

Rpt. 13.

No. 16680

**REPORT ON ELECTRIC FITTINGS.**

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

-1 FEB 1926

Date of writing Report 23.1.1926 When handed in at Local Office

10 Port of HAMBURG

No. in Survey held at HAMBURG

Date, First Survey 24.9.25 Last Survey 14<sup>th</sup> January 1926

Reg. Book.

(Number of Visits 14)

39578 on the Steel Twin Sc. Motor Vessel JAVANESE PRINCE

Tons { Gross 6376

{ Net 3874

Built at HAMBURG

By whom built Deutsche Werft A. G.

Yard No. 82

When built 1926

Owners RIO-CAPE-LINE Ltd.

Port belonging to LONDON

Electric Light Installation fitted by Deutsche Werft A. G.

Contract No.

When fitted 1926

System of Distribution Two wire insulated ✓

Pressure of supply for Lighting 220 volts, Heating ✓ volts, Power 220 volts.

Direct or Alternating Current, Lighting direct ✓ Power direct ✓

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 overload 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 and clearly marked yes ✓, are they so spaced or shielded that they cannot be accidentally earthed, or short circuited yes ✓ Are the lubricating arrangements of the generators as per Rule yes ✓

Position of Generators Engine room port side

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 axis 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 Engine room aft on elevated platform

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, incombustible non-absorbent materials yes, tenacite ✓, is all insulation of high dielectric strength and of permanently high insulation resistance yes ✓, if semi-insulating material is used, are all conducting parts connected to one pole

insulated from the slab with mica or micanite and the slab similarly insulated from its framework ✓, and is the frame effectively earthed yes ✓

Are the following fittings as per Rule, viz.:— spacing or shielding of live parts yes ✓, accessibility of all parts yes ✓, absence of fuses on back of board yes ✓, proportion of omnibus

bars 10 x 60 ✓, 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 circuit breaker with overload and reversed current trips, and an equalizer switch interlocked with a switch in the negative main leading from the dynamo to the switch board.

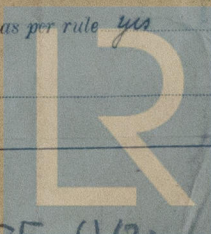
For each outgoing circuit: a fuse on each pole and single pole switch on one pole.

Instruments on main switchboard 3 ammeters 5 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 on Voltmeter with 10m scale

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules yes ✓

Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule yes ✓



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Foundation

W182-0185 (1/2)



Insulation of Cables, state type of cables, single or twin *single & twin* are the cables insulated and protected as per Tables ~~III~~ IV of the Rules *generally*

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load *about 2 Volts*

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.007 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 *no paper insulated cables*

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 *armoured cables supported by clips; in accommodation room lead covered or rubber insulated cables in wooden casings*

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 VI *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 *yes water-tight joint boxes*

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 Positions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed *armoured cables* state the material of which the bushes are made *✓*

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*, are separate screens provided for the use of oil and electric side lights *yes*

are separate oil lanterns provided for the mast head lights and side lights *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 *no*

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected *no*

how are the cables led *✓*

where are the controlling switches situated *✓*

Searchlight Lamps, No. of *none*, whether fixed or portable *✓*, are their fittings as per Rule *✓*

Are Lamps, other than searchlight lamps, No. of *none* are their live parts insulated from the frame or case *✓*, are their fittings as per Rule *✓*

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* *with the exception of the turning gear* are their axis of rotation fore and aft *yes* *motors*

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 as per Rule *✓*

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule *steel masts*

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.	Amperes.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	3	100	225	445	300/400	Eng. Diesel Motor 4 C.S.A.	Diesel Motor oil	170° F
AUXILIARY	✓							
EMERGENCY	✓							
ROTARY TRANSFORMER	✓							

LIGHTING AND HEATING CONDUCTORS.									
Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor. <i>Sq. ins.</i>	COMPOSITION OF STRAND.		Total Maximum Current Amperes.	Approximate Length. (Lead and Return.) <i>Feet.</i>	Insulated with	HOW PROTECTED.
				No.	Diameter. <i>Mils.</i>				
	MAIN GENERATOR... ..	4	2 x 120	37	2.05	445	15/20/25		
	AUXILIARY GENERATOR	✓							
	EMERGENCY GENERATOR	✓							
	ROTARY TRANSFORMER...	✓							
	AUXILIARY SWITCHBOARDS	✓							
	ENGINE ROOM ... ..	12 x 2	1.5	1	1.4	12 x 4	20-50		
	BOILER ROOM ... ..	✓							
	Navigation Lamps incl.	2	2.5	7	2.1	15	75		
	Fire escape	2	2.5	1	1.8	4	140		
	Officers Quarters	2	16	7	1.7	20	25		
	Subdivisions	2	4	1	2.21	4	25		
	"	2	4	1	2.21	4	20		
	"	3	2	4	1	2.21	4	25	
	"	4	2	4	1	2.21	4	25	
	Winches forward	4	2 x 150	37	2.21	1800	2 x 72	rubber	lead covered 2 armoured
	" midship	4	2 x 301	61	2.5	1800	2 x 72		
	" aft	4	2 x 120	37	2.05	400	2 x 24		
	WIRELESS ... ..	2	4	1	2.21	7	40		
	SEARCHLIGHT	✓							
	MASTHEAD LIGHTS... ..	2	1.5	1	1.4	0.15	170		
	SIDE LIGHTS ... ..	2	1.5	1	1.4	0.30	20		
	COMPASS LIGHTS ... ..	2	1.5	1	1.4	0.60	20		
	POOP LIGHTS ... ..	2	1.5	1	1.4	0.15	170		
	CARGO LIGHTS ... ..	18 x 2	1.5	1	1.4	2.5	10-20		
	ARC LAMPS ... ..	✓							
	HEATERS ... ..	✓							

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.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP ... ..	1	7.0	19	2.15	120	50		
	MAIN BILGE LINE PUMPS ... ..	2	16	7	1.7	53	40		
	CO. COMPASS	1	16	7	1.7	34	42		
	GENERAL SERVICE PUMP	3	2.5	1	1.8	8	3x8		
	Harpoon Oil Separator	1	2.5	1	1.8	8	36		
	EMERGENCY BILGE PUMP	2	9.5	19	2.5	154	60		
	Brine pump	1	3.5	19	1.75	82	50		
	SANITARY PUMP	1	1.5	1	1.4	4.3	30		
	CIRC. SEA WATER PUMPS ... ..	2	6	1	2.25	35	20		
	CIRC. FRESH WATER PUMPS	5							
	AIR COMPRESSOR ... ..	2	35	19	1.55	73	12	rubber	lead covered
	FRESH WATER PUMP ... ..	2	16	7	1.7	24.5	40		2 armoured
	ENGINE TURNING GEAR ... ..	1	9.5	19	2.5	180	40		
	ENGINE REVERSING GEAR ... ..	14 below							
	LUBRICATING OIL PUMPS ... ..	1							
	OIL FUEL TRANSFER PUMP	2	35	19	1.55	85	95		
	WINDLASS ... ..	1	4	1	2.25	18	16		
	WINCHES, FORWARD ... ..	3	1.5	1	1.4	2	40		
	WINCHES, AFT ... ..	2							
	STEERING GEAR ... ..	1	16	7	1.7	50	50		
	WORKSHOP MOTOR ... ..	1	16	7	1.7	50	46		
	VENTILATING FANS ... ..	1	16	7	1.7	50	50		
	5 tons winch I & II port	1	35	19	1.55	80	12		
	5 " " I & II starb	1	35	19	1.55	80	28		
	3 " " II port	1	16	7	1.7	50	16		
	3 " " II starb	1	16	7	1.7	50	28		
	3 " " I port	1	16	7	1.7	50	16		
	3 " " I starb	1	16	7	1.7	50	28		
	5 " " E port	1	35	19	1.55	80	16		
	5 " " E starb	1	35	19	1.55	80	28		
	5 " " II & III port	2	35	19	1.55	80	16		
	5 " " II & III starb	2	35	19	1.55	80	28		
	5 " " I & II port	1	35	19	1.55	80	46		
	Harpoon oil transfer pump	1	2.5	1	1.8	3	16		
	Lateral pump	2	6	1	2.25	30	80 + 30		
	Oil in fan	1	1.5	1	1.4	2.1	28		



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.

The Builders are the

Electrical Engineers.

Date 20/1/26

#### COMPASSES.

Distance between electric generators or motors and standard compass 25 m

Distance between electric generators or motors and steering compass 26 m

The nearest cables to the compasses are as follows:—

A cable carrying 0.5 Amperes 10 feet from standard compass 10 feet from steering compass.

A cable carrying 1 Amperes 10 feet from standard compass 10 feet from steering compass.

A cable carrying 1 Amperes 10 feet from standard compass 10 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 *nil* degrees on *✓* course in the case of the standard compass, and *nil* degrees on *✓* course in the case of the steering compass.

**DEUTSCHE WERFT  
AKTIENGESELLSCHAFT.**

Builder's Signature.

Date 20.1.26.

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. *Material and workmanship of*)

*This installation are of good quality. All the conductors used are of 'German Standard'. The Society's Rules respecting conductors have been applied generally. The installation has been fitted in accordance with the approved plans, the Secretary's letters and otherwise in conformity with the requirements of the Rules and having been built and fitted under special survey, it is eligible in our opinion for record of "Electric Light."*

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

*Ans. T.W.D.  
4/2/26.*

Total Capacity of Generators 300 Kilowatts

The amount of Fee ... £ 39:0-0

When applied for, 25.1.19.26

Travelling Expenses (if any) £

When received, 9.3.26

*Friedrich Hill & Carstensen*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 5 FEB 1926

FRI. 26 MAR 1926

Assigned

*Elec. Lt.*



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Im. 924. Transfer.  
(The Surveyors are requested not to write on or below the space for Committee's Minute.)