

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 4 - 9 - 1928 When handed in at Local Office 10 Port of Rotterdam

No. in Survey held at Rotterdam Date, First Survey 10. 4. 28 Last Survey 19. 9. 1928
Reg. Book. (Number of Visits 24)

on the M. V. "KOTA GEDE" Tons (Gross 7227 Net 4514)

Built at Rotterdam By whom built "My Tyenwood" Yard No. 309 When built 1928

Owners Rotterdamse Lloyd Port belonging to Rotterdam

Electric Light Installation fitted by Pictschoten en Houwers Contract No. When fitted 1928

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 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

Position of Generators In Engine room, are they clear of all inflammable material Yes

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 aft part of engine 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 equalize and minus pole and automatic minimal single pole quick linked switch for the positive pole and for each outgoing circuit or double pole quick linked switch and a double pole fuse.

Instruments on main switchboard 4 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 dynamometer

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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Cables: Single, twin, concentric, or multicore. *Single* 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 Bolt* *Yes*

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. *In cabins lead covered. In all other places lead covered and armoured, cables on deck laid in iron tubes in engine room secured by metal clips. If cables are run in wood casings, are the casings and caps secured by screws. , are the cap screws of brass , are the cables run in separate grooves . 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 hardwood.*

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. *Partly*, 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.

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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	M.A.K. Diesel Engine	Diesel Oil	above 150°
AUXILIARY	1	50	220	227	250	M.A.K. Diesel Engine	"	"
EMERGENCY	1					Lead injection		
ROTARY TRANSFORMER								

LIGHTING AND HEATING CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor Sq. mm.	COMPOSITION OF STRAND.		Total Maximum Current Ampères.	Approximate Length (Lead and Return) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR	4	185	37	2.53	910	26	Rubber	Lead covered & armoured
	EQUALISER CONNECTIONS	1	185	37	2.53	227	28	"	"
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM	1	16	7	1.71	12	30	"	"
	BOILER ROOM								
	ACCOMMODATION								
	Compass	1	25	7	2.13	60	40	"	"
	Forecasting	1	16	7	1.71	30	100	"	"
	Chief Officer	1	16	7	1.71	35	100	"	"
	Navigation	1	16	7	1.71	2	80	"	"
	WIRELESS	1	6	7	1.35	20	80	"	"
	SEARCHLIGHT	1	16	7	1.71	50	50	"	"
	MASTHEAD LIGHT	1	1 1/2	1	1.39	45	100	"	"
	SIDE LIGHTS	1	1 1/2	1	1.39	45	25	"	"
	COMPASS LIGHTS	1	1 1/2	1	1.39	45	10	"	"
	POOP LIGHTS	1	1 1/2	1	1.39	45	15	"	"
	CARGO LIGHTS	1	2 1/2	1	1.79	25	40	"	"
	ARC LAMPS	1	2 1/2	1	1.79	10	10	"	"
	HEATERS	1	10	7	1.35	18	100	"	"

MOTOR CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor Sq. mm.	COMPOSITION OF STRAND.		Total Maximum Current Ampères.	Approximate Length (Lead and Return) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP	1	70	19	2.17	118	60	Rubber	Lead covered & armoured
	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	6.6	40	"	"
	ENGINE TURNING GEAR	1	70	19	2.17	116	20	"	"
	ENGINE REVERSING GEAR	1							
	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	150	20	"	"
	WINCHES, AFT	6 "	70	19	2.17	150	20	"	"
	STEERING GEAR	1	50	19	1.83	78	120	"	"
	(a) MOTOR GENERATOR								
	(b) MAIN MOTOR								
	WORKSHOP MOTOR	1	4	7	2.86	11	65	"	"
	VENTILATING FANS	10	1 1/2	1	1.39	3	50	"	"
	Refrigerator air pump	1	2 1/2	1	1.79	8	18	"	"
	fuel oil separator	2 each	2 1/2	1	1.79	14.6	15	"	"
	Winches armature	2 each	50	19	1.83	101	46	"	"
	Cranes	2 each	95	19	2.53	156	36	"	"
	Hoisting winch	1	50	19	1.83	101	48	"	"

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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.

afgedrukt

Electrical Engineers. Date _____

COMPASSES.

Distance between electric generators or motors and standard compass 19 ellb

Distance between electric generators or motors and steering compass 19 ellb

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
FIJENOORD

J. J. Muller

Builder's Signature. Date 26 SEP. 1928

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

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 order when tried. I am of opinion that same merits the approval of the Committee

It is submitted that this vessel is eligible for THE RECORD.

Elec. Light
25.9.
2/10/28.

Total Capacity of Generators 450 Kilowatts.

The amount of Fee ... 513.00 When applied for, 21/9 1928

Travelling Expenses (if any) £ : : 11.10.28 When received, 11.10.28

J. J. Ochoa
Secretary to Lloyd's Register of Shipping.

Committee's Minute TUE 16 OCT 1928

Assigned

Im. 1.27.—Transfer. (The Signatories are requested not to write on or below the space for Committee's Minute.)



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