

Rpt. 13.

No. 19015

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

27 NOV 1930

Date of writing Report 3/10 1930 When handed in at Local Office 19 Port of Rotterdam

No. in Survey held at Rotterdam Date, First Survey 10.5.30 Last Survey 16.10.1930
Reg. Book. on the M. T. Koba Agoeng (Number of Visits 13)

Built at Rotterdam By whom built Etablissement Genoud Yard No. 307 When built 1930

Owners Rotterdamsche Lloyd Port belonging to Rotterdam

Electric Light Installation fitted by T. F. v. d. P. v. d. Schoten & Houwers Contract No. When fitted 1930

Is the Vessel fitted for carrying Petroleum in bulk Rotterdam

System of Distribution Two wire system

Pressure of supply for Lighting 240 volts, Heating 240 volts, Power 240 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 yes

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 yes, 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 Are the lubricating arrangements of the generators as per Rule

Position of Generators in motor room in Port & St. B. under the switch board

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, are the generators protected from mechanical injury and damage from water, steam or oil yes

are their axes of rotation fore and aft yes

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 in motor room

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 and

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 for each generator a

double pole quick linked knife switch for equalizer and neg. pole, and automatic min.

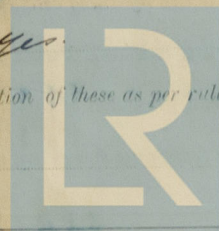
max. single pole quick linked knife switch for the positive pole

Instruments on main switchboard 8 ammeters 3 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 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



© 2020

Lloyd's Register
Foundation

003138-003146-0028 1/2

02

Cables: Single, twin, concentric, or multicore *single and twin* 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
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 *in cabins rubber insulated conductors in double groove casing. In all other places lead covered and armoured secured by metal clips. On deck in pipes.*
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 or hard wood*
Earthing Connections, state what earthing connections are fitted and their respective sectional areas
are their connections made as per Rule
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 *✓*
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
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
are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected
how are the cables led
where are the controlling switches situated
Searchlight Lamps, No. of *one*, whether fixed or portable *portable*, are their fittings as per Rule *yes*
Arc Lamps, other than searchlight lamps, No. of *one*, 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 and
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
If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office

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	200	220	910	250	Diesel engine	Diesel Oil	above 150° F.	
AUXILIARY	1	50	220	227	250	"			
EMERGENCY									
ROTARY TRANSFORMER									

GENERATOR, LIGHTING AND HEATING CONDUCTORS.									
DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		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	4	185	37	2.53	910	932	150 to 250	rubber	Lead Covered And
EQUALISER CONNECTIONS	2	185	37	2.53		466	150 to 250		Armoured
AUXILIARY GENERATOR	1	185	37	2.53	227	233	150	"	"
EMERGENCY GENERATOR								"	"
ROTARY TRANSFORMER								"	"
ENGINE ROOM	1	6	7	1.05	20	29.25	200	"	"
BOILER ROOM								"	"
AUXILIARY SWITCHBOARDS								"	"
Aft ship	1	16	7	1.71	36	48	400	"	"
amidship aft	1	16	7	1.71	44	48	180	"	"
" fore	1	35	19	1.53	70	76.4	250	"	"
navigation	1	4	7	0.86	3	21.8	300	"	"
fore ship	1	10	7	1.35	14	38	360	"	"
ACCOMMODATION								"	"
Heater amidship fore	1	70	19	2.17	123	123	360	"	"
" " aft	1	70	19	2.17	125	123	300	"	"
" fore ship	1	10	7	1.35	32	38	7	"	"
WIRELESS	1	6	7	1.05	10	29.25	280	"	"
SEARCHLIGHT	1	25	7	2.13	50	60.61	150	"	"
MASTHEAD LIGHT	1	15	1	1.39	15	9	400	"	"
SIDE LIGHTS	1	15	1	1.39	15	9	375	"	"
COMPASS LIGHTS	1	15	1	1.39	15	9	30	"	"
POOP LIGHTS	1	15	1	1.39	15	9	600	"	"
CARGO LIGHTS	1	2.08	1	1.63	213	12	120	"	"
ARC LAMPS	1	2.08	1	1.63	10	12	30	"	"
HEATERS	1	2.08	1	1.63	12	12	60	"	"

MOTOR CONDUCTORS.										
DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		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.			
BALLAST PUMP	1	2	95	19	2.53	300	380	180	"	"
MAIN BILGE LINE PUMPS	1	1	10	7	1.35	32	38	30	"	"
GENERAL SERVICE PUMP	1								"	"
EMERGENCY BILGE PUMP	1								"	"
SANITARY PUMP	1	1	16	7	1.71	52	48	240	"	"
CIRC. SEA WATER PUMPS	1	2	95	19	2.53	270	300	140	"	"
CIRC. FRESH WATER PUMPS	2	2	70	19	2.17	280	246	100	"	"
AIR COMPRESSOR	1	2	120	16	2.24	560	550	160	"	"
FRESH WATER PUMP	2	1	2.08	1	1.63	6	12	25	"	"
ENGINE TURNING GEAR	3	1	6	7	1.05	24	29.25	100	"	"
ENGINE REVERSING GEAR	1	1							"	"
LUBRICATING OIL PUMPS	2	1	50	19	1.83	95	99.3	200	"	"
OIL FUEL TRANSFER PUMP	2	1	6	7	1.05	28	29.25	75	"	"
WINDLASS	1	2	70	19	2.17	240	246	120	"	"
WINCHES, FORWARD	5	1	70	19	2.17	125	123	60	"	"
" amidship	4	1	50	19	1.83	100	99.3	140	"	"
WINCHES, AFT	6	1	70	19	2.17	125	123	60	"	"
Lubricating oil separator	2	1	4	7	0.86	14	21.8	100	"	"
STEERING GEAR	1	1	1.5	7	1.39	6	9	40	"	"
Fuel oil pump	1	1	150	37	2.34	208	203.7	280	"	"
(a) MOTOR GENERATOR									"	"
(b) MAIN MOTOR	1	1	35	19	1.53	80	76.4	360	"	"
WORKSHOP MOTOR	1	1	4	7	0.86	12	21.8	50	"	"
VENTILATING FANS	2	1	1.5	7	1.39	3	9	150	"	"
Lubricating oil pumps	2	1	35	19	1.53	70	76.4	80	"	"
Cooling water pump	1	1	16	7	1.71	52	48	240	"	"
Working winch	1	1	50	19	1.83	100	99.3	140	"	"
deck cloner	2	1	95	19	2.53	128	150	108	"	"
Fuel oil separator	2	1	1.5	7	1.39	8	9	60	"	"
" heater	1	1	70	19	2.17	108	123	75	"	"
Lubricating " "	1	1	35	19	1.53	84	76.4	180	"	"
Refrigerator	1	1	25	7	2.13	56	60.61	60	"	"

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.

N. V. Van Rietschoten & Houwens'

Electrotechnische Maatschappij

Electrical Engineers.

Date

3/10/30

COMPASSES.

Distance between electric generators or motors and standard compass

90 feet
90 feet

Distance between electric generators or motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying 60 Ampères 50 feet from standard compass 45 feet from steering compass.

A cable carrying 10 Ampères 30 feet from standard compass 36 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.

Maatschappij voor Scheeps- en Werktuigbouw
"DE NOORD" N.V.

Builder's Signature.

Date

23 Oct 30, 1930

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. *This installation has*

been fitted in accordance with the Society's Rules. material and workmanship good,

The whole was found in a good working order when tried and I am of opinion that this vessel's electric light and power installation merits the approval of the Committee.

*It is submitted that
this vessel is eligible for
THE RECORD Elec Light.*

28/10/30

[Signature]

Total Capacity of Generators 450 Kilowatts.

The amount of Fee ...

£ 513.00

When applied for,

10th 9. 30

When received,

14. 11. 30

Travelling Expenses (if any) £

Committee's Minute

TUE. 4 NOV 1930

Assigned

Elec. Light



© 2020

Lloyd's Register
Foundation