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CONFIDENTIAL

DEPARTMENT OF JUSTICE
WAR DIVISION
ECONOMIC WARFARE SECTION

U. S. MACHINE TOOL PURCHASES

BY

TOYO BEARING SEIZO KAISHA (ORIENTAL BEARING MANUFACTURING CO.)

149044

Submitted by:
Leslie H. Standlee
Anti-Trust Division
Department of Justice
New York, N. Y.

TABLE OF CONTENTS

	<u>Pages</u>
<u>INTRODUCTION</u>	1 - 3
<u>RECAPITULATION OF ORDERS</u>	4 - 5
Grinders	4
Lapping Machines	4
Milling Machines	4
Lathes	5
Shapers	5
Miscellaneous and Extra Equipment	5
<u>ORDERS</u>	6 - 9
Through Mitsui Bussan Kaisha	6
Through Ataka & Co., Ltd.	7
Through Okura & Co., Ltd.	8
Through Imperial Export Co.	9
<u>INQUIRIES</u>	9 - 10
Through Mitsubishi Shoji Kaisha	9
Through Mitsui Bussan Kaisha	10
Through Ataka & Co., Ltd.	10
Through Okura & Co., Ltd.	10
Through Imperial Export Co.	10
FOOTNOTES TO THE TEXT	a.
FOOTNOTES TO THE TABULATION	a - b

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

Confidential Report
January 14, 1944 (Report No. 265)
Re: U.S. Machine Tool Purchases
by Toyo Bearing Seizo Kaisha
(Oriental Bearing Manufacturing
Company)
Submitted by: Leslie H. Standlee
Anti-Trust Division
Department of Justice
New York, N. Y.

U. S. MACHINE TOOL PURCHASES

BY

TOYO BEARING SEIZO KAISHA (ORIENTAL BEARING MANUFACTURING CO.)

INTRODUCTION

Toyo Bearing Seizo Kaisha (Oriental Bearing Manufacturing Company), according to the Report on the Japanese Bearing Industry by Gosta B. Guston, Foreign Economic Administration, January 20, 1943 (hereinafter called Bearing Report), is the largest producer of ball and roller bearings in Japan.¹ Its estimated production in 1941 was 9,000,000 pieces per year.¹ Toyo Bearing, commonly known as "NTN", was capitalized at Yen 25,000,000 in 1934, with Yen 14,500,000 paid up.² The Bearing Report states that this company is closely connected with the Navy and specializes in the manufacture of ball and cylindrical roller bearings for the aircraft industry.¹

Toyo Bearing manufactures its own bearing steel at the Sanyo Seiko (Sanyo Steel Co.) plant which it owns.³ Sanyo Seiko, capitalized at Yen 10,000,000 in 1940 of which Yen 5,500,000 was paid up, is primarily a manufacturer of bearing steel although it is also engaged in the manufacture of forged, rolled, and heat treated steel.⁴ This factory is located on an 18,000 tsubo site in Hygo Prefecture Shika gun, Shikama machi.³ It was expanded in 1941 at which time its productive capacity was doubled.⁴

The plants of Toyo Bearing, which are engaged in the manufacture of ball and roller bearings, are the following:

Miye Prefecture, Kuwana

According to the Bearing Report, the Kuwana factory is a very modern plant located about twelve miles south-west of Nagoya on the Nagoya-Yokkai-Ichi Railway line.¹ According to the 1940 edition of "Kabushiki Kaisha Nenkan", this plant was capable in 1937 of manufacturing 1,800,000 pieces of ball and roller bearings per year.² The same source states that the following equipment was installed in this plant in 1937: 91 lathes, 171 grinders, and 42 other machines. In 1939 a new factory was being built at Kuwana on a 3,000 tsubo site.⁵ This new plant was to have a productive capacity three times that of the old plant. The machinery installed in the old Kuwana plant was to be moved into this new plant; presumably the old plant was to go out of production.⁵ In 1941, the Kuwana plant was expanded. This expansion involved a "fundamental change in the method of manufacturing bearings."⁶

Hygo Prefecture, Muko gun, Ryogen mura (15,000 tsubo site)⁷

This plant had an annual capacity of 2,100,000 pieces of ball and roller bearings in 1937.⁷ It is probably the factory referred to in the Bearing Report. This report states that "recently, a very modern plant along the Mukogawa River, north west of Osaka" was built.¹

Toyo Bearing Seizo purchased approximately \$500,000 worth of machine tools in the United States between January 1, 1937 and December 7, 1941. The Japanese trading companies: Mitsubishi Shoji Kaisha, Mitsui & Co., Ataka & Co., Okura & Co., and Imperial Export Co. handled these transactions. The files of these companies, except those of Imperial Export, are now in the possession of the Alien Property Custodian and are kept in a warehouse at 27 Cliff Street, New York, N. Y. This report is one of a series of studies resulting from an examination of these files.

This tabulation covers purchases and inquiries made on behalf of Toyo Bearing between January 1, 1937 and December 7, 1941. Orders placed during this period amounted to:

TOYO BEARING SEIZO KAISHA

Mitsui Bussan Kaisha	\$ 98,745.03
Ataka & Co.	285,243.99
Okura & Co.	85,913.53
Imperial Export Co.	191.75
	<u>\$470,094.30</u>

N. Y. #265

In the tables, an asterisk after the price of the machine ordered indicates that the order was cancelled. In all other cases, the machines were shipped to Toyo Bearing Seizo Kaisha in Japan. Which of the plants of Toyo Bearing Seizo Kaisha received this equipment was generally not known. When this information was available, it was recorded in the footnotes.

RECAPITULATION OF ORDERS

GRINDERS

Shipped

13	Van Norman #33A Oscillating Grinders
1	Van Norman #37 Oscillating Grinder
6	Van Norman #41A Oscillating Grinders
4	Van Norman #45R Oscillating Grinders
16	Van Norman #72 Oscillating Grinders
4	Van Norman #120 Internal Automatic Oscillating Grinders
4	Van Norman #3344 Plunge Cut Grinders
7	Heald #72-A-3 Gagematic Internal Grinders
13	Heald #81 Gagematic Internal Grinders
2	Heald #72-A-3 Sizematic Internal Grinders
2	Landis #2 Race-away External Grinders
3	Landis #2 Race-away Internal Grinders
1	Blanchard #316A Automatic Surface Grinder
12	Rivett #104 Internal Grinders
1	Hall Planetary Type C Planetary Grinder
1	Cincinnati Special Universal Type Grinder
2	Cincinnati #2 Centerless Grinders
<u>92</u>	

LAPPING MACHINES

Shipped

1 Cincinnati Centerless Lapping Machine

BORING, DRILLING, and MILLING MACHINES

Cancelled

1	Giddings & Lewis #350T Precision Horizontal Boring, Drilling and Milling Machine
1	Giddings & Lewis #330 T Horizontal Boring Machine.
<u>2</u>	

N. Y. #265

LATHES

Shipped

- 1 American 27" x 20' Engine Lathe

SHAPERS

Cancelled

- 1 Pratt & Whitney Model B, 12" Vertical Shaper

MISCELLANEOUS and EXTRA EQUIPMENT

Shipped

- 1 International General Electric 20 HP motor
1 American Chuck Plate
1 Bausch & Lomb ILSAA Metaloscope
1 Bausch & Lomb GB Camera
9 Brown & Sharpe Squares, Straight Edges, etc.
71 Cleveland High Speed Shank Drills
Cincinnati Spare Shells for Centerless Lapping Machine
1 Shore Model D-1 Scleroscope

Cancelled

- 1 International General Electric 15 HP motor
Brown & Sharpe Calipers, Gages, Squares, etc.

N. Y. #265

ORDERS

Through Mitsui Bussan Kaisha

Order No.	Date	Manufacturer	No.	Product	Price
EO 1277 EO 3780	3/24/39 4/18/39	Van Norman	4	#120 internal automatic oscillating radius grinders	16,392.50
EO 1278 TO 3779	3/24/39 4/18/39	Van Norman	3	#41A oscillating grinder	15,702.37
EO 1276 TO 3777	3/27/39 4/19/39	Hall Planetary	1	Style "C" planetary grinder for manufacturing SKF bearings.	9,575.00
EO 1283 TO 3772	3/30/39 4/12/39	Van Norman	1	#45R oscillating grinder (note 1)	6,010.87
EO 2314 TO 3382	12/13/39 2/13/40	American Tool	1	27" x 20' engine lathe	8,641.12
Add.	12/13/39	Int. General Electric	1	20 HP motor	180.20
Add.#2	3/18/40	American Tool	1	Chuck plate to spindle threaded nose (20 AST)	29.25
EO 1830, Item #2 TO 3644	3/14/40 4/5/40	Giddings & Lewis	1	#350T high power precision horizontal boring, drilling and milling machine	21,060.00* (Note 2)
Add.	5/17/40	Giddings & Lewis		Additional Equipment	5,557.50*
Add.#2	5/17/40	Int. General Electric	1	15 HP motor	147.05*
EO 2237 TO 3461	3/20/40 1/10/40	Giddings & Lewis	1	#330T horizontal boring machine	13,893.75*
Add.	3/21/40			Additional equipment	1,555.12*
					<u>\$98,745.03</u>

N. Y. #265

Through Ataka & Co., Ltd.

Order No.	Date	Manufacturer	No.	Product	Price
5005	1/30/37	Heald	5	#81 gage-matic internal grinding machines	44,809.36
			3	#72-A-3 gage-matic internal grinding machines (note 3)	
5006	1/30/ 37	Rivett	4	#104 internal grinding machines	6,634.89
5007	1/30/37	Van Norman	13	#33A oscillating grinders	125,067.60
			3	#45R oscillating grinders	
			16	#72 oscillating grinders	
			3	#41A oscillating grinders	
			4	#3344 plunge cut grinders	
			1	#37 oscillating grinder (note 4)	
5058	2/27/37	Heald	2	#72-A-3 sizematic internal grinding machine	12,267.59
5133	4/2/37	Bausch & Lomb	1	ILSAA metaloscope	
	9/24/37	Bausch & Lomb	1	GB camera	794.06
5886	12/10/38	Heald	4	#72-A-3 gage-matic internal grinder (Replacement)(note 5)	31,047.93
5887	12/10/38	Heald	7	#81 gage-matic internal grinder (Replacement)(Note 5)	43,098.26
5901	12/14/38	Heald	1	#81 gage-matic internal grinder	5,986.78

N. Y. #265

Order No.	Date	Manufacturer	No. Product	Price
5909	12/15/38	Rivett	4 #104 internal grinders (Re- placement)(Note 5)	7,354.61
5910	12/15/38	Rivett	4 #104 internal grinders	7,083.88
6368	11/9/39	Brown & Sharpe	9 Squares, straight edges, measures, etc.	305.11
6832	3/5/41	Brown & Sharpe	Calipers, gages, squares, etc.	793.92*
				<u>\$285,243.99</u>

Through Okura & Co., Ltd.

Order No.	Date	Manufacturer	No. Product	Price
11876	3/28/39	Landis Tool	2 #2 race-away external grinders (Note 6)	9,148.50
11877	3/28/39	Landis Tool	3 #2 race-away internal grinders (Note 6)	14,204.25
11878	3/28/39	Cincinnati Grinder	1 Metric system, 12, special Universal type grinder (Note 6)	244.55
11879	3/28/39	Cincinnati Grinder	1 #2, metric system, centerless grinder (Note 6)	13,885.33
11880	3/28/39	Cincinnati Grinder	1 #2, metric system, centerless grinder (Note 6)	5,829.85
11882	3/31/39	Cleveland Twist Drill	36 High speed straight shank drills	106.90
			35 High speed taper shank drills	

N. Y. #265

Order No.	Date	Manufacturer	No. Product	Price
12026	9/16/39	Cincinnati Grinder	Spare wheels for use with Cincinnati centerless lapping machine	1,310.00
12040	9/26/39	Cincinnati Grinder	Spare wheels for use with Cincinnati centerless lapping machine	1,230.00
12117	12/1/39	Pratt & Whitney	1 Model B 12" vertical shaper (note 7)	7,850.00*
12214	2/5/40	Cincinnati	1 Centerless lapping machine	10,364.15
12141	2/9/40	Blanchard	1 #16A automatic surface grinder	9,740.00
				<u>\$85,913.53</u>

Through Imperial Export Co.

Order No.	Date	Manufacturer	No. Product	Price
12/263	3/9/37	Shore Instrument	1 Model D-1 scleroscope	191.75

GRAND TOTAL: \$470,094.30

INQUIRIES

Through Mitsubishi Shoji Kaisha

Inquiry No.	Date	Manufacturer	No. Product
NY 2156	6/21/39	Rockford Machine Tool	1 42"x42"x24' planer
NY 2732-3	4/16/40	Various Companies	20,630,000 balls and 1,480,000 rollers for bearings 124,000 pieces balls

N. Y. #265

Through Mitsui Bussan Kaisha
Inquiry

No.	Date	Manufacturer	No. Product
OE 1297	5/7/40	Various Companies	38,440,000 Finished steel balls for ball bearings 250,000 Finished steel balls for ball bearings 5,000 Finished steel balls for ball bearings 920,000 Finished steel rollers for roller bearings 510,000 Finished steel rollers for roller bearings 300,000 Finished steel rollers for roller bearings

MF 3531	10/2/37	Van Norman	12 #72 internal oscillating radius grinders 9 #33A external oscillating radius grinders 3 #41A internal oscillating radius grinders 2 #45R external oscillating radius grinders 2 #37 thrust grinders 4 #3344 special plunge cut grinders for Timken bearings
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Through Ataka & Co., Ltd.
Inquiry

No.	Date	Manufacturer	No. Product
544	7/6/39	Bausch & Lomb	1 Bausch comparison microscope

Through Okura & Co., Ltd.
Inquiry

No.	Date	Manufacturer	No. Product
	2/25/41	Pratt & Whitney	Vertical shapers

Through Imperial Export Co.
Inquiry

No.	Date	Manufacturer	No. Product
15/856	11/2/40	Hanchett	2 #221 grinders with 20" wheel plates and grinding cylinders or discs with adjustable loading chute.

FOOTNOTES TO THE TEXT

1. See Bearing Report, p. 5.
2. Kabushiki Kaisha Nenkan (Corporations Year Book), October, 1940, as quoted by John Williams, Foreign Economic Administration, in notes from which "A Directory of Certain Japanese Industrial Companies" was prepared. (Hereinafter cited as "John Williams' notes").
3. Keizai Joho: Kaisha Hon (Economic News: Corporation Series) May, 1941, p. 60., taken from John Williams' notes.
4. Toyo Keizai Shimpo (TKS), July, 1941, taken from John Williams' notes.
5. Toyo Keizai Shimpo (TKS), May 13, 1939, p. 53, taken from John Williams' notes
6. Toyo Keizai Shimpo (TKS), July, 1941, p.75, taken from John Williams' notes.
7. Teikoku Ginko Kaisha Yoroku (Directory of Banks and Companies of the Empire), November, 1940, taken from John Williams' notes.

FOOTNOTES TO THE TABULATION

1. This machine was shipped to the Kuwana Works at Osaka.
2. An asterisk after the price indicates the order was cancelled.
3. The #81 gage-matics were designed for grinding inner race holes ranging from 10 - 50 mm. The #72-A-3 gage-matics were designed for grinding inner race holes 30 - 100 mm. in diameter. Letter of March 10, 1937 states that the types of bearings to be produced on these machines are radial, ball, double row radial ball, single thrust ball, taper roller, and cylindrical roller.
4. Letter of March 29, 1937 states that Toyo Bearing is going to build a new plant in the vicinity of Osaka.

The machines were to be used for the following types of work:

A. Radial Ball Bearings

Inner race ways on #33A and #45R machines
Outer race ways on #72 and #41A machines

N. Y. #265

- B. Double Row Radial Ball Bearings
Inner race ways on #33A and #45R machines
 - C. Single Thrust Ball Bearings
Both race ways on #37 machine
 - D. Taper Roller Bearings
Inner race ways on #3344 machines
 - E. Cylindrical Roller Bearings
Inner race ways on #3344 machines.
5. The machines on this order were intended as replacements for the equipment lost in the fire at the Kuwana plant during December, 1938. According to documents in Ataka file #5909, the fire destroyed grinders and Heald equipment.
 6. Documents in the file state that the machine on this order was shipped to the factory located in Hygo Kun.
 7. Order placed through Andrews and George.