those increases, the U.S. forklift truck industry never fully regained its 1981 market position, primarily because of a 200 percent increase in forklift truck imports from 1983 to 1985. Id.

apparent consumption of steel fork arms from 1982 to 1985 were due to increased apparent consumption of forklift trucks. Domestic forklift truck shipments have not kept pace with apparent forklift truck consumption. However, steel fork arm shipments have kept pace with apparent forklift truck consumption as a result of increased imports of forklift trucks without forks. 22/ In addition, non-captive demand for steel fork arms has increased steadily. 23/

The domestic industry is dominated by one commercial producer, Dyson, which accounts for a large share of overall domestic fork arm production and virtually all domestic commercial production. 24/ In 1981, the share of domestic shipments was approximately the same for captive and commercial producers. 25/ By 1985, domestic shipments were mostly commercial as a

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22/ Report at A-71-A-74.

23/ Between 1982 and 1984 noncaptive demand increased 21 percent, and from 1984 to 1985, it increased by an additional 14 percent.

24/ Report at A-21. Because of Dyson's presence much of the aggregate data are confidential. We have, therefore, characterized such data in terms of trends when necessary and have cited the pages on which the (Footnote continued from previous page) supporting data or other information appear. Moreover, because of certain differences in the experience of domestic captive and commercial producers, we examined their operations both separately and in the aggregate. These differences are noted where appropriate.

25/ Report at A-23. Two firms, Dyson and GCN, Inc. (GCN) were the sole commercial producers of steel fork arms during the period of investigation. Both firms have been in the industry for many years (Dyson since 1917 and GCN for about 30 years). Both firms market standard and speciality forks throughout the United States.

result of the decision of two captive producers, Clark Material Handling Products Co. (Clark) and Hyster Co. (Hyster), to cease domestic production. 26/

We evaluated the experience of Hyster and Clark to determine if their decisions to cease domestic production were an indication of serious injury or threat to the domestic industry. We found that both companies decided to cease captive production as a result of the reduced demand for forklift trucks during the recession and increased competition from imports of Japanese forklift trucks beginning in 1983. Both determined that they could buy steel fork arms (both domestic and imported) at significantly lower costs than they could produce them. 27/ Decreases in forklift truck production had a corresponding effect on the demand for captive production of steel fork

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26/ Report at A-21, A-23, and A-30. Clark ceased production in 1982, and since that time has imported forks from Canada. Hyster ceased domestic production of steel fork arms in mid-1985. Hyster stated that its decision was based on competitive forces in the forklift truck market during the period of investigation, including the recession in that market in 1982, the entrance of imported Japanese forklift trucks into the domestic market in 1983, increased raw materials and production costs, and the decreasing price of forklift trucks as a result of intense competition. Report at A-21; Apr. 7, 1986, letter from Robert E. Guengerich, General Manager, Plant Operation, U.S. Industrial Truck Division, Hyster Co.

27/ Hyster considered purchasing both domestic and Canadian fork arms, but decided to purchase the Canadian fork arms even though they were the more expensive, because it believed that the Canadian article was of a better quality and the Canadian source more dependable. Transcript of the Hearing, May 7, 1986 at 101. Report at A-24 and A-74.

arms. [28/] Neither firm alleged that its decision to cease production was based upon import competition from steel fork arms. [29/] Furthermore, neither firm claimed that it was injured as a result of its decision to buy fork arms commercially. [30/]

Aggregate domestic fork arm production fluctuated during the 1981 to 1985 period. Production was high in 1981, fell sharply during the recessionary years of 1982-83, rose nearly 75 percent in 1984, and remained high in 1985, although somewhat below the 1984 level. Although overall U.S. production of steel forks declined from 1981 to 1985, that decline is attributable primarily to the decision of Hyster and Clark to cease production and to the effect of the decline in demand for forklift trucks on demand for fork arms in 1982-83. Following the recession, production by commercial domestic producers rose sharply in 1984, and in 1985, remained significantly higher than previous levels. Commercial production increased by 14 percent from 1981 to 1985. [31/]

Domestic fork arm capacity increased by approximately 7 percent from 1981 to 1985. [32/] Whereas captive production capacity declined during the investigatory period, commercial capacity increased as a result of Dyson's increase in its productive capacity. Despite the closing of captive facilities during the investigatory period, industry capacity

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28/ Report at A-74.

29/ Hyster is on record as opposing the petition. Report at A-24. Apr. 7, 1986, letter from Robert E. Guengerich to the Commission.

30/ Both firms sold their steel fork arm equipment when they ceased captive production and neither firm has claimed that the sale caused it injury.

31/ Report at A-30.

32/ Report at A-31.

increased. 33/ Capacity utilization fluctuated considerably during the period, but 1984 and 1985 capacity utilization approached the 1981 level, despite an increased capacity. 34/ In light of all the pertinent factors, we do not find that the decisions of Clark and Hyster to cease production constitute a significant idling of productive facilities in the industry, nor are they an indication of serious injury to the domestic industry within the meaning of section 201. 35/

Domestic shipments closely paralleled domestic production. Aggregate shipments were high in 1981, fell substantially during the 1982-1983 recession, rebounded sharply in 1984 to near 1981 levels, and remained high in 1985, although at a lower level than in 1984. 36/ Commercial shipments rose sharply in 1984 and 1985, surpassing 1981 levels in both volume and value. 37/ Commercial shipments increased 16 percent in volume and 14 percent in value from 1981 to 1985.

33/ The increased capacity, which occurred in 1983, can be attributed to Dyson's acquisition of new, more efficient equipment. Report at A-11 and A-31.

34/ Although capacity utilization for the commercial producers declined, the decline can be attributed to significantly increased productive capacity by Dyson during the investigatory period. Report At A-30-A-31. Captive capacity utilization for captive declined in 1982, increased to above 1981 levels in 1984, and in 1985, remained above 1983 recovery levels.

35/ Section 201(b)(7) (19 U.S.C. § 2251(b)(7)) provides: "For purposes of this section, the term "significant idling of productive facilities" includes the closing of plants or the underutilization of production capacity."

36/ Report at A-33.

37/ Id.

Commercial fork arm producers (both foreign and domestic) generally maintain small inventories of steel fork arms. 38/ From 1981 to 1985 inventories decreased both in both absolute terms and relative to shipments. Notwithstanding a strike at Dyson in 1983, neither of the two domestic commercial producers experienced a disruption of production that significantly affected inventory levels.

Industry employment declined sharply during the 1982-83 recessionary period, but increased irregularly thereafter. However, the overall decline in employment is explained primarily by increases in worker productivity, which almost doubled, and by the use of overtime by commercial producers during 1983-1985. 39/ Industry wages and total compensation also declined slightly. Wages and total compensation for commercial producers alone, however, increased during the investigation period. 40/

38/ Steel fork arms are ordinarily purchased for a specific use on a single forklift truck. They are very durable and generally last the life of the forklift truck on which they are mounted. Fork arms are produced based upon purchase orders that specify required delivery dates. As a result, commercial producers, distributors, and original-equipment manufacturers (OEM's) generally do not maintain significant inventories. Report at A-2-A-7.

39/ For example, Dyson's decline in employment cannot be solely attributed to declines in production. Since 1983, Dyson's employment has risen steadily, although it still has not returned to 1981 levels. In 1985, increases in productive capacity and worker productivity resulted in significantly more forks being produced in significantly fewer hours by Dyson employees than were produced in 1981. Report at A-37-38.

40/ Report at A-38-A-40.

The financial experiences of the captive and commercial producers differ, and, when aggregated, are indicative only of general trends. 41/ The industry as a whole operated at a profit in 1984 and 1985, the same years when import penetration was the highest.

Net sales of steel fork arms for the three reporting firms were high in 1981, declined sharply in 1982 and 1983, recovered in 1984 to exceed the healthy 1981 levels, and declined slightly in 1985. The cost of goods sold as a share of net sales declined steadily over the entire investigatory period, trending slightly downward in the most recent periods. Aggregate data for the reporting firms show net operating losses in the sale of fork arms from 1981 to 1983, with the most significant losses reported in 1982. In 1984 and 1985, the industry reported overall operating income from fork arms.

In summary, although the recession in 1982 and 1983 had a significant negative impact on the domestic industry, the industry has regained its prerecessionary position and in most instances has equaled or surpassed the 1981 performance. Domestic fork arm production, shipments, and inventories showed improvement at the end of the investigatory period. Industry capacity increased, notwithstanding the closing of productive facilities. Capacity utilization was about the same in 1985 as in 1981. Employment declined, but

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41/ The two commercial producers and one captive producer, Yale Materials Handling Corp., provided income-and-loss data on their fork arm operations from 1981 to 1985. The aggregate data are confidential and, consequently, we are unable to discuss the financial performance of the industry except in general terms.

worker productivity almost doubled. The industry appears to have operated at a profit during the most recent two years and has recovered reasonably well from the recession. We conclude, therefore, that the domestic industry is not seriously injured or threatened with serious injury. 42/ 43/

42/ Because we have found that the domestic industry is not seriously injured or threatened with serious injury, we need not address the issue of causation.

43/ Commissioners Stern and Rohr make some observations on the sources of problems experienced in the fork arm industry. As previously discussed, the economic problems suffered by the fork arm industry in 1982 through 1983 in large part resulted from the domestic decline in demand for forklift trucks. Notwithstanding those declines, in 1984 the fork arm industry essentially regained its prerecessionary position because of substantial increases in imports of forklift trucks without fork arms.

Furthermore, another non-import source of difficulty has been alleged: that the financial difficulties of Dyson, the largest domestic producer of steel forks, were the result of mismanagement, and that because of Dyson's preeminence in the fork arm industry, the alleged mismanagement had an adverse impact upon the domestic fork arm industry as a whole.

ADDITIONAL VIEWS OF CHAIRMAN LIEBELER

Steel Fork Arms, Inv. No. TA-201-60

I determine that steel fork arms are not being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing an article like or directly competitive with the imported article. I concur with the majority's discussion of domestic industry. I provide these additional views to explain my views on increased imports and serious injury.

Section 201 of the Trade Act of 1974[1] authorizes the International Trade Commission ("Commission") to recommend temporary import relief, under certain circumstances, to domestic industries. The Commission begins a Section 201 investigation by defining the domestic industry. It then inquires whether three statutory requirements are met: (1) Have

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[1] 19 U.S.C. § 2251 (1982).

the foreign products under investigation been imported in increased quantities? (2) Is the domestic industry seriously injured or threatened with serious injury? (3) Are the increased imports a substantial cause of the injury or the threat of injury? Only if the Commission answers all three questions affirmatively can it consider the question of remedy. I consider these matters in turn.

I. Increased Imports

The statute requires the Commission to "determine whether an article is being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof. . ."[2] If the Commission finds that imports have not increased, it may not recommend any remedy.[3]

Several Commission opinions suggest that the "increased quantities" requirement can be satisfied by an

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[2] 19 U.S.C. § 2251(b)(1) (1982) (emphasis added).

[3] 19 U.S.C. § 2251(d)(1) (1982).

increase in the market share of imports.[4] This interpretation is contrary to the clear language of the statute and the intent of Congress. The statute uses the phrase "increased quantities." The word quantity, in its normal use, refers to an amount and carries no connotation

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[4] See, e.g., Nonrubber Footwear, Inv. No. TA-201-55, USITC 1717 ((July 1985) (hereinafter cited as Nonrubber Footwear; Views of Chairwoman Stern at 11-12; Views of Commissioner Lodwick at 81-82; Views of Commissioner Rohr at 95; Views of Commissioner Eckes at 60); Stainless Steel and Alloy Tool Steel, Inv. No. TA-201-48, USITC Pub. No. 1377, at 16 (1983); Sugar, Inv. No. TA-201-16, USITC Pub. No. 807, at 11 (1977); Unwrought Copper, Inv. No. TA-201-52, USITC Pub. No. 1549, at 829 (1984) (Views of Commissioners Eckes, Lodwick and Rohr); Certain Canned Tuna Fish, Inv. No. TA-201-53, USITC Pub. No. 1558, at 8 (1984) (Views of Commissioners Eckes, Lodwick and Rohr); Potassium Permanganate, Inv. No. TA-201-54, USITC Pub. No. 1682, at 6-7 (1985) (Views of Chairwoman Stern and Commissioners Lodwick and Rohr) (hereinafter cited as Potassium Permanganate).

In response to a question by then-Chairman Eckes at the hearing for Carbon and Certain Alloy Steel Products, Inv. No. TA-201-51, USITC Pub. No. 1553 (1984)(hereinafter cited as Carbon Steel), the petitioners were unable to cite a single case in which the Commission made an affirmative injury determination where imports had not increased absolutely. Despite this lack of precedent, however, the Commission majority in Carbon Steel made affirmative determinations with respect to plates and structural shapes and units even though imports of both products had declined. (I made negative determinations with respect to both product groups because they failed the increased imports requirement. Carbon Steel, at 145, 153 (Views of Vice Chairman Liebeler).)

of relativity.[5] When Congress wanted the Commission to consider the relative market share of imports, it used precise language to convey that intent.[6] Later in Section 201, for example, it provided that the Commission can examine both the absolute and relative increase in imports to determine whether the increased quantity of imports is a substantial cause of serious injury.[7] Thus, the statute provides clear support for the position that imports must be increasing absolutely.[8]

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5 In 1984 former Commission Vice Chairman Michael J. Calhoun testified that his prior interpretation of "increased quantities" was erroneous and that Section 201 requires an absolute increase in imports. Import Relief for the U.S. Non-Rubber Footwear Industry: Hearing Before the Subcommittee on International Trade of the Senate Committee on Finance, 98th Cong., 2d Sess. (June 22, 1984).

6 See, e.g., Section 406 of the Trade Act of 1974, 19 U.S.C. § 2437(e)(2) (1982) ("Market disruption exists within a domestic industry whenever imports of an article, like or directly competitive with an article produced by such domestic industry, are increasing rapidly, either absolutely or relatively, so as to be a significant cause of material injury, or threat thereof, to such domestic industry.") (Emphasis added).

7 19 U.S.C. § 2251(b)(2)(C)(1982). For example, a given absolute increase will normally have a larger impact in a shrinking market than in a growing market.

8 The legislative history also supports this interpretation. The Senate Report on the Trade Act of

(Footnote continued on next page)

In order to evaluate whether an absolute increase in imports has occurred, the period under investigation must be determined. Typically in a section 201 case, the Commission looks at data for the last five years. Imports of steel fork arms increased substantially in quantity between 1981 and 1985 from [* * *] forks, an increase of 155 percent.[9] The value of imports increased from $* * * * * * * * * .[10] The statutory requirement that imports must be increasing absolutely has been met.

II. Serious Injury and Threat of Serious Injury

A. Definition

(Footnote continued from previous page)
1974 distinguished between the finding of increased imports and causation. According to the Senate Committee: "An industry must be seriously injured or threatened by an absolute increase in imports, and the imports must be deemed to be a substantial cause of the injury before an affirmative determination should be made." S. Rep. 1298, 93rd Cong., 2d Sess. 121 (1974). (Emphasis added.) I offer this reference to the legislative history because the majority cites a different position to support their "relative increase" position. The legislative history is mixed and only relevant if the statute is ambiguous. The statute is not ambiguous and thus the legislative history is not relevant on this point.

[9] Report at A-27.

[10] Id.

Section 201 requires that the injury or threat to the industry be serious in order for relief to be granted. Although serious injury plays an important role in a Section 201 investigation, the statute does not define the term. Instead, it lists several factors that are evidence of serious injury:

> the significant idling of productive facilities in the industry, the inability of a significant number of firms to operate at a reasonable level of profit, and significant unemployment or underemployment within the industry.[11]

The legislative history only reiterates what is in the statute, and emphasizes that the enumerated factors are only evidence of injury and thus no single factor is dispositive.[12]

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[11] Sections 201(b)(2)(A) and (B) of the Trade Reform Act of 1974, 19 U.S.C. § 2251(b)(2)(A) and (B) (1982).

[12] S. Rep. 1298, 93rd Cong., 2d Sess. 121 (1974). In addition, the Commission may take into account any other economic factors it considers relevant. 19 U.S.C. § 2251(b)(2) (1982). The 1984 amendments to Section 201 added a subsection which addresses the relevant weight to be accorded the factors:

(Footnote continued on next page)

Serious injury is obviously a much stricter standard than the material injury standard used in Title VII investigations. The degree of severity that Congress intended when it used the term "serious" was described in the Report of the Senate Finance Committee:

> For many years, the Congress has required that an "escape clause" be included in each trade agreement. The rationale for the "escape clause" has been, and remains, that as barriers to international trade are lowered, some industries and workers inevitably face serious injury, dislocation and perhaps economic extinction. The "escape clause" is aimed at providing temporary relief for an industry suffering from serious injury, or the threat thereof, so that the industry will have sufficient time to adjust to the freer international competition.[13]

(Footnote continued from previous page)

> [T]he presence or absence of any factor which the Commission is required to evaluate in subparagraphs (a) and (b) shall not necessarily be dispositive of whether an article is being imported into the United States in such increased quantities as to be a substantial cause of serious injury or threat of serious injury to the domestic industry. Trade and Tariff Act of 1984, 19 Stat. 2999 (amending 19 U.S.C. § 2251(b)(2)(D) (1982)). Section 201(b)(7), as amended by the 1984 Act, defines the phrase "significant idling of productive facilities" as "the closing of plants or the underutilization of production capacity". Id. (amending 19 U.S.C. § 2251(b)(7) (1982)).

[13] S. Rep. No. 1298, 93d Cong. 2d Sess. 119 (1974). (Emphasis added.) It is also worth noting that the

(Footnote continued on next page)

The use of the term "serious injury" in the same phrase as "extinction" suggests that "serious injury", if not strictly limited to economic extinction, is something very close.[14] I have therefore interpreted the phrase "serious injury" as a "major contraction of a domestic industry or its extinction."[15] The Commission has defined serious injury in past investigations as "an important, crippling, or mortal injury, one having permanent or lasting consequences."[16] I regard these definitions as consistent.

I direct my inquiry toward the viability of the industry instead of the factors of production only after a careful analysis of the Act as a whole. The statute directs

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(Footnote continued from previous page)
Committee in proposing to relax the standards for "escape clause" relief decided to weaken the causation standard, rather than change the serious injury standard.

14 See Nonrubber Footwear, at 32 (1985) (Views of Vice Chairman Liebeler); Potassium Permanganate, at 20 (Views of Vice Chairman Liebeler).

15 Id.

16 See, e.g., Electric Shavers, Inv. No. TA-201-57, USITC Pub. 1819 at 8 (1986); Bolts, Nuts and Screws of Iron or Steel, Inv. No. TA-201-2, USITC Pub. 747 at 19 (1975) (Views of Commissioner George Moore).

the Commission to determine whether increased imports are a substantial cause of serious injury "to a domestic industry producing an article like or directly competitive with the imported article."[17] Thus, Congress, in enacting Section 201, was concerned with the effect of imports on domestic industries, rather than on those who provide labor and capital to individual firms. This interpretation is not weakened by the statutory requirement that the Commission consider unemployment and the profitability of firms. Such factors are indicia of injury to an industry. Furthermore, the use of the terms "industry" and "producer" or "firm", sometimes in the same sentence and in opposition to one another,[18] makes it clear that Congress did not equate the returns to the firms and workers with the existence of the industry. Finally, the House Report on the Trade and Tariff Act of 1984, which amended several provisions of Section 201, underscored congressional concern with the viability of the industry. It declared that, in assessing the condition

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17 19 U.S.C. § 2251(b)(1) (1982) (emphasis added).

18 See, e.g., 19 U.S.C. § 2251(b)(3)(A) (1982) ("The Commission may, in the case of a domestic producer which also imports, treat as part of such domestic industry only its domestic production.").

of the industry, the Commission should not treat the industry's profit data as dispositive, but should also give careful consideration to plant closings and employment trends.[19] An industry may be profitable in an accounting sense, even though it is shrinking or dying. If the providers of capital are earning what they could earn in their next best use (i.e., their opportunity costs), and if barriers to exit in the industry are low, then plant closings and employment trends may indicate a contracting or dying industry.[20]

In determining whether there is threat of serious injury, the Commission must consider:

> a decline in sales, a higher and growing inventory, and a downward trend in production, profits, wages, or employment (or increasing underemployment) in the domestic industry concerned. . . . and all [other] factors which it considers relevant."[21]

The legislative history states that, by threat of serious injury, Congress meant injury that is clearly

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19 H. R. Rep. No. 1156, 98th Cong., 2d Sess. 142 (1984).

20 See my discussion of serious injury in Carbon Steel, at 135-36 (Views of Vice Chairman Liebeler).

21 19 U.S.C. § 2251 (b)(2) (1982).

imminent.[22] The Commission traditionally requires that the threat be real rather than speculative and that serious injury be highly probable in the foreseeable future.[23]

B. Is the Domestic Steel Fork Arm Industry Seriously Injured?

I find that the domestic steel fork arm industry is not seriously injured within the meaning section 201.[24] As indicated above, serious injury must be to the viability of an industry, not individual competitors. Thus, it is not appropriate to distinguish between captive and merchant producers: it is the aggregate performance of the industry that must be analyzed. The presence or absence of vertical integration in the fork truck industry should not affect the merits of the case.

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22 The Senate Finance Committee's Report on the Trade Act of 1974 states that "[i]t is the intention of the Committee that the threat of serious injury exists when serious injury, although not yet existing, is clearly imminent if import trends continued unabated." S. Rep. 1298, 93d Cong., 2d Sess. 121 (1974).

23 Nonrubber Footwear: Report to the President, Inv. No. TA-201-50, USITC Pub. No. 1545 at 19 (1984).

24 In the present case, much of the data upon which I base my determination is confidential, and I am constrained to express my reasoning in general terms in the public version of these views.

Total domestic fork arm production fluctuated from 1981-85. Production for the five year period was approximately equal in 1981 and 1984. Production declined in 1985, but remained well above that of 1982 or 1983.[25] There is no trend ascertainable from the 5 year production data. In fact, although domestic production of steel fork arms was 22 percent lower in 1985 than 1981,[26] the 1985 production figure is almost exactly equal to the average for the years 1981-1984.[27] Thus, the production data, when viewed over the entire period, does not provide significant evidence of serious injury to the industry.

Figures on capacity and capacity utilization also support a finding that there is no serious injury or threat thereof. Despite the decision of two major producers to source offshore, domestic capacity increased by

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25 Report at Table 10. The figures on domestic production are as follows: [* * * * * * * *]

26 Id.

27 The same is true for shipment data. Id. at Table 13.

approximately 7 percent from 1981-85.[28] Capacity utilization dropped significantly between 1981 and 1983, but recovered during 1984 and 1985 to near the 1981 level. These figures indicate that capacity utilization has remained relatively stable while capacity has increased and are inconsistent with a finding that the industry is suffering from, or threatened with, a substantial contraction.[29]

Finally, the financial data reflect the trends in production discussed above. The years 1982 and 1983 were particularly poor.[30] As production increased in 1984-85, however, operating losses turned into operating income, surpassing industry performance in 1981.[31]

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[28] Id. at Table 11. The domestic industry increased its capacity to produce fork arms from [* * * * .]

[29] Employment during the period dropped significantly but the increase in output per worker offset this decrease. Id. at Table 17. Again, these data do not indicate that the industry is substantially contracting.

[30] Id. at Tables 18 & 20.

[31] Id. The operating loss as a percentage of net sales was [* * *

(Footnote continued on next page)

In sum, the data demonstrate that, while the industry has not been financially robust, neither has it suffered serious injury or been threatened with serious injury.

III. CONCLUSION

Therefore, I join the majority in its determination that steel fork arms are not being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing an article like or directly competitive with the imported steel fork arms.[32]

(Footnote continued from previous page)

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[32] Because of my determination of no serious injury or threat thereof, I do not reach the issue of causation. For that reason, I do not discuss the issue of imported fork-lift trucks and their alleged impact on the domestic steel fork arm industry.

Additional Views of Commissioner Eckes

I concur with the Commission's unanimous negative determination in this investigation. In explaining the basis for my determination, I have joined the majority of my colleagues on the question of the appropriate domestic industry as well as the finding of increased imports. Consequently, these additional views focus on my reasons for concluding that the domestic industry producing steel for arms does not exhibit the requisite level of injury to warrant import relief under sec. 201.

During the period covered by this investigation, there were six domestic producers of steel fork arms--two commercial producers and four captive producers. My review of the condition of the domestic industry includes both segments of the industry--commercial producers and captive producers. The share of total domestic production held by captive producers has steadily declined throughout the period covered by this invesigation, its share diminishing by about 20 percent since 1981; captive producers now account for less than 25 percent of such production. One major domestic commercial producer, Dyson, accounted for most domestic commercial shipments throughout the 1981--1985 period. Further, this producer substantially increased its share of total domestic shipments,

both commercial and captive, during the period. Thus, the focus of my analysis in this investigation is more on the performance of this producer than on other producers in the industry. This approach reflects legislative comments that the purpose of the statute is to protect the domestic productive resources involved in the production of the articles under investigation. 1/

Because of the dominance in this industry of a single producer, Dyson, much of the data which serve as the basis for my determination are business confidential. Therefore, in order to protect the confidential nature of such data, my discussion of the relevant economic indicators for this firm's performance and the industry as a whole must be general in nature.

In analyzing the question of serious injury, I have considered data for the period 1981-1985, which include most, if not all of an entire business cycle for the industry. U.S. fork arm demand is largely a function of forklift truck consumption, since fork arms are purchased for use on domestically produced trucks and on imports of forklift trucks that do not have forks attached. During the 1981-1985 period, apparent consumption contracted sharply in 1982 and 1983, before recovering in 1984 and 1985 to levels considerably

1/ H. R. Rep. No 571, 93rd Cong., 2d Sess. 46 (1973); S. Rep. No. 1298, 93rd Cong., 2d Sess. 122 (1974).

higher than the pre-recession levels of 1981. The industry's more recent performance during the market's recovery is also important to this analysis. 2/

In making my negative determination, I have considered "all economic factors" and assessed in particular the three criteria specifically enumerated in the statute: Has there been a significant idling of productive facilities in the industry? Is there significant unemployment or underemployment in the domestic industry? Are a significant number of firms unable to operate at a reasonable level of profit?

Total domestic production of steel fork arms declined by about 45 percent from 1981 to 1982, reflecting the sharp decline in consumption trends which occurred in 1982. Consumption levels increased only slightly in 1983, before recovering in 1984 to 1981 levels. Total production again declined about 20 percent in 1985, primarily as the result of decreased production by captive producers. For the major

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2/ A Commission majority used a similar approach in a recent sec. 201 investigation, Wood Shakes and Shingles, TA-201-56, USITC Pub. No. 1826 (March 1986) at 9-12. However, the Commission majority reached a different conclusion in that investigation, finding that the shakes and shingles industry was experiencing serious injury. The majority said that "...in light of the considerable declines in production, employment, the number of firms producing shakes and shingles, and production capacity, despite a modest increase in consumption in 1984 and stable demand in 1985, we conclude that the domestic industry producing wood shakes and shingles is seriously injured."

domestic commercial producer, production levels in 1985 were substantially higher than levels reported for 1981.

Significant idling of productive facilities is one of the factors which the Commission is to consider in assessing the presence of serious injury. Recent amendments to the statute have clarified this criterion to include both the closing of plants or the underutilization of productive capacity. Captive production declines occurred primarily as the result of two producers ceasing production of fork arms during the period--Clark in 1982 and Hyster in mid-1985. However, the Clark closing is remote in time and does not provide much insight to the more recent performance of the industry during the market recovery. Hyster, which was the largest captive producer, accounted for only a small share of total domestic shipments in 1985. Both companies made the decision to forgo fork production when the recession and increasing competition from Japanese forklift truck imports caused the companies to re-analyze their costs and find that they could buy forks (domestic or imported) at significantly lower costs than they could produce them.

The major domestic commercial producer, Dyson, accounted for about one-half of total industry productive capacity in 1981 and 1982. Dyson significantly increased its productive

capacity in 1983 during the period of the sharp downturn in consumption. Even with that increased capacity, total industry capacity utilization trends for 1983 were the same as in 1982. In fact, total industry utilization for 1985 was only a few percentage points lower than 1981 levels. 3/ There does not appear to be any significant underutilization of productive capacity in this industry.

Because the industry does not produce for inventory, shipment trends reflect production trends. Commercial shipments increased by 16 percent from 1981 to 1985. Total industry shipments, however were lower in 1985 than in 1981, because of declines in captive shipments. Data on inventory levels do not indicate any problems for the industry. In fact, the ratio of inventories to shipments was lower for all producers in 1985 than in 1981.

Declining employment trends for the steel fork arm industry require particular scrutiny. Total employees in the industry in 1985 are about one-half the number of workers in 1981. However, Dyson's employment levels have increased steadily since 1983, by more than 15 percent. 4/

Information on worker productivity in conjunction with recovering production trends indicates that Dyson's most recent

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3/ If this producer's 1985 capacity utilization rates were calculated on the basis of pre-expansion capacity levels, the utilization rates would be higher than 1981 levels.

4/ Employment data for 1983 were adjusted because of the strike during the first 4 months of the year.

employment figures are lower than 1981 levels not because of problems in maintaining production levels, but because of significantly improved worker productivity. Specifically, the installation of capital equipment in 1982 not only increased its productive capacity, but also improved productivity as measured by hours worked. Also, in 1984 and 1985 Dyson reported considerable amounts of overtime; and this overtime was the equivalent of a number of additional employees. Thus, reported industry employment figures fail to reflect actual utilization of worker resources. Although fewer workers are employed in the industry than in 1981 before the downturn in consumption, these employment data fail to establish significant unemployment or underemployment in the industry.

Information regarding profit-and-loss experience of the industry shows that during the most recent two-year period, producers accounting for more than four-fifths of domestic shipments reported operating profits in 1985. These producers improved their operating profit margins in 1985, even though their net sales in 1985 were lower than in 1984. For the industry, the net sales volume for 1985 was only slightly higher than the volume reported for 1981, yet it generated operating profits in 1985, compared with losses in 1981.

While former captive producers have increasingly sourced their steel fork arm purchases overseas, these developments do

not yet manifest serious injury to this industry as a whole. Most recent performance trends for the major commercial market producer either approximate or exceed the levels achieved in 1981, before the two-year downturn in performance. As the cycle for demand of steel fork arms has recovered in 1984, and particularly in 1985, the production, employment, and profit-and-loss data all indicate that as a whole the domestic industry has participated in that recovery. Information on this industry's performance does not point to an industry experiencing serious injury, that is injury which is "an important, crippling, or mortal injury; one having permanent or lasting consequences." 5/ There is no indication in the record that improving performance trends are short-term fluctuations, nor do these trends support a finding of a threat of serious injury in light of the enumerated statutory factors. 6/

5/ See "Views of Commissioner George M. Moore," Bolts, Nuts and Screws of Iron or Steel, TA-201-2, USITC Pub. No. 747 (November, 1975), 19; See also my separate views discussing the degree of injury envisaged by Congress under this statute in Nonrubber Footwear, TA-201-50, USITC Pub. No. 1545 (July, 1984), 30-31.

The serious injury standard in sec. 201 is more strict than the standard for injury in other investigations. For example, in antidumping and countervailing duty investigations the statute requires only that the industry experience "material injury," which is defined as meaning "harm which is not inconsequential, immaterial, or unimportant." 19 USC 1677 (7)(A).

6/ 19 USC 2251 (b)(2)(B).

INFORMATION OBTAINED IN THE INVESTIGATION

Introduction

Effective January 17, 1986, the U.S. International Trade Commission instituted investigation No. TA-201-60 under section 201(b)(1) of the Trade Act of 1974 (19 U.S.C. 2251(b)(1)) to determine whether steel fork arms are being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or threat thereof, to the domestic steel fork arm industry. Steel fork arms are used on forklift trucks and similar lift equipment, and are reported under item 692.4070 of the Tariff Schedules of the United States Annotated.

This investigation resulted from a petition filed with the Commission on January 17, 1986, on behalf of the Ad Hoc Committee of Steel Fork Arm Producers. The Committee is constituted of the only two commercial producers of steel fork arms in the United States, Joseph Dyson & Sons, Inc. (Dyson), Painesville, OH, and GCN, Inc. (GCN), Seattle, WA. The petitioners requested that additional duties of 35 percent ad valorem be placed on imports of steel fork arms during a 5-year relief period. 1/

Notice of the institution of this investigation and the scheduling of a hearing 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 February 13, 1986 (51 F.R. 5420). The hearing was held on May 7, 1986, and the Commission announced its determination on this investigation in a public session on June 4, 1986. 2/ There have been no previous investigations by the Commission concerning steel fork arms.

The Product

Description and uses

Forged steel fork arms are essentially bent and tapered steel bars manufactured primarily for use on forklift trucks and other powered lift equipment employed in the material-handling industry. Forks are used for lifting pallets on which a load (e.g., crates, boxes, bricks, etc.) rests, or for lifting a load directly, such as lumber, wallboard, or tires. Although there are nonpowered types of lift equipment that use steel fork arms, such forks are not forged, are usually permanently welded to a lift carriage, and have low load capabilities. The key characteristics of the steel fork arms in this investigation are that forks are a discrete component of and removable from lift equipment, and are designed to support substantial weights (most forged arms are capable of lifting more than 2,000 pounds). There are no substitute products for steel fork arms.

Figure 1 illustrates the configuration of a steel fork arm and presents the nomenclature associated with it. Steel fork arms come in thousands of

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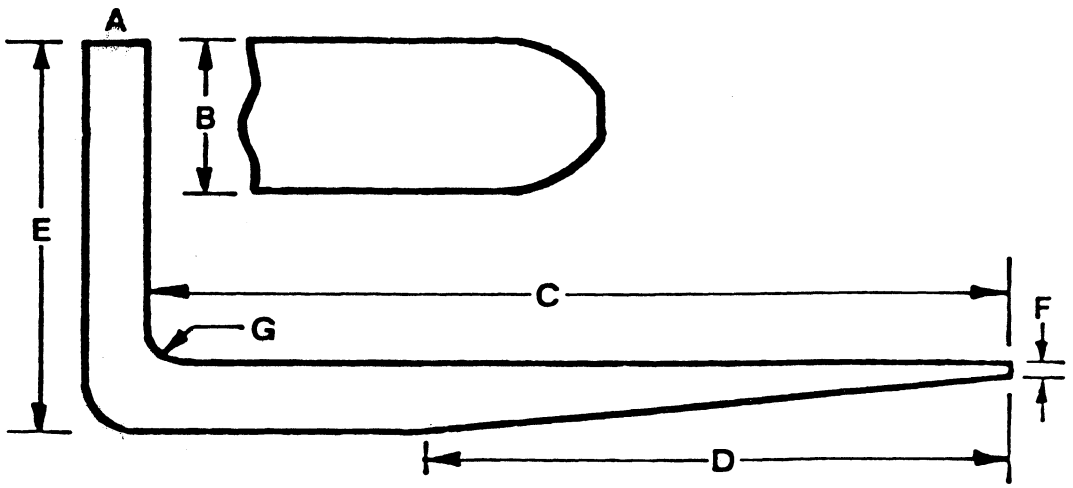
1/ Petitioners' prehearing brief, p. 19. The petition originally requested additional duties of 35 percent ad valorem for the first 2 years of relief, 25 percent for the next 2 years, and 20 percent in the 5th year.

2/ A copy of the Commission's notice of investigation and a list of witnesses appearing at the hearing are presented in app. A.

Figure 1.—The configuration and nomenclature of a steel fork arm.

A Fork thickness
B Fork width
C Blade length from inside vertical section
D Taper length
E Vertical height from bottom of blade
F Tip thickness
G Inside radius



sizes--all of the dimensions listed in figure 1 (the cross section, blade length, tip thickness, blade height, taper length, etc.) may be individually specified--although there are certain standard sizes of forks (see below). Only 10 to 20 particular sizes account for the majority of fork arm sales.

The bend, or heel, of a fork is the most critical section on a fork arm since this is where most of the load stress is sustained by the fork. However, it is the cross section (thickness by width) of the fork and the type of steel that typically determines a fork's load capacity. A steel fork arm is entirely composed of one of three types of steel: carbon (which is considered "low strength" steel), alloy ("high strength, high alloy"), and boron ("high strength, low alloy"). Carbon is the least expensive grade, but even though it is heat treated, its tensile strength is lower than that of alloy or boron. The alloy steels usually have chrome and/or molybdenum added, which hardens the steel considerably; however, alloy steel is more costly since the base prices are higher and include surcharges for the alloys. The third type of steel, boron, combines the advantages of the less expensive carbon steel (boron has a carbon-based price) with the strength of high alloy--boron acts as a catalyst in carbon steel to improve the bar to the equivalent properties of some alloy steels, and under some conditions, boron steel may be superior to alloy steel. 1/ Because of these differences, fork cross sections may vary among types of steel in order to lift the same loads, with carbon steel forks tending to be the largest.

Fork arms are functionally specific items with one or two primary applications: pallet forks lift pallets, lumber forks lift lumber, barrel forks lift barrels, etc. (See fig. 2 for other examples of types/functions of fork arms.) Since forklift trucks are also generally used for only one type of job, one set of forks is more or less permanently paired with a truck. Therefore, with the rare exception of worn or defective forks, the only time a set of forks on a truck would be replaced is with a change in application of the lift equipment (for example, a change in the size of the pallets that are being raised). Forks are also typically hook- or shaft-mounted (fig. 3) onto the lift carriage of a forklift truck; that is, they either hook onto flat steel bars and are secured with a locking pin through the top hook, or are slipped onto tubular steel bars and fastened in place. All fork arms are tapered for easier insertion under a load or pallet and usually have either a standard taper beginning about midway on the blade or a full taper, where the taper extends from the blade's heel to tip.

In spite of the multiplicity of fork arm and forklift truck uses referred to above, pallet lifting constitutes the major type of lift truck activity in the United States as well as in the other industrialized countries. Consequently, there has been a certain degree of voluntary standardization of forklift trucks and pallet forks, leading to an industry distinction between standard and special steel fork arms. The purpose of standardization is "to establish standards relative to the interchangeability of hook-type fork arms on fork carriers of forklift trucks, and to the mounting of load handling attachments in relation to the manufacturers' rated capacities." 2/

1/ Telephone conversation with a metallurgical engineer, the Hyster Co., Portland, OR, Mar. 21, 1986.

2/ American Society for Mechanical Engineers, Hook-Type Forks and Fork Carriers for Powered Industrial Forklift Trucks, ANSI/ASME B56.11.4-1985 (American Society of Mechanical Engineers: New York, NY), p. 1.

Figure 2.—Selected types of steel fork arms.

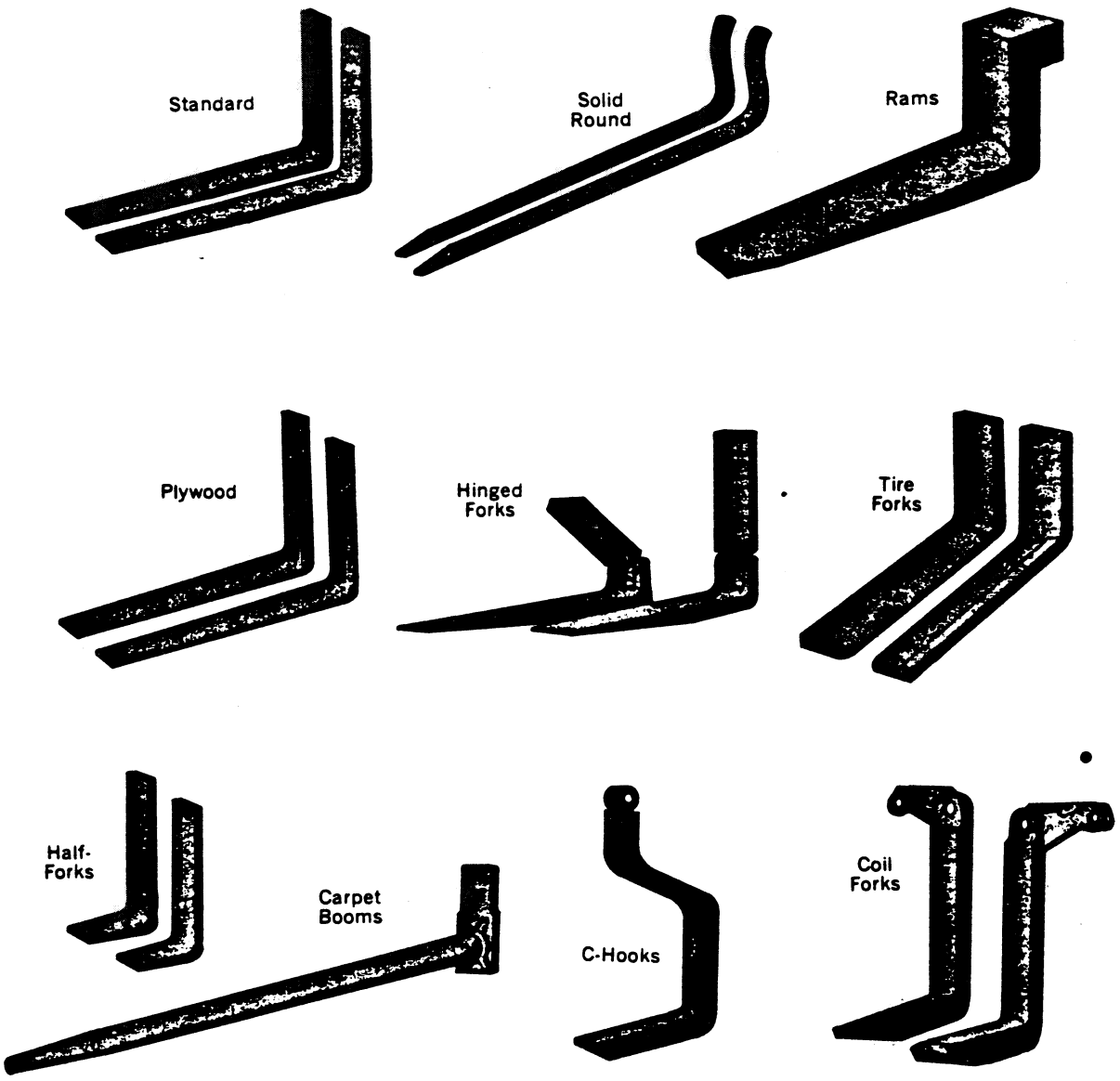
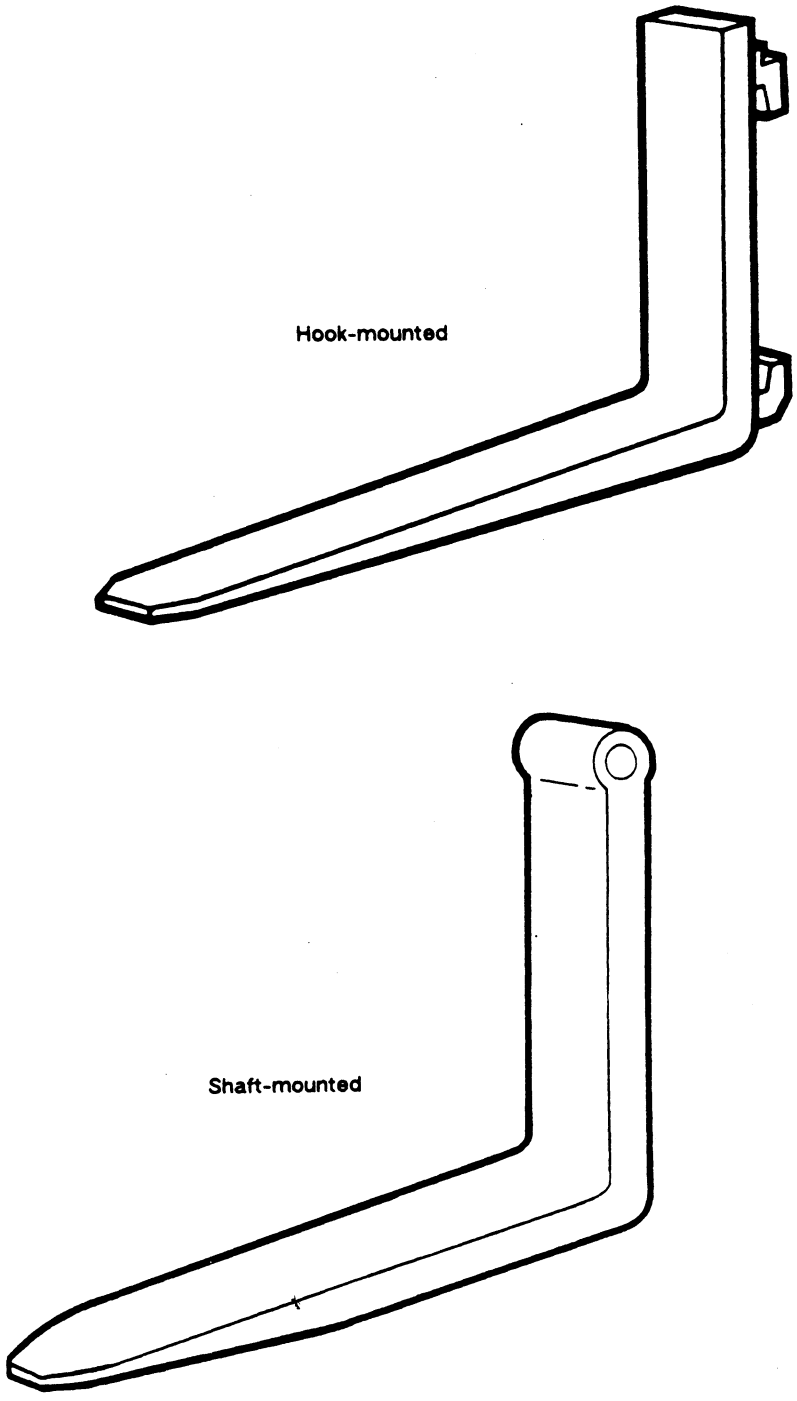


Figure 3.—Hook-mounted and shaft-mounted steel fork arms.



The most commonly used guidelines for standard forks are those of the U.S. Industrial Truck Association (ITA), the International Organization for Standardization (ISO), and the American National Standards Institute (ANSI), all of which use very similar, if not identical, criteria. 1/ The result of the widely followed ITA and ISO specifications is that "standard" fork arms are understood to be hook-mounted pallet forks with the mounting dimensions of the hooks specified for each class of fork (classes II, III, and IV). Each fork class refers to a different range of load capacities, which in turn correspond to load capacities of forklift trucks (lift trucks have five ratings based on load capacity, type of engine, and type of tire). In addition to the mounting specifications, the ITA, ISO, and ANSI recommend that fork arms have a safety factor three times greater than a fork's given load rating (a fork arm should be able to sustain a weight three times greater than its specified capacity). Standard fork arms may vary in size from cross sections of 1" x 4" to 2-1/2" x 7" and with blade lengths up to 96" long.

Almost all other types of steel fork arms that do not meet the requirements of standards are known as specials. 2/ Special forks include all non-pallet forks (e.g., barrel, lumber, and tire) as well as shaft-mounted forks (figs. 2 and 3). However, special forks also include hook-mounted pallet forks that are manufactured to the customer's specifications when the requested fork dimensions do not match those of standard production forks. Finally, specials include "fully tapered and polished forks", that are tapered from the heel to the tip and which have polished steel. This type of fork is used for loads that are lifted directly but may be easily damaged, such as gypsum wallboard. Standard pallet forks, however, account for the vast majority of forks used in the United States.

The manufacturing process

Six different manufacturing processes are used in the production of steel fork arms, with the processes being roughly distinguished from one another on the basis of how the heel section of the fork is configured. With the exception of welding, all of the processes are technically forging operations. With respect to steel fork arms, forging as a generic process involves working hot steel with dies by either pressing or hammering so that the original form of the steel is modified. 3/ The forks are then heat treated and quenched to create a higher strength steel with improved metal fatigue properties.

1/ The ITA has written to the Commission in opposition to the petition on the basis that any relief would increase the production and sales costs of forklift trucks. The ITA is the national trade association of domestic and foreign lift truck manufacturers and forklift truck parts manufacturers whose membership accounts for more than 90 percent of the U.S. forklift truck market.
2/ The industry distinction between standard and special steel fork arms is not quite this clear cut. Although it is universally agreed that the forks made to ITA or ISO specifications are indeed standards, different firms tend to include other types of forks in the standard group. However, for the purposes of the Commission's analysis, all data reported concerning standard and special forks fit the definitions presented in the text above.
3/ For a more extended discussion of forging, see M.T. Watkins, Metal Forming I, Forging and Related Processes, Oxford University Press, 1975.

The six manufacturing processes are discussed below. Three of the processes--free bend, upset and bend, and bend and upset--are very similar and are therefore discussed as a group. The remaining three processes--hammer forging, rolling, and welding--are then addressed individually.

Free bend, upset and bend, and bend and upset.--These three types of manufacturing processes are the most common means of forging fork arms. The production steps within each process are approximately the same; the major variations occur during the heel configuration. In these three operations, the steel bar used in the forging of forks is bought from steel mills already formed in the needed cross section sizes and in approximately 40-foot lengths. The first step in the process is to saw cut the bar to length, usually the length of two forks. The tapers are then cut with a propane torch by shooting the flame vertically through the center of the bar, which is lying on edge. Two tapers are cut at one time such that the tapers are connected tip to tip. The bar is next cut into two pieces where the tips join, and two unbent fork arms, already sized by cross section and tapered, are formed.

After separating the two forks, the blade tips are shaped with a torch by cutting around a template placed on the tip. Kenhar Products Inc. (Kenhar), a Canadian firm and the primary foreign fork arm manufacturer, and Yale Materials Handling Corp. (Yale), the primary domestic captive producer, * * *. The steel slag formed by the various torching operations is then manually ground off with an electric sander/grinder.

The next process is the actual forging of the forks. The forks are heated at the section to be bent in an induction heater, although they may also be heated in a furnace (induction heating is more efficient since it uses less energy and concentrates heat only at the section to be forged). After heating, the production methods for shaping the heel section of the fork diverge among the three production processes.

In free bending, the heel section is formed by inserting the heated bar into a hydraulic press and bending it in an impression die. The press provides constant displacement of the die rams so that all forks bent in a particular set of dies will have identically configured heels. A fork that has been free bent has a heel section that is about one-half the original thickness of the steel bar; however, because steel fork arms are load sensitive at the heel, it is desirable that this section remain at least as thick as the bar, if not thicker.

Consequently, the steel may be upset to thicken the heel before it is bent so that the final heel configuration is 1.25 times the original thickness of the bar. Thus, in the upset and bend process, the steel is first upset and then bent in the manner described above. Upsetting, in the upset and bend process, is performed on heated bars and carried out on hydraulic presses; the rams horizontally compress the bar to create a hot bulge in the cross section of the steel where the bend for the heel is to be located. Similarly, there is the third production process, a bend and upset technique, which is done on a single piece of equipment patented by Kenhar. The bar is first bent, then upset, then bent again, with all of these steps occurring virtually simultaneously.

After the heel sections have been formed, the hooks are welded onto the

vertical portion of the fork. The hooks are first tacked into place by one worker using a manual jig, and then permanently welded by another worker. (Kenhar and Yale use automatic welding equipment, and in the case of Kenhar this equipment is robotic. Both firms have * * * for this type of welding.) When all of the forging and welding has been completed, the forks are heat treated in a furnace, then quenched in various media. 1/ (The heat and quench treatment determines the hardness and fatigue properties of the steel.) The forks are then checked for straightness, the heels inspected for cracks (using ultraviolet light and magnetic files or dye), and the entire fork is cleaned with shotblast and painted. The forks are thus ready for shipment and assembly on trucks. 2/

Hammer forging.--Hammer forging differs from the other processes in that a steel billet is used rather than a bar milled to the proper cross section. In hammer forging, the billet is heated in a furnace, and the taper and heel section are actually hammered out through a process of repeated blows from a falling weight, with each blow of the hammer electronically regulated. Hammered forks are also heat treated, and only one U.S. producer, Dyson, hammer forges fork arms. Dyson only uses this method of production for very specialized large forks, and runs the hammer about * * * (the remainder of its production is by the upset and bend process).

Rolling.--The rolling process is one unique to and patented by the Japanese producer, Toyoshima Steel Ltd. (Toyoshima). In this process, the forks are rolled as a flat bar from hot steel, tip to end, with the cross section and taper actually formed during the milling process. The forks come out as hot bar ready to be cut apart then upset, bent, and heat treated. Only one size of fork can be rolled at a time, and it takes about * * * to retool for the next size. Toyoshima has, however, recently stopped producing fork arms this way and is now using an upset and bend process. 3/

Welding.--Only one producer, GCN, currently welds steel fork arms. 4/ GCN uses a special alloy steel that * * *. Steel bar is cut to length for the vertical and blade sections of the fork; these pieces are then heat treated and quenched. The steel is next checked for hardness, the taper is machined on a planer mill, and grooves are machined into the ends of the steel sections that are to become the heel joint. The heel joint and mounting attachments are then all welded in the same step. After welding, the forks are straightened, sanded, and painted.

Safety and quality considerations

Because of the serious threat of physical injury and property damage if a

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1/ Carbon steel is typically quenched in water, boron steel in a synthetic liquid, and alloy steel in oil.

2/ The above discussion relates primarily to the production of standard forks. However, special forks are also manufactured in a similar way, albeit with much more custom torch cutting and welding.

3/ Hearing transcript, p. 17.

4/ Kenhar also used to weld forks, but discontinued this process in 1979. In 1981, the firm developed a way to forge the special forks that typically require a welded heel (hearing transcript, pp. 86 and 87).

steel fork arm were to fail, great care is taken by all fork arm producers to prevent such an occurrence. The concern over product liability does not end with the manufacturers of forks, but extends to the original equipment manufacturers (OEM's) that purchase forks as components for their lift equipment. Fork arm failure is extremely rare, with chances for its occurrence "in the six decimal places." 1/

Steel fork arm failure can result from a defective fork or from improper usage, with the failures usually showing up as bent blades (welded forks tend to break at the heel). Defects in the fork itself primarily involve external and internal cracks in the heel and cracks in the welding which hold the hooks in place. (Defects also tend to occur during the heat treatment and cooling stage of production.) Improper usage primarily involves lifting loads greater than a fork's rated capacity or the continued use of worn forks. 2/ Consequently, fork arms are carefully inspected, and nearly all producers test their forks at the ITA/ISO/ANSI recommended 3:1 safety factor. Each fork may be individually tested, or a batch from a production run may be checked. 3/

The major quality considerations concerning a fork arm are its strength and physical properties, and the OEM's often indicate quality requirements above the perceived minimum quality (such as material grade, additional safety specifications, and specific metallurgical/material properties of the steel). Quality considerations also include fork straightness and hook location so that the forks align properly on the lift truck. Cosmetic factors include the overall cleanness (smoothness) of the fork and the quality of the polishing done on fully tapered and polished forks. In terms of long-term quality goals, the fork arm producers see the challenge as maximizing the physical strength and fatigue life of a fork arm while minimizing the amount of raw materials. 4/ Achieving these goals involves experimenting with material grade composition, heat treatment techniques, and the overall design of the fork, especially the heel.

U.S. tariff treatment

Steel fork arms are classified and reported under Tariff Schedules of the

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1/ Theodore Wolf, president, Joseph Dyson and Sons, Inc., hearing transcript, p. 46. William Harrison, president, Kenhar Products Inc., also concurred with this asessment, hearing transcript, p. 88.

2/ There is no industry standard as to what constitutes a "worn" steel fork arm. Kenhar has initiated a program with the ITA to specify 10 percent wear as the point at which a fork arm should be replaced, and Dyson agrees with this standard (hearing transcript, p. 89, field interview with officials at Dyson, Apr. 11, 1986). A fork arm usually lasts the life of a lift truck, which is about 5,000 to 10,000 hours of operation depending on the manufacturer (field interview with Clark officials, Mar. 14, 1986). After the "life" of a lift truck has expired, its engine is overhauled and the truck is again ready for long-term usage.

3/ Yale tests * * * (telephone conversation with Dr. George Ekastrom, chief engineer, Yale Materials Handling Corp., May 6, 1986). Dyson tests * * * at * * * (field interview, Feb. 13, 1986).

4/ Field interview with William Harrison, Kenhar Products Inc., Feb. 11, 1986, and Patrick Sheffield, vice president of sales, Joseph Dyson & Sons, Inc., hearing transcript, pp. 35 and 36.

United States Annotated (TSUSA) item 692.4070. The tariff item for fork arms is a broad provision of the TSUSA which includes all parts of forklift trucks and other specified industrial vehicles. Concessions negotiated during the Tokyo Round of Multilateral Trade Negotiations provide for gradual duty reductions on imports under this tariff item, which are being effected in eight annual stages and began January 1, 1980. 1/ As a result, the 1980 column 1 or most-favored-nation (MFN) rate of duty of 3.9 percent ad valorem was reduced to the current rate of 0.6 percent, and is scheduled to be reduced to the duty rate of "free" in 1987 (table 1). 2/ Imports from Communist countries enumerated in TSUS general headnote 3(d) are assessed a rate of 35 percent ad valorem under tariff item 692.40.

Under TSUS item 692.40, preferential tariff treatment in the form of the duty-free entry is afforded to imports from Israel 3/, least developed developing countries (LDDC's) 4/, and countries designated as eligible for benefits of the Generalized System of Preferences (GSP) 5/ and the Carribbean Basin Economic Recovery Act (CBERA). 6/

The U.S. Market

In the U.S. market for steel fork arms, producers and consumers of fork arms are all interconnected in a set of commercial relationships that ultimately depend upon the health of the forklift truck industry. The fork arm

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1/ The Tokyo Round was conducted from 1973 to 1979 under the auspices of the General Agreement of Tariffs and Trade (GATT).

2/ The rates of duty in col. 1 are MFN rates and are applicable to imported products from all countries except those Communist countries and areas enumerated in general headnote 3(d) of the Tariff Schedules of the United States (TSUS). MFN rates would not apply if preferential tariff treatment is sought and granted under provisions for special rates of duty.

3/ Preferential tariff treatment is applicable to imports entered under the above tariff item from Israel as provided in the United States-Israel Free Trade Area Implementation Act of 1985, as specified in general headnote 3(e)(viii) of the TSUS.

4/ Preferential tariff treatment, in the form of full tariff reductions without staging, is provided to particular products of LDDC's enumerated in general headnote 3(e)(vi) of the TSUS, and as provided for in accordance with sec. 503(a)(2)(A) of the Trade Agreements Act of 1979. When no rate of duty is provided for LDDC's in the Special column for a particular tariff item, the rate of duty in col. 1 applies.

5/ The GSP is a program of nonreciprocal tariff preferences granted by the United States to certain beneficiary developing countries, territories, and associations of countries for selected products and commodities. Pursuant to the Trade Act of 1974, eligible products are allowed to enter free of duty for the designated beneficiary countries, unless the country's imports exceed the so-called competitive-need limitations. The GSP program will continue until July 4, 1993.

6/ Title II of Public Law 98-67, implemented by Presidential Proclamation 5133 of Nov. 30, 1983, comprises the Caribbean Basin Economic Recovery Act (CBERA) providing duty-free entry for most articles imported from designated beneficiary countries. Articles classified in the above TSUS item are eligible for duty-free entry under the CBERA.

Table 1.--Steel fork arms: U.S. rates of duty, by TSUSA item

(In percent ad valorem)

TSUS item No. 1/	Description	Pre-MTN col. 1 rate of duty 2/	Staged col. 1 rates of duty effective with respect to articles entered on or after Jan. 1--								Col. 2 rate of duty
			1980	1981	1982	1983	1984	1985	1986	1987	
692.40 A,D, E,I	Fork-lift trucks, platform trucks and other self-propelled work trucks, and platform tractors; all of the foregoing of off-the-highway types used in factories, warehouses, or transportation terminals for short-distance transport, towing, or handling of articles; and parts of the foregoing trucks and tractors	4.5%	3.9%	3.4%	2.8%	2.3%	1.7%	1.1%	0.6%	Free	35%.

1/ The designation "A" indicates that the item is currently designated as an eligible article for duty-free treatment under the U.S. Generalized System of Preferences (GSP) and that all beneficiary developing countries are eligible for the GSP. The designation "D" indicates that the item is currently designated as an eligible article for full tariff reductions without staging in accordance with section 503(a)(2)(A) of the Trade Agreements Act of 1979, which allows this article to enter under the duty rate of "free" from the least developed developing countries (LDDCs). The designation "E" indicates that the item is currently designated as an eligible article for duty-free treatment under the Caribbean Basin Economic Recovery Act (CBERA) and that all designated Basin countries are eligible for the CBERA. The designation "I" indicates that the item is currently designated as an eligible article for duty-free treatment under the United States-Israel Free Trade Area Implementation Act of 1985.

2/ Rate effective prior to Jan. 1, 1980.

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industry primarily services forklift truck manufacturers, but the market for fork arms may actually be broken into two subgroups, the OEM market and the aftermarket. The OEM market is composed of firms which use fork arms for assembly onto forklift trucks or industrial truck attachments; this market includes U.S. forklift truck producers, the U.S. affiliates of foreign lift truck producers which import trucks without forks into the United States, and domestic manufacturers of industrial truck and tractor attachments which use forks for some types of attachments. The aftermarket consists of firms that, directly or indirectly, service the end users of forklift trucks as well as the end users themselves; such aftermarket establishments include fork arm and attachment distributors, forklift truck dealers, and end users of trucks.

Channels of distribution

Steel fork arms are sold throughout the United States by fork arm producers, forklift truck manufacturers, distributors of fork arms and industrial truck attachments, manufacturers of industrial truck attachments, and forklift truck dealers. Fork arms are in turn also bought by each of these types of establishments as well as by the end users of forklift trucks. Figure 4 illustrates the various market paths for steel fork arms, and these transaction patterns may be summed as follows:

-- U.S. and foreign producers sell to every type of fork arm consumer, but very little is sold directly to end users.
-- The U.S. producer Dyson buys forks from Japan for resale through Dyson's normal channels of distribution.
-- U.S. captive producers also import and buy forks from the domestic commercial producers, but sell very little of their captive production or commercial purchases (and only to dealers).
-- OEM's buy only from U.S. and foreign producers, and resell very little of this product (and only to dealers).
-- Distributors also buy from both U.S. and foreign commercial producers, but sell their forks almost exclusively to dealers.
-- Dealers buy from producers and distributors, but sell only to end users.
-- End users buy almost exclusively from dealers.

Apparent U.S. consumption

Apparent U.S. consumption of steel fork arms increased by 33 percent from 1981 to 1985, from about *** to *** forks, after having declined by *** percent between 1981 and 1983 (table 2). U.S. consumption of steel fork arms increased *** percent between 1983 and 1985, but the largest increase occurred from 1983 to 1984 (*** percent); consumption increased by *** percent from 1984 to 1985.

U.S. fork arm demand is largely a function of forklift truck consumption in the United States, since fork arms are purchased for use on domestically

Figure 4.—Channels of distribution for steel fork arms.

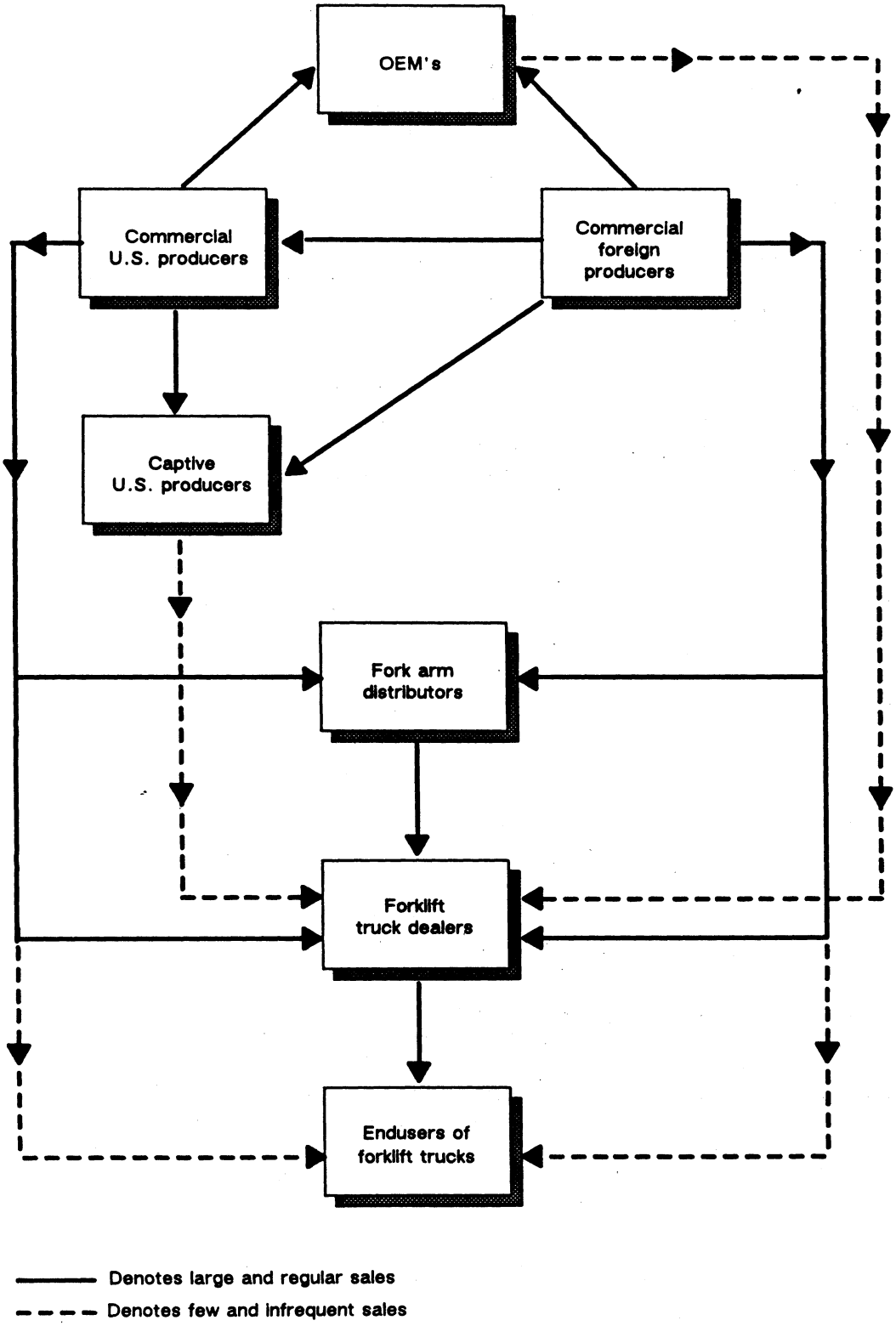

Table 2.--Steel fork arms: Apparent U.S. consumption and ratio of imports to consumption, 1981-85

(In number of forks)

Year	U.S. commercial producers' shipments	U.S. captive producers' shipments 1/	Imports	Apparent consumption	Ratio (percent) of imports to consumption
*	*	*	*	*	*

1/ Intracompany transfers.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission and from data submitted by the Canadian steel fork arm producers.

produced trucks and on imports of forklift trucks that do not have forks attached. In the following tabulation, domestic fork arm and forklift truck consumption are presented (in number of forks and number of trucks) together with the ratio of truck consumption to total fork consumption (in percent):

Year	U.S. steel fork arm consumption	Forklift 1/ truck consumption	Ratio of truck consumption to fork arm consumption 2/
1981.....	***	57,409	***
1982.....	***	43,507	***
1983.....	***	48,384	***
1984.....	***	75,692	***
1985.....	***	73,697	***

1/ U.S.-produced forklift truck shipments plus imports of trucks without forks; data are compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.
2/ Based on 2 forks per truck.

As can be seen from the above tabulation, new forklift trucks (with two forks per truck) accounted for *** to *** percent of total fork arm consumption during 1981-85. Thus, fork arm consumption closely patterns trends in forklift truck consumption. The following tabulation presents the percentage changes in consumption of these two products:

	Change in fork arm consumption	Change in forklift truck consumption
1981-82.....	***	-24
1982-84.....	***	75
1984-85.....	***	- 3

Replacement and "new application" forks for the aftermarket account for most of the remaining share (about *** to *** percent) of fork arm consumption; there are also a number of forks sold to manufacturers of forklift truck attachments.

There have been some slight shifts in the market for steel fork arms during the period of investigation, both in terms of the consumers of steel fork arms and the product mix of consumption. In 1981, *** percent of all fork arms were consumed by the OEM's, and by 1985 this share dropped to *** percent (table 3). 1/ The shift is probably accounted for by the greater number of imported lift trucks without fork arms attached, for which forks are increasingly attached at the dealer level. In addition, in 1981 imported steel fork arms accounted for *** percent and *** percent of OEM and aftermarket consumption, respectively; by 1985 these shares increased to *** percent and *** percent, respectively.

As a share of U.S. commercial producers' shipments, OEM's received *** percent of the U.S. producers' shipments in 1981 and *** percent in 1985, which considered with the increase in shipments over the 5-year period, reflects an increase in sales at the aftermarket level. As a share of imports, OEM's accounted for *** percent of imports in 1981 and *** percent in 1985.

With regard to the relative consumption of standard and special steel fork arms, standards as a share of total U.S. consumption declined from *** percent in 1981 to *** percent in 1985 (table 4). In terms of the shares of standard and special consumption, imported fork arms accounted for *** percent of standard consumption in 1981 and *** percent in 1985; imports accounted for *** percent of special fork arm consumption in 1981 and *** percent in 1985. Total consumption of special forks increased more than standards--consumption of specials grew *** percent from 1981 to 1985, while standards increased *** percent.

With regard to the product mix between standards and specials for domestic shipments and imports, the U.S. commercial producers increased their shipments of specials from *** to *** percent as a share of total shipments (table 5). On the other hand, imported standard steel fork arms as a share of total imports increased from *** percent to *** percent.

The Fork Arm Industry

Eleven producers in five countries (including the United States) are the sources for more than 99 percent of the steel fork arms consumed in the United States. Each of these producers, their location, share of 1985 U.S. consumption, manufacturing processes, types of steel used, types of forks produced, and their channels of distribution are presented in table 6. Each firm is also discussed individually below in the sections on U.S. producers and foreign producers.

1/ * * *.

Table 3. Steel fork arms: Shares of U.S. consumption by markets, types of forks, and types of producers, 1981 and 1985

(In percent)

Item	1981, share of-- OEM consumption	1981, share of-- Aftermarket consumption	1985, share of-- OEM consumption	1985, share of-- Aftermarket consumption
Standard fork arms:				
U.S. commercial shipments	***	***	***	***
U.S. captive shipments 1/	***	***	***	***
Imports	***	***	***	***
Total	100	100	100	100
Special fork arms:				
U.S. commercial shipments	***	***	***	***
U.S. captive shipments	***	***	***	***
Imports	***	***	***	***
Total	100	100	100	100
Total fork arms:				
U.S. commercial shipments	***	***	***	***
U.S. captive shipments	***	***	***	***
Imports	***	***	***	***
Total	100	100	100	100

1/ Captive shipments of standard fork arms are slightly inflated since * * * could not break out their data according to these two categories.

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

U.S. producers

There are currently four producers of steel fork arms in the United States, two of which produce for the commercial market and two of which produce for captive consumption. 1/ In the past 5 years, two captive producers, Clark Material Handling Products Co. (Clark) and Hyster Co. (Hyster) discontinued their production of fork arms and began purchasing all of their fork arms. Clark ceased its production at yearend 1982 * * * and Hyster closed its fork plant in June 1985.

1/ Six other producers of steel fork arms were identified by the Commission staff but these firms were not producing significant quantities (between *** and *** pairs of forks per year). Four of these firms were captive producers.

Table 4.--Steel fork arms: U.S. consumption of standard and special forks, 1981-85

Item	1981	1982	1983	1984	1985
	U.S. consumption (number of forks)				
Standard fork arms:					
U.S. commercial shipments	***	***	***	***	***
U.S. captive shipments 1/	***	***	***	***	***
Imports	***	***	***	***	***
Subtotal	***	***	***	***	***
Special fork arms:					
U.S. commercial shipments	***	***	***	***	***
U.S. captive shipments	***	***	***	***	***
Imports	***	***	***	***	***
Subtotal	***	***	***	***	***
Total	***	***	***	***	***
	As a share of total consumption (percent)				
Standard fork arms:					
U.S. commercial shipments	***	***	***	***	***
U.S. captive shipments	***	***	***	***	***
Imports	***	***	***	***	***
All standard forks	***	***	***	***	***
Special fork arms:					
U.S. commercial shipments	***	***	***	***	***
U.S. captive shipments	***	***	***	***	***
Imports	***	***	***	***	***
All special forks	***	***	***	***	***

1/ Captive shipments of standard fork arms are slightly inflated since * * * could not break out their data according to these two categories.

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 100 percent.

Table 7 identifies these six producers of fork arms, their plant locations, and share of shipments in 1981 and 1985. The captive producers use nearly all (more than 98 percent) of their fork arm product for internal use in forklift truck production.

Commercial producers.--There are currently only two producers of steel fork arms for the commercial market in the United States, Dyson and GCN, both of which are the petitioners in this investigation (Yale Materials Handling Corp.

Table 5.--Standard and special steel fork arms as a share of U.S. commercial producers' shipments and imports, 1981-85

(In percent)

Item	1981	1982	1983	1984	1985
U.S. commercial shipments:					
Standard forks	***	***	***	***	***
Special forks	***	***	***	***	***
Total	100	100	100	100	100
Imports:					
Standard forks	***	***	***	***	***
Special forks	***	***	***	***	***
Total	100	100	100	100	100

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

(Yale) * * *. Dyson has traditionally held the largest share of the two companies' fork arm shipments (*** percent in 1981 and *** percent in 1985), and has been producing forks since 1917. Dyson sells through all the major channels of distribution--OEM's, distributors, dealers, and limited quantities to end users of fork arms. In addition, in * * * Dyson arranged * * * with the Japanese producer Toyoshima which * * *. Dyson uses alloy steel and an upset and bend process in its manufacture of forks.

GCN, the other producer, has been manufacturing forks for about 30 years and gained entry to the market as a manufacturer of special forks for the lumber industry. GCN now produces a variety of standard and special forks, and sells the fork arms it produces * * *. GCN uses the welding and free bending processes to manufacture fork arms, and uses a special alloy steel. Both GCN and Dyson market forks all over the United States.

Captive producers.--The captive producers of steel fork arms have traditionally consumed virtually all of their own fork arm products, with only nominal shipments of forks being made to forklift truck dealers and very little being maintained in inventories. Of the two current producers, Harlo Products Inc. (Harlo) and Yale, Yale is by far the largest producer, making *** forks to Harlo's one. 1/ Yale * * *. 2/ Yale uses carbon steel and makes standard fork arms * * *; Harlo manufactures only special carbon steel forks which are unique to the company's rough terrain forklift trucks. Harlo uses a free bend production process and Yale uses bend and upset.

Two other captive producers of steel fork arms, Clark and Hyster, discontinued their fork operations (Clark in 1982 and Hyster in 1985) and started

1/ In 1986, Yale * * *.
2/ * * * Daniel Gimmy, vice president, Yale Materials Handling Corp., May 1, 1986. Mr. Gimmy noted that * * *. Harlo * * *.

Table 6.--Steel fork arms: U.S. and foreign producers and selected industry information

Firm	Location	Share of 1985 U.S. consumption 1/	Manufacturing process	Type of steel used	Types of forks produced	Channels of distribution
		---percent---				
U.S. producers:						
Dyson	Painesville, OH	***	upset and bend	alloy	standards and specials.	OEM's, distributors, dealers, end users.
GCN	Seattle, WA	***	free bend and weld.	alloy	standards and specials.	* * *.
Clark (ceased production in 1982)	Buchanan, MI	***	bend and upset	carbon	standards and specials.	Captive, very few to dealers.
Harlo	Grandville, MI	***	free bend	carbon	specials	Captive, very few to dealers.
Hyster (ceased production in 1985)	Danville, IL	***	upset and bend	boron	standards and specials.	Captive, very few to dealers.
Yale	Greenville, NC	***	bend and upset	carbon	standards	Captive, very few to dealers.
Foreign Producers:						
Erectoweld	Canada	***	bend and upset	alloy	standards and specials.	Dealers, distributors.
Kenhar	Canada	***	bend and upset	boron	standards and specials.	OEM's, distributors, dealers, end users.
Industrias Crown	Mexico	***	bend and upset	alloy	standards	Crown Controls Corp.
Toyoshima	Japan	***	rolling, upset and bend.	alloy	standards	Dyson, distributors.
Falkenroth	West Germany	***	2/	boron	standards and specials.	Distributors, dealers.

1/ One percent of apparent U.S. consumption is accounted for by imports from Great Britain and the Republic of Korea.
2/ Information not available.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission and from information supplied by the U.S. and foreign producers.

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Table 7.--Steel fork arms: U.S. producers, their plant locations, and share of shipments, 1981 and 1985 1/

Firm	Plant location	Share of captive/commercial shipments 1981	Share of captive/commercial shipments 1985	Share of total shipments 1981	Share of total shipments 1985
		Percent			
Commercial producers:					
Joseph Dyson & Sons, Inc.	Painesville, OH	***	***	***	***
GCN, Inc.	Seattle, WA	***	***	***	***
Subtotal		100	100	***	***
Captive producers: 2/					
Clark Material Handling Products 3/.	Buchanan, MI	***	***	***	***
Harlo Products Inc.	Grandville, MI	***	***	***	***
Hyster Co.4/	Danville, IL	***	***	***	***
Yale Materials Handling Corp.5/	Philadelphia, PA Greenville, NC	***	***	***	***
Subtotal		100	100	***	***
Total		-	-	100	100

1/ Share based on quantity.
2/ * * * 100 percent of the captive product is consumed internally for forklift truck production, with only nominal inventories and shipments of forks independent from trucks.
3/ Clark ceased producing fork arms at yearend 1982.
4/ Hyster ceased producing fork arms in June 1985.
5/ Yale consolidated its Philadelphia plant with its plant in Greenville, NC, in 1982.

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

buying them commercially. 1/ They both now * * *. Both companies made the decision to quit fork production when the recession and increasingly intense competition from Japanese forklift truck imports caused the companies to re-analyze their costs and find that they could buy forks (domestic or imported) at significantly lower costs than they could produce them.

Foreign producers

There are five foreign producers located in four countries which account for nearly 100 percent of U.S. fork arm imports. These producers are discussed below according to their home country.

1/ Hyster opposes the petition. Clark * * *. Hyster's response is * * *, and counsel for Clark stated that * * *.

Canada.--Two Canadian producers, Kenhar Products, Inc., and Erectoweld Co., Ltd., are the only two Canadian producers and exporters of steel fork arms to the United States. Kenhar, the largest firm, accounted for *** percent of Canadian fork arm exports to the United States in 1985. Kenhar is Dyson's major competition in the United States; it produces a wide range of forks, and sells them through all the normal channels of distribution. Kenhar uses boron steel for forks and employs the bend and upset process for manufacturing forks on its own patented equipment. Erectoweld uses the same alloy steel as Dyson, but like Kenhar, uses the bend and upset process.

Japan.--Toyoshima Special Steel Co., Ltd., is the only Japanese fork arm producer exporting forks to the United States. Toyoshima manufactures only standard forks for sale * * *, and until recently employed a unique and patented manufacturing process called "rolling" for forks. Toyoshima now uses an alloy steel and the upset and bend process.

Mexico.--The only Mexican producer of steel fork arms is Industrias Crown de Queretaro (Industrias Crown), a wholly owned subsidiary of the U.S. corporation Crown Controls Corp. (Crown), New Bremen, OH. Industrias Crown is * * *. Crown is * * * of Mexican fork arms, which are made of alloy steel by a bend and upset process.

West Germany.--The German producer of fork arms which exports to the United States, Carl Falkenroth Sohne, produces standard and some special forks. Falkenroth sells all of its forks through a West German trading company, and only * * * buy German forks. Falkenroth makes its forks out of boron steel. (No information is available on the production process.)

U.S. importers

In general, three types of establishments import steel fork arms--OEM's, distributors of fork arms and lift truck attachments, and forklift truck dealers. Dyson, the U.S. fork arm producer, also imports fork arms from Japan for resale to its customers, and there are also a few manufacturers of forklift truck attachments and other material-handling equipment which import fork arms. 1/

Over the past 5 years, there have been more than 100 importers of forks from Canada, *** importers of forks from Japan (*** importers from * * * to the present), * * * of forks from Mexico, *** importers of forks from West Germany, and *** importers of forks from all other countries (Great Britain, Korea, and Taiwan). The 10 largest importers of fork arms in 1985 are presented in table 8 with their share of total 1981 and 1985 imports.

The Question of Increased Imports

Because imports of steel fork arms are not separately reported in official import statistics, import data for this investigation are based on responses to the Commission's questionnaires and on data provided by the two

1/ Dyson imported * * *.

Table 8.--Steel fork arms: U.S. importers and their share of total quantity imported, 1981 and 1985

Firm	Origin of imports	Share of 1981 imports	Share of 1985 imports
		Percent	
* * *.....	* * *	***	***
* * *.....	* * *	***	***
* * *.....	* * *	***	***
* * *.....	* * *	***	***
* * *.....	* * *	***	***
* * *.....	* * *	***	***
* * *.....	* * *	***	***
* * *.....	* * *	***	***
* * *.....	* * *	***	***
* * *.....	* * *	***	***
Subtotal.....		29	65
All others.....		71	35
Total.....		100	100

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

Canadian producers. (Questionnaire coverage for all imports of fork arms except those from Canada is comprehensive.)

U.S. imports increased 155 percent from 1981 to 1985, from about *** to *** forks (table 9). As can be seen from table 9, the major sources of imports of steel fork arms are Canada, Japan, Mexico, and West Germany. Seven countries account for all U.S. imports; a few forks are currently imported from Great Britain and Korea and fork arms were imported from Taiwan during * * *. The value of steel fork arm imports increased by 45 percent from 1981 to 1985 (from $*** to $***) after declining to $*** in 1982.

Canada has consistently been the largest source of fork arm imports, but its share of total imports dropped from *** percent in 1981 to *** percent in 1985. The second largest foreign source in 1985 was Mexico, accounting for *** percent of U.S. fork arm imports * * *. Japan increased its share of imports from *** percent in 1981 to *** percent in 1985, and West German steel fork arms did not emerge as a factor in the U.S. market until ***. All other imports have consistently accounted for *** percent or less of total U.S. imports. Figure 5 graphically represents the trends in U.S. steel fork arm imports.

The ratio of imports to U.S. production has also been increasing, from *** percent in 1981 to *** percent in 1983 and *** percent in 1985. The tabulation below presents total U.S. production of fork arms, total imports, and the ratio of imports to production.

Figure 5.—U.S. imports of steel fork arms, 1981–85.

* * * * * * *

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Year	U.S. production (forks)	U.S. Imports (forks)	Ratio of imports to production (percent)
*	*	*	*	*	*	*

Table 9.--Steel fork arms: U.S. imports, 1981-85

Source	1981	1982	1983	1984	1985
*	*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission and from data submitted by the Canadian fork arm producers.

The Question of Serious Injury or Threat Thereof to the Domestic Industry

U.S. production, capacity, and capacity utilization

U.S. commercial production of steel fork arms declined *** percent from 1981 to 1983, from *** to *** forks, then increased *** percent to *** units in 1985. The net increase in production from 1981 to 1985 was 14 percent (table 10). However, the two firms, Dyson and GCN, had different experiences, * * *. Most of the decline in commercial fork arm production parallels the recession in the forklift truck industry, which bottomed out in 1982 but continued into 1983.

Captive production of fork arms declined *** percent between 1981 and 1983, from *** units to *** (Clark ceased production of forks at yearend 1982). Captive production of forks further declined from 1983 to 1985 (after rising *** percent between 1982 and 1983) by *** percent; part of this decline is accounted for by Hyster ceasing its fork arm production in June 1985. Total U.S. production of steel fork arms declined *** percent from 1981 to 1983 and then increased *** percent from 1983 to 1985, with a net decrease of *** percent from 1981 to 1985.

Capacity utilization for commercial steel fork arm producers declined from *** percent in 1981 to *** percent in 1983 and then rose to *** percent in 1985 (table 11). However, Dyson increased its productive capacity by * * * from 1982 to 1983, which explains the decline in utilization even though production increased. 1/ Capacity utilization for the captive producers (excluding * * *) declined from *** percent in 1981 to *** percent in 1983 and rose slightly to *** percent in 1985. For the industry as a whole, capacity utilization was *** percent in 1981, *** percent in 1983, and *** percent in 1985.

1/ Dyson installed a second torch tapering machine which * * *.

Table 10.--U.S. production of steel fork arms, 1981-85

(In number of forks)

Year	Dyson	GCN	Captive producers	Total production
*	*	*	*	*

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

Table 11.--Steel fork arms: U.S. production, capacity, and capacity utilization, 1981-85

Year and producer	Production	Capacity	Capacity utilization
	forks		Percent
*	*	*	*

1/ Excluding * * *. The company's * * *. * * *.

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

Costs of production/goods sold

*	*	*	*	*	*	*

U.S. producers' shipments

Intracompany transfers of fork arms by the captive producers declined *** percent from 1981 to 1983, and then declined a further *** percent from 1983 to 1985. The net decrease in captive producers' shipments was 61 percent. Commercial shipments of steel fork arms declined *** percent from 1981 to 1983, and then increased *** percent during 1983-85 (table 13). The trends in the values of these shipments closely followed those for quantity, with the value declining *** percent from 1981 to 1983. The value of fork arm shipments increased *** percent from 1983 to 1985. The net increase in commercial shipments from 1981 to 1985 was 16 percent by quantity and 14 percent by value, while total shipments (captive and commercial) declined *** percent. Neither of the two commercial producers exported fork arms during the period of investigation, but Yale * * *.

An examination of the separate performances of Dyson and GCN and the unit values of their shipments shows that the two firms * * *. * * *. * * *. * * * (table 14).

Table. 12. Steel fork arms: U.S. producers' unit costs of steel and unit costs of goods sold, 1981-85

(Dollars per ton of steel and dollars per fork)

Item	1981	1982	1983	1984	1985
Dyson:					
Cost of steel	$***	$***	$***	$***	$***
Costs of goods sold:					
Raw materials	***	***	***	***	***
Labor	***	***	***	***	***
Overhead	***	***	***	***	***
Total	***	***	***	***	***
GCN:					
Cost of steel	***	***	***	***	***
Costs of goods sold:					
Raw materials	***	1/ ***	***	***	***
Labor	***	***	***	***	***
Overhead	***	***	***	***	***
Total	***	***	***	***	***
Yale:					
Cost of steel	***	***	***	***	***
Cost of goods sold 2/	***	***	***	***	***

1/ GCN * * *.
2/ * * *.

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

Table 13.--Steel fork arms: U.S. producers' domestic shipments, 1981-85

(Number of forks and 1,000 dollars)

Item	1981	1982	1983	1984	1985
Dyson:					
Quantity 1/	***	***	***	***	***
Value	***	***	***	***	***
GCN:					
Quantity	***	***	***	***	***
Value	***	***	***	***	***
Subtotal:					
Quantity	***	***	***	***	***
Value	***	***	***	***	***
Captive producers:					
Quantity	***	***	***	***	***
Total	***	***	***	***	***

1/ Includes Dyson's intracompany transfers to Schreck from 1981 to 1983.

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

Table 14.--Steel fork arms: Unit weights and values of domestic shipments by Dyson and GCN, 1981-85

Firm	1981	1982	1983	1984	1985
Dyson:					
Unit weight...pounds.	***	***	***	***	***
Unit value.....	$***	$***	$***	$***	$***
Value.....per pound.	$***	$***	$***	$***	$***
GCN:					
Unit weight...pounds.	***	***	***	***	***
Unit value.....	$***	1/ $***	$***	$***	$***
Value.....per pound.	$***	$***	$***	$***	$***

1/ GCN * * *.

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

U.S. producers' inventories

The fork arm industry (both domestic and foreign) typically does not produce for inventory; rather, forks are produced according to monthly production schedules based on orders and required delivery dates. The captive U.S. producers of fork arms also have not traditionally maintained inventories of any significance since they match the production schedule for forks with that of their forklift trucks. Neither do fork arm consumers (OEM's, distributors, and dealers) typically try to maintain significant inventories, except those few firms which service such a large quantity of customers that they keep an inventory of the standard and more popular fork sizes in order to have a ready supply on hand (such firms include Dyson, Kenhar, two or three fork arm distributors, and a few of the very large forklift truck dealers). 1/ This is largely the consequence of the fact that a fork arm is an extremely durable good, lasting for the most part for the life of a forklift truck.

Table 15 presents the U.S. commercial producers' inventories, shipments, and ratio of inventories to shipments of steel fork arms. As can be seen, the ratio of inventories to shipments declined from *** percent in 1981 to *** percent in 1982, then declined to *** percent in 1983 and leveled at *** percent for 1984-85. * * *.

U.S. employment

Annual average employment.--Annual average employment in the commercial fork arm industry declined from *** production and related workers in 1981 to *** in 1985, a drop of one-third (table 16). * * *.

1/ Dyson keeps about *** percent of its inventories in * * *.

Table 15.--Steel fork arms: U.S. commercial producers' inventories, shipments, and ratios of inventories to shipments, 1981-85

Year and producer	Inventories	Shipments	Ratio of inventories to shipments
	Number of forks		Percent
*	*	*	* * *

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

Table 16.--Average number of production and related workers engaged in the manufacture of steel fork arms, hours worked by such workers, wages paid, and total compensation, 1981-85

Year and producer	Number of workers	Hours worked	Wages paid	Total compensation
		Thousands	Per hour	
*	*	*	* * *	*

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

* * * * * * *

Data regarding employment for the captive producers * * *. Employment of production and related workers for these * * * firms decreased by *** percent between 1981 and 1982, from *** to *** workers, then increased *** percent to *** workers in 1984. Employment dropped * * * to *** workers in 1985 when * * *. Total employment for the industry declined *** percent from 1981 to 1985, although employment increased *** percent from 1983 to 1985.

Employee wages and compensation.--Employee wages for the commercial producers have risen slightly since 1981--by *** percent between 1981 and 1985, from $*** per hour to $*** per hour (table 16). Total compensation also rose by *** percent during this period, from $*** per hour to $*** per hour. When wages and compensation may be calculated for the entire industry (1983-85), wages declined *** percent and total compensation declined *** percent.

The commercial fork arm producers were reported to have paid wages that are higher than the industry standard. 1/ A comparison of the commercial and captive producers' wage rates and total compensation provide some interesting insights into this allegation. While the wage rates of the commercial producers have * * * than those of the captive producers by *** to *** percent, when total compensation is compared the rates * * *. For example, in 1981 and 1984, * * *. Only in 1982 were * * *. Steel fork arm workers are unionized at all of the producers' establishments.

1/ Confidential submission to the Commission by * * *. Dyson's wages are * * * and about 10 percent of production workers are paid extremely high salaries (hearing transcript, p. 20).

Employee productivity.--Table 17 presents productivity rates for the U.S. producers' production of steel fork arms. As can be seen, Dyson's worker productivity increased * * * between the 1981-82 and 1983-85 periods--it * * * between * * * and * * *. Productivity in terms of the number of forks produced per 1,000 hours worked also increased, * * * about *** percent. * * *. Increases in productivity can be partially attributed to the installment of a torch tapering machine which allows two fork tapers to be cut at one time. Even though Dyson's production workers were on strike during the first four months of 1983, * * *. Productivity was also up at GCN; the firm consistently increased both worker productivity and the number of forks produced per 1,000 hours worked from 1981 to 1985, by *** percent and *** percent, respectively. GCN * * *.

Worker productivity for the captive producers * * * increased *** percent from 1981 to 1983, from *** forks per worker to to ***. Productivity then increased *** percent from 1983 to 1985, with a net increase of *** percent over the 5-year period. The number of forks produced per 1,000 hours worked increased *** percent from 1983 to 1985, from *** to *** units.

Financial experience of U.S. producers

The two major commercial producers of steel fork arms, Joseph Dyson & Sons, Inc., and GCN, Inc., and the current largest captive fork arm producer, Yale Materials Handling Corp., provided income-and-loss data on their fork arm operations from 1981 to 1985. The three other captive fork arm producers, Clark, Harlo, and Hyster, were not able to provide financial data concerning their fork arm operations because no reliable cost accounting methods could be established.

Operations of GCN, Inc.--GCN is a wholly owned subsidiary of Nelson Iron Works, Inc., of Seattle, WA, and since July 1985, it is the only subsidiary of this firm. Prior to 1985, Nelson Iron Works also manufactured railroad equipment; however, their fork operations were housed in a separate establishment. GCN's net sales of fork arms * * *.

Financial condition of GCN.--GCN provided balance sheets for the past several years. The company's working capital for 1985 was $*** and it maintained a current ratio of *** for 1985 (the data is not comparable with prior years because of an organizational change). GCN * * *.

Operations of Joseph Dyson & Sons, Inc.--The income-and-loss experience of Dyson's establishment operations is presented in table 19. As can be seen, net sales * * *.

Sales of steel fork arms * * * as a share of the overall establishment's net sales, * * * from *** percent in 1982 to *** percent in 1985. As indicated in table 20, net sales of steel fork arms * * *. Dyson has six product lines in its establishment; besides fork arms these include sucker rods, industrial fasteners, commercial heat treating, forged rings, and commercial forgings.

Table 17.--Steel fork arms: Worker productivity and number of forks produced per 1,000 hours worked, 1981-85

(Number of forks and 1,000 hours)

Item	1981	1982	1983	1984	1985
Dyson:					
Average number of production and related workers	***	***	***	***	***
Hours worked	***	***	***	***	***
Forks produced	***	***	***	***	***
Forks per worker	***	***	***	***	***
Forks per 1,000 hours	***	***	***	***	***
GCN:					
Average number of production and related workers	***	***	***	***	***
Hours worked	***	***	***	***	***
Forks produced	***	***	***	***	***
Forks per worker	***	***	***	***	***
Forks per 1,000 hours	***	***	***	***	***
Captive producers 1/					
Average number of production and related workers	***	***	***	***	***
Hours worked	***	***	***	***	***
Forks produced	***	***	***	***	***
Forks per worker	***	***	***	***	***
Forks per 1,000 hours	***	***	***	***	***

1/ * * *.
2/ This data was not available * * *.
3/ These calculations would not be meaningful.

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

Table 18.--Income-and-loss experience of GCN, Inc., on its operations producing steel fork arms, accounting years 1981-85 1/

Item	1981	1982	1983	1984	1985
*	*	*	*	*	*	*

1/ Accounting year ends * * *.

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

Table 19.--Income-and-loss experience of Joseph Dyson & Sons, Inc., on the overall operations of its establishment within which steel fork arms are produced, accounting years 1981-85 1/

Item	1981	1982	1983	1984	1985
*	*	*	*	*	*

1/ Accounting year ends * * *.

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

Table 20.--Income-and-loss experience of Joseph Dyson & Sons, Inc. on its operations producing steel fork arms, accounting years 1981-85 1/

Item	1981	1982	1983	1984	1985
*	*	*	*	*	*

1/ Accounting year ends * * *.

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

Dyson's acquisition of Schreck Industries.--In March 1981, Dyson purchased Schreck Industries Inc., a forklift truck manufacturer, for $***. Schreck was * * * at the time of purchase, and according to the Raymond Corp. (a forklift truck manufacturer), Dyson indicated that "a great number of problems had not surfaced" but were discovered later by Dyson. 1/ Schreck was operated as a wholly owned subsidiary, but * * *. Their operating losses * * * during the period that Schreck was owned by Dyson. The resulting losses * * *. Schreck * * *. Schreck's assets * * *.

The accounting records of Schreck were kept separately and not included in Dyson's establishment or steel fork arm operations except for * * *. 2/ However, certain * * * resulting from Schreck currently * * *. These * * * include * * *. The original * * *. 3/ In addition, Dyson incurs * * *. In 1984 and 1985, the * * *. Since the original * * *.

Financial Condition of Joseph Dyson & Sons, Inc.--The financial condition of Dyson * * * between December 31, 1980 and December 31, 1984 (table 21).

1/ Written submission to the Commission from the Raymond Corp., p. 4. The information was supplied by Dyson to Raymond in connection with the possible acquisition of a particular lift truck product line from Schreck.
2/ The company incurred * * *. Some * * *.
3/ Written submission to Commission staff, Apr. 16, 1986.

Table 21.--Consolidated balance sheets of Joseph Dyson & Sons, Inc., as of Dec. 31, 1980, and Dec. 31, 1984

(In thousands of dollars)

Item	1980	1984
*	*	*
*	*	*
*	*	*
*	*	*
*	*	*
*	*	*
*	*	*

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

The balance sheets indicate that at the end of 1980, 3 months before the acquisition of Schreck, the company * * *; 4 years later, the financial strength of the company * * *. The total equity (net worth) of the company * * *. Total assets * * *. Total liabilities * * *. In 1981, Schreck * * *. Dyson subsequently * * *. 1/

* * *. * * *. * * *. The company's liquidity situation is shown in the following tabulation:

	Actual 1980	Actual 1984	Reclassified 1/ 1984
Current ratio 2/....percent..	***	***	***
Working capital 3/ 1,000 dollars.....	***	*** 4/	***

1/ Reclassified by Commission staff for comparison purposes (the reclassified 1984 figures are based on * * *).
2/ Current ratio is defined as current assets divided by current liabilities.
3/ Working capital is defined as current assets minus current liabilities.
4/ The * * * is * * * from the working capital calculation for 1984.

Dyson provided financial data on its purchase and resale of imported fork arms (table 22). The data are not included in the income-and-loss data for steel fork arms but they are included in the establishment income-and-loss data. Dyson achieved operating income margins on sales of its imported fork arms of * * *.

Discussion of Dyson's accounting system and operations.--Dyson provided detailed computer runs of its operations and certified financial statements from its independent auditors for the years 1981 to 1984 (the statements for 1985 are not yet available). Dyson provided a written submission of their

1/ According to Dun and Bradstreet, Inc., Dyson had a deficit in net worth of $696,834 on Apr. 30, 1982, caused in large part by the financing of Schreck (Committee of International Fork Producers prehearing brief, p. 12).

Table 22.--Income-and-loss experience of Joseph Dyson & Sons, Inc., on its purchase and resale of imported steel fork arms, accounting years * * * 1/

Item	1983	1984	1985
*	*	*	*	*	*	*

1/ Accounting year ends * * *.

Source: Written submission to Commission staff, May 14, 1986.

cost allocation methods and they appear to be reasonable. * * *. In 1985, steel fork arms absorbed approximately *** percent of the establishment's allocated costs. Some of the largest establishment costs that have been allocated to steel fork arms are presented below.

* * * * * * *

Operations of Yale Materials Handling Corp.--Yale is a * * * subsidiary of North American Coal Corp. of Cleveland, OH. Prior to March 1985, Yale was owned by Eaton Corp. The income-and-loss experience of Yale's establishment operations is presented in table 23. Net sales * * *.

Table 23.--Income-and-loss experience of Yale Corp., on the overall operations of its establishment within which steel fork arms are produced, accounting years 1981-85 1/

Item	1981	1982	1983	1984	1985
*	*	*	*	*	*	*

1/ Accounting year ends * * *.

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

The income-and-loss experience of Yale's steel fork arm operations is presented in table 24. Net sales of steel fork arms * * *, from $*** in 1981 to $*** in 1982. (Throughout the period of investigation, less than *** percent of the quantity of Yale's fork arm shipments went to the commercial market. The basis for valuation of both captive and commercial shipments of steel fork arms is * * *.) Sales * * *.

Investment in productive facilities.--The three companies supplied data concerning their investment in productive facilities employed in the production of steel fork arms. This data, with the establishment data, is presented

Table 24.--Income-and-loss experience of Yale Corp. on its overall operations producing steel fork arms, accounting years 1981-85 1/

Item	1981	1982	1983	1984	1985
*	*	*	*	*	*

1/ Accounting year ends * * *.

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

in table 25. Dyson's investment in such facilities, valued at cost, * * *. The book value of such assets was $*** as of yearend 1985. Theodore Wolf, president of Dyson, stated that the company invested $1.0 million in steel fork arm related equipment in 1972 when it moved to Painesville, OH, and that because the equipment has a life of 20 years, replacement has not been required. Wolf said that "Dyson would certainly purchase additional equipment if sales of SFA would support such a move. Unfortunately, the impact of increased imports of SFA eliminates any such need." 1/

GCN's investment in such facilities, valued at cost, * * *. The book value of such assets was $*** as of yearend 1985. Yale's investment in such facilities, valued at cost, * * *. The book value of such assets was $*** as of yearend 1985.

Table 25.--Steel fork arms: U.S. producers' investments in productive facilities, 1981-85

(In thousands of dollars)

	Establishment		Steel fork arms	
Firm and year	Original cost	Book value	Original cost	Book value
*	*	*	*	*

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

Capital and investment.--The Commission requested the U.S. producers to describe any actual or potential negative effects of imports of steel fork arms on their firm's growth, investment, and ability to raise capital. Dyson stated the following:

* * * * * * *

1/ Hearing transcript, p. 16.

GCN stated the following:

* * * * * * *

Yale reported that imports * * *.

Dyson, GCN, and Yale all made capital investments in their fork arm operations. The amounts expended are shown in table 26. With regard to the nature of these expenditures, GCN purchased * * *. Dyson's largest capital outlay was in * * * when the company purchased * * *. In other years, Dyson also bought * * *. Yale's major fork arm expenditure occurred in * * *, when the company purchased * * *.

With regard to Dyson's * * * establishment expenditures in * * *, $*** was spent on * * * and $*** for * * *. The company reports that with respect to * * *, it was * * *. 1/

Table 26. Steel fork arms: U.S. producers' capital expenditures for all products of their establishments and steel fork arms, 1981-85

(In thousands of dollars)

Item	1981	1982	1983	1984	1985
All products of the establishment:					
Dyson	***	***	***	***	***
GCN	***	***	***	***	***
Yale	***	***	***	***	***
Total	***	***	***	***	***
Steel fork arms:					
Dyson	***	***	***	***	***
GCN	***	***	***	***	***
Yale	***	***	***	***	***
Total	***	***	***	***	***

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

Research and development.--Over the 5-year period of investigation, GCN spent $*** on research and development (R&D) for steel fork arms, Yale spent $***, and Dyson spent $*** on R&D for all of the product lines of its establishment. The R&D expenditures of the firms are presented in table 27.

Dyson stated in its response to the Commission's questionnaire that these figures * * *. Dyson provided a list of its R&D projects for steel fork arms, which include * * *. GCN reports that its R&D activity involved * * *, and Yale's R&D was spent on * * *.

1/ Written submission to Commission staff, Apr. 16, 1986.

Table 27. Steel fork arms: U.S. producers' research and development expenditures for steel fork arms, 1981-85

(In thousands of dollars)

Firm	1981	1982	1983	1984	1985
*	*	*	*	*	*	*

1/ Dyson's R&D is for all products of its establishment.

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

Additional indicators of threat of injury

Ability of foreign producers to generate exports.--The ability of foreign producers to generate exports to the United States depends upon the size of their domestic and export markets, their capacity utilization, and available inventories. Table 28 presents this information for each foreign producer, and all of the foreign producers report that * * *. 1/

Inventories held by importers.--Inventories of imported fork arms have increased both absolutely and relative to total imports--such inventories increased ***-fold between 1981 and 1985, from *** forks to *** forks. Inventories held by * * *, * * *, and * * * account for *** percent of total inventories in 1985, and * * * and * * * account for *** percent of the inventories in 1983 and 1984.

Fifty importers, accounting for 58 percent of 1985 imports, reported the following inventories:

	1981	1982	1983	1984	1985
Inventories.....forks..	***	***	***	***	***
Inventories as a share of total imports percent..	1/	***	***	***	***

1/ Less than 0.5 percent.

Dyson's imports from Japan and letter of intent with Daewoo.--Dyson reported that it has * * *. 2/ Dyson has signed a letter of intent with Daewoo Heavy Industries (Daewoo) to provide * * *. 3/ 4/

1/ Counsel for the petitioners argues that there is a threat of injury from Romanian steel fork arms via Kenhar (posthearing brief, p. 2). However, no Romanian forks have ever been imported into the United States, and counsel for Kenhar stated that * * *.
2/ Written submission to the Commission, May 20, 1986.
3/ "Painesville firm looks to Korea," Cleveland Plain Dealer, Dec. 8, 1985, p. 8D.
4/ * * *.

Table 28.--Select information or foreign producers' ability to generate exports

(In thousands of forks, except as noted)

Firm and year	Production	Capacity	Capacity utilization 1/	Inventories	Home-market shipments	Shipments to the U.S.		Other export shipments
			Percent					
Erectoweld:								
1981	***	2/	3/	***	***	***	4/	***
1982	***	2/	3/	***	***	***		***
1983	***	2/	3/	***	***	***		***
1984	***	2/	3/	***	***	***		***
1985	***	2/	3/	***	***	***		***
Falkenroth:								
1981	***	***	***	2/	***	***	4/	***
1982	***	***	***	2/	***	***		***
1983	***	***	***	2/	***	***		***
1984	***	***	***	2/	***	***		***
1985	***	***	***	2/	***	***		***
Industrias Crown:								
1985	***	***	***	***	***	***	4/	***
Kenhar:								
1981	***	***	***	***	***	***	4/	***
1982	***	***	***	***	***	***		***
1983	***	***	***	***	***	***		***
1984	***	***	***	***	***	***		***
1985	***	***	***	***	***	***		***
Toyoshima:								
1981	***	***	***	***	2/	***	5/	***
1982	***	***	***	***	2/	***		***
1983	***	***	***	***	2/	***	5/	***
1984	***	***	***	***	2/	***		***
1985	***	***	***	***	2/	***		***

1/ From the unrounded figures.
2/ Data not available.
3/ Erectoweld reported that * * *.
4/ Exports to all countries other than the United States.
5/ These exports for 1981-85 are to * * *.

Source: Data supplied by counsel for the foreign respondents and by Erectoweld.

Note: Figures may not reconcile because of the way the data were provided.

The Question of Imports as a Substantial Cause of Serious Injury or Threat Thereof to the Domestic Industry

Rate of increase of imports and market penetration

As shown in table 29 and figure 6, imports of steel fork arms have increased absolutely and significantly over the past 5 years. Although total imports declined slightly from 1981 to 1982 (by *** percent), imports have increased steadily since 1982 at rates of *** percent for 1982-83, *** percent for 1983-84, and *** percent for 1984-85. The net increase in imports over the 1981-85 period was 155 percent, from *** to *** fork arms. The rate of increase from 1981 to 1983 was *** percent; from 1983 to 1985, it was *** percent.

The increased imports of steel fork arms generally occurred during a period of market expansion; total U.S. consumption grew by 33 percent from 1981 to 1985. However, all market growth has been subsequent to 1983--total consumption declined *** percent from 1981 to 1983 but increased *** percent during 1983-85. Nevertheless, the rate of increase in imports has exceeded that of market growth.

The consequent increase in market penetration by imports coincided with the decision by the two largest captive producers of steel fork arms (Clark and Hyster) to discontinue their internal fork production and begin buying their forks on the open market. Both of these firms are buying forks from Canada. Thus, the increased levels of import penetration appear to be largely at the "expense of" the captive producers (fig. 6). As can be seen from table 29, imports of fork arms consistently increased their share of the U.S. market from 1981 to 1985. In 1981, imports accounted for *** percent of total U.S. consumption; this share increased to *** percent in 1983, and was *** percent in 1985.

Captive production has consistently supplied a declining share of the market--it fell from *** to *** percent between 1981 and 1983 and declined even further to *** percent by 1985. The overall trend for the share of the market supplied by U.S. commercial producers has similarly declined, but not as rapidly as that of the captive producers. The U.S. commercial producers' share of total U.S. consumption declined from *** to *** percent during 1981-83, and rose to *** percent in 1985, a net decline of 5.0 percentage points between 1981 and 1985. However, as a share of commercial consumption only, the U.S. producers' market share declined steadily, from *** percent in 1981 to *** percent in 1985.

Prices 1/

U.S. producer prices.--U.S.-produced steel fork arms are generally priced on an f.o.b. mill or f.o.b. warehouse basis. Transaction prices are normally established by taking discounts from list prices based on volume, and giving

1/ Prices contained in tables 30 through 32 are represented graphically in app. B.

Figure 6.— Shares of apparent U.S. steel fork arm consumption, 1981, 1983, and 1985.

* * * * * * *

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Table 29.--Steel fork arms: U.S. producers' shipments, imports, and apparent consumption, 1981-85

Year	U.S. commercial producers' shipments		U.S. captive producers' shipments		Imports	Apparent consumption	
	*	*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission and data submitted by the Canadian steel fork arm producers.

standard discounts to forklift truck dealers. In the case of the major commercial producer Dyson, prices for OEM's are based on * * *. The other commercial producer, GCN, * * * and establishes prices by discounting list prices 20 percent. Although captive producers do sell some forks to their dealers, the volume of sales is small 1/ and prices for these forks are much higher than average. 2/ Both Dyson and GCN report that they sell steel fork arms nationwide.

The Commission requested U.S. producers, importers, and purchasers of steel fork arms to provide price data for two common sizes of standard steel fork arms: a 1-3/4" x 4" x 42" class II fork arm (product 1) and a 2" x 5" x 48" class III fork arm (product 2). 3/ Both Dyson and the largest Canadian producer, Kenhar, agreed that these two products are the most popular sizes of fork arms for those classes of forks, and product 1 is the largest selling fork arm in the United States. The U.S. producers were asked to provide their f.o.b. selling prices for sales to OEM's, distributors, and dealers. The U.S. importers, who are largely OEM's, but also include fork arm distributors and forklift truck dealers, were asked to provide their delivered purchase prices of imported steel fork arms. 4/ In addition, purchasers of U.S.-produced fork arms were also asked to provide their delivered purchase prices for these two products.

Dyson responded with price data covering all three categories of sales

1/ Fork arm sales by captive producers account for less than *** percent of their fork production.

2/ Several forklift truck dealers stated in telephone conversations that they rarely buy forks from the captive producers because their prices are much higher than from other sources of forks.

3/ These products were also specified as hook-mounted pallet forks, unpolished, and with a standard taper.

4/ Most sales by U.S. producers and importers are made to OEM's, which attach the fork arms to their completed forklift trucks. The other domestic and import fork sales are made to fork arm distributors that largely service the aftermarket, and forklift truck dealers that attach forks to the lift trucks they sell. Many of these purchasers (OEM's, distributors, and dealers) are also importers of record. For that reason, the purchasers and importers were requested to provide the cost of the fork arms delivered to their firm.

for both products, and GCN responded with price data for each product for sales to dealers, * * *. Dyson's selling prices to OEM's and distributors, and the weighted-average prices of sales to dealers by Dyson and GCN of products 1 and 2 are presented in table 30.

Table 30.--Prices reported by U.S. producers for sales of U.S.-produced 1-3/4" x 4" x 42" class II and 2" x 5" x 48" class III standard steel fork arms to OEM's, distributors, and forklift truck dealers, by quarters, 1981-85 1/

(Per fork)

	1-3/4" x 4" x 42" class II standard pallet fork			2" x 5" x 48" class III standard pallet fork		
Period	Sales to OEM's	Sales to distributors	Sales to dealers	Sales to OEM's	Sales to distributors	Sales to dealers
	*	*	*	*	*	*

1/ Net f.o.b. point of shipment prices for largest quarterly sale. Dealer prices are weighted average prices.

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

Dyson's selling price of product 1 to OEM's reached a high of $*** in October-December * * *, 12 percent above the January-March 1981 level, but by mid-* * *, had fallen to about $***. Over the 5-year period under investigation, its selling price to OEM's rose from $*** to $***, representing an overall increase of about 2 percent. Dyson's selling prices of product 1 to distributors of steel fork arms remained relatively constant over most of the period of the investigation, but rose and fell erratically in 1985 to end the period at a high of $*** in October-December 1985, 12 percent above the January-March 1981 level.

The weighted-average selling prices reported by Dyson and GCN for sales of product 1 to forklift truck dealers fluctuated considerably and showed no clear trends. Prices for product 1 sold to dealers reached a high of $*** in October-December * * *, 63 percent above the January-March 1981 level, fell to a low of $*** in January-March * * *, then unevenly increased to $*** in October-December 1985, 11 percent higher than January-March 1981.

With regard to product 2, Dyson's selling prices to OEM's rose 34 percent from $*** per fork in January-March 1981 to a high of $*** in January-March * * *, then declined to the lowest price of $*** in October-December 1985, 18 percent lower than the original $***. Selling prices of product 2 to distributors rose 11 percent from January-March 1981 to July-September * * *, from $*** to $***, then fell 18 percent to a low of $*** throughout most of * * *. The price then rose 5 percent to $***, where it remained throughout most of 1985. Dyson's selling prices of product 2 to distributors were 5 percent lower at the end of 1985 than in the beginning of 1981.

The weighted-average selling prices reported by Dyson and GCN for sales

of product 2 to forklift truck dealers generally remained above the selling prices to OEM's and distributors during the period of the investigation. Selling prices for product 2 rose unevenly from $*** in January-March 1981 to reach a peak of $*** in October-December * * *. The selling price subsequently fell to $*** in January-March 1985, and ended the period of investigation at $***, 3 percent above the beginning level of $***.

Dyson representatives stated that its prices on these two sizes of standard fork arms do not clearly show price depression or suppression on sales to OEM's because of its shifting customer base. They explained that the company lost several major OEM customers over the past 3 years, and the remaining OEM's do not buy fork arms in the same large quantities as * * *. Because smaller purchasers do not receive price discounts as large as the major OEM's, the prices appear to have been rising or stable. 1/

In reference to price suppression and price depression, Dyson suggested that the Commission examine aggregate selling price data for all their fork sales from 1981 to 1985. These data show that Dyson's average unit selling prices for section bar forks (forks produced by the same production process as those for which selling price data were requested by the Commission) on a per pound basis have fallen *** percent from $*** in 1981 to $*** in 1985. These average values, however, reflect, in part, changes in product mix. Dyson expanded its production of * * *, and decreased production of * * *, including those * * *. According to Dyson, the average selling price for section bar forks has risen by *** percent, from $*** per fork in 1981 to $*** in 1985. The selling price per pound and selling price per fork from 1981 to 1985 of Dyson-produced section bar forks are presented in the following tabulation:

Year	Selling price per pound	Selling price per fork	Average pounds per fork
* * *	* * *	* * *	* * *

U.S. purchase prices, import prices, and price comparisons.--The Commission requested importers and purchasers of fork arms to provide price data on their imports and purchases of the two specific products addressed above. Thirty-eight importers and purchasers provided usable price data for imports of fork arms from Canada, Japan, Korea, the United Kingdom, and West Germany or for purchases of the U.S.-produced product. 2/ These prices are discussed below.

The Commission requested import purchase price data for U.S. and foreign steel fork arms purchased by OEM's, fork arm distributors, and forklift truck dealers. Weighted-average purchase prices for foreign and domestic steel fork arms purchased by OEM's are presented in table 31. No OEM reported imports of fork arms from any country other than Canada.

OEM purchase prices.--Delivered prices reported by OEM's followed trends similar to those reported by Dyson on an f.o.b. basis. The U.S. purchase price for product 1 purchased by OEM's rose by 17 percent, from $*** in

1/ Field interview with Dyson officials, Apr. 10, 1986.
2/ Crown reported its * * *.

Table 31.--Purchase prices by OEM's for U.S.-produced and imported 1-3/4" x 4" x 42" class II (product 1) and 2" x 5" x 48" class III (product 2) standard steel fork arms, by quarters, 1981-85 1/

(Per fork)

Period	Product 1		Product 2	
	U.S. price	Import price 2/	U.S. price	Import price 2/
* * *	*	*	*	*

1/ Weighted-average net delivered price for the largest quarterly purchase.
2/ Import prices are for Canadian imports only. No OEM reported imports from any country other than Canada.

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

January-March 1981 to reach a high of $*** in October-December * * *. The price fell from this level to end the period of investigation at $***; a price 10 percent below the January-March 1981 level.

In general, total sales quantity per quarter for which U.S. purchase prices of product 1 were reported were larger in 1983-85 than in 1981-82. 1/ These quantity differences may explain some of the differences between the trends of delivered and f.o.b. prices. (In 1983, the class II fork arms were downsized: the 1-3/4" x 4" cross section was previously 1-3/4" x 5", which explains in part the higher consumption during 1983-85.)

Purchase price data for imported product 1 were received for the period January 1981-December 1985. 2/ Over this period, the purchase price of the imported product fell from $*** per fork to $***. The import purchase price peaked at a high of $*** in April-June * * *. In general, imports were priced below comparable U.S.-produced fork arms in 1981-82, but above the U.S. product in 1983-85.

Purchase prices by OEM's for domestically produced product 2 rose by 16 percent from $*** in 1981 to reach a high of $*** in January-March * * *. 3/

1/ Between 1981 and 1982, total quantities purchased were reportedly between *** and *** forks each quarter, with the exception of January-March 1982 (*** forks) and April-June 1983 (*** forks). During 1983-85, total fork quantities purchased in these sales ranged between *** and *** forks per quarter.
2/ As with the U.S.-produced fork arms, quantities for which import prices were reported were significantly larger in 1983-85 than in 1981-82, for the reason cited above as well as because a number of OEM's began importing most of their fork arms. The total quantity of imports purchased per quarter reported by OEM's for product 1 during 1981-83 ranged from *** to *** forks. Between 1984-85, however, the quantities typically ranged between *** and *** forks.
3/ Quantities of U.S.-produced product 2 purchased per quarter ranged from *** to *** units from 1981 to 1983 and *** to *** units during 1984-85.

The purchase price for product 2 declined from this level to end the period of investigation at $*** in October-December 1985, 5 percent above the 1981 price level.

Data for purchases by OEM's of imported product 2 show a price of $*** in 1981. By April-June * * *, the purchase price reported for product 2 imported by OEM's reached a high of $***. In October-December 1985, the purchase price for imports of product 2 ended the period of investigation at $***, 4 percent below the 1981 level. 1/ Unlike in the case of product 1, imports were generally sold at prices below those reported for the U.S. product.

Distributor purchase prices.--Purchase price data for forks produced in the United States and for those imported by distributors of steel fork arms were received for the period April-June 1981 to October-December 1985 (table 32). Most of these forks were imported from Canada, with Japan, Korea, West Germany, and the United Kingdom accounting for the remainder.

The U.S. purchase price for product 1 imported by distributors of steel fork arms rose from $*** in January-March 1981 to reach $*** in July-December * * *. The purchase price declined from this level to the $*** to $*** range for 1983-84, and ended the period of investigation at $***, 17 percent above the January-March 1981 level. 2/

Table 32.--Purchase prices by distributors for U.S.-produced and imported 1-3/4" x 4" x 42" class II (product 1) and 2" x 5" x 48" class III (product 2) standard steel fork arms, by quarters, 1981-85 1/

(Per fork)

Period	Product 1		Product 2	
	U.S. Price	Import Price	U.S. Price	Import Price
* * *	*	*	*	*

1/ Weighted-average net delivered price for the largest quarterly purchase.

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

In April-June 1981, the imported price of product 1 was $***. In 1981-82, the price fluctuated between $*** and $***. During 1983-85, the import price of product 1 purchased by distributors rose from $*** in January-March 1983 to $*** in October-December 1985, ending the period of investigation 29 percent below the April-June 1981 level of $***. 3/

1/ During January 1981 to June 1984, the total quantity reported per quarter ranged from *** to *** forks. From July 1984 to December 1985, fork quantities purchased per quarter ranged from *** to *** forks.
2/ With the exception of low-quantity sales in July-December 1981 (*** forks), and April-June 1985 (*** forks), quantities purchased for these sales ranged between *** and *** forks per quarter.
3/ Larger quantity purchases of the product were reported for 1984-85 (*** to *** forks) than for 1981-83 (*** to *** forks).

Purchase prices paid by distributors for product 2 from U.S. producers and importers were received for 1981-85 (table 32). The U.S. purchase price reached a high of $*** in January-March * * *, 8 percent above the January-March 1981 price of $***. The U.S. purchase price ended the period of investigation at $***, 4 percent below the beginning 1981 level. The import purchase price fell by 19 percent over the same period, from $*** in July-September 1981 to $*** in October-December 1985. 1/

Dealer purchase prices.--Limited purchase price data for domestically and foreign produced product 1 purchased by forklift truck dealers were received for 1984-85. These data are presented in table 33. In April-June 1984, the U.S. purchase price was $***. Between July-September and October-December 1984, the U.S. purchase price was $*** and $***, respectively. In 1985, the U.S. purchase price for product 1 was $*** in April-June and $*** in July-September. The import price, generally lower than the domestic price, ranged from $*** to $*** during January-March 1984 to July-September 1985, ending the period of investigation at $***. 2/

Dealer purchase prices for product 2 from domestic sources were between $*** and $*** during 1984-85. Import prices of $*** for April-June 1984 and $*** for April-June 1985 were also received. 3/

Table 33.--Purchase prices by dealers for U.S.-produced and imported 1-3/4" x 4" x 42" class II (product 1) and 2" x 5" x 48" class III (product 2) standard steel fork arms, by quarters, 1984 and 1985 1/

(Per fork)

Period	Product 1		Product 2	
	U.S. price	Import price	U.S. price	Import price
* * *	*	*	*	*

1/ Weighted-average net delivered price for the largest quarterly purchase.

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

Transportation costs.--The Commission requested purchasers to provide the transportation costs for their steel fork arm purchases that are paid by their firm, as well as those paid by sellers. Steel fork arms are transported between producer and purchaser by truck. The average leadtime between receipt of a customer's order and shipment--when the forks are not available from inventory--is *** weeks for Dyson and *** weeks for GCN. The average leadtime

1/ Quantities purchased for these sales ranged from *** to *** forks per quarter for the U.S. product, and *** to *** forks per quarter for the imports.
2/ Quantities purchased for these sales ranged from *** to *** for domestic forks and *** to *** for imports.
3/ Reported quantities for all purchases by dealers were generally between *** and *** fork arms in each quarter.

between order and shipment reported by the Canadian firm Kenhar is *** weeks for standards and *** weeks for specials. Based on responses of purchasers, the seller of steel fork arms is more likely to pay the transportation costs involved in shipping the product from seller to buyer than is the purchaser. As a percentage of delivered prices, the transportation cost typically ranges between 5 and 10 percent of the delivered price.

Responses to general purchasing questions

Purchasers were asked to rank several factors that influence their decisions to purchase domestic or imported steel fork arms. The average ratings assigned by purchasers, based on a scale of 1 (unimportant) to 5 (extremely important) are presented in the following tabulation:

	Response of OEM's		Response of distributors		Response of dealers	
	United States	Import	United States	Import	United States	Import
Quality	5	5	5	5	4	4
Reliability of vendor firm	4	5	4	4	4	4
Prompt delivery	4	4	4	4	4	4
Availability of product	4	4	4	4	4	4
Price	4	4	4	4	3	4
Transportation costs	4	4	3	3	3	3
Proximity of vendor firm	3	2	4	3	2	2

These results, which represent responses by about 60 purchasers (40 OEM's, 8 distributors, and 12 dealers) indicate that no one consideration stands out as a determining factor among buyers of steel fork arms in their purchasing decisions. Rather, a decision to purchase fork arms, whether imported or domestic, most notably involves consideration by purchasers of quality of the product, reliability of the vendor firm, prompt delivery, availability of the product, and price. All of these factors received high ratings (4 or 5) by the three groups of purchasers.

Another section of the Commission's questionnaire asked importers and purchasers of fork arms to answer questions concerning their purchasing decisions. Fifty-nine importers and purchasers responded to these questions; the results of their answers are tabulated and presented in appendix C. Overall, very few differences emerged between OEM's, distributors, dealers, and purchasers regarding their decisions, with 18 percent of the respondents believing there are quality differences between the domestic and imported products, 42 percent stating that they still would have purchased the imports if the domestic price had been comparable, and 30 percent reporting that at some time they have been unable to buy U.S.-produced steel fork arms.

Exchange rates

One of the factors considered in examining the competitive position of U.S. producers vis-a-vis foreign producers of steel fork arms is the change in the exchange rates between the U.S. dollar and the currencies of the foreign supplying countries. Quarterly indexes of exchange rates and producer prices of the four major sources of imported steel fork arms are presented in appendix D from data reported by the International Monetary Fund.

In nominal terms, between January 1981 and December 1985 the value of the Canadian dollar vis-a-vis the U.S. dollar fell by 13.5 percent. Over the same period, in real terms, the value of the Canadian dollar fell by 2 percent. Over the period January 1981-December 1985, the nominal value of the West German mark fell by 19 percent, while the real value of the mark vis-a-vis the U.S. dollar fell by 12 percent.

The nominal value of the Japanese yen remained nearly constant over the period of investigation, falling by less than 1 percent from January 1981 to December 1985. In real terms, the value of the Japanese yen fell by 10 percent over the same period. The Korean won depreciated by about 25 percent in nominal terms between January 1981 to December 1985, while the real value of the Korean won depreciated by 21 percent.

Between January-March 1981 and October-December 1985, the real value of the Mexican peso fell by 32 percent. In 1985, the only year in the period under investigation when fork arms were imported from Mexico, the value of the peso fell by 18 percentage points, from an index level of 85.6 U.S. dollars per peso (January-March 1981=100) in January-March 1985 to a level of 67.9 in October-December 1985.

Possible Causes of Injury Other Than Imports

Section 201(b)(4) of the Trade Act of 1974 (19 U.S.C. 2251(b)(4)) states that in regard to imports being a "substantial cause" of injury, "the term 'substantial cause' means a cause which is important and not less than any other cause." Consequently, this section of the report addresses those other factors which may have affected the U.S. steel fork arm industry.

The forklift truck industry

As the petitioners state in their petition to the Commission, "The SFA [steel fork arm] industry is not in a position to create demand, rather its existence is necessary to satisfy demand. Therefore, when there was a downturn in domestic demand for forklift trucks in 1982, the expected decline in domestic shipments occurred." 1/ As was also seen previously in the apparent consumption section of this report, new forklift truck consumption accounted for *** to *** percent of the annual total consumption of fork arms, and trends in forklift truck consumption generally patterned that of steel fork arms. During 1981-82, forklift truck consumption declined 24 percent and fork arm consumption declined *** percent; during 1982-84 forklift truck consump-

1/ Petition, p. 12.

tion increased 75 percent and fork arms increased *** percent; during 1984-85 truck consumption declined 3 percent and fork arm consumption increased by *** percent.

In 1981, the U.S. forklift truck industry entered a period of recession which bottomed out in 1982, but continued into 1983. However, the domestic truck industry has never really recovered to its prerecession levels of production, since imported forklift trucks emerged as a major presence in the U.S. market in 1983, causing several major OEM's to go offshore for some of their production. 1/ Imports of forklift trucks nearly doubled from 1982 to 1983, increased 109 percent from 1983 to 1984, and increased 21 percent from 1984 to 1985. Table 34 presents data on U.S. producers' shipments, imports, and apparent U.S. consumption of forklift trucks, and the impact of changes in the forklift truck industry on the U.S. fork arm producers is discussed below.

Table 34.-- Forklift trucks: U.S. producers' domestic shipments, imports for consumption, and apparent U.S. consumption, 1981-85

(Number of trucks)

Year	U.S. producers' domestic shipments	Imports of trucks with forks	Imports of trucks without forks	Apparent consumption
1981.....	49,784	4,201	7,625	61,610
1982.....	38,215	3,060	5,292	46,567
1983.....	39,549	5,143	8,835	53,527
1984.....	57,483	11,788	18,209	87,480
1985.....	55,219	18,561	18,478	92,258

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

Effect on commercial U.S. producers.--Although total consumption of forklift trucks turned downward during 1981-83, there were several structural changes in the lift truck market which actually increased the size of the commercial market for forks during this period: Imports of forklift trucks without forks increased steadily during 1981-83, and one major OEM (Clark) ceased its captive fork arm production. Estimating this demand as U.S. shipments of domestically produced trucks plus imports of lift trucks without forks (at two forks per truck), less captive fork arm production, the following changes in apparent consumption, U.S. producers' commercial shipments of fork arms, and noncaptive forklift truck fork arm demand are revealed (in percent):

1/ A more detailed discussion of the forklift truck industry is presented in app. E.

	Apparent consumption	U.S. commercial producers' shipments	Noncaptive forklift truck demand for forks
1981-82.....	***	***	- 5
1982-84.....	***	***	21
1984-85.....	***	***	14

Thus, even though there was a contraction of U.S. consumption of lift trucks from 1981 to 1982, the overall non-captive demand for fork arms has increased steadily since 1982. Most of the increase is attributable to imports of forklift trucks without fork arms. Although there is an association between total apparent consumption of fork arms and the commercial producers' shipments, there appears to be little correlation between trends in the noncaptive forklift truck demand for fork arms and fork arm shipments of the U.S. commercial producers, except for the period * * *. There is a similar lack of association between apparent consumption and noncaptive demand for fork arms.

Effect on captive producers.--Unlike the effect on commercial producers, changes in the structure of U.S. forklift truck consumption have had a direct and permanent impact on captive fork production. Since captive fork arm production is incidental to truck production, any downturns in truck production have a corresponding effect on fork arms. In addition, competition from imported forklift trucks caused Hyster and Clark to move offshore for some of their truck production and to quit manufacturing their own forks entirely. Import competition caused Hyster and Clark to reevaluate their costs and both companies found that they could purchase forks from either Dyson or Kenhar more cheaply than they could be produced internally, leading them to discontinue their fork arm operations. The following is commented by Hyster in its letter to the Commission:

> The competitive forces in the lift truck market over the last three years or more have been sufficiently intense that the price of lift trucks has actually been going down. In order to remain competitive, Hyster has continually monitored its costs, both from suppliers and its own internal costs. As a result of its efforts, Hyster concluded...to close its SFA production facility.

Business practices by Dyson

Two respondents in this investigation, Crown Controls Corp. and the Committee of International Fork Producers (CIFP), allege that any injury experienced by the petitioners, specifically Dyson, is the result of certain business practices of that company. 1/ These business practices and any resultant injury fall roughly into two categories--those practices which resulted in a failure to modernize steel fork arm producing equipment and those practices which resulted in an alienation of existent and possible customers. Each of these subjects is discussed below.

1/ Crown Controls Corp., posthearing brief, passim. Committee of International Fork Producers posthearing brief, passim.

Failure to modernize.--Counsel for the CIFP argues that Dyson has made a conscious decision not to invest in fork arms, preferring instead to invest in sucker rods for the oil industry, industrial fasteners, and Schreck, the forklift truck company. Dyson has * * * fork arms, the nature and value of which have been discussed previously in this report. 1/ Consequently, the question is whether or not the company's investments were as extensive and technologically up to date as they needed to be for Dyson to be cost competitive in the fork arm market. 2/ 3/

With respect to these two questions, it is best to compare Dyson to the practices of other fork producers. Of the 10 producers for which production information is available, 5 use(d) the bend and upset process for manufacturing forks--these firms are Clark, Crown, Erectoweld, Kenhar, and Yale, and represent both commercial and captive producers. 4/ The major advantages of the bend and upset process are quicker processing of the steel because of the ability to use an extensive conveyor network and because of quicker die changes. 5/ Dyson has * * * can bend a steel cross section of a maximum size of * * *; Kenhar has * * * can bend sizes as large as * * *. For all sizes greater than * * *, Dyson uses the hammer forge.

In addition to the differences between the two bending processes, the manufacturing operations of both Yale and Kenhar are less labor intensive than those of Dyson. Yale and Kenhar use * * *, and Dyson uses * * *. 6/ Yale and Kenhar also employ * * *; Dyson uses * * *. Yale has been using * * * since 1979; Kenhar has been using * * * since * * *. Finally, Hyster, Yale, and Kenhar have been using * * * since the early 1970's whereas Dyson did not acquire * * * until * * *.

Some reference has also been made to the appearance of Dyson's fork arm plant, which has been characterized as "Stone Age" and "a blacksmith shop." 7/ 8/ The petitioners respond to these allegations by noting that

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1/ Dyson has invested in its fork arm facilities even though equipment purchased in the early 1970's has a life of 20 years and has not needed replacing to date. Hearing transcript, p. 16.

2/ Dyson was able to * * * reduce its costs during the period of investigation in a variety of ways. See the previous discussion on costs of production/costs of goods sold.

3/ For the purposes of comparison, Kenhar's R&D, capital investment, and other data are presented in app. F.

4/ The CIFP has argued that this is one key technology that Dyson has not used (Dyson uses the upset and bend process).

5/ William Harrison, president, Kenhar Products, Ltd., hearing transcript, p. 81, field interview, Feb. 10, 1986. Mr. Harrison also stated that the bend and upset process was also more efficient because the steel did not have to be reheated between the upset and bending steps. Dyson states that reheating is * * * (telephone conversation with Pat Sheffield, vice president, Dyson, May 15, 1986).

6/ Yale has been using * * * since 1979; Kenhar bought * * * in 1975. Mr. Harrison stated that * * *. Kenhar designed * * *.

7/ The Commission staff generally confirms the "forge shop" appearance of Dyson's plant, but would add that * * *. Dyson has advised the Commission that * * * in its adjustment plan is to * * * (prehearing brief, pp. 21 and 22).

8/ See written submission by the Hyster Co. to the Commission, p. 4, and Crown Controls Corp. prehearing brief, p. 7.

forge shops traditionally take on certain smoky appearances because of the nature of production and hammer presses require dirt floors for proper anchoring and cement is not traditionally used because it will explode if hit with hot steel. 1/

With regard to Dyson's financial ability to invest in steel fork arms, the company responded in the Commission's questionnaire that * * *. The company attributes its * * * to * * * resulting from price suppression and depression from import competition. As previously noted, the marked shift in Dysons's * * * was largely attributable to * * * of the Schreck investment (see earlier discussion in report).

One additional point possibly relates to Dyson's overall competitive position with regard to its use of technology. In December 1985, Dyson's three fork arm distributors decided to solicit bids for their combined fork arm purchases * * *. 2/ The distributors received bids from Dyson as well as 10 other producers of forks worldwide; * * *. * * *. 3/

Customer alienation.--The Commission has received numerous reports by fork arm consumers of service problems with Dyson and of perceived or real quality problems. The reports have been received from both large and small purchasers, summaries of which are presented below.

* * *, Crown, Hyster, and * * * are 4 of the 10 largest forklift truck OEM's in the United States, and they all import * * * of the fork arms needed for their lift trucks. All four have attributed certain business failings of Dyson to their decisions to import fork arms. Together, these four companies accounted for *** percent of all fork arm imports in 1985. Their comments are presented below.

Of the four companies, the petition has evoked the strongest response from Hyster. Hyster manufactured its own fork arms until June 1985, after having made the decision to discontinue its fork operations in * * *. When this decision was made, a full financial audit and plant inspection were made of both Dyson and Kenhar, the two largest suppliers of fork arms to the U.S. market. At this point, Hyster maintains that it approached these two firms with a "Buy American" bias that was strengthened by the fact that Dyson had given Hyster the lowest price quotes on Hyster's fork tender. 4/ Nevertheless, Hyster decided to buy * * * from Kenhar. In a letter to the Commission, Bob Guengerich, general manager, plant operations, industrial truck division,

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1/ Hearing transcript p. 14, and statement to Commission staff May 7, 1986.
2/ The distributors cite several reasons for this decision, which include: * * *.
3/ Field interview with officials of Dyson, Apr. 10, 1986. * * *, one of the three distributors, said Dyson's prices were *** percent higher than Yale's. The distributors' combined fork arm purchases are $*** per year.
4/ Field interview with Robert Guengerich, Hyster Co., Mar. 13, 1986. Commission staff has reviewed Hyster's spread sheet data comparing costs for (a) Hyster's captive production, (b) Dyson's price quotes, and (c) Kenhar's price quotes. Commission staff confirms that Dyson's prices were * * * lower than Kenhar's and would have resulted in a cost savings * * * that of Kenhar's, which were about $***. The bid was for *** forks, about * * *.

Hyster Co., explained this action by noting that Dyson's plant did not appear to match the modernity and quality of Hyster's own fork facility which was then 10 years old, and that Dyson did not appear to be able to meet Hyster's quality needs or just-in-time delivery requirements. 1/

Crown echoed similar concerns about Dyson's ability to supply fork arms to the company, contributing to Crown's decision to build a wholly owned subsidiary in Mexico in 1984, from which Crown started receiving forks in 1985. Prior to this time, Crown had been buying * * * from Dyson. Bill Calore, counsel for Crown, stated: 2/

* * * * * * *

The quality problems Crown experienced with Dyson stemmed from a product recall initiated by Dyson in 1981 due to the firm's discovery of * * *. * * *. 3/ * * *. 4/ Crown claims that its confidence in Dyson was even further eroded by Dyson's decision to purchase Schreck, which was in competition with Crown as a forklift truck manufacturer. 5/ 6/

* * * * * * *

Finally, * * * reported in its response to the Commission's questionnaire that it made repeated efforts throughout the period under investigation to buy forks from Dyson but was unable to do so because the forks were not available in stock and Dyson could not deliver any earlier than 4 to 5 weeks. * * *, the purchasing agent for * * * since * * *, said the company made the decision to * * * and since Dyson had never seemed particularly willing to cooperate on prices. 7/

Since * * * considers service first in its purchasing decisions, Dyson's inability to supply standard forks on a timely basis over the past 2 years has caused * * * to * * *. * * *. 8/

1/ Non-confidential written submission to the Commission from Hyster, p. 5.
2/ Telephone conversation with staff, Mar. 19, 1986.
3/ Dyson reported that * * *.
4/ Dyson * * * (field interview with officials at Dyson, February 13, 1986). At the time of the product recall was * * *. Dyson's inspection procedures are based on * * *. * * *.
5/Crown Controls prehearing brief, pp. 6 and 7.
6/Dyson responds to Crown's argument by noting that Crown has continued to buy forks from Dyson in spite of Crown's quality concerns. However, when Crown's facility went on stream in 1985, purchases from Dyson dropped *** percent. As to why Crown did not select a source other than Dyson, one possible reason is that * * * (Crown Controls Corp. posthearing brief, attachment 7).
7/ * * * reported that Kenhar has been able to reduce costs because of its use of boron steel, which is less expensive and also allows Kenhar to downsize its forks without sacrificing the integrity of the fork arm. Kenhar has made use of three-dimensional finite stress analysis to redesign and reduce the size of its fork arms. This type of analysis, combined with * * *.
8/ Kenhar reported to the Commission that * * * (CIFP posthearing brief, p. 34). * * *.

Finally, 14 other companies have reported to the Commission, either in written submissions to the Commission, questionnaire responses, or telephone conversations with the staff that they have had several types of service problems with Dyson, which was a major reason for their decisions to import. 1/ Three companies reported that Dyson was not interested in their orders because the volume was too low, three companies reported that Dyson never responded to repeated requests for price quotes, nine firms reported that the forks were either not available when requested or that Dyson's delivery times were too long (one firm mentioned that Dyson's delivery was 3 weeks longer than Kenhar's), two firms reported that Dyson had a "bad attitude," and two firms stated that both Dyson's and the imported product's prices were equal or competitive. The 14 companies account for 11 percent of total imports.

Efforts by U.S. Producers to Compete With Imports

GCN reported in the Commission's questionnaire that the company has made * * *. However, the company did make a number of capital investments, as mentioned previously in the report. Dyson has undertaken several measures to improve its competitive position during the past 5 years. These efforts are summarized in table 35.

Table 35.--Efforts made by Dyson to compete with imports, 1981-85

Efforts	Year	Expenses	Competitive advantage acquired
*	*	*	* * *

Source: Response to questionnaire of the U.S. International Trade Commission.

Adjustments To Be Made by U.S. Producers to Compete With Imports During a Period of Import Relief

GCN responded to the Commission's questionnaire that if import relief were to be granted, the company would probably increase its market shares of fork arms, most likely with * * *. During the relief period, GCN's primary adjustment goal--"* * *"--is to * * *. GCN states the following in the Commission's questionnaire:

* * * * * * *

1/ See written submissions to the Commission from the Raymond Corp. (Apr. 28, 1986) and Pettibone Corp. (Apr. 8, 1986). Both are forklift truck manufacturers. The petitioners state that there were many problems in Dyson's dealings with Raymond and Pettibone that were not attributable to Dyson (posthearing brief, pp. 8-10).

GCN provided additional information on its adjustment plan, which generally reflects the above program. The company stated that even though its plant is only 5 years old, it plans to update and fine tune its facilities. In addition, GCN will explore * * *. 1/

Dyson has a more ambitious program of adjustments if relief were to be granted. The company believes relief would allow it to increase its market shares to * * *, and make capital investments totaling $***. These investments are summarized in table 36.

Table 36.--Adjustments to be made by Dyson during a period of import relief

Efforts to compete	Year	Expenses	Competitive advantage acquired
*	*	*	* * *

Source: Response to questionnaire of the U.S. International Trade Commission.

With regard to its adjustments plan, Dyson stated the following in the Commission's questionnaire:

* * * * * * *

1/ Written submission to Commission staff, May 12, 1986.

APPENDIX A

THE COMMISSION'S NOTICE OF INVESTIGATION AND CALENDAR OF PUBLIC HEARING

INTERNATIONAL TRADE COMMISSION

[Investigation No. TA-201-60]

Import Investigation; Steel Fork Arms

AGENCY: International Trade Commission.

ACTION: Institution of an investigation under section 201 of the Trade Act of 1974 (19 U.S.C. 2251) and scheduling of a hearing to be held in connection with the investigation.

SUMMARY: Following receipt of a petition filed on January 17, 1986, on behalf of the Ad Hoc Committee of Steel Fork Arm Producers, the United States International Trade Commission instituted investigation No. TA-201-60 under section 201 of the Trade Act of 1974 to determine whether steel arms for fork-lift trucks and similar vehicles, provided for in item 692.40 of the Tariff Schedules of the United States, are being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic

industry producing an article like or directly competitive with the imported article. The Commission will make its determination in this investigation by July 17, 1986 (see section 201(d)(2) of the act (19 U.S.C. 2251(d)(2))).

For further information concerning the conduct of this investigation, hearing procedures, and rules of general application, consult the Commission's Rules of Practice and Procedure, Part 206, Subparts A and B (19 CFR Part 206), and Part 201, Subparts A through E (19 CFR Part 201).

EFFECTIVE DATE: January 17, 1986.

FOR FURTHER INFORMATION CONTACT: Maria Papadakis (202-523-0439), Office of Investigations, U.S. International Trade Commission, 701 E Street NW., Washington, DC 20436. Hearing-impaired individuals are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on 202-724-0002.

SUPPLEMENTARY INFORMATION:

Participation in the investigation.—Persons wishing to participate in the 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 twenty-one (21) days after publication of this notice in the **Federal Register**. Any entry of appearance filed after this date will be referred to the Chairwoman, 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) of the rules (19 CFR 201.16(c)), 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.

Hearing.—The Commission will hold a hearing in connection with this investigation beginning at 10:00 a.m. on May 7, 1986, at the U.S. International Trade Commission Building, 701 E Street NW., Washington, DC. Requests to appear at the hearing should be filed in writing with the Secretary of the Commission not later than the close of business (5:15 p.m.) on April 23, 1986. All persons desiring to appear at the hearing and make oral presentations, with the exception of public officials and persons not represented by counsel, should file prehearing briefs and attend a prehearing conference to be held at 9:30 a.m. on April 28, 1986, in room 117 of the U.S. International Trade Commission Building. The deadline for filing prehearing briefs is May 1, 1986. Posthearing briefs must be submitted not later than the close of business on May 14, 1986. Confidential material should be filed in accordance with the procedures described below.

Parties are encouraged to limit their testimony at the hearing to a nonconfidential summary and analysis of material contained in prehearing briefs and to information not available at the time the prehearing brief was submitted. Any written materials submitted at the hearing must be filed in accordance with the procedures described below and any confidential materials must be submitted at least three (3) working days prior to the hearing (see § 201.6(b)(2) of the Commission's rules (19 CFR 201.6(b)(2))).

Written submissions.—As mentioned, parties to this investigation may file prehearing and posthearing briefs by the dates shown above. In addition, any person who has not entered an appearance as a party to the investigation may submit a written statement of information pertinent to the subject of the investigation on or before May 14, 1986. 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 Commission's rules (19 CFR 201.8). All written submissions except for confidential business 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 business information for which confidential treatment is desired shall be submitted separately. The envelope and all pages of such submissions must be clearly labeled "Confidential Business Information." Confidential submissions and requests for confidential treatment must conform with the requirements of § 201.6 of the Commission's rules (19 CFR 201.6).

Remedy.—In the event that the Commission makes an affirmative injury determination in this investigation, remedy briefs will be due to the Secretary no later than the close of business on June 16, 1986, and must conform with the requirements of § 201.6 of the Commission's rules. Parties are reminded that no separate hearing on the issue of remedy will be held. Those parties wishing to present oral arguments on the issue of remedy may do so at the hearing sheduled for May 7, 1986.

Authority: This investigation is being conducted under the authority of section 201 of the Trade Act of 1974. This notice is published pursuant to section 201.10 of the Commission's rules (19 CFR 201.10).

By order of the Commission.

Issued: February 7, 1986.

Kenneth R. Mason,

Secretary.

[FR Doc. 86-3119 Filed 2-12-86; 8:45 am]

BILLING CODE 7020-02-M

CALENDAR OF PUBLIC HEARING

Those listed below are scheduled to appear as witnesses at the United States International Trade Commission's hearing:

Subject : Steel Fork Arms

Inv. No. : TA-201-60

Date and time : May 7, 1986 - 10:00 a.m.

Sessions will be held in connection with the investigation in the Hearing Room of the United States International Trade Commission, 701 E Street, N.W., in Washington.

In support of the petition:

Thompson, Hine and Flory--Counsel
Washington, D.C.
on behalf of

The Ad Hoc Committee of Steel Fork Arm Producers

Joseph Dyson & Sons, Inc.

Theodore L. Wolf, President

Patrick Sheffield, Vice President

Jeffrey J. Campbell, Treasurer

Robert L. Larson, Counsel

GCN, Inc.

Gerald C. Nelson, President

Fred P. Barnhart, Counsel

Lewe B. Martin)
Mark Roy Sandstrom)--OF COUNSEL
Kathryn A. Dobbs)

- more -

In opposition to the petition:

Dow, Lohnes & Albertson--Counsel
Washington, D.C.
on behalf of

The Committee of International Fork Producers

William J. Harrison, Plant Engineer, President and Chief Executive Officer, Kenhar Products, Inc.

Brian D. Petts, R.I.A., M.C.I., Vice President, Finance and Administration, Kenhar Products, Inc.

Robert E. Guengerich, General Manager, Plant Operations, U.S. International Truck Division, Hyster Company

William Silverman)
Leslie H. Wiesenfelder)--OF COUNSEL
John C. Jost)

Windels, Marx, Davies & Ives--Counsel
Washington, D.C.
on behalf of

Crown Controls Corporation

Johathon R. Moore--OF COUNSEL

APPENDIX B

PRICE GRAPHS BASED ON DATA FROM TABLES 30 THROUGH 32

Figure B-1. Prices reported by U.S. producers for sales of U.S.-produced 1-3/4" x 4" x 42" class II standard steel fork arms, 1981-85

* * * * * * *

Figure B-2. Prices reported by U.S. producers for sales of 2" x 5" x 48" class III standard steel fork arms, 1981-85

* * * * * * *

Figure B-3. Purchase prices reported by OEM's for U.S. produced and imported 1-3/4" x 4" x 42" class II standard steel fork arms, 1981-85

* * * * * * *

Figure B-4. Purchase prices reported by OEM's for U.S. produced and imported 2" x 5" x 48" class III standard steel fork arms, 1981-85

* * * * * * *

Figure B-5. Purchase prices by distributors for U.S.-produced and imported 1-3/4" x 4" x 42" class II standard steel fork arms, 1981-85

* * * * * * *

APPENDIX C

QUESTIONNAIRE RESPONSES TO GENERAL PURCHASING QUESTIONS

Questionnaire Responses to General Purchasing Questions

This section discusses the results of questionnaire responses concerning the respondents' purchasing decisions and purchasing experiences relating to steel fork arms (table C-1).

Responses of OEM's to general purchasing questions

Thirty-six OEM's responded to a section of the questionnaire containing general questions concerning their purchasing decisions. Thirty-four indicated that their purchases of foreign-produced steel fork arms come from Canada; *** of those also listed * * * and * * * as additional source countries for their fork purchases. * * * listed * * * and *** listed * * * as their sole sources of imported steel fork arms. Seventeen of the firms responded that their purchases of imported steel fork arms had increased over the past 5 years, 4 indicated no change in levels of imported steel fork arms, and 15 cited a decrease in imports since 1981.

When asked to compare the price of imported steel fork arms with that of the U.S. product, 9 identified the foreign price as always less than the U.S. price, 13 cited it as usually less than the domestic price, 13 described it as sometimes less, but none stated it was never less than the domestic price.

OEM's were also asked whether they still would have purchased imported steel fork arms if the U.S. product had been priced the same as the imported product. Twenty-two responded that they would not have purchased the imports if there were no price differences between the domestic and foreign product. Twelve others stated that they still would have purchased the imports in such a case. Two other OEM's did not respond directly. One replied that such a decision would depend on other factors such as quality, delivery, availability, and reliability of the vendor. The last OEM replied that it would dual source in such a case, giving some preference to the domestic product.

In terms of perceived quality differences between U.S.- and foreign-produced steel fork arms, 27 OEM's replied that there were no differences in quality between domestic and foreign fork arms. Seven responded that the quality of imported steel fork arms surpassed that of the U.S. product.

In reference to whether they had ever rejected offers for U.S.-produced forks in favor of imports, 17 OEM's said that they had done so, most on the basis of price and/or delivery. Nineteen others replied that they had not rejected U.S.-produced forks in favor of imports.

Another question asked OEM's that also buy imports was whether they had ever tried to buy U.S.-produced steel fork arms but were unable to do so. Twenty-seven replied in the negative to this question. Six replied that they had tried but were unable to buy U.S.-produced fork arms. Four of those included long delivery times as the reason, one stated that the domestic quotes were not to their firm's specifications. The last listed price as the reason. One other did not respond.

The final question asked OEM's was if their firm purchases both foreign

Table C-1.--Questionnaire responses to general purchasing questions by OEM's, fork arm distributors, and forklift truck dealers that have purchased imported and domestic steel fork arms

Country of origin of imports	Import purchases 1981-85			Import price relative to U.S.				Purchased imports had price been same as U.S. price?		Quality differences between U.S. and import?		Ever rejected U.S. forks in favor of imports?		Ever unable to buy U.S.-made steel fork arms?		Sourcing policy			
	Up	Down	Steady	Always less	Usually less	Sometimes less	Never less	Yes	No	Yes	No	Yes	No	Yes	No	Import only	U.S. only	Both sources	Total
OEM's:	17	15	4	9	13	13	0	12	22	7	27	17	19	6	27	10	0	24	36
Canada 34																			
Japan ***																			
Mexico ***																			
Taiwan ***																			
Distributors:	6	3	2	1	3	3	2	7	2	1	9	3	7	5	5	5	1	5	12
Canada 8																			
Japan ***																			
Germany ***																			
Korea ***																			
U.K. ***																			
Dealers:	8	1	2	2	3	5	0	3	7	2	9	2	9	5	6	4	0	7	11
Canada 10																			
Germany ***																			
Japan ***																			

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

A-65

and domestic, just foreign, or just domestic steel fork arms. Twenty-four responded that they buy both imported and domestic fork arms. Nine indicated that they dual source their fork arm purchases between domestic and foreign forks due to price considerations. Another reason cited for dual sourcing by other OEM's was a purchasing policy to have a variety of forks available. * * * noted that "* * *."

Ten OEM purchasers reported that they only purchase foreign-produced steel fork arms. Seven purchasers cited lower prices of imported forks as a reason for their foreign purchases. Delivery, quality, and service were also cited by several of these purchasers, as well as by two others. One purchaser said that prompt delivery, product testing, and pricing of Kenhar are the reasons they buy only Kenhar forks.

Responses of distributors to general purchasing questions

Twelve distributors of steel fork arms who purchase from both foreign and domestic sources responded to the general purchasing questions in the questionnaire. Canada was listed as the primary foreign source by eight distributors, West Germany by ***, the United Kingdom and Korea by *** each, and Japan by ***.

One distributor answered only by stating that "* * *." Of the remaining 11 distributors, 6 cited an increase in their purchases of imported steel fork arms over the past 5 years, 3 cited a decrease, and 2 indicated no change. In comparing U.S. and import prices in general, one identified the foreign price as always less than the U.S. price, three found the foreign price to be usually less than the domestic and three others said the foreign price was sometimes less than the domestic price for steel fork arms. Two described the foreign price as never less than the domestic price.

Another question was whether or not the firm would have purchased the import if the price of the foreign and domestic fork arms had been the same. Two said they would not have purchased the imports, seven said they would have continued to purchase the imports, one said such a decision would depend on contracts offered, and one did not speculate. Concerning quality comparisons of domestic and foreign fork arms, nine said there are no quality differences between foreign- and U.S.-produced forks; one claimed the imported product to be better.

When asked if they had ever rejected offers of U.S.-produced steel fork arms in favor of the foreign product, seven distributors replied that they had not done so, three said that they had, and one stated that they were not approached by U.S. fork manufacturers. Reasons cited by those who had rejected U.S. offers included ready availability of imports, price, and delivery.

Distributors were also asked if they were ever unable to buy U.S.-produced steel fork arms. Five stated that they never tried unsuccessfully to purchase U.S.-produced fork arms. Among those responding affirmatively, reasons they cited for not being able to buy U.S.-produced forks include not receiving offers by U.S. producers, delivery problems, and reluctance by U.S producers to fill orders for small buyers.

The final question asked distributors was if their firm purchases both foreign and domestic, just foreign, or just domestic steel fork arms. Five distributors of steel fork arms said they only buy foreign fork arms. The reasons listed for only buying foreign forks include * * *, competitive import pricing, better availability of imported products, and buying from * * *.

Five fork arm distributors replied that they dual source their purchases from domestic and foreign suppliers. Two cited firm policy as their reason for dual sourcing. * * * said its dual sourcing decision was due to what it sees as "* * *;" the company also noted that * * *. * * * stated that it dual sources "because of * * *." The company also identified * * * as reasons for dual sourcing.

One distributor said it only buys U.S.-produced steel fork arms now. This firm has also purchased forks from * * * in the past 2 years. They stated elsewhere in the questionnaire that "we have purchased both imported and domestic and feel that one is just as good as the other."

Responses of dealers to general purchasing questions

Eleven dealers of forklift trucks who also import steel fork arms responded to the section of the Commission's questionnaire containing general pricing questions. Ten said that their imports come from Canada. West Germany was identified as a foreign source of steel fork arms by *** dealers, and Japan by ***.

Eight of the dealers replied that import purchases had risen during the period of investigation, January 1981-December 1985. Two said import purchases remained constant over the period, and one reported that their import purchases fell. When asked to compare the import price relative to the U.S. price of steel fork arms, two described the import price as always less than the U.S. price, three described the foreign price as usually less than the U.S. price, and five said it was sometimes less than the U.S. price. None said the import price was never less than the domestic price.

Respondents were also asked if they would have purchased the imports if the import price were the same as the U.S. price. Seven said they would not have purchased the imports if the prices had been equal, and three said they would have continued to purchase imports. In reference to fork arm quality, eight replied that there were not any qualitative differences between domestic and imported steel fork arms, and two said the U.S. product was better.

The Commission asked dealers of forklift trucks whether they had rejected offers for U.S.-produced steel fork arms in favor of the imported product. Two of the eleven said they had rejected U.S. forks, citing "better value from imports," and availability as their reasons.

Another question was if the importer had ever tried to buy U.S.-produced steel fork arms, but was unable to do so. Six dealers replied negatively to this question. Of the five dealers who responded that they had tried unsuccessfully to buy domestic steel fork arms, long delivery times, uncompetitive prices, and unavailability of forks were included as major reasons for not being able to buy U.S.-produced forks.

Dealers were also asked whether their firm purchases steel fork arms from just domestic, just foreign, or both sources. Four dealers responded that they only buy foreign-produced steel fork arms. Pricing, quality, and delivery were reasons cited by three dealers.

Seven other dealers identified U.S. and foreign sources as their steel fork arm suppliers. One said they only buy forks from U.S. sources that they are unable to purchase from import sources. Another said that their sourcing is based on availability and that price is secondary. They said they "prefer American due to higher quality. Kenhar, Nelson, Dyson (are) all good acceptable, reliable forks. We use them interchangeably." A third firm replied that they began buying imported fork arms in the late 1970's because of delivery problems and rising prices with the U.S. product. They said that "we started purchasing load arms from Canada because of their on time delivery, prompt quotes, stable prices, and good attitude."

Responses of purchasers that buy only domestic fork arms

Thirteen purchasers of steel fork arms that purchase only from domestic sources responded to the Commission's questionnaire. Eleven are OEM's, and 2 are dealers of forklift trucks. Most of the OEM's and one of the dealers indicated that although they only buy U.S.-produced forks, this is not the result of a "Buy American" policy of their firm. Two OEM purchasers responded that their firms only buy U.S. produced fork arms because of price and delivery. One distributor said that it only buys domestic forks for "quality and liability responsibility."

APPENDIX D

EXCHANGE RATE TABLES

Table D-1.--Exchange rates: Indexes of the nominal and real exchange rates between the U.S. dollar and currencies of Canada and West Germany, and indexes of producer prices in the United States, Canada, and West Germany, by quarters, January 1981-December 1985 1/ 2/

(January-March 1981=100)

Period	U.S. Producers Price Index	Canada			West Germany		
		Producers Price Index	Nominal-exchange-rate index	Real-exchange-rate index 3/	Producers Price Index	Nominal-exchange-rate index	Real-exchange-rate index 3/
		U.S. dollars/Canadian dollar			------U.S. dollars/mark------		
1981:							
Jan.-Mar..	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Apr.-June.	102.2	102.2	99.6	99.5	102.5	91.7	91.9
July-Sept.	102.9	104.4	98.5	99.9	104.7	85.8	87.3
Oct.-Dec..	102.8	105.7	100.2	103.0	106.2	93.0	96.1
1982:							
Jan.-Mar..	103.7	107.2	98.7	102.3	108.1	89.9	92.6
Apr.-June.	103.8	109.3	95.9	101.9	109.1	87.7	92.2
July-Sept.	104.3	110.1	95.5	101.8	110.1	84.1	88.7
Oct.-Dec..	104.4	110.5	96.9	102.6	110.5	83.4	88.3
1983:							
Jan.-Mar..	104.5	111.2	97.3	103.5	110.2	86.7	91.4
Apr.-June.	104.8	112.9	97.0	104.5	110.5	84.0	88.6
July-Sept.	105.8	113.8	96.8	104.1	111.4	79.0	83.1
Oct.-Dec..	106.4	114.3	96.4	103.5	112.1	77.9	82.1
1984:							
Jan.-Mar..	107.5	116.2	95.1	102.8	113.1	77.2	81.3
Apr.-June.	108.2	117.6	92.3	100.3	114.0	77.0	81.1
July-Sept.	107.9	118.3	90.8	99.6	114.5	71.5	75.8
Oct.-Dec..	107.7	118.6	90.5	99.7	115.3	68.3	73.2
1985:							
Jan.-Mar..	107.5	119.9	88.2	98.4	116.5	64.1	69.5
Apr.-June.	107.6	120.6	87.2	97.7	117.0	67.6	73.5
July-Sept.	106.8	120.9	87.8	99.4	117.0	73.2	80.2
Oct.-Dec..	107.5	121.7	86.5	97.9	116.8	80.8	87.7

1/ Based on exchange rates expressed in U.S. dollars per unit of the subject foreign currency.

2/ The producer price indexes are aggregate measures of inflation at the wholesale level in the subject countries. As a result, these indexes may only approximate actual price changes of steel fork arms in the respective countries. Producer prices in the United States increased by 7.5 percent during January 1981-December 1985 compared with increases in the same period of 21.7 percent in Canada and 16.8 percent in West Germany.

3/ The real value of a currency is the nominal value adjusted for the difference between inflation rates as measured by the Producers Price Index in the United States and in the foreign country.

Source: Compiled from data reported by the International Monetary Fund.

Table D-2.--Exchange rates: Indexes of the nominal and real exchange rates 1/ between the U.S. dollar and currencies of Japan and Korea and indexes of producer prices in the United States, Japan, and Korea, by quarters, January 1981-December 1985 2/

(January-March 1981=100)

Period	U.S. Producers Price Index	Japan Producers Price Index	Japan Nominal-exchange-rate index	Japan Real-exchange-rate index 3/	Korea Producers Price Index	Korea Nominal-exchange-rate index	Korea Real-exchange-rate index 3/
		----U.S. dollars/yen----				--U.S. dollars/won---	
1981:							
Jan.-Mar...	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Apr.-June..	102.2	101.1	93.4	92.4	105.8	98.0	101.4
July-Sept..	102.9	102.4	88.6	88.2	108.3	97.3	102.4
Oct.-Dec...	102.8	102.1	91.5	90.9	108.4	96.7	102.0
1982:							
Jan.-Mar...	103.7	102.5	88.0	87.0	110.0	93.9	99.6
Apr.-June..	103.8	102.8	84.2	83.3	110.4	91.6	97.4
July-Sept..	104.3	103.8	79.4	79.0	110.8	90.0	95.6
Oct.-Dec...	104.4	103.7	79.2	78.6	111.1	89.6	95.4
1983:							
Jan.-Mar...	104.5	101.7	87.2	84.9	111.6	88.5	94.5
Apr.-June..	104.8	100.7	86.5	83.2	110.7	86.7	91.6
July-Sept..	105.8	100.9	84.7	80.8	110.4	84.9	88.6
Oct.-Dec...	106.4	100.3	87.7	82.7	110.4	83.9	87.1
1984:							
Jan.-Mar...	107.5	100.4	89.0	83.1	110.8	83.9	86.4
Apr.-June..	108.2	100.3	89.5	83.0	111.1	83.6	85.8
July-Sept..	107.9	101.1	84.4	79.1	112.1	82.3	85.5
Oct.-Dec...	107.7	100.8	83.6	78.2	112.2	81.4	84.8
1985:							
Jan.-Mar...	107.5	101.2	79.8	75.1	112.2	79.5	83.0
Apr.-June..	107.6	100.5	82.0	76.6	112.3	76.9	80.3
July-Sept..	106.8	99.4	86.1	80.1	112.5	75.6	79.6
Oct.-Dec...	107.5	97.1	99.3	89.7	113.2	74.8	78.8

1/ Based on exchange rates expressed in U.S. dollars per unit of the subject foreign currency.

2/ The producer price indexes are aggregate measures of inflation at the wholesale level in the subject countries. As a result, these indexes may only approximate actual price changes of steel fork arms in the respective countries. Producer prices in the United States increased by 7.5 percent during January 1981-December 1985 compared with an increase in the same period of 13.2 percent in Korea and a decline of 2.9 percent by Japan.

3/ The real value of a currency is the nominal value adjusted for the difference between inflation rates as measured by the Producer Price Index in the United States and in the foreign country.

Source: Compiled from data reported by the International Monetary Fund.

APPENDIX E

THE U.S. FORKLIFT TRUCK INDUSTRY AND MARKET

The U.S. Forklift Truck Industry and Market

Apparent U.S. consumption of forklift trucks rose by 49.7 percent, from 61,610 units in 1981 to 92,258 in 1985 (table E-1). However, forklift truck consumption declined by 24.4 percent during the 1981-82 recession before rising by 14.9 percent from 1982 to 1983. According to industry sources, the material-handling machinery sector lagged the general economy, especially the automotive industry, in its recovery. This primarily accounted for the relatively low level of forklift consumption in 1983. The industrial truck industry business cycle ranges from 4 to 7 years, with an average of a 5-year cycle; 1982 was the most recent trough in the cycle and 1984-85 the most recent peak. 1/ The previous peak in this cycle was 1978-79.

Table E-1.--Forklift trucks: U.S. producers' domestic shipments, imports for consumption, and apparent consumption, 1981-85

(Number of trucks)

Year	U.S. producers' domestic shipments 1/	Imports 2/	Apparent consumption	Ratio to consumption--Producers' Shipments	Ratio to consumption--Imports
				Percent	
1981	49,784	11,826	61,610	80.8	19.2
1982	38,215	8,352	46,567	82.1	17.9
1983	39,549	13,978	53,527	73.9	26.1
1984	57,483	29,997	87,480	65.7	34.3
1985	55,219	37,039	92,258	59.9	40.1

1/ Based on responses of U.S. producers accounting for more than 95 percent of domestic forklift truck production.
2/ Based on responses from importers accounting for more than 80 percent of imports under TSUS item 695.40, forklift trucks and similar industrial vehicles.

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

U.S. imports of forklift trucks dropped from 11,826 units in 1981 to 8,352 units in 1982 before increasing to 37,039 units in 1985. As a share of apparent U.S. consumption, imports fell from 19.2 percent in 1981 to 17.9 percent in 1982 before rising to 40.1 percent in 1985. The rise in imports in 1983 was due in part to *** major U.S. manufacturers of forklift trucks * * * substantially increasing their imports and to * * * entering the U.S. market. *** U.S. manufacturers (* * *) each increased their imports between 1983 and 1984 by at least *** percent. Four U.S. importers of Japanese-produced

1/ William Harrison, President, Kenhar Products Inc., Hearing transcript, pp.155 and 156.

forklift trucks (* * *) each increased their imports by at least *** percent during this period.

Despite the substantial increase in forklift truck consumption in 1984 (63.4 percent above the 1983 figure and 42.0 percent above the 1981 figure), U.S. producers' shipments increased by only 11.7 percent from 1981 to 1985. Between 1983 and 1984, several U.S. producers' reduced their domestic production of forklift trucks and increased their foreign purchasing of trucks in order to reduce production costs so they could remain price competitive with the increasing number of imports in the U.S. market.

The number of U.S. establishments producing forklift trucks decreased from 45 in 1981 to 37 in 1985. * * * closed a total of four plants and consolidated production in other U.S. facilities in order to reduce excess productive capacity, and in 1983, * * * also closed a plant to consolidate production. Caterpillar ceased production at its largest facility in early 1985 because * * *, leaving the company with * * *. In addition, Clark has announced that it will close its largest facility in late 1987 and will begin purchasing about one-half of its forklift truck volume from either Korea or Brazil in order to reduce production costs. 1/ The total number of U.S. firms producing forklift trucks decreased from 33 in 1981 to 32 in 1985. Table E-2 shows the top 10 producers of forklift trucks in the United States and their share of domestic shipments in 1985. During 1981-85, the top four U.S. producers by share of domestic shipments rotated among * * *.

Table E-2.--Forklift trucks: U.S. producers' share of domestic shipments, 1985

Firm	Share of domestic shipments
	Percent
Allis-Chalmers Corp.	***
Big-Joe Manufacturing Co.	***
Caterpillar Industrial Inc.	***
Clark Material Systems Technology Corp.	***
Crown Controls Corp.	***
Hyster Co.	***
Koehring Construction Co.	***
Prime-Mover Co.	***
Raymond Corp.	***
Yale Materials Handling Corp.	***
All others	4.9
Total	100

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

1/ Lauri Giesen, "Clark to Begin Outsourcing Lift Trucks," American Metal Market/Metalworking News, Feb. 17, 1986, pp. 1 and 15.

U.S. manufacturers have overseas production facilities and joint ventures with foreign producers to supply both the U.S. market and foreign markets. The major U.S. producers' reliance on imports as a percent of each company's market share (U.S. domestic shipments plus U.S. imports) has increased substantially, as shown in the following tabulation:

Firm	1981	1982	1983	1984	1985
*	*	*	*	*	*

U.S. manufacturers import from * * *. A limited number of imports are purchased from countries such as Finland and Sweden, primarily by distributors and dealers in the United States. In 1985, imports from Japan accounted for 65 percent of total reported imports of forklift trucks (total imports may be slightly underestimated since some importers of forklift trucks with fork arms were not surveyed). The following tabulation shows the source of U.S. imports of forklift trucks during 1981-85:

(Number of trucks)

Country	1981	1982	1983	1984	1985
*	*	*	*	*	*

1/ These data are reported by different firms that did not identify the country of origin of their imports.

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

The top 10 U.S. importers in 1985 by volume of forklift trucks are shown in table E-3, and table E-4 shows the top 10 producers' and importers' shares of total U.S. forklift truck consumption.

During 1981-85, the increase in U.S. imports of forklift trucks without forks and the reduction in U.S. manufacturing capacity of trucks expanded the aftermarket for steel fork arms and contracted the U.S. OEM market from what it otherwise would have been. However, nearly 60 percent of the increase in forklift truck imports was accounted for by imports of trucks with forks attached (table E-5).

In 1985, imports of trucks with fork arms accounted for * * *. The remainder of forklift trucks are imported without fork arms. Tables E-6 and E-7 show the top 10 U.S. importers of forklift trucks with and without steel fork arms in 1985.

Table E-3.--Forklift trucks: U.S. importers share of U.S. imports, 1985 1/

Firm	Share of U.S. imports
	Percent
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
All other.....	4.0
Total.....	100

1/ Based on quantity.

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

Table E-4.--Forklift trucks: U.S. producers' and U.S. importers' share of apparent U.S. consumption, 1985 1/

Firm	Share of apparent U.S. consumption
	Percent
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
All other.....	12
Total.....	100

1/ Based on quantity.

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

Table E-5.--Forklift trucks: U.S. imports of forklift trucks with and without steel fork arms, 1981-85

(Number of trucks)

Year	Trucks with steel fork arms	Trucks without steel fork arms	Total trucks	Ratio to total imports of-- Trucks with steel fork arms	Ratio to total imports of-- Trucks without steel fork arms
				Percent	
1981.....	4,201	7,625	11,826	35.5	64.5
1982.....	3,060	5,292	8,352	36.6	63.4
1983.....	5,143	8,835	13,978	36.8	63.2
1984.....	11,788	18,209	29,997	39.3	60.7
1985.....	18,561	18,478	37,039	50.1	49.9

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

Table E-6.--Forklift trucks: U.S. importers' share of imports of forklift trucks with steel fork arms, 1985 1/

Firm	Share of imports
	Percent
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
Total.....	100

1/ Based on quantity.

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

Table E-4 shows that Japanese brands command * * * and accounted for *** percent of apparent U.S. consumption of forklift trucks in 1985.

Table E-7.--Forklift trucks: U.S. importers' share of imports of forklift trucks without steel fork arms, 1985 1/

Firm	Share of imports
	Percent
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
Total.....	100.0

1/ Based on quantity.

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

APPENDIX F

DATA ON KENHAR'S OPERATIONS

Table F-1.--Kenhar's average number of production and related workers engaged in the manufacture of steel fork arms, hours worked by such workers, wages paid, and total compensation, 1981-85 1/

Year	Number of workers	Hours worked	Wages paid	Total compensation
		Thousands	---------Per hour--------	
*	*	*	*	*	*	*

1/ Values are in Canadian dollars.

Source: Compiled from data provided by counsel for the CIFP.

Table F-2.--Steel fork arms: Kenhar's worker productivity and number of forks produced per 1,000 hours worked, 1981-85

(Number of forks and 1,000 hours)

Item	1981	1982	1983	1984	1985
Average number of production and related workers.....	***	***	***	***	***
Hours worked.....	***	***	***	***	***
Forks produced.....	***	***	***	***	***
Forks per worker....	***	***	***	***	***
Forks per 1,000 hours.	***	***	***	***	***

Source: Compiled from data provided by counsel for the CIFP.

Table. F-3. Steel fork arms: Kenhar's unit costs of steel, 1981-85 1/

(Canadian dollars per ton of steel)

Item	1981	1982	1983	1984	1985
Cost of steel.....	$***	$***	$***	$***	$***

1/ Kenhar buys *** percent (by quantity) of its steel from the United States.

Source: Compiled from data provided by counsel for the CIFP.

Table F-4.--Income-and-loss experience of Kenhar Products Ltd. on its operations producing steel fork arms, accounting years 1981-85 1/ 2/

Item	1981	1982	1983	1984	1985
*	*	*	*	*	*

1/ Accounting year ends Apr. 30.
2/ Values are in Canadian dollars.

Source: Compiled from data provided by counsel for the CIFP.

Table F-5.--Steel fork arms: Kenhar's investments in productive facilities, 1981-85 1/

(Thousands of Canadian dollars)

	Establishment	
Year	Original cost	Book Value
*	*	*

1/ Kenhar produces only steel fork arms.

Source: Compiled from data submitted by counsel for the CIFP.

Table F-6. Steel fork arms: Kenhar's research and development expenditures for steel fork arms, 1981-85

(Thousands of Canadian dollars)

Item	1981	1982	1983	1984	1985
Research and development expenditures.....	***	***	***	***	***

Source: Compiled from data submitted by the CIFP.