

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

30 AUG 1951

Date of writing Report 5-7-1951 When handed in at Local Office 19 Port of KOBE

No. in Survey held at Hiroshima Date, First Survey 12-6-51 Last Survey 3-7-1951  
Reg. Book. (No. of Visits)

on the S.S. "IKUSHIMA MARU"

Tons { Gross 2244.85  
Net 1224.17

Built at Nagasaki By whom built Nagasaki Ship Yard Yard No. 1408 When built 1949

Owners Hamane Steam Ship Co. Port belonging to KOBE

Installation fitted by Nagasaki Ship Yard &amp; Engine Works When fitted 1949

Is vessel equipped for carrying Petroleum in bulk No Is vessel equipped with D.F. Yes E.S.D. Yes Gy. C. No Sub. Sig. No Radar No

Plans, have they been submitted and approved Yes System of Distribution Two wire D.C. Voltage of Lighting 105

Heating 105 Power 105 D.C. or A.C., Lighting D.C. Power D.C. If A.C. state frequency

Prime Movers, has the governing been found as per Rule when full load is thrown on and off Yes Are turbine emergency governors fitted with a trip switch No Generators, are they compound wound Yes, and level compounded under working conditions Yes

if not compound wound state distance between generators and from switchboard Are the generators arranged to run in parallel No, are shunt field regulators provided Yes Is the compound winding connected to the negative or positive pole under

Nagatove Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing 100 KW. Have certificates of test for machines under 100 kw. been supplied Yes and the results found as per Rule Yes

Position of Generators Engine Room Starbd Side

is the ventilation in way of generators satisfactory Yes are they clear of inflammable material and protected from mechanical injury and damage from water, steam and oil Yes Switchboards, where are main switchboards placed Engine Room

are they in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water, m and oil Yes, what insulation is used for the panels "Bakelite" Synthetic Material, if of synthetic insulating

Is it an Approved Type Yes, if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule Yes Is the construction as per Rule, including locking of screws and nuts Yes Description of Main Switchgear

for each generator and arrangement of equaliser switches No Equaliser switch

and the switch and fuse gear (or circuit breakers) for each outgoing circuit Wireless telegraph charging board, Navigation lamp, living quarter lamp, boiler and engine room light, cargo lamp, cabin fan, shore connection, steering M. turning motor 1000. oil purifier M. combined evaporator feed &amp; Brine P.M. (G.D. P.D. 2000)

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard 2

ammeters 2 voltmeters synchronising devices. For compound machines in parallel are the ammeters and reversed current protection devices connected on the pole opposite to the equaliser connection Earth Testing, state means provided

one switch provided for each

Switches, Circuit Breakers and Fuses, are they as per Rule yes, are the fuses an Approved Type yes

make of fuses Enclosed type, are all fuses labelled yes If circuit breakers are provided for the generators, at what overload do they operate 120% and at what current do the reversed current protective devices operate

Joint Boxes, Section Boards and Distribution Boards, is the construction as per Rule Yes

Cables, are they insulated and protected as per Rule Yes, if otherwise than as per Rule are they of an Approved Type Yes

state maximum fall of pressure between bus bars and any point under maximum load 5% are the ends of all cables having a sectional area of 0.01 square inch and above provided with soldering sockets yes Are all paper insulated and varnished cambric insulated

cables sealed at the ends yes Are all the cable runs in accessible positions, not exposed to drip or accumulation of water or oil,

high temperatures or risk of mechanical damage yes, are any cables laid under machines or floorplates yes, if so, are th

adequately protected yes Are cables in machinery spaces, galleys, laundries, etc., lead covered yes or run in conduit

or of the "HR" type State how the cables are supported or protected

All cables are to be securely fixed in position as per Rule.

Are all lead sheaths, armouring and conduits effectually bonded and earthed yes Are all cables passing through de

bulkheads provided with deck tubes or watertight glands yes, where unarmoured cables pass through beams

effectively bushed yes Refrigerated chambers, are the cables and fittings as per Rule yes



Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule ---. Emergency Supply, state position on boat deck

Navigation Lamps, are they separately wired yes controlled by separate double pole switches and fuses yes. Are the switches and fuses in a position accessible only to the officers on watch yes, is an automatic indicator fitted yes. Is an alternative supply provided yes.

Secondary Batteries, are they constructed and fitted as per Rule yes, are they adequately ventilated yes. state battery capacity in ampere hours 120 A.H.

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof yes. Are any fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present no. if so, how are they protected.

and where are the controlling switches fitted. Are all fittings suitably ventilated.

Searchlight Lamps, No. of --, whether fixed or portable ---, are they of the carbon arc or of the filament type.

Heating and Cooking, is the general construction as per Rule yes, are the frames effectually earthed yes, are heaters in the accommodation of the convection type yes. Motors, are all motors constructed and installed as per Rule and placed in well-ventilated compartments in which inflammable gases cannot accumulate and protected from damage from water, steam and oil yes.

Are motors coupled to oil fuel transfer and pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compartment yes. Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing yes.

Have certificates of test for motors under 100 BHP intended for essential sea services been supplied and the results found as per Rule yes.

Control Gear and Resistances, and they constructed and fitted as per Rule yes. Lightning Conductors, where required are they fitted as per Rule yes. Ships carrying Oil having a Flash Point less than 150° F. Have all the special requirements of the Rules for such ships been complied with ---, are all fuses of an Approved Cartridge Type ---, make of fuse ---. Are the fittings for pump

rooms, tween deck spaces, etc., in accordance with the special requirements for such ships ---. Are the cables lead covered as per Rule ---.

E. S. D., if fitted state maker Nihon Penki location of transmitter Double bottom and receiver wheel house

Spare Gear, if the vessel is for open sea service have spares been provided as per Rule and suitably stored in dry situations yes.

Insulation Tests, has the insulation resistance of all circuits and apparatus been tested and found satisfactory yes.

#### PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	MAKER.	RATED AT				PRIME MOVER.	
			Kilowatts per Generator.	Volts.	Amperes.	Revs. per Min.	TYPE.	MAKER.
MAIN Generator	1	Kobe Seiko Sho	15	110	136	550	Reciprocal	Tanaka
	1	Mitsubishi Elec. Co.	"	"	"	"	"	"
EMERGENCY ROTARY TRANSFORMER								

#### GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
		No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or Sq. mm.				
MAIN GENERATOR	15	1	37/185 LA	136	17	III	Armouring
" " EQUALISER	"	1	"	"	"	"	"
EMERGENCY GENERATOR							
ROTARY TRANSFORMER: MOTOR							
" " GENERATOR							

#### MAIN DISTRIBUTION CABLES (to Section Boards, Distribution Fuse Boards, etc.).

DESCRIPTION.						
To D.F.B. for wireless telegraph	1	23.54 mm <sup>2</sup>	100	100	Armouring	
To No. 4 submain board	1	15.08	58	100	"	37/09
D.F.B. for navigation & boat deck lamp	1	"	"	90	"	
" " Bridge deck & upper Dk. lamp	1	23.54	100	70	"	
" Cabin fan	1	6.032	32	70	"	
" Cargo lamp	1	23.54	100	80	"	
" engine & boiler room lamp	1	6.032	32	30	"	

#### LIGHTING, HEATING, WIRELESS, NAVIGATION LIGHTS, ETC., CABLES.

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
From No. S1 submain B. to No. 1 distributor B.	1	3.519	✓	22	25		Armouring
" " " Submain B. to Indicator	1	"	✓	"	"		"
" " " " to No. 2 Distributor B	1	"	✓	"	20		"
" No. S2 " " to No. 3 "	1	9.551	✓	42	30		"
" No. " " " No. 4 "	1	3.519	✓	22	30		"
" " " " " No. 5 "	1	"	✓	"	20		"
" " " " " No. 6 "	1	"	✓	"	180		"
" No. S3 " " No. 7 "	1	"	✓	"	30		"
" " " " " No. 8 "	1	"	✓	"	25		"
" No. S4 " " No. 9 "	1	9.551	✓	42	170		"
" No. " " " No. 10 "	1	"	✓	"	160		"
" " " " " to Charging B. in W/T room	1	3.519	✓	22	25		"

#### MOTOR CABLES.

IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
			No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or Sq. mm.	In the Circuit.	Rule.			
motor	1	5	1	15.08	✓	47	2 <sup>h</sup>	150	Armouring
ring motor	1	3	1	9.551	✓	28	1 <sup>h</sup>	25	"
V.P. oil purifier motor	1	2	1	3.519	✓	(205)		25	"
Combined evaporator feed and brine pump motor	1	1	1	"	✓	9.5		30	"



The Electrical Equipment is installed in accordance with the approved plans and the requirements of the Rules.

All Insulated Conductors are guaranteed to have been tested at the maker's works as specified in the Rules.

The foregoing is a correct description.

Electrical Contractors. Date

COMPASSES.

Have the compasses been adjusted under working conditions

Builder's Signature. Date

Have the foregoing descriptions and schedules been verified and found correct Yes

Is this installation a duplicate of a previous case No If so, state name of vessel

Plans. Are approved plans forwarded herewith No If not, state date of approval

Certificates. Are certificates of test for motors engaged on essential sea services and generators forwarded herewith

General Remarks. (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.)

See Rpt No 382 (Rpt 9) attached.

write on or below the space for Committee's Minute.

Total Capacity of Generators 30 Kilowatts.

The amount of Fee ... £ : : When applied for, 19  
Selling Expenses (if any) £ : : When received, 19

Surveyor to Lloyd's Register of Shipping.

FRI. 19 OCT 1951

Committee's Minute

See F.E. Muelly rpt



© 2021

Lloyd's Register Foundation