

REPORT ON ELECTRICAL EQUIPMENT

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 7 July 1961 When handed in at Local Office 19 Port of YOKOHAMA

No. in Survey held at Hakodate, Japan Date, First Survey 24-2-1961 Last Survey 18-5-1961
Reg. Book (No. of Visits 10)

94838 on the M.V. "GUNUNG TAMBORA" Tons 4213.61
Gross 2440.80
Net

Built at Hakodate By whom built Hakodate Dock Co., Ltd. Yard No. S 264 When built 2-1961

Owners The Government of the Republic of Indonesia Port belonging to Djakarta

Installation fitted by Hakodate Dock Co., Ltd. When fitted 5-1961

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
AC 110V 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, and tested Yes

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 VRI LC & SW Braided

and laundries VRI LC & SW Braided 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 and 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. -. 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. -

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. -, 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 all cables lead covered as per Rule. -

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				PRIME MOVER	
			Kw. per Generator	Volts	Ampères	Revs. per Min.	TYPE	MAKER
MAIN	3	Fuji Denki Seizo K.K.	140	450	225	720	Yokohama M.A.N. Type 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.	224.7	332	180	VC	LC & SW Braided
" " EQUALISER				x 2					
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	Rule		
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	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			
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	39.9	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

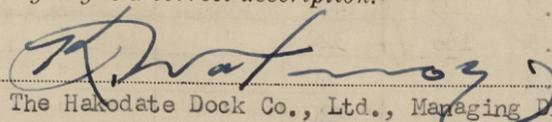
ALL IMPORTANT MOTORS TO BE ENUMERATED	No.	B.H.P.	CONDUCTORS	MAXIMUM CURRENT IN AMPERES	APPROX. LENGTH (lead plus return feet)	INSULATION	PROTECTIVE COVERING
			No. in Parallel per Pole	In the Circuit	Rule		
Anchor Windlass Motor	1	48	1	0.1 sq.in.	102	128	750 VC LC & SW Braided
Steering gear motor	2	5	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	1	4	1	0.0045"	5.1	11	140
F.O. supply F. 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

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.

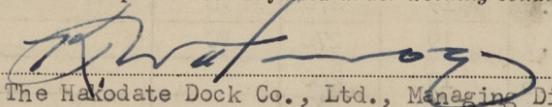
All Insulated Conductors are guaranteed to have been tested at the maker's works as specified in the Rules.

The foregoing is a correct description.


The Hakodate Dock Co., Ltd., Managing Director Electrical Contractors. Date 14 July 1961

COMPASSES

Have the compasses been adjusted under working conditions Yes


The Hakodate Dock Co., Ltd., Managing Director Builder's Signature. Date 14 July 1961

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

Is this installation a duplicate of a previous case Yes If so, state name of vessel "GUNUNG GUNTUR"

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 and Secretary's letters.

The materials and workmanship are satisfactory.

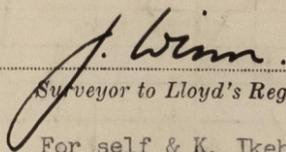
On completion the installation was operated under full load working conditions with satisfactory results and the insulation resistance of all circuits and apparatus measured and found satisfactory.

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

5m.3.58-Transfer. (MADE AND PRINTED IN ENGLAND)
(The Surveyors are requested not to write on or below the space for Committee Minute.)

26.7.61

Total Capacity of Generators	420	Kilowatts.
Construction	¥ 48,000.-	
The amount of Fee £	:	When applied for,
Installation	¥157,500.-	19
	Nil	When received,
Travelling Expenses (if any) £	:	19


Surveyor to Lloyd's Register of Shipping J. WINN
For self & K. Ikehata

FRIDAY 15 SEP 1961

Committee's Minute
Assigned *See Rpt 46*