

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

No. 16931

-7 NOV 1927

Date of writing Report *29th Oct. 1927* When handed in at Local Office *29th Oct. 1927* Port of *Rotterdam*

No. in Survey held at *Rotterdam* Date, First Survey *7. 7. 27* Last Survey *25. 10. 1927*
 Reg. Book. *M. S. Koda Inten* (Number of Visits *4*)

on the *M. S. Koda Inten* Tons { Gross
 Net

Built at *Rotterdam* By whom built *Pyencord's Shipbuilding works* Yard No. *306* When built *1927*

Owners *Rotterdamsche Lloyd* Port belonging to *Rotterdam*

Electric Light Installation fitted by *M. Van Riesschooten & Houwens* Contract No. When fitted *1927*

System of Distribution *Two wire system*

Pressure of supply for Lighting *220* volts, Heating *220* volts, Power *220* 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 *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*

Position of Generators *in engine room on Starb and Port under the switchboard*, are they clear of all inflammable material *yes*

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

and *—*, 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 engine room aft above the dynamo's*

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*

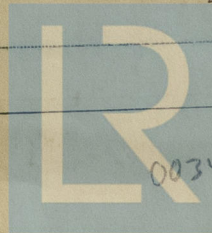
Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches *for each generator a double pole quick linked knife switch for equalize and minus pole, and automatic minimal single pole quick linked switch for the positive pole, and for each outgoing circuit a double pole quick linked switch and a double pole fuse*

Instruments on main switchboard *7* 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 for each dynamo.*

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*



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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

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.

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

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

Earthing Connections, state what earthing connections are fitted and their respective sectional areas

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven

has each navigation lamp an automatic indicator 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 where inflammable or explosive dust or gases are liable to be present, if so, how are they protected. —

where are the controlling switches situated

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 no

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

....., 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

[illegible]

MOTOR CONDUCTORS.									
Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor Sq. ins.	COMPOSITION OF STRAND.		Total Maximum Current Amperes.	Approximate Length. (Lead and Return.)	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP	1	70	19	2.17	118	60	Rubber	Lead covered & arm.
	MAIN BILGE LINE PUMPS								
	GENERAL SERVICE PUMP								
	EMERGENCY BILGE PUMP								
	SANITARY PUMP	1	25	7	2.13	52	40	"	"
	CIRC. SEA WATER PUMPS	1	2x95	19	2.53	250	60	"	"
	CIRC. FRESH WATER PUMPS	2 each	185	37	2.53	210	55	"	"
	AIR COMPRESSOR	2	3x185	37	2.53	470	30	"	"
	FRESH WATER PUMP ...	2	1 1/2	1	1.39	66	48	"	"
	ENGINE TURNING GEAR	1	70	19	2.17	116	20	"	"
	ENGINE REVERSING GEAR								
	LUBRICATING OIL PUMPS	2 each	185	37	2.53	165	50	"	"
	OIL FUEL TRANSFER PUMP								
	WINDLASS	1	2x95	19	2.53	227	40	"	"
	WINCHES, FORWARD ...	5 each	70	19	2.17	130	20	"	"
	WINCHES, AFT	6	70	19	2.17	130	20	"	"
	STEERING GEAR—	1	50	19	1.83	78	120	"	"
	(a) MOTOR GENERATOR...	X							
	(b) MAIN MOTOR								
	WORKSHOP MOTOR	1	4	7	0.86	11	65	"	"
	VENTILATING FANS	10	1 1/2	1	1.39	3	50	"	"
	circ. pump Refrigerator	1	2 1/2	1	1.79	14.6	18	"	"
	Fuel oil separator	2 each	2 1/2	1	1.79	8	15	"	"
	Winches amidships	2 each	50	19	1.83	101	46	"	"
	cranes	2 each	95	19	2.53	156	36	"	"
	hauling winch	1	50	19	1.83	101	48	"	"
	0								

The foregoing is a correct description.

Electrotechnische Wissenschaften

Date 29th October 1927

Distance between electric generators or motors and standard compass 29 M.

Distance between electric generators or motors and steering compass 29.16.

The nearest cables to the compasses are as follows:—

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

A cable carrying 10 Amperes 30 feet from standard compass 36 feet from steering compass.

A cable carrying Amperes 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

"FIJENOORD."

Builder's Signature. Date 3-4-24

Date 3-4-24

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

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 and the whole having been
found in a good working condition when tried, I
am of opinion that she merits the Committee's approval

It is submitted that
this vessel is eligible for
THE RECORD Elec light-

Total Capacity of Generators 450 Kilowatts.

The amount of Fee

513.00

When applied for,

3440 19.27

Travelling Expenses (if any) £

When received,
19. 11 192

Committee's Minute

FRI. 11 NOV 1927
TUES. 15 NOV 1927

Assigned

-Eleight

lm, 1, 27. — Transfer;

(The Surveyors are requested not to write on or below the space for Committee's Minute.)

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