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INDEX NO S-12

DECLASSIFIED

SHIP AND RELATED TARGETS

GENERAL ARRANGEMENT AND CAPACITY PLANS
OF JAPANESE STANDARD TYPE MERCHANT SHIPS

U.S. NAVAL TECHNICAL MISSION TO JAPAN

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U. S. NAVAL TECHNICAL MISSION TO JAPAN
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From: Chief, Naval Technical Mission to Japan.
To : Chief of Naval Operations.

Subject: Target Report - General Arrangement and Capacity Plans
of Japanese Standard Type Merchant Ships.

Reference: (a) "Intelligence Targets Japan" (DNI) of 4 Sept. 1945.

1. Subject report covering Target S-12 of Fascicle S-1 of reference (a), is submitted herewith.
2. The investigation of the target and the target report were accomplished by Lt. Comdrs. Charles B. Thorn, Jr., USNR, and Kenneth Messenger, USNR, assisted by Ensign H. Morris Cox, USNR, interpreter and translator.


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Captain, USN

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**GENERAL ARRANGEMENT AND CAPACITY PLANS
OF JAPANESE STANDARD TYPE MERCHANT SHIPS**

"INTELLIGENCE TARGETS JAPAN" (DNI) OF 4 SEPT. 1945

FASCICLE S-1, TARGET S-12

FEBRUARY 1946

U.S. NAVAL TECHNICAL MISSION TO JAPAN

SUMMARY

SHIP AND RELATED TARGETS

GENERAL ARRANGEMENT AND CAPACITY PLANS OF JAPANESE STANDARD TYPE
MERCHANT SHIPS

The Wartime Standard Ship (Senji Hyojunsen), ranging from 500 to 10,000 gross tons, constituted the great bulk of Japanese wartime merchant ship production. For each ship-type produced in the 1942 and 1944 shipbuilding programs, as listed below, general arrangement plans, midship section plans, capacity charts, and engineroom plans have been collected and forwarded to the Washington Document Center (see Enclosure B).

<u>1942 Program</u>	<u>1944 Program</u>
A	2A
B	2AT
C	2D
D	E (modified)
E	2E
F (cargo)	2TL
TL	2TM
TM	ET (tanker)
TS	R*
K (ore carrier)	

Between the years 1939 and 1945 the Japanese Army sponsored a construction program for ten special 22 knot transports designed to carry landing craft and aircraft, eight of which were of 10,000 gross tons and two of 5,000 gross tons**. Complete plans have been assembled for the TAKATSU MARU, the KUMANO MARU, and the SETTSU MARU, as representative of this group, and also forwarded to the Washington Document Center (see Enclosure B).

*Refrigerator fish-carriers of 1000 gross tons. Four ships of this type were planned, but only three completed; the fourth is still under construction. Capacity charts for R-type are not available.

**Only one of the 5000 gross ton type was actually constructed.

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REFERENCES

Japanese Personnel Who Assisted in Gathering Documents:

Kaichi YOSHITAKE, Chief of Shipbuilding Section of Zosen Toseikai
(Shipbuilding Control Association).

Japanese Personnel Interviewed:

Toshio ONOGI, Head of Marine Transportation Bureau, of Transportation Ministry.

Lt. Gen. Chobe MONONOBE, Chief of Staff, China Shipping Section, 1937-1940; Chief of Staff, Hiroshima Shipping Section, 1942-1943; Chief of Shipping Section, Philippines, 1944.

Lt. Col. Tetsuo UCHIYAMA, OinC Shipbuilding Section, Maintenance Division, Army Transportation Dept., 1940-1943; Chief of Shipping Technical Section of Maintenance Division, 1944-1945.

LIST OF ENCLOSURES

- (A) Table of Specifications of Wartime Standard Type Japanese Merchant Ships.
- (B) List of Documents and Plans Forwarded to the Washington Document Center.

INTRODUCTION

The object of the investigation was to collect plans for all Japanese standard merchant ship types built during the 1942 and 1944 ship construction programs, or during any other wartime program in which more or less standard designs were utilized.

Plans for all standard types have been procured from the Zosen Toseikai (Shipbuilding Control Association) and from various shipyards through Mr. K. YOSHITAKE, Chief of the Shipbuilding Section.

This report contains no section entitled "Report", since the plans and documents enclosed (Enclosure A) or forwarded to the Washington Document Center (Enclosure B) form the report per se.

Descriptions of the Army-sponsored merchant ships and an outline of the program for the military conversion of merchant ships in general is covered by NavTechJap Report, "Provisions for Military Conversion of Japanese Merchant Ships", Index No. S-82 (N).

ENCLOSURE (A)

PARTICULARS OF STANDARD TYPE SHIPS

Type	Class	Tonnage		Length (m)		Beam (m)	Depth Moulded (m)	Draft Loaded (m)	Speed (kts)		Machinery		Type Fuel	Cargo Capacity (m ³)		Number Built (?)
		Gross	Dead Weight	OA	BP				Normal	Top	Type	Normal HP		Bale	Grain	
1 A	Cargo	6400	9300	135.90	128.00	17.80	9.80	8.15	10.5	13.0	Recip- rocal	3500	Coal	11519	12654	9
1 B	Cargo	4500	6800	118.33	112.00	15.80	9.10	7.37	11.5	14.0	Turbine	2400	Coal	9197		15
1 C	Cargo	2700	4300	97.97	93.00	13.70	7.60	6.35	11.0	14.0	Recip- rocal	1800	Coal	5281		33
1 D	Cargo	1900	2800	87.06	82.30	12.20	6.20	5.33	10.0	12.5	Recip- rocal	1100	Coal	3437		22
1 E	Cargo	830	1265	65.00	60.00	9.50	5.00	4.49	11.0	12.0	Diesel	750	Oil	1504		14
1 F	Cargo	530	700	53.34	50.00	8.40	4.20	3.88	10.0	12.0	Diesel	550	Oil	955		21
1 K	Ore Carrier	5300	7900	126.82	120.00	16.50	9.50	7.50	10.0	12.0	Recip- rocal	2100	Coal		8575	21
1 TL	Oil Tanker	10000	15200	160.50	153.00	20.00	11.50	9.10	15.0	18.5	Turbine	9500	Oil		17100	18
1 TM	Oil Tanker	5200	7000	126.81	120.00	16.30	9.00	7.34	11.5	15.0	Turbine	3600	Oil		8667	26
1 TS	Oil Tanker	1020	1250	65.07	60.00	9.80	5.00	4.70	10.0	12.0	Recip- rocal	950	Oil		1375	5
2 A	Cargo	6600	10200	136.75	128.00	18.20	11.10	7.80	9.5	13.0	Turbine	2000	Coal	12838	13413	121
2 D	Cargo	2300	3850	91.70	85.00	13.40	7.20	5.85	9.0	11.0	Recip- rocal	1000	Coal	4085		80
2 E	Cargo	877	1567	64.30	60.00	9.50	5.45	4.50	7.0	9.0	Diesel Hotbulb	430 380	Oil	1708	1809	386
		871	1517								Recip- rocal	400	Coal	1515	1612	
2 TL	Oil Tanker	10100	16000	157.43	148.00	20.40	12.00	9.00	13.0	15.0	Turbine	4500	Oil		17970	27
2 TM	Oil Tanker	2820	4300	99.00	93.00	13.80	7.30	6.04	9.5	11.5	Turbine	1100	Oil		5484	34
2 TE	Oil Tanker	833	1608	64.30	60.00	9.50	5.45	4.50	7.0	9.0	Diesel Hotbulb	430 380	Oil		1844	145
3 A	Cargo	7200	11230	136.85	128.00	18.20	11.10	8.26	12.0	15.5	Turbine	4500	Coal	11441	12205	0
3 B	Cargo	4900	6970	122.85	115.00	16.50	9.50	7.30	14.0	17.5	Turbine	4500	Coal	7440	8184	0
3 D	Cargo	3000	4700	104.25	98.00	14.30	7.50	6.10	12.0	14.5	Turbine	2000	Coal	4825	5110	1
3 E	Cargo	880	1565	64.30	60.00	9.50	5.45	4.62	8.0	10.0	Diesel	550	Oil	1702	1804	25
		874	1540						7.5		Recip- rocal	500	Coal	1526	1594	
3 TL	Oil Tanker	10200	15467	157.30	150.00	20.00	12.00	9.00	16.0	19.0	Turbine	9000	Oil		16785	1
3 TE	Oil Tanker	833	1608	64.30	60.00	9.50	5.45	4.62	9.5	11.0	Diesel	500	Oil		1844	1

Note: 100 cu. ft. cargo space = 1 gross ton. Metric Ton = 2204 lbs. Metric hp = .98634 English hp or 75 kg m/sec.

ENCLOSURE (B)

LIST OF DOCUMENTS AND PLANS FORWARDED THROUGH ATIS TO
WASHINGTON DOCUMENT CENTER

<u>NavTechJap No.</u>	<u>ATIS No.</u>	<u>Ship Type</u>	<u>Descriptive Title</u>
ND50-1501.1 1501.2 1501.3 1501.4-.7	4499	A Cargo A and A Tank A	General Arrangement Plans Midship Section Plan Capacity Plan Engineroom Arrangement Plans
1502.1 1502.2 1502.3 1502.4	4500	B Cargo B and B Tank B	General Arrangement Plans Capacity Plan Midship Section Plan Engineroom Arrangement Plans
1503.1 1503.2 1503.3 1503.4	4501	C Cargo C and C Tank C	General Arrangement Plans Midship Section Plans Capacity Plan Engineroom Arrangement Plans
1504.1 1504.2 1504.3 1504.4-.5	4502	D Cargo D and D Tank D	General Arrangement Plans Midship Section Plans Capacity Plan Engineroom Arrangement Plans
1505.1 1505.2 1505.3 1505.4-.5	4503	E Cargo E and E Tank E	General Arrangement Plans Midship Section Plans Capacity Plan Engineroom Arrangement Plans
1506.1 1506.2 1506.3 1506.4	4504	F Cargo F and F Tank F	General Arrangement Plans Midship Section Plans Capacity Plan Engineroom Arrangement Plans
1507.1 1507.2 1507.3 1507.4	4505	K Cargo K and K Tank K	General Arrangement Plans Midship Section Plans Capacity Plan Engineroom Arrangement Plans
1508.1 1508.2 1508.3 1508.4	4506	TL Cargo TL and TL Tank TL	General Arrangement and Capacity Plans Central Tank Section Plans Capacity Plan Engineroom Plans
1509.1 1509.2 1509.3 1509.4-.5	4507	TM Cargo TM and TM Tank TM	General Arrangement Plans Central and Fore and Aft Section Plans Capacity Plan Engineroom Plans
1510.1 1510.2 1510.3 1510.4-.6	4508	TS Cargo TS and TS Tank TS	General Arrangement Plans Midship Section Plans Capacity Plan Engineroom Plans

ENCLOSURE (B), continued

<u>NavTechJap No.</u>	<u>ATIS No.</u>	<u>Ship Type</u>	<u>Descriptive Title</u>	
ND50-1511.1	4509	2A Cargo	General Arrangement Plans	
1511.2		2A Cargo	Midship Section Plans	
1511.3		2A Cargo	Hull Capacity Plans	
1511.4-.5		2A Cargo	Engineroom Plans	
1511.6		2A Tanker	General Arrangement Plans	
1511.7		2A Tanker	Midship Section Plans	
1511.8		2A Tanker	Hull Capacity Plans	
1511.9-.12		2A Tanker	Engineroom Plans	
1512.1		4510	2D	General Arrangement Plans
1512.2			2D	Midship Section Plans
1512.3	2D		Hull Capacity Plans	
1512.4	2D		Engineroom Plans	
1513.1	4511	2E Cargo	General Arrangement Plans	
1513.2		2E Cargo	Midship Section Plans	
1513.3		2E Cargo	Hull Capacity Plans	
1513.4		2E Cargo	Capacity and Tonnage Tables	
1513.5		2E	Engineroom Plans	
1513.6		2E Tanker	General Arrangement Plans	
1513.7		2E Tanker	Midship Section Plans	
1513.8		2E Tanker	Hull Capacity Plans	
1513.9-.11		2E Tanker	Engineroom Plans	
1514.1-.4	4512	2TL	General Arrangement Plans	
1514.5		2TL	Midship Section Plan	
1514.6		2TL	Hull Capacity Plan	
1514.7-.9		2TL	Engineroom Plans	
1515.1	4513	2TM	General Arrangement Plans	
1515.2		2TM	Midship Section Plans	
1515.3		2TM	Hull Capacity Plans	
1515.4		2TM	Engineroom Plans	
1516.1	4514	R	General Arrangement Plans	
1516.2		R	Midship Section Plans	
1516.3		R	Engineroom Plans	
1517.1	4515	TAKATSU MARU	Midship Section Plans	
1517.2		TAKATSU MARU	Hull Capacity Plans	
1517.3-.4		TAKATSU MARU	Engineroom Plans	
1517.5-.6		TAKATSU MARU	Boiler Room Plans	
1518	4516		Tables of Specifications on Standard Types of Japanese Merchant Ships	
1393.1	4173	KUMANO MARU	Complete Set of Prints	
1393.2		SETTSU MARU	Complete Set of Prints	
1393.3		HYUGA MARU	Complete Set of Prints	