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CONFIDENTIAL

DEPARTMENT OF JUSTICE
WAR DIVISION
ECONOMIC WARFARE SECTION

REPORT ON
PURCHASES OF AMERICAN MACHINE TOOLS BY
TOKIO JIDOSHA KOGYO K.K.

November 3, 1943

Submitted by: Harvey B. Storch
Department of Commerce
Bureau of Foreign and Domestic Commerce
New York, N. Y.

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Economic Warfare Section
War Division
Department of Justice
Washington, D. C.

Confidential Report
November 3, 1943
Re: Purchases of American Machine
Tools by Tokio Jidosha Kogyo K.K.
Submitted by: Harvey B. Storch
Department of Commerce
Bureau of Foreign and Domestic
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New York, N. Y.

Tokio Jidosha Kogyo K. K. is the third largest automotive concern in Japan and specializes in the manufacture of military vehicles. Before the war it was engaged in the manufacturing of automobiles, buses, auto parts, and Diesel engines. The principal customers were the Department of War, Department of Navy, and other government departments. (1)

Tokio Jidosha Kogyo K. K. was formed in 1937 as a result of a merger between Jidosha Kogyo K. K. and the automotive section of Tokio Gasu Denki K. K. In 1939 Tokio Jidosha combined with Kokusan Jidosha K. K. of Korea and in 1941 went through a final re-organization and emerged as Diesel Jidosha Kogyo K. K. (2)

"The name of the company was changed to Diesel Jidosha Kogyo as a result of conferences between the automotive producers and the military in January, 1941 when the company was selected as a national policy company and appointed the sole manufacturer of Diesel vehicles. Mitsubishi, Kawasaki Sharyo, and Ikegai Jidosha agreed to furnish technical assistance and Hitachi agreed to supply fuel pumps." (3)

Although the company is known to have been manufacturing Diesel engines before and during the war, there is no mention of this fact in the files. The blueprints in the files are of small dimension parts and are probably for automotive products. However, they might be for small Diesel engines.

The factories are located at the following sites: (4)

- 1) Tokio, SHINOGAURA KU, OISAKASHITE CHO 2691 (called the Omori factory).
- 2) Tokio prefecture, KINAMITAMA GUN, HINOMACHI (called the Hino factory).
- 3) Yokohama, TSURUMI KU, SUEHIRE CHO 2 chome 4 (called the Tsurumi factory).
- 4) Kawasaki, SHIMODEN CHO, (?) 5941 (called Kawasaki factory)
- 5) JINSEN, KOREA
- 6) FUHEI, KOREA

During the period from January 1, 1937 until late in 1941, Tokio Jidosha Kogyo K. K. purchased large quantities of machine tools from the United States. Most of these transactions were handled by the four major Japanese trading companies which had offices in this country: Mitsubishi Shoji Kaisha (MSK), Mitsui and Company, Ltd., Ataka and Company, Ltd., and Okura and Company, Ltd. The files of these concerns are now kept by the Alien Property Custodian in a warehouse at 27 Cliff Street, New York, N.Y. This report is one of a series being made after an examination of these files.

The tabulations cover purchases of machine tools made from January, 1937 to 1941. The purchases amounted to:

| | |
|---------------------|-----------------------|
| Mitsui | \$ 1,288,450.00 |
| Mitsubishi | 194,850.00 |
| Ataka | 65,475.00 |
| Okura | 27,250.00 |
| Imperial Export Co. | 60,900.00 |
| Total | <u>\$1,636,925.00</u> |

Whenever possible the name of the plant for which the machine tool was purchased is given. The tabulations include machine tools purchased for Jidosha Kogyo K. K. but do not include orders for Diesel Jidosha Kogyo. The latter company was formed in 1941 but the orders and inquiries only include those made in the period of 1937 to the latter part of 1941.

Sources

- (1) "Industries of Japan" Volume IV, Mechanics
- (2) "A Directory of Certain Japanese Industrial Companies"
John Williams, O.E.W., August, 1943.
- (3) Ibid.
- (4) Ibid.
- (5) Ibid.

RACAPITULATION OF ORDERS FOR MACHINE TOOLS PURCHASED BY
TOKIO JIDOSHA KOGYO K. K.

The following tables indicate the number and type of machine tools purchased by Tokio Jidosha in the period from 1937 to 1941. Machine tools purchased by Jidosha Kogyo, the company which combined with Tokio Gasu Denki to form Tokio Jidosha are also included. No adjustment has been made for cancellations.

LATHES, SCREW MACHINES, and CHUCKING MACHINES

| | | |
|---------------------|----|--|
| Bullard | 1 | 8" multimatic lathes |
| Bullard | 9 | 24" vertical turret lathes |
| Bullard | 10 | 36" vertical turret lathes |
| Bullard | 1 | Vertical turret lathe |
| Warner and Swasey | 2 | #1A turret lathes |
| Warner and Swasey | 31 | #2A turret lathes |
| Warner and Swasey | 4 | #3A turret lathes |
| Warner and Swasey | 5 | #4A turret lathes |
| Warner and Swasey | 20 | #5A turret lathes |
| American | 2 | 12" x 30" toolroom lathes |
| Seneca Falls | 2 | 5" x 24" lathes |
| Wicker Bros. | 2 | Crankshaft lathes |
| Lodge and Shipley | 2 | 16" x 30" lathes |
| Lodge and Shipley | 3 | 14" x 6' lathes |
| Lodge and Shipley | 3 | 12" x 6' lathes |
| Gisholt | 1 | #4 turret lathe |
| Gisholt | 2 | #5 turret lathes |
| Gisholt | 3 | Turret lathes |
| LeBlond | 2 | 9" x 10" lathes |
| Petter and Johnston | 4 | Model 5-D automatic chucking machines |
| Cone | 3 | 1 $\frac{1}{2}$ " 4-spindle conomatics |
| Cone | 1 | 1 $\frac{1}{4}$ " 4-spindle conomatics |

TOTAL: 113

MILLING MACHINES

| | |
|---------------------|---------------------------------|
| Kearney and Trecker | 1 #1386 Simplex milling machine |
| Kearney and Trecker | 1 #1230 Duplex milling machine |
| Kearney and Trecker | 1 #2209 milling machine |
| Kearney and Trecker | 9 #2H vertical milling machines |
| Kearney and Trecker | 9 #3H vertical milling machines |
| Kearney and Trecker | 9 #4H vertical milling machines |
| Kearney and Trecker | 4 Milling machines |
| Kearney and Trecker | 3 Mill grinders |
| Brown and Sharpe | 2 #2 Universal milling machines |
| Hall Planetary | 1 Milling machine |
| Sundstrand | 9 #3A Rigidmils |

TOTAL: 49

GRINDERS

| | |
|-------------|--|
| Norton | 6 10" x 36" plain grinders |
| Norton | 1 10" x 46" plain grinders |
| Norton | 1 10" x 48" plain grinders |
| Norton | 3 10" x 72" plain grinders |
| Norton | 2 14" x 36" plain grinders |
| Norton | 1 24" x 96" crankpin grinder |
| Norton | 1 #2 Universal and tool cutter grinder |
| Norton | 4 Grinders |
| Norton | 1 Crankshaft lapping machine |
| Wm. Sellers | 1 #2A tool grinder |
| Wm. Sellers | 2 #20W tool grinders |
| Wm. Sellers | 2 Tool grinders |
| Blanchard | 1 #11 vertical surface grinder |
| --- | 1 Centerless grinder |

TOTAL: 27

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BORING, DRILLING AND HONING MACHINES

| | | |
|---------------------|----|--|
| Excello | 6 | #218 Senior double end boring machines |
| Excello | 1 | #61 Single end boring machine |
| Excello | 1 | #1212 boring machine |
| Leland Gifford | 2 | #2 drilling machines |
| Leland Gifford | 1 | Drilling machine |
| American Tool Works | 3 | Radial drills |
| Footo Burt | 6 | Single spindle drills |
| Barnes | 3 | #201 $\frac{1}{2}$ drilling machines |
| Barnes | 4 | #242 drilling machines |
| Barnes | 2 | #3 drilling machines |
| Barnes | 12 | Drilling machines |
| Barnes | 2 | #120 drilling machines |
| Barnes | 1 | #306 honing machines |
| Lucas | 1 | #41 boring, drilling and milling machine |

TOTAL: 45

GEAR HOBBERS and GEAR CUTTERS

| | | |
|---------------------|---|------------------------------------|
| Gould and Eberhardt | 3 | #16H gear hobbing machines |
| Gould and Eberhardt | 3 | #30H gear hobbing machines |
| Gould and Eberhardt | 4 | #36H gear hobbing machines |
| Gould and Eberhardt | 1 | Gear hobbing machine |
| Gould and Eberhardt | 1 | Gear cutting machine |
| Cleveland | 1 | Hobbing machine |
| Gear Grinding Co. | 1 | Worm gear grinding machine |
| Pratt and Whitney | 1 | 10" hydraulic gear grinder |
| Michigan | 1 | Gear finishing rack |
| Michigan | 1 | #991 gear lapper |
| Michigan | 1 | Involute checker |
| Cross Gear | 2 | #35 gear tooth rounders |
| Cross Gear | 1 | #36 gear tooth rounder |
| Gleason | 1 | 8" straight bevel gear generator |
| Gleason | 3 | 12" straight bevel gear generators |
| Gleason | 2 | Hypoid generators |

TOTAL: 27

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FOOTNOTES

- 1) Machine tool purchased for Omori works.
- 2) Machine tool purchased for Tsurumi works.
- 3) Machine tool purchased for Kawasaki works.
- 4) Machine tool purchased for Hino works.
- 4a) Machine tool purchased for Konomo works. This tool is probably for the Konomo works of Tyoda Jidosha.
- 5) Order folder contains a blue print of the worm shaft to be machined on a Seneca Falls lathe.
- 6) Order folder contains blue prints of nuts and bolts to be machined on Conomatic screw machine.
- 7) Order folder contains blue prints of piston to be bored on an Excello boring machine.
- 8) Indicates Tokio Jidosha is connected with Kokusan Jidosha.
- 9) Folder contains blue print of a piston to be bored on Excello boring machine.
- 10) Folder contains blue print of a shaft to be machined on an Excello thread grinder.
- 11) Excello precision boring machine to be used for rough finishing and boring of pistons.
- 12) Folder contains Japanese blue prints of various parts of an automobile to be machined on a hobbing machine.
- 13) Folder contains blue prints of worms, wheels and worm shaft.

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- 14) Folder contains blue prints of hobs.
- 15) Machine to be used for milling the bores of the differential carrier. Many prints of the differential carrier and parts are in the folder.
- 16) Folder contains sketches and specifications of worms to be machined.
- 17) Folder contains prints of parts to be broached.
- 18) Folder contains note: "By our telegrams of April 7th and May 24th we advised you that the customer is Tokio Gas Denki." However, the order originated with Tokio Jidisha.
- 19) Order folder contains Japanese blue prints of various parts.
- 20) Folder contains blue prints of pistons before and after being machined on a Seneca Falls automatic lathe.
- 21) Folder contains many blue prints of the rear axle case. The drill is to be used for drilling holes in the gear case.
- 22) Honing machine to be used for finishing engine cylinder bores, 90 mm. inside diameter x 200 mm. long.

TOKIO JIDOSHA

mitsui orders

| Order No. | Date | Manufacturer | No. | Product | Price |
|---------------|---------|-----------------|-----|----------------------------|-----------|
| 3207 (Note 1) | 9/7/38 | Bullard | 2 | 36" vertical turret lathes | 17,600.00 |
| 3207 (Note 2) | 9/7/38 | Bullard | 1 | 36" vertical turret lathe | 8,800.00 |
| 3207 (Note 3) | 9/7/38 | Bullard | 1 | 36" vertical turret lathe | 8,800.00 |
| 3052 | 3/31/38 | Bullard | 2 | 36" vertical turret lathes | 16,650.00 |
| 3074 (Note 2) | 4/9/38 | Bullard | 4 | 24" turret lathes | 25,222.50 |
| 3119 (Note 3) | 6/8/38 | Bullard | 1 | 8" multi-matic lathe | 27,439.25 |
| 3212 (Note 2) | 9/6/38 | Bullard | 4 | 24" turret lathes | 26,397.80 |
| 3544 (Note 1) | 1/11/39 | Bullard | 1 | 24" turret lathe | 6,634.70 |
| 3873 (Note 2) | 8/21/39 | Bullard | 1 | Vertical turret lathe | 12,153.00 |
| 3543 (Note 1) | 1/11/39 | Bullard | 4 | 36" vertical turret lathes | 36,540.60 |
| 3027 | 3/10/38 | Warner & Swasey | 2 | #5 turret lathes | 7,728.40 |
| 3028 | 3/10/38 | Warner & Swasey | 2 | #5 turret lathes | 5,755.20 |
| 3029 | 3/10/38 | Warner & Swasey | 2 | #5 turret lathes | 8,014.40 |
| 3150 (Note 3) | 8/3/38 | Warner & Swasey | 1 | #5 turret lathe | 3,368.20 |
| 3151 (Note 3) | 7/27/38 | Warner & Swasey | 9 | #5 turret lathes | 32,763.75 |

| Order No. | Date | Manufacturer | No. | Product | Price |
|-------------------|---------|-----------------------|-----|---------------------------|-----------|
| 3152(Note 1) | 7/27/38 | Warner & Swasey | 4 | #5 turret lathes | 12,898.60 |
| 3153(Note 1) | 8/3/38 | Warner & Swasey | 4 | #3 turret lathes | 9,873.60 |
| 3157(Note 3) | | Warner & Swasey | | Miscellaneous die heads | |
| 3206 | 9/10/38 | Warner & Swasey | 2 | #5 turret lathes | 7,184.40 |
| 3210(Note 3) | 9/5/38 | Warner & Swasey | 1 | #4 turret lathe | 2,597.60 |
| 3314(Note 3) | 10/5/38 | Warner & Swasey | 15 | #2A turret lathes | 80,122.50 |
| 3314 Add (Note 1) | 10/5/38 | Warner & Swasey | 4 | #2A turret lathes | 23,264.00 |
| 3314 Add (Note 2) | 10/5/38 | Warner & Swasey | 3 | #2A turret lathes | 16,500.00 |
| 3659 | 3/17/39 | Warner & Swasey | 6 | #2A turret lathes | 37,649.80 |
| 3660 | 3/17/39 | Warner & Swasey | 3 | #4 turret lathes | 11,390.10 |
| 3660 | 2/23/39 | Warner & Swasey | 4 | #4 turret lathes | 14,391.20 |
| 3661(Note 2) | 3/20/39 | Warner & Swasey | 2 | #1A turret lathes | 10,092.00 |
| 3822(Note 3) | 8/3/38 | Warner & Swasey | 2 | #5 turret lathes | 7,000.00 |
| 3872(Note 2) | 8/24/39 | Warner & Swasey | 3 | #2A turret lathes | 20,525.40 |
| 3327(Note 3) | 2/13/40 | American Tool | 1 | 12" x 30" tool-room lathe | 3,340.35 |
| 3205(Note 3) | 11/8/38 | Seneca Falls (Note 5) | 2 | 5" x 24" Model U lathes | 8,314.20 |

| Order No. | Date | Manufacturer | No. | Product | Price |
|--------------|----------|-------------------|----------|------------------------------------|-----------|
| 3378 | 11/8/38 | Cone Automatic | 3 | 1 1/2" 4-spindle conomatics | 28,019.55 |
| 3165(Note 2) | 8/16/38 | Cone Automatic | 1 | 1 1/4" 4-spindle conomatic | 7,936.21 |
| 3072 | 4/9/38 | Kearney & Trecker | 1 | mill grinder | 1,881.00 |
| 3145 | 7/13/38 | Kearney & Trecker | 1 | Milwaukee #1386 Simplex miller | 4,994.55 |
| 3155(Note 2) | 8/1/38 | Kearney & Trecker | 1 | #1250 Milwaukee Duplex miller | 4,949.50 |
| 3377(Note 1) | 10/25/38 | Kearney & Trecker | 2 | #1407 Duplex millers | 16,092.00 |
| 3655(Note 3) | 3/15/39 | Kearney & Trecker | 4 | #3H vertical milling machines | 23,281.20 |
| 3656 | 3/17/39 | Kearney & Trecker | 1 | #2H vertical milling machine | 5,284.55 |
| 3657(Note 1) | 3/17/39 | Kearney & Trecker | 5 | #4 vertical milling machines | 34,672.50 |
| 3658(Note 1) | 3/17/39 | Kearney & Trecker | 5 | #2H vertical milling machines | 19,840.50 |
| 3662(Note 2) | 2/27/39 | Kearney & Trecker | 2 | #4H vertical milling machines | 15,853.70 |
| 3759(Note 2) | 4/20/39 | Kearney & Trecker | 1 | Milwaukee mill grinder | 1,881.00 |
| 3805(Note 2) | 6/5/39 | Kearney & Trecker | 1 | #2 milling machine | 3,575.25 |
| 3843 | 4/9/38 | Kearney & Trecker | 1 | milling machine | 4,126.00 |
| 3874(Note 2) | 3/23/39 | Kearney & Trecker | 30 40 | milling cutters Shell end mills | 1,022.21 |
| 3874(Note 2) | 3/21/39 | Kearney & Trecker | 2 | Model H vertical milling machines | 9,057.60 |

| Order No. | Date | Manufacturer | No. | Product | Price |
|----------------------|----------|---------------------|-----|---------------------------------------|-----------|
| 3875A (Note 2) | 8/24/39 | Kearney & Trecker | 2 | Model 2H plain milling machines | 6,044.40 |
| 3877 | 8/24/39 | Kearney & Trecker | 1 | "3H vertical milling machine | 5,910.75 |
| 3878 (Note 2) | 8/24/39 | Kearney & Trecker | 2 | "4H plain mill- ing machine | 11,499.20 |
| 3879 (Note 2) | 8/24/39 | Kearney & Trecker | 3 | "3H plain mill- ing machine | 16,543.25 |
| 3880 (Note 2) | 8/24/39 | Kearney & Trecker | 1 | "3H Universal milling machine | 6,587.51 |
| 3662 (Note 2) | 5/5/39 | Goddard & Goddard | 60 | Milling cutters | 1,199.50 |
| 3662 Add 3 | | Goddard & Goddard | | milling cutters | 91.39 |
| 3662 Add 2 | 6/28/39 | Fellows Gear Shaper | | Gear cutters | 1,266.20 |
| 3880 | 9/20/39 | Goddard & Goddard | | End mills | 400.00 |
| 3779 | 9/19/39 | Goddard & Goddard | | End mills | 1,252.70 |
| 3778 Add | 9/20/39 | Goddard & Goddard | | End mills | 1,500.00 |
| 3814-1 Add 2 | 1/14/39 | Goddard & Goddard | | Cutters | 3,600.00 |
| 3874 (Note 3) | 12/15/39 | Goddard & Goddard | 160 | spiral end mills | 722.95 |
| 3658 (Note 1) | 5/17/39 | Goddard & Goddard | 900 | End mills | 1,782.20 |
| 3875 (Note 2) | 8/24/39 | Goddard & Goddard | 17 | End and side mills | 279.54 |
| 3875 Add (Note 2) | 9/20/39 | Goddard & Goddard | 110 | End mills | 393.12 |
| 3655 (Note 3) | 4/18/39 | Goddard & Goddard | 105 | Side mill cutters | 1,550.00 |
| 3148 (Note 2) | 7/27/38 | Norton | 1 | 10"x46" plain grinder | 6,349.55 |
| 3204 (Note 1) | 9/3/38 | Norton | 2 | 10"x56" plain grinders | 12,069.70 |

| Order No. | Date | Manufacturer | No. | Product | Price |
|----------------------|----------|-------------------|-----|--|-----------|
| 3030 | 3/10/58 | Norton | 2 | 10"x36" plain grinders | 11,781.00 |
| 3037 (Note 1) | 3/16/58 | Norton | 1 | 10"x72" plain grinder | 7,027.60 |
| 3035 | 3/21/58 | Norton | 1 | Grinding machine | 12,642.50 |
| 3656 | 3/17/59 | Goddard & Goddard | | Cutters | 1,252.00 |
| 3203 (Note 1) | 9/2/58 | Norton | 1 | 10"x72" Type C plain grinding machine | 659.60 |
| 3380 (Note 1) | 10/25/58 | Norton | 1 | 24"x96" crankpin grinding machine | 17,444.22 |
| 3478 | 12/1/58 | Norton | 1 | 10"x72" plain grinding machine | 7,722.94 |
| 3479 (Note 1) | 12/1/59 | Norton | 1 | 10"x48" plain grinding machine | 7,577.20 |
| 3545 (Note 1) | 1/11/59 | Norton | 2 | 14"x36" grinding machines | 9,604.24 |
| 3546 (Note 1) | 1/11/59 | Norton | | Equipment for #2 Universal tool and cutter grinder | 209.61 |
| 3789 (Note 1) | 5/23/58 | Norton | 1 | 10"x36" plain grinder | 4,927.84 |
| 3790 | 12/6/57 | Norton | 1 | #2 Universal tool and cutter grinder | 1,499.40 |
| 3430 (Note 1) | 12/1/58 | Norton | 1 | 10"x36" plain grinder | 7,068.45 |
| 3032 (Note 2) | 3/10/58 | Excello | 1 | #218 senior double end boring machine | 4,446.00 |
| 3077 Add (Note 2) | 4/2/58 | Excello | 3 | Additional equip- ment for boring machines | 2,698.43 |

| Order No. | Date | Manufacturer | No. | Product | Price |
|-------------------|----------|-----------------------------|-----|--|-----------|
| 3033(Note 2) | 3/10/38 | Excello | 1 | #218 senior double end boring machine | 4,448.00 |
| 3078 Add (Note 2) | 4/4/38 | Excello | 1 | Additional equipment | 2,075.04 |
| 3149(Note 3) | 8/8/38 | Excello | 2 | #25A hydraulic power units | 1,988.40 |
| 3211(Note 1) | 9/8/38 | Excello | 1 | #25 thread grinder | 12,201.12 |
| 3330(Note 3) | 2/13/40 | Excello (Note 7) | 1 | #218 senior double end | 10,345.00 |
| 3331(Note 3) | 2/13/40 | Excello (Note 8) | 1 | #61 single end boring machine | 19,202.50 |
| 3379(Note 4) | 10/25/38 | Excello (Note 11) | 1 | #1212 boring machine | 6,584.26 |
| 3482(Note 2) | 12/1/38 | Excello | 1 | #218 double end boring machine | 26,712.08 |
| 3482 A | 3/7/39 | Excello | 1 | #25 hydraulic power unit | 1,537.12 |
| 3936 | 11/21/40 | Excello | | Additional equipment for boring machines | 2,045.00 |
| 3970(Note 1) | 9/21/39 | Excello | 1 | Tool grinder | 1,534.85 |
| 3542(Note 1) | 1/11/39 | Gould & Eberhardt | 4 | #36H Universal gear hobbing machines | 26,116.00 |
| 3876(Note 2) | 3/24/39 | Gould & Eberhardt | 1 | #16H Universal gear hobbing machine | 4,845.00 |
| 3313 | 10/11/38 | Gould & Eberhardt (Note 13) | 3 | #30 hobbing machines | 32,190.00 |
| 3324 | 10/8/38 | Gould & Eberhardt (Note 14) | 2 | #16H gear hobbing machines | 9,690.00 |

| Order No. | Date | Manufacturer | No. | Product | Price |
|----------------------|----------|--------------------------------|-----|---|-----------|
| 3201(Note 3) | 9/19/38 | Hall Planetary (Note 15) | 1 | Milling Machine | 10,805.00 |
| 3213(Note 3) | 9/15/38 | Gear Grinding (Note 16) | 1 | WG-1 worm grind- ing machine | 27,897.10 |
| 5483 | 12/12/38 | Cleveland Hobbing (Note 12) | 1 | Hobbing machine | 4,591.53 |
| 3992 | 4/15/41 | National Broach | 50 | Gear cutters | 11,050.00 |
| 3324(Note 2) | 11/4/38 | Barber-Colman | | Hobs | 1,670.00 |
| 3971 | 1/8/41 | Barber-Colman | 4 | Gear hobs | 246.91 |
| 3305 Add (Note 2) | 6/5/39 | Barber-Colman | | Gear hobs | Cancelled |
| 3542(Note 2) | 3/4/39 | Barber-Colman | | Hobs | 1,263.50 |
| 3481(Note 1) | 12/15/38 | Leland-Gifford | 1 | Drilling Machine | 4,788.00 |
| 3031 | 3/10/38 | LaPointe | 1 | #3 $\frac{1}{2}$ L broaching machine | 4,221.87 |
| 3031 Add. | 6/1/38 | LaPointe | | Additional broaches | 1,247.16 |
| 3073(Note 2) | 4/9/38 | LaPointe | 1 | #72 broach sharpener | 2,559.37 |
| 3154(Note 1) | 8/1/38 | LaPointe | 1 | #4L broaching machine | 5,409.37 |
| 3163(Note 1) | 8/10/38 | LaPointe | 1 | #3 $\frac{1}{2}$ L broaching machine | 4,241.87 |
| 3164(Note 2) | 8/10/38 | LaPointe | 1 | #3 $\frac{1}{2}$ L broaching machine (Note 17) | 4,200.00 |
| 3973(Note 2) | 1/8/41 | LaPointe | 5 | Broaches | 610.00 |
| 3985(Note 2) | 3/4/41 | LaPointe | | Broaches | 15,004.97 |
| 3985(Note 1) | 5/6/41 | LaPointe | | Broaches and cutter bars | 3,465.65 |

| Order No. | Date | Manufacturer | No. | Product | Price |
|----------------------|---------|------------------------------------|-----|--|-----------|
| 3993(Note 2) | 4/15/41 | LaPointe | | Broaches | 541.50 |
| 3377 Add (Note 1) | 5/4/39 | LaPointe | | Broaches | 2,285.00 |
| 3652(Note 1) | 5/15/39 | LaPointe | | Broaches | 9,112.39 |
| 5209(Note 3) | 9/5/38 | Footo Burte | 6 | Single spindle drilling machine | 10,746.00 |
| 3328(Note 3) | 2/13/40 | American Tool | 1 | 3' radial drill | 4,040.01 |
| 3208(Note 2) | 9/5/38 | American Tool | 2 | 3' 11" radial drills | 6,572.80 |
| 3659(Note 3) | 4/18/39 | Morse Twist | 100 | Drills for conomatics | |
| 3972 | 1/8/41 | Morse Twist | 240 | Drills for Leland- Gifford drilling machine | 549.12 |
| 3071(Note 3) | 5/24/38 | Hannifin Mfg. Co. (Note 18) | | Yoke riveters | 3,560.00 |
| 3551 | 1/17/39 | Chambersburg Eng. Co. (Note 19) | 2 | 60 CT trimming press | 13,865.00 |
| | | | 1 | 80 CT trimming press | |
| | | | 1 | 160 CT trimming press | |
| 3624 | 2/16/39 | Chambersburg Eng. | 1 | 1000 lb. drop hammer | 53,665.00 |
| | | | 1 | 1500 lb. drop hammer | |
| | | | 1 | 2500 lb. drop hammer | |
| | | | 1 | 500 lb. drop hammer | |

MITSUI INQUIRIES

| Inquiry No. | Date | Manufacturer | No. | Product |
|------------------------|---------|---------------|-----|-------------------------|
| TE 3282 | | Barber-Colman | | H.S.S. all ground hobs |
| TE 3818E A (Note 3) | 8/20/39 | Barber-Colman | | Hobs |
| TE 3706 (Note 2) | 6/21/39 | Barber-Colman | | Hobs |
| TE 3415 | 8/20/40 | Barnes | | Vertical boring machine |

| Inquiry No. | Date | Manufacturer | No. Product |
|------------------------|----------|----------------------------|---|
| TE 3288 (Note 4) | 6/15/40 | Bryant | 26" heavy duty hole grinder |
| TE 3258 (Note 1) | 3/7/39 | Bullard | 24" vertical turret lathe |
| TE 3059 EA | 11/10/39 | Bullard | 24" vertical turret lathe |
| TE 3059 EB | | Bryant | #16A internal grinder |
| TE 3059 EC (Note 2) | | Excello Warner & Swasey | #34 thread grinder #4 turret lathe |
| TE 3059 ED | | Excello | #28 hydraulic power unit |
| TE 3059 EE | | Norton | 10"x48" plain grinding machine |
| TE 3283 (Note 4) | 6/6/40 | Bullard | 12" multi-automatic single indexing machine |
| TE 3282 (Note 4) | 6/5/40 | Cone | Conomatic machine |
| TE 3189 | 3/7/39 | Excello | #71 lapping machine |
| TE 3816 EB (Note 3) | 8/9/39 | Excello | Ball bearings |
| TE 3537 (Note 2) | 2/22/41 | Excello | Ball bearings |
| TE 3731 (Note 1) | 6/29/39 | Excello | Norton grinding wheels |
| TE 3705 (Note 2) | 6/20/39 | Excello | Ball bearings |
| TE 3416 | 8/20/40 | Excello | Boring machine |
| TE 3262 (Note 3) | 2/27/39 | Michigan Tool | Gear shaving cutters |
| TE 3816 (Note 3) | 8/29/39 | Michigan Tool | Ball bearings |

| Inquiry No. | Date | Manufacturer | No. Product |
|------------------------|----------|---------------------------|------------------------------|
| TE 3136 EA | 3/4/40 | Norton | 12"x36" Type C grinder |
| TE 3833 EC | 11/1/39 | Seneca Falls (Note 20) | Automatic lathes |
| TE 3816 EA (Note 3) | 8/29/39 | Warner & Swasey | Ball bearings |
| TE 3136 EC | 3/4/40 | Excello | #35 precision thread grinder |
| ED | | Norton | 12"x72" plain grinder |
| EE | | Kearney & Trecker | #4 milling machine |
| EF | | Kearney & Trecker | Face mill grinder |
| TE 3818 EB | 8/30/39 | Fellows | Gear shaper cutters |
| TE 3711 | 6/22/39 | Goddard & Goddard | Milling cutters |
| TE 3710 (Note 2) | 6/22/39 | Goddard & Goddard | Milling cutters |
| TE 3253 (Note 2) | 6/26/40 | Hall Planetary | Milling cutters |
| TE 3753 (Note 2) | 8/18/39 | Hall Planetary | Cutters |
| TE 3259 (Note 1) | 3/7/39 | Hannifin | Yoke riveters Generator |
| TE 3275 | 5/21/40 | Kearney & Trecker | 3H Universal milling machine |
| TE 3816ED | 11/6/38 | Kearney & Trecker | Ball bearings |
| TE 3256 | 3/6/39 | Kearney & Trecker | 2H vertical milling machine |
| TE 3729 | 6/28/39 | Landis | Chasers |
| TE 3016 (Note 2) | 11/21/38 | LaPointe | Broaches |
| TE 3136 EB | 3/4/40 | LaPointe | 72" broach sharpener |
| TE 3689 | 6/15/39 | LaPointe | Spline broaches |
| MF 5616 | 1/15/40 | | Gun turning lathes |
| MF 5616 | 1/18/38 | | Stud setters |

MITSUBISHI ORDERS

| Order No. | Date | Manufacturer | No. | Product | Price |
|-----------|----------|------------------|-----|---|-----------------------|
| 9280 | 1/4/40 | Wicker Bros. | 2 | 34" x 11" crank- shaft lathes | 16,320.50 |
| | | | | Extra tool bits | 706.51 |
| 8508 | 11/14/38 | Lodge & Shipley | 2 | 16" x 30" manu- facturing lathes | 6,682.50 |
| 3917 | 6/27/39 | Lodge & Shipley | 3 | 14" x 6' manu- facturing lathes | 9,233.55 |
| 3180 | 3/31/38 | Gisholt | 3 | Turret lathes | 10,972.39 |
| 3079 | 8/11/39 | Gisholt | 1 | #4 Universal turret lathe | 4,167.19 |
| 8487 | 11/3/38 | Sundstrand | 2 | #3A rigidmils | 8,891.00 |
| 8177 | 3/23/38 | Sundstrand | 3 | #3A rigidmils | 19,830.30 |
| 9039 | 9/6/39 | Sundstrand | 2 | #3A rigidmils | 8,925.00 |
| 9039A | 12/22/39 | Sundstrand | | Spare parts for rigidmils | 1,013.62 |
| 3176 | 3/22/38 | Cross Gear | 2 | #35 tooth rounders | 5,844.00 |
| 9416 | 3/8/40 | Cross Gear | | #36 gear tooth rounders | 337.50 |
| 9563 | 2/9/40 | Andrews & George | | #3 centerless grinder | 6,463.11 Cancelled |
| 363-A | 3/6/40 | Andrews & George | | Attachments for #3 Cincinnati grinder | 837.11 Cancelled |
| 3168 | 3/18/38 | Michigan Tool | 1 | Gear finishing rack | 1,305.00 |
| 9161 | 11/4/38 | Michigan Tool | 1 | #991 gear lapper | 3,757.50 |
| 8041 | 12/7/37 | Michigan Tool | 1 | Involute checker | 2,450.00 |

| Order No. | Date | Manufacturer | No. | Product | Price |
|-----------|----------|------------------|-----|--|------------------------|
| 8406 | 9/19/38 | Barnes | 2 | #120 single and double spindle horizontal boring machine | 26,118.11 |
| 8179 | 3/24/38 | Barnes | 6 | Drilling machines | 7,295.25 |
| 8458 | 10/27/38 | Barnes | 3 | Drilling machines | 4,125.37 |
| 8915 | 6/27/39 | Barnes | 2 | #242 drilling machines | 4,218.00 |
| 8916 | 6/27/39 | Barnes | 3 | #201 $\frac{1}{4}$ drilling machines | 4,125.37 |
| 9025 | 8/20/39 | Barnes (Note 21) | 2 | #242 drilling machines | 4,721.50 |
| 9025 A | 12/6/39 | Barnes | | Attachments | 5,391.00 |
| 9026 | 8/30/39 | Barnes | 1 | #3 drilling machine | 5,272.50 |
| 9075 | 9/26/39 | Barnes | 2 | #2 drilling machines | 7,353.00 |
| 9296 | 1/11/40 | Barnes | 3 | Drilling machines | 4,431.75 |
| 9298 | 1/11/40 | Barnes (Note 22) | 1 | #306 honing machine | 4,377.12 Cancelled |
| 9402 | 2/29/40 | Lucas | 1 | #41 boring, drilling, and milling machine | 10,455.00 Cancelled |
| 9402 B | 3/1/40 | Lucas | 4 | Boring bars | 286.00 Cancelled |
| 9298 B | 5/9/40 | Micromatic Hone | | Honing tools | 652.25 Cancelled |
| 8197 A | 4/7/38 | Cleveland Twist | 99 | Twist drills | 1,151.63 |
| 8196 A | 3/22/38 | Westinghouse | | 3 H.P. motors | 123.20 |
| 9402 A | 2/28/40 | Westinghouse | | Motor | 123.25 |
| 9280 A | 1/4/40 | Westinghouse | | Electrical equipment for Vicker lathe | 523.00 |

| Order No. | Date | Manufacturer | No. | Product | Price |
|-----------|----------|--------------|-----|--------------------------|--------|
| 9296 A | 5/5/40 | Westinghouse | 3 | Motors for Barnes drills | 205.59 |
| 9298 A | 5/1/40 | Westinghouse | 2 | Motors for Barnes drills | 229.46 |
| 8508 A | 11/14/38 | Union | 2 | #264-L-1 chucks | 162.00 |
| 3917 A | 6/27/39 | Union | 3 | #264-L-1 chucks | 243.00 |

IMPERIAL EXPORT ORDERS

| Order No. | Date | Manufacturer | No. | Product | Price |
|-----------|---------|-------------------|-----|---------------------------------------|-----------|
| 13/533 | 3/15/38 | Potter & Johnston | 1 | Model 5D auto-matic chucking machine | 6,682.50 |
| 13/534 | 3/15/38 | Potter & Johnston | 1 | Model 5D auto-matic chucking machine | 6,682.50 |
| 13/569 | 5/30/38 | Potter & Johnston | 2 | Model 5D auto-matic chucking machines | 12,966.50 |
| 13/569 A | 9/21/38 | Potter & Johnston | | Tooling | 1,550.00 |
| 14/740 | 7/22/39 | Potter & Johnston | | Tooling | 3,063.60 |

OKURA ORDERS

| Order No. | Date | Manufacturer | No. | Product | Price |
|-----------|----------|--------------|-----|------------------------------|-----------------------|
| S-503 | 2/14/40 | Le Blond | 2 | 9" x 10" lathes | 4,890.60 Cancelled |
| 12069 | 11/15/39 | Blanchard | 1 | #11 vertical surface grinder | 3,820.00 Cancelled |
| 555 | 5/11/40 | Sellers | 2 | Tool grinders | 3,399.45 Cancelled |
| 555 Rev.1 | 6/11/40 | Sellers | 1 | 20 W tool grinder | 1,843.80 Cancelled |
| 555 Rev.2 | 6/11/40 | Sellers | 1 | 20 W tool grinder | 1,749.30 Cancelled |

| Order No. | Date | Manufacturer | No. | Product | Price |
|-----------|----------|-----------------|-----|----------------------------|------------------------|
| 23220 | 4/24/39 | Sellers | 1 | #2A tool grinder | |
| 12093 | 11/16/39 | Pratt & Whitney | 1 | 10" hydraulic gear grinder | 10,420.00 Cancelled |
| 11569 | 12/17/37 | Klyskens | 300 | Electric fuel pumps | 1,143.45 |
| 4643 | 1/20/38 | | 2 | Sets dynamometers | |
| | | | 2 | Sets generators | |

ATAKA ORDERS

| Order No. | Date | Manufacturer | No. | Product | Price |
|--------------|---------|----------------|-----|------------------------------------|-----------|
| 5580 | 3/16/38 | Brown & Sharpe | 1 | #2 Universal milling machine | 3,631.60 |
| 5583 | 3/18/38 | Brown & Sharpe | 1 | #2 Universal milling machine | 4,213.00 |
| 5117 | 3/24/37 | Gleason | 3 | Spiral bevel gear cutters | 327.37 |
| 5337 | 9/6/37 | Gleason | 2 | Finishing tools | 25.82 |
| 5565 | 3/11/38 | Gleason | | Cutters and finishing tools | 1,248.67 |
| 5750 | 9/17/38 | Gleason | 1 | 12" straight bevel gear generator | 8,255.52 |
| 5751(Note 3) | 9/17/38 | Gleason | 2 | 12" straight bevel gear generators | 16,674.31 |
| 5752(Note 2) | 9/17/38 | Gleason | 1 | 8" straight bevel gear generator | 6,525.70 |
| 5758(Note 2) | 9/17/38 | Gleason | | Spiral bevel finishing cutters | 249.49 |
| 5757(Note 2) | 9/17/38 | Gleason | | Cutters | 249.49 |
| 5756(Note 1) | 9/17/38 | Gleason | | Finishing tools | 1,254.70 |

JIDOSHA KOGYONETSUI ORDERS

| <u>Order No.</u> | <u>Date</u> | <u>Manufacturer</u> | <u>No.</u> | <u>Product</u> | <u>Price</u> |
|------------------|-------------|---------------------|------------|----------------------------|--------------|
| 3495 | 12/23/36 | American Tool | | Lathe | |
| 3658(Note 2) | 9/9/37 | Barber-Colman | | Hobs | 168.00 |
| 3655 | | Barber-Colman | | Hobs | 374.00 |
| 3642 | 6/14/37 | Barber-Colman | 1 | Hob cutter | 109.40 |
| 3653(Note 2) | 3/20/37 | Barber-Colman | 1 | Hob | 70.29 |
| 3516(Note 2) | 2/6/37 | Barber-Colman | 4 | Hobs | 259.42 |
| 3681(Note 2) | 9/9/37 | Barber-Colman | 1 | Hob | 91.38 |
| 3688(Note 2) | 9/9/37 | Excello | 1 | #218 senior boring machine | 8,967.33 |
| 3528 | 2/17/37 | Leland-Gifford | 2 | #2 drilling machines | 2,176.00 |
| 3481 | 2/18/36 | Gould & Eberhardt | 1 | Gear hobbing machine | |
| 3527(Note 2) | 2/17/37 | Gould & Eberhardt | 1 | #36BM gear cutter | 4,475.25 |
| 3496 | 12/24/36 | Kearney & Trecker | | Milling machines | |
| 3662 Tsurumi | 9/9/37 | Kearney & Trecker | 12 | Vises | 750.00 |
| 3510 | 1/7/37 | Kearney & Trecker | 1 | #2209 milling machine | 7,606.05 |
| 3526 | 2/17/37 | Kearney & Trecker | 1 | Mill grinder | 1,574.62 |
| 3036 | 3/16/38 | Norton | 1 | Grinder | 6,447.25 |
| 3480 | 12/18/36 | Norton | 1 | Grinder | |

| Order No. | Date | Manufacturer | No. | Product | Price |
|--------------|---------|--------------|-----|----------------------------|----------|
| 3614 | 9/9/37 | Norton | 1 | Grinder | 8,249.94 |
| 3682(Note 2) | 5/25/37 | Norton | 1 | Crankshaft lapping machine | 4,262.44 |

MITSUBISHI ORDERS

| Order No. | Date | Manufacturer | No. | Product | Price |
|-----------|----------|-----------------|-----|--------------------------|----------|
| 7368 | 12/30/36 | Sundstrand | 2 | #3A rigidmils | 7,641.50 |
| 7368A | 8/24/37 | Sundstrand | 2 | Arbors | 106.25 |
| 7355 | 12/28/36 | Lodge & Shipley | 2 | 12" x 6' toolroom lathes | |
| 7355A | 3/17/37 | Lodge & Shipley | | Parts for lathes | |
| 9086 | 10/6/39 | Gisholt | 2 | #5 turret lathes | 9,272.93 |

MITSUBISHI INQUIRIES

| Inquiry No. | Date | Manufacturer | No. | Product |
|-------------|----------|--------------|-----|-------------------------|
| NY 554 | 10/19/36 | Avey Drill | | Drilling machine |
| NY 615 | 11/30/36 | Sundstrand | | 8" automatic stub lathe |
| NY 690 | 1/18/37 | Barnes | | Drilling machines |
| NY 710 | 1/30/37 | Barnes | | Drilling machine |
| NY 1407 | 2/10/38 | Wickes | | Crankshaft lathe |

ATAKA ORDERS

| Order No. | Date | Manufacturer | No. | Product | Price |
|---------------|--------|---------------|-----|------------------|--------|
| 5961(Note 4A) | 2/6/39 | Skinner Chuck | 100 | #51 taper chucks | 999.60 |