

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 22 Nov 1934 When handed in at Local Office 19 Port of Rotterdam Received at London Office 26 NOV 1934
 No. in Survey held at Flushing Date, First Survey 19 Sept Last Survey 17 Nov 1934
 Reg. Book. on the C.H.S. Boschfontein Tons { Gross
 Net
 Built at Missingen By whom built M. J. De Schelde Yard No. 1928 When built 1928
 Owners V.C.S. Port belonging to S. Groenendaag
 Electric Light Installation fitted by van Riechoten & Houwers N.V. Contract No. 1934
 Is the Vessel fitted for carrying Petroleum in bulk No

System of Distribution

Pressure of supply for Lighting 110 volts, Heating 110 volts, Power 110 volts.

Direct or Alternating Current, Lighting direct current Power direct current

If alternating current system, state frequency of periods per second

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off

Generators, do they comply with the requirements regarding rating yes, are they compound wound yes
 are they over compounded 5 per cent. yes, if not compound wound state distance between each generator

Where more than one generator is fitted are they arranged to run in parallel no, is an adjustable regulating resistance fitted in series with each shunt field yes

Are all terminals accessible, clearly marked, and furnished with sockets yes, are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched yes

Position of Generators motorroom 5B aft.
 is the ventilation in way of the generators satisfactory yes, are they clear of all inflammable material yes

if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generators
 and yes, are the generators protected from mechanical injury and damage from water, steam or oil yes

are their axes of rotation fore and aft
 Earthing, are the bedplates and frames of the generating plant efficiently earthed yes are the prime movers and their respective generators in metallic contact yes

Main Switch Boards, where placed motorroom 5B. aft.

If the generators and main switchboard are not placed in the same compartment, is each generator provided with a fuse on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard

Switchboards, are they placed in accessible positions, free from inflammable gases and acid fumes yes
 are they protected from mechanical injury and damage from water, steam or oil yes, if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards

are they constructed wholly of durable, non-ignitable non-absorbent materials yes, is all insulation of high dielectric strength and of permanently high insulation resistance yes

if semi-insulating material is used, are all conducting parts insulated from the slab with mica or micanite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework

and is the frame effectively earthed yes. Are the fittings as per Rule regarding:— spacing or shielding of live parts

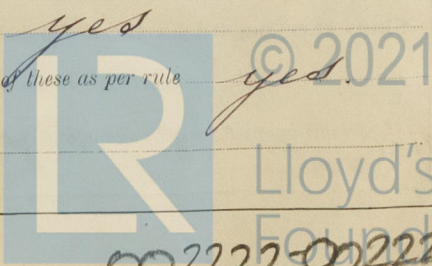
yes, accessibility of all parts yes, absence of fuses on back of board yes, proportion of omnibus bars yes, individual fuses to voltmeter, pilot or earth lamp yes, connections of switches yes

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches Two generators each 85 KW. Each generator a double pole automatic switch. Two generators each 50 KW. Each generator double pole fuses. One generator of 85 KW and one of 50 KW on a quick linked changeover knife switch. Each outgoing circuit a double pole quick linked changeover knife switch and double pole fuses.

Instruments on main switchboard two ammeters four voltmeters synchronising device for paralleling purposes.

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system for each busbar system two earth lamps

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules yes
 Joint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule yes



Cables: Single, twin, concentric, or multicore all are the cables insulated and protected as per Tables IV or V of the Rules yes
Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 4 volts
Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets yes

Paper Insulated Cables. If cables are paper covered, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound yes

Cable Runs, are the cables fixed as far as possible in accessible positions not exposed to drip or accumulation of water or oil, or to high temperature from boilers, steam pipes, uptakes or other hot objects, or to avoidable risk of mechanical damage yes

Support and Protection of Cables, state how the cables are supported and protected the cables are lead covered, and had covered and armoured, secured by metal clips

If cables are run in wood casings, are the casings and caps secured by screws yes, are the cap screws of brass yes, are the cables run in separate grooves yes. If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VIII yes

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements yes

Joints in Cables, state if any, and how made, insulated, and protected no joints

Watertight Glands and Deck Tubes, are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands yes

Bushes in Beams and Non-watertight Partitions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed yes state the material of which the bushes are made lead

Earthing Connections, state what earthing connections are fitted and their respective sectional areas none

, are their connections made as per Rule yes

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule yes

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven the motor generator of 10 KW, 110 volts, placed on B deck, switchboard is fed from the main switchboard or the 10 KW generator, by a changeover switch.

Navigation Lamps, are these separately wired yes, controlled by separate switch and separate fuses yes, are the fuses double pole yes, are the switches and fuses grouped in a position accessible only to the officers on watch yes

has each navigation lamp an automatic indicator as per Rule yes

Secondary Batteries, are they constructed and fitted as per Rule yes

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight yes
are any fittings placed in spaces in which goods are liable to be stacked in close proximity to them; if so, how are they protected yes

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected yes

, how are the cables led yes

where are the controlling switches situated yes

Searchlight Lamps, No. of yes, whether fixed or portable yes, are their fittings as per Rule yes

Arc Lamps, other than searchlight lamps, No. of yes, are their live parts insulated from the frame or case yes, are their fittings as per Rule yes

Motors, are their working parts readily accessible yes, are the coils self-contained and readily removable for replacement yes

are the brushes, brush holders, terminals and lubricating arrangements as per Rule yes, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material yes

are they protected from mechanical injury and damage from water, steam or oil yes are their axes of rotation fore and aft yes

if situated near unprotected woodwork or other combustible material, are the motors of the totally enclosed, pipe ventilated, forced draught, drip or flame proof type yes

, if not of this type, state distance of the combustible material horizontally or vertically above the motors yes and yes

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed and fitted as per Rule yes

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule yes

Ships carrying Oil having a Flash Point less than 150° F. Have the special requirements of the Rules been complied with regarding switches, joint boxes, section and distribution boards, protection of cables, method of distribution, lead of cables, lights and fittings yes

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office yes

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	2	85	110	775		steam engine	Diesel oil	above 150.
AUXILIARY	2	50	110	455		motor	Diesel oil	above 150.
EMERGENCY	1	10	110	91		motor	Diesel oil	above 150.
ROTARY TRANSFORMER								

GENERATOR, LIGHTING AND HEATING CONDUCTORS.

DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
	No. per Pole.	Total Effective Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
MAIN GENERATOR	2	1.236	91	.093	775	708.6	80	Rubber	Lead covered and armoured
EQUALISER CONNECTIONS									
AUXILIARY GENERATOR	2	.578	37	.103	435	466	70	"	"
EMERGENCY GENERATOR	1	.0545	19	.050	80	78	35	"	"
ROTARY TRANSFORMER MOTOR GENERATOR									
ENGINE ROOM	1	.025	7	.066	35.5	40	100	"	"
BOILER ROOM	1	.025	7	.066	49	48	30	"	"
AUXILIARY SWITCHBOARDS									
on B deck	1	.078	19	.072	80	99.3	160	"	"
fore ship	1	.0103	7	.044	10	29	140	"	"
C deck	1	.0405	19	.052	32.5	85	180	"	Lead covered
D deck	1	.025	7	.066	46	48	150	"	"
E deck	1	.0156	7	.053	31	38	120	"	"
ACCOMMODATION									
day lighting and	1	.0545	19	.050	72.5	78	120	"	"
large hall fans	1	.0545	19	.050	45	78	130	"	"
apt	1	.0156	7	.053	16.5	38	180	"	"
toaster	1	.00625	3	.055	18	22	35	"	Lead covered and armoured
WIRELESS	1	.025	7	.066	35	48	90	"	"
SEARCHLIGHT									
MASTHEAD LIGHT	1	.00234	1	.0545	0.6	9.5	150	"	"
SIDE LIGHTS	1	.00234	1	.0545	0.6	9.5	50	"	"
COMPASS LIGHTS	1	.00234	1	.0545	0.15	9.5	30	"	"
POOP LIGHTS	1	.0039	1	.066	0.6	15	320	"	"
CARGO LIGHTS									
ARC LAMPS									
HEATERS	1	.0156	7	.053	29	38	35	"	"

MOTOR CONDUCTORS.

DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
		No. per Pole.	Total Effective Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
Power motor room 5B										
BALAST PUMP	1	1	.1123	19	.093	120	123	75	Rubber	Lead covered and armoured
MAIN BILGE PUMP	1	1	.209	37	.103	200	233	150	"	"
GENERAL SERVICE PUMP	1	1	.0405	19	.052	72	60	30	"	"
EMERGENCY BILGE PUMP										
SANITARY PUMP	1	1	.078	19	.072	80	99.3	80	"	"
CIRC. SEA WATER PUMPS										
CIRC. FRESH WATER PUMPS	1	1	.0405	19	.052	58	60	75	"	"
AIR COMPRESSOR										
FRESH WATER PUMP	1	1	.00625	3	.055	16	22	120	"	"
ENGINE TURNING GEAR	2	1	.025	7	.066	40	48	60	"	"
ENGINE REVERSING GEAR	1	1	.0405	19	.052	64	60	30	"	"
LUBRICATING OIL PUMPS	1	1	.00625	3	.055	9	22	80	"	"
OIL FUEL TRANSFER PUMP	1	1	.0039	1	.066	9	15	35	"	"
WINDLASS										
WINCHES, FORWARD										
potato peeling mach.	1	1	.00625	3	.055	16	22	45	"	"
WINCHES, AFT										
washing mach.	1	1	.025	7	.066	40	48	270	"	"
STEERING GEAR										
lubricating oil pump	1	1	.4905	61	.103	345	323	150	"	"
(a) MOTOR GENERATOR										
(b) MAIN MOTOR										
WORKSHOP MOTOR	1	1	.2465	37	.093	210	204	100	"	"
VENTILATING FANS	2	1	.00625	3	.055	16	22	100	"	"
oil separator	2	1	.00625	3	.055	16	22	35	"	"
lathe motor	1	1	.00625	3	.055	16	22	40	"	"
drill	1	1	.00625	3	.055	16	22	40	"	"
grinding	1	1	.0039	1	.066	8	15	40	"	"
ventilating fan	1	1	.0156	7	.053	24	38	110	"	"
cooling fans	2	1	.1123	19	.093	80	123	100	"	"

© 2021

Lloyd's Register

002222-002228-0169 3/12

All Conductors are of annealed copper conforming to British Standard Specification No. 7.

The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.

The foregoing is a correct description.

Van Retschofen & Houwens
Electrotechnische Maatschappij, N.V.

Electrical Engineers.

Date 22 Nov. 1934.

COMPASSES.

Distance between electric generators or motors and standard compass

Original

Distance between electric generators or motors and steering compass

Original

The nearest cables to the compasses are as follows:—

A cable carrying Ampères feet from standard compass feet from steering compass.

A cable carrying Ampères feet from standard compass feet from steering compass.

A cable carrying Ampères feet from standard compass feet from steering compass.

Have the compasses been adjusted with and without the electric installation at work at full power. Yes

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted. Yes

The maximum deviation due to electric currents was found to be 0 degrees on every course in the case of the standard compass, and 0 degrees on every course in the case of the steering compass.

Builder's Signature.

Date

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

General Remarks (State quality of workmanship, opinions as to class, &c. The new part of the installation

has been fitted in accordance with the approved plan society's Rules and Secretary's letter, material and workmanship good. The whole was found in a good working condition when tried and I am of opinion that same merits the approval of the Committee

Noted
JH 26/11/34

Total Capacity of Generators 270 Kilowatts.

The amount of Fee ...

£ 100.00

When applied for.

Travelling Expenses (if any) £

4

When received.

12-12-34

ND.

Supplied to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Im. 9.30.—Transfer.
(The Surveys are requested not to write on or below the space for Committee's Minute.)



© 2021

Lloyd's Register Foundation