

923

16 NOV 1953

No. 1693

Rpt. 13.

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 19... When handed in at Local Office 19... Port of Kobe, Japan

No. in Survey held at Kobe Date, First Survey 15th June, 1953 Last Survey 28th Aug, 1953

Reg. Book. (No. of Visits 24) Gross 12982.28 Net 9558.53

on the Single Screw Steel S.S. "Meitai-Maru" Tons 12982.28 Net 9558.53

Built at Kobe, Japan By whom built Kawasaki Dockyard Co., Ltd. Yard No. 923 When built Aug. 1953

Owners Meiji Kaiun Co., Ltd. Port belonging to Kobe, Japan

Installation fitted by Kawasaki Dockyard Co., Ltd. When fitted Aug. 1953

Is vessel equipped for carrying Petroleum in bulk Yes Is vessel equipped with D.F. Yes E.S.D. Yes Gy.C. Yes Sub.Sig. None Radar Yes

Plans, have they been submitted and approved Yes System of Distribution 2-wire D.C. 3-wire A.C. Voltage of Lighting 110 V.

Heating 220 V. Power 220 V. D.C. or A.C., Lighting A.C. Power D.C. If A.C. state frequency 60 cycles

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 Yes 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 Yes, are shunt field regulators provided Yes Is the compound winding connected to the negative or positive pole Negative pole

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

Position of Generators Frame No. 36 - 43 Portside manoeuvring flat in engine room

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 Frame No. 44 Forward

center of manoeuvring flat in engine room

are they in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water, steam and oil Yes, what insulation is used for the panels Phenol Resin (Synthetic Resin) Bonded board

material is it an Approved Type Yes, if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule --- 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. a triple pole linked air circuit breaker (two poles for main, one pole for equalizer) with overload and reverse current trips arranged with equalizer circuit being closed

before main circuits and opened after main circuits, and a triple pole linked switch.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit. generally double pole linked switch with a fuse on each pole is used for each out-going circuit, and double pole air circuit breakers with overload trips for steering gear and for circuits above 200A, and triple pole linked switch for each lighting circuit.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule. Yes Instruments on main switchboard 14

ammeters 6 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. Yes Earth Testing, state means provided 5

(2 for D.C., 3 for A.C.) earth lamps with metal filament

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

make of fuses fuse Kawasaki "SK" Cartridge fuse, are all fuses labelled. Yes If circuit breakers are provided for the generators, at what overload do they operate 150% and at what current do the reversed current protective devices operate. for main 76A for aux. 65A

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. ---

state maximum fall of pressure between bus bars and any point under maximum load. No: substantial mechanical clamp Are all paper insulated and varnished cambric insulated

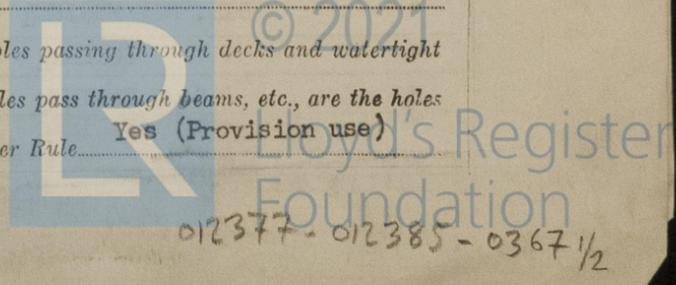
area of 0.01 square inch and above provided with soldering sockets. Yes Are all the cable runs in accessible positions, not exposed to drip or accumulation of water or oil, high temperatures or risk of mechanical damage. Yes, are any cables laid under machines or floorplates. Yes, if so, are they adequately protected. Yes Are cables in machinery spaces, galleys, laundries, etc., lead covered. Yes or run in conduit. Yes (Partly)

or of the "HR" type. --- State how the cables are supported or protected. generally supported by iron hangers and fixed to them by metal clips and protected by lead-alloy sheath and steel-wire armour. Where exposed

to risk of mechanical damage, protected by sheet iron plating, and under floor plates in engine room in conduits.

Are all lead sheaths, armouring and conduits effectually bonded and earthed. Yes Are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands. Yes, where unarmoured cables pass through beams, etc., are the holes effectively bushed. Yes Refrigerated chambers, are the cables and fittings as per Rule. Yes (Provision use)

effectively bushed. Yes



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Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule **Yes** Emergency Supply, state position **Frame No. 44 starboard manoeuvring flat in engine room.**

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 **2 x 24V x 200 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 **Yes** if so, how are they protected **Flame - proof type** and where are the controlling switches fitted **Passage on after upper deck. Passage under fore-castle deck** Are all fittings suitably ventilated **Yes**

Searchlight Lamps, No. of **1 (Suez)**, whether fixed or portable **Portable**, are they of the carbon arc or of the filament type **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, are 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 **Yes**, are all fuses of an Approved Cartridge Type **Yes**, make of fuse **Kawasaki "SK" cartridge fuse** Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships **Yes** Are the cables lead covered as per Rule **Yes**

E.S.D., if fitted state maker **Nippon Electric Co., Ltd.** location of transmitter **Bottom Fr.No. 196-197** and receiver **Bottom Fr.No. 196-197**

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.	Ampères.	Revs. per Min.	TYPE.	MAKER.
MAIN ...	2	Kawasaki Dockyard Co., Ltd.	350	230	1520	1200	Turbine	Mitsubishi Heavy-Industries, Reorganized, Ltd.
EMERGENCY ...	1	"	100	230	435	450	Diesel	Daihatsu Kogyo Co., Ltd.
ROTARY TRANSFORMER	2	"	A.C. 30 K.V.A. 40	115	200	1800	Motor-Generator	Kawasaki Dockyard Co., Ltd.

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet) meters	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.	In the Circuit.			
MAIN GENERATOR No.1	350	3	1.0	1520	1785	23	R	LEAD-ALLOY SHEATHED STEEL WIRE ARMoured
" " EQUALISER		2	0.75		922	"	"	"
" " FIELD		1	0.007		24	11.5	"	"
MAIN GENERATOR No.2	350	3	1.0	1520	1785	33	"	"
" " EQUALISER		2	0.75		922	"	"	"
" " FIELD		1	0.007		24	16.5	"	"
EMERGENCY GENERATOR	100	1	0.75	435	461	30	"	"
ROTARY TRANSFORMER: MOTOR	50HP	1	0.3	186	240	20	"	"
" " GENERATOR	A.C. 30 40KVA	1	0.25	200	254	20	V	"

Similar circuits are omitted

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

DESCRIPTION.								
FROM M.S.B. TO No.1 M.G. MOTOR (M-MG-1)	1	0.3	186	240	20	R	LEAD-ALLOY SHEATHED STEEL WIRE ARMoured	
" No.2 " (M-MG-2)	1	"	"	"	"	"	"	
" No.1 MG. GENERATOR (G-MG-1)	1	0.25	200	254	"	V	"	
" No.2 " (M-MG-3)	1	"	"	"	"	"	"	
" SHORE CONNECTION BOX (SC-1)	1	0.3	200	240	60	R	"	
" " (SC-3)	1	0.25	200	254	"	V	"	
" TESTING S.B. (T-1)	1	0.0145		40	40	R	"	
" " A.C. 10 (T-3)	1	"		40	40	"	"	
" DIS. BOX ENGINEER (PD-1)	1	0.1	42.5	118	20	R	"	
" " BOILER (PD-3)	1	0.01	25	45	70	V	"	
" " ENGINEER (PD-5)	1	"	40	45	50	"	"	
" " ENGINEER (PD-7)	1	0.2	126	184	40	R	"	
FROM M.S.B. TO DIS. BOX BOILER (PD-9)	1	0.007	22	30	70	V	"	
" " ENGINEER (PD-11)	1	0.04	54	67	24	R	"	
" " BOILER (PD-13)	1	0.0145	54	60	70	V	"	
" " REF. MACHINER (PD-15)	1	0.1	80	118	130	R	"	
" " PANTRY (PD-17)	1	0.0045	9	15	40	R	"	
" " FORE BRIDGE (PD-19)	1	0.0145	60	60	200	V	"	



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.

Takeo Morimoto Electrical Contractors. Date  
Standing Director of Kawasaki Dockyard, Kobe, Japan.

COMPASSES.

Have the compasses been adjusted under working conditions... YES

Takeo Morimoto Builder's Signature. Date  
Standing Director of Kawasaki Dockyard, Kobe, Japan.

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... 6th June, 1953

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

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

The Electrical Installation of this vessel has been constructed under Special Survey in accordance with the Rules, Approved Plans, and Secretary's letters.

The Materials and Workmanships were found sound and good.

The Generators and Motors etc., have been examined under full load working condition to rule's requirements and found satisfactory.

noted 28  
30/11/53

Total Capacity of Generators... 800 ✓ Kilowatts.

The amount of Fee ... £ 284.000 When applied for, 10

Travelling Expenses (if any) £ : : When received, 10

FRIDAY - 4 DEC 1953

Committee's Minute

Assigned

See minute on  
hull fe. etc.

S. G. Johnson K. Sakuchi  
Surveyor to Lloyd's Register of Shipping.

#  
27  
(8.11.53)

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(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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