

Rpt. 13.

No. 3564-D

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 1st Feb. 1961 When handed in at Local Office 19 Port of YOKOHAMA
 No. in Survey held at Hakodate, Japan Date, First Survey 2-11-1960 Last Survey 25-1-1961
 Reg. Book. 92906 on the M.V. "GUNUNG GUNTUR" (No. of Visits 12) Tons 4208.51
2801.32
 Built at Hakodate By whom built Hakodate Dock Co., Ltd. Yard No. When built 10-1960
 Owners The Government of the Republic of Indonesia Port belonging to Djakarta
 Installation fitted by Hakodate Dock Co., Ltd. When fitted 1 - 1961

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

Plans, have they been submitted and approved Yes System of Distribution AC 440V 3 phase, 3 wire Voltage of Lighting

Heating Power D.C. or A.C., Lighting 110V Power 440V 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 Generators, are they compound wound , and level compounded under working conditions

Are the generators arranged to run in parallel Yes Is the compound winding connected to the negative or positive pole

Have machines 100 kw. and over been inspected by the Surveyors during manufacture and testing Have certificates of test for machines under 100 kw. been supplied and the results found as per Rule Yes Position of Generators Lower flat in Engine room, 2 port side, 1 starboard 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 Lower flat fwd. in Engine Room, (thwartships)

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 Synthetic Resin Bonded Board, if of synthetic insulating 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 Triple pole linked air-circuit-breaker with over current trips in three phases and reverse power relay.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit Triple pole linked thermal type breaker with over current trips in three phase.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard 11 ammeters 4 voltmeters 1 synchronising devices. For compound machines in parallel are the ammeters and reverse current protection devices connected on the pole opposite to the equaliser connection Earth Testing, state means provided 3 lamps System Preference Tripping, state if provided Triple pole linked air circuit breaker Yes and tested

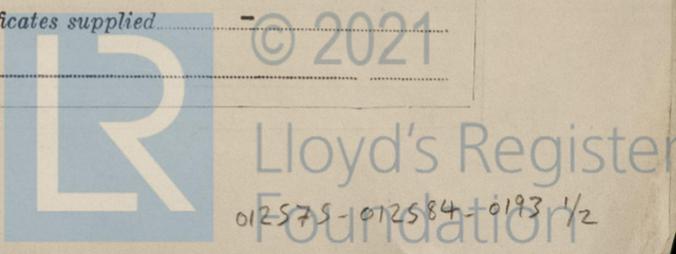
Switches, Circuit Breakers and Fuses, are they as per Rule Yes, are the fuses an Approved Type Yes make of fuses "Utsunomiya"(Cellolite), are all fuses labelled Yes If circuit breakers are provided for the generators, at what overload do they operate 115% of rated current, and at what current do the reverse current protective-devices operate 15% of rated KW of generator 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 8 volts. 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 they adequately protected Yes State type of cables (if in conduit this should also be stated) in machinery spaces VC LC & SW Braided, galleys VRILC & SW Braided and laundries VRILC & SW State how the cables are supported or protected they are secured by metal clips on the metal hangers, where exposed to risk of mechanical damage, cables are protected by sheet iron plate.

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

Have refrigeration fan motors been constructed under survey No and test certificates supplied Are the motors accessible for maintenance at all times Yes



Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule Yes Emergency Supply, state position Bridge deck, ps aft.

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, fitted and adequately ventilated as per Rule Yes, state battery capacity in ampere hours 2 sets of 200 A/H Where required to do so does it comply with 1948 International Convention. Yes

Lighting, is fluorescent lighting fitted. Yes If so, state nominal lamp voltage. 100V and compartments where lamps are fitted. Machinery space & Accommodation

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof. Yes

Searchlights, No. of 1, 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

Lightning Conductors, where required are they fitted as per Rule. Yes

Ships carrying Oil having a Flash Point of 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. Nippon Electric Co., Ltd. Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships. Yes Are all cables lead covered as per Rule. Yes

E.S.D., if fitted state maker Nippon Electric Co., Ltd. location of transmitter and receiver. Bottom (between Fr. No.108 & 109)

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				TYPE	PRIME MOVER.
			Kw. per Generator	Volts.	Ampères.	Revs. per Min.		
MAIN	3	Fuji Denki Seizo K.K.	140	450	225	720	Yokohama M.A.N. Diesel Engine	Mitsubishi Nippon Heavy Ind. Ltd
EMERGENCY ROTARY TRANSFORMER	-							

GENERATOR CABLES.

DESCRIPTION.	No. of	Kw.	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.			
MAIN GENERATOR	3	140	2	0.15 sq.in	224.5	332	180	VC	LC & SW Braided
EQUALISER									
EMERGENCY GENERATOR									
ROTARY TRANSFORMER MOTOR GENERATOR									

MAIN DISTRIBUTION CABLES (to Auxiliary Switchboards, etc.).

DESCRIPTION.	No. of	Kw.	CONDUCTORS.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
			No. in Parallel per Pole.	In the Circuit.			
Wireless Switchboard	1		0.007 sq.in	4.6	19	270	VC LC & SW Braided

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

DESCRIPTION.	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
			In the Circuit.	Rule.			
Nautical equipment distribution board	1	0.01 sq.in	10.9	29	270	VC	LC & SW Braided
No.1 Winch distribution board	1	0.1 "	83.2	128	480	"	"
No.2 " " "	1	0.15 "	113.5	166	320	"	"
P-1 Power distribution board	1	0.01 "	24.2	29	40	"	"
P-2 " " "	1	0.007 "	9.4	19	220	"	"
P-3 " " "	1	0.01 "	24.2	29	250	"	"
P-4 " " "	1	0.01 "	17.6	29	180	"	"
P-5 " " "	1	0.01 "	23.1	29	160	"	"
P-6 " " "	1	0.0225 "	40.8	51	220	"	"
Navigation light indicator	1	0.007 "	1.82	19	270	VR	"
L-1 Lighting distribution board	1	0.007 "	13.9	19	270	VC	"
L-2 " " "	1	0.007 "	13.5	19	260	"	"
L-3 " " "	1	0.007 "	15.2	19	240	"	"
L-4 " " "	1	0.01 "	19.7	29	220	"	"
L-5 " " "	1	0.01 "	22.4	29	200	"	"
L-6 " " "	1	0.01 "	18.4	29	60	"	"
L-7 " " "	1	0.01 "	18.9	29	60	"	"
S-1 " section board	1	0.0225 "	39.3	51	320	"	"
L-9 " distribution board	1	0.01 "	24.1	29	320	"	"
F-1 Electric fan distribution board	1	0.0225 "	30	51	220	"	"
C-1 Communication distribution board	1	0.007 "	12	19	270	VR	"
D-1 Domestic power " "	1	0.0225 "	36.1	51	220	"	"

MOTOR CABLES.

ALL 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.	In the Circuit.			
Anchor Windlass Motor	1	48	1 0.1 sq.in	102	128	750	VC LC & SW Braided
Steering gear motor	2	5	1 0.01 "	6.2	16	320	VR "
Cooling F.W.P. motor	1	13.5	1 0.01 "	16	29	50	VC "
Cooling S.W.P. motor	1	20	1 0.0145 "	24	38	60	" "
Aux. cooling W.P. motor	1	20	1 0.0145 "	24	38	80	" "
Lub. oil P. motor	2	47	2 0.04 "	60.5	70	300	" "
Bilge & Ballast P. motor	1	23	1 0.0145 "	27.5	38	70	" "
Fire & G.S.P. motor	1	23	1 0.0145 "	27.5	38	50	" "
Eng. room vent. fan motor	2	4.3	1 0.0045 "	6.2	11	260	VR "
Bilge P. motor	1	4	1 0.0045 "	5.3	11	100	" "
Cooling W.P. motor for generator engine	1	4	1 0.0045 "	5.1	11	140	" "
F.O. supply P. motor for main engine	2	1	1 0.0045 "	1.4	11	60	" "
Boiler w. circ. p. motor	2	2	1 0.0045 "	2.7	11	90	" "
Feed w.p. motor	2	2	1 0.0045 "	2.8	11	60	" "
Boiler oil burning p. motor	2	0.3	1 0.0045 "	0.46	11	90	" "
Forced draft fan motor	1	1	1 0.0045 "	1.5	11	50	" "

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15.5.6

NOTE.—Use Rpt. 13 Continuation Sheet if the above space is insufficient.

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.

The Electrical Contractors. K. Kawahigashi Date 30th March 1961
The Hakodate Dock Co., Ltd., Technical Manager

COMPASSES.

Have the compasses been adjusted under working conditions. Yes

K. Kawahigashi Builder's Signature. Date 30th March 1961
The Hakodate Dock Co., Ltd., Technical Manager

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. 9, 19, 20 September 1960 (Kob)

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

General Remarks. (State quality of workmanship and materials, opinions as to class, etc.)

The electrical equipment of this vessel has been installed under special survey in accordance with the Society's Rules, approved plans & Secretary's letters.

The materials & workmanship are satisfactory.

On completion the installation was operated under full load working conditions with satisfactory results & the insulation resistance of all circuits & apparatus measured and found satisfactory.

The equipment is, in my opinion, suitable for a Classed vessel.

Total Capacity of Generators 420 Kilowatts.

Construction ¥47,250.-

The amount of Fee ... £ : QWR When applied for, 28-12-60 19

Installation ¥157,500.- 28-3-61

Travelling Expenses (if any) £ NIL : : When received, 19

J. Winn Surveyor to Lloyd's Register of Shipping.

For self & I. Ikehata

FRIDAY 16 JUN 1960

Committee's Minute.....

Assigned.....

5m.6.66 - Transfer. (MADE AND PRINTED IN ENGLAND)
(The Surveyors are requested not to write on or below the space for Committee Minutes.)

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