

4 JAN 1960

Rpt. 13.

No. 292

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 11.12.59 When handed in at Local Office 11.12. 19 59 Port of EMDEN

No. in Survey held at Papenburg Date, First Survey 30.9. Last Survey 14.11.19 59
Reg. Book. (No. of Visits 6)

on the M.V. "WATAMPONE" Tons { Gross 2167.94
Net 1125.05

Built at Papenburg By whom built Jos. L. Meyer Yard No. 498 When built 11.59

Owners Republic of Indonesia Port belonging to Djakarta

Installation fitted by Wiechmann & Co., Bremen When fitted 11.59

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 2 wire insulated Voltage of Lighting 220

Heating 220 Power 220 D.C. XXX, Lighting yes Power yes 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 -- Generators, are they compound wound yes, and level compounded under working conditions yes

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

Have machines 100 kw. and over been inspected by the Surveyors during manufacture and testing yes Have certificates of test for machines under 100 kw. been supplied and the results found as per Rule yes Position of Generators E.R. floor, stb.

forward and aft, port aft.

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 E.R. floor, fwd. of

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 steel, deadfront type, if of synthetic insulating material is it an Approved Type --, 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 circuit-breakers fitted with O/C and R/C releases third pole used for equalizer.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit Triple pole link switches with fuses in each pole

Are compartments containing switchboards composed of fire-resisting material yes Instruments on main switchboard 5 ammeters 3 voltmeters -- synchronising devices. For compound machines in parallel are the ammeters and reverse current protection devices connected on the pole opposite to the equaliser connection Yes Earth Testing, state means provided Ohmmeter

Preference Tripping, state if provided yes, and tested yes

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

make of fuses Lindner Bamberg, are all fuses labelled yes If circuit breakers are provided for the generators, at what overload do they operate 585 amps, and at what current do the reverse current protective devices operate 60 amps

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 less than 5 volts. Are all paper insulated and varnished cambric insulated cables sealed at the ends --

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 no, if so, are they adequately protected -- State type of cables (if in conduit this should also be stated) in machinery spaces MK and Butyl insulated galleys MK and Butyl insulated

and laundries MK and Butyl insulated State how the cables are supported or protected Suitable clipped on cable trays or structure.

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

Have refrigeration fan motors been constructed under survey -- and test certificates supplied --

Are the motors accessible for maintenance at all times --



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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 **20 KW Em. Generator feeding em.-switchboard at Bridge Deck, also Emergency battery provided**

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 **1x48, 2x69** Where required to do so does it comply with 1948 International Convention **yes**

Lighting, is fluorescent lighting fitted **no** If so, state nominal lamp voltage **--** and compartments where lamps are fitted **--**

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 **fixed**, are they of the ~~xxxxxxx~~ filament type **yes**

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 **no** 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 **--**

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 **Kelvin-Hughes** location of transmitter and receiver **cofferdam 50/51 and bridge**

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	Garbe & Lahmeyer	120	230	522	750	4 SCSA	M.A.N.
EMERGENCY ROTARY TRANSFORMER	1	Garbe & Lahmeyer	20 KW	230	87	1500	4 SCSA	M.A.N.

GENERATOR CABLES.

DESCRIPTION.	No. of	Kw.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return) in 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.			
MAIN GENERATOR	3	120	2	120 mm ²	522	540	30/40	Butyl	lead
EQUALISER	1		1	120 mm ²					
EMERGENCY GENERATOR	1	20	1	25 mm ²	87	99	12	Butyl	lead

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

DESCRIPTION.	No. of	Kw.	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	MAXIMUM CURRENT IN AMPERES. In the Circuit.	Rule.	APPROX. LENGTH (lead plus return) in meters	INSULATION.	PROTECTIVE COVERING.
Connection Emergency Generator-Main Switchboard	1	25			87	99	40	Butyl	lead
Connection Shore to both Main and Emergency Switchboard	1			50	120	154	50	Butyl	lead

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

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return) in meter	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.			
Navigation Lights	1	4	12	15	40	Rubber	lead
<u>Cables to distribution boards for power 220 Volts</u>							
XXXXXXXXXXXX							
Deckmachine Switchboard 1.	1	95	inter	235	80	Butyl	lead
Deckmachine Switchboard 2.	1	50	mit-	154	60	Butyl	lead
Deckmachine Switchboard 3.	1	95	tent	235	90	Butyl	lead
Galley forward	1	6	load	21	100	Rubber	lead
Galley aft	1	120	20	270	50	Butyl	lead
Workshop 1. E.R.	1	10	17	57	40	Butyl	lead
<u>Cables to distribution board for Lighting</u>							
Lighting panel bridge deck	1	10	15	57	45	Butyl	lead
Lighting panel 2 and loop to 1 (fwd.)	1	10	10+8	57	100	Butyl	lead
Lighting panel Main deck middle and loop to h.deck panel	1	10	13+16	57	45	Butyl	lead
Lighting panel Main Deck aft and loop to aftermost panel	1	10	8+14	57	85	Butyl	lead

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	KW	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	MAXIMUM CURRENT IN AMPERES. In the Circuit.	Rule.	APPROX. LENGTH (lead plus return) in meters	INSULATION.	PROTECTIVE COVERING.
Main Cool.water circulating double pump sets	2	12	1	25	65	99	30/40	Butyl	lead
Auxy. Cool.water circulating double pump set	1	4.1	1	10	23	57	40	Butyl	lead
Stand-by lub.-oil double pump set	1	9.5	1	10	48	57	40	Butyl	lead
Oil fuel transfer pump	1	3.3	1	10	18.5	57	35	Butyl	lead
Auxiliary Compressors	2	20	1	35	105	122	35	Butyl	lead
Bilge pump	1	13.2	1	25	70	99	20	Butyl	lead
Ballast pump	1	13.2	1	25	70	99	20	Butyl	lead
Sprinkler pump	1	21	1	35	110	122	25	Butyl	lead
Steering gear	1	5.2	1	10	29	57	110	Butyl	lead
Windlass	1	30	1	50	152	154	95	Butyl	lead

46.
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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.

Joe L. Meyer
[Signature]

Electrical Contractors.

Date 23. 12. 59.

COMPASSES.

Have the compasses been adjusted under working conditions.

Joe L. Meyer
[Signature]

Builder's Signature.

Date 23. 12. 59.

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. yes If not, state date of approval. --

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 approved plans and the Secretary's letters and the materials and workmanship are good.

On completion the equipment has been tried under working conditions and found satisfactory. This Equipment in my opinion is suitable for a Classed vessel with notation + LMC.

[Signature]

Total Capacity of Generators 380 Kilowatts.

The amount of Fee ... ££ 99. 0.0.

When applied for,

19

When received,

19

Travelling Expenses (if any) £ 12. 0.0.

[Signature]
Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRIDAY 19 FEB 1960

Assigned

See Rpt-1.

5m.650.—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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