

Rpt. 13.

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

No. 15491

3 NOV 1926

Date of writing Report 24.7.1926 When handed in at Local Office 30.10.1926 Port of GLASGOW.

No. in Survey held at TROON.

Date, First Survey 29th Apr Last Survey 29th June 1926

1002. on the M. Y. "CHELSEA"

Built at TROON.

By whom built THE AILSA S.B. CO

Yard No. 398

Tons { Gross 280
Net

Owners MR. JOHN F. HARRIS.

Port belonging to NEW YORK.

Electric Light Installation fitted by MESSRS CLAUD HAMILTON LTD

Contract No. 1926 When fitted 1926.

System of Distribution

double pole distributing fuse box

Pressure of supply for Lighting

110

volts, Heating

110

volts, Power

110

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 over compounded 5 per cent. Yes.

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 and clearly marked Yes.

or short circuited Yes. Are the lubricating arrangements of the generators as per Rule 5 Sect 2

Position of Generators

Engine Room

is the ventilation in way of the generators satisfactory Yes.

if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generators

none and are the generators protected from mechanical injury and damage from water, steam or oil

are their axis of rotation fore and aft Yes.

Earthing, are the bedplates and frames of the generating plant efficiently earthed Yes.

their respective generators in metallic contact Yes.

Main Switch Boards, where placed

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 Same compartment

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.

woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards none and none

are they constructed wholly of durable, incombustible non-absorbent materials Yes.

permanently high insulation resistance Yes.

insulated from the slab with mica or micanite and the slab similarly insulated from its framework Yes.

Are the following fittings as per Rule, viz.:— spacing or shielding of live parts

Yes.

Yes.

Yes.

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches

double pole main switch with D.P. fuses and C.D. D.P. switch for each generator and D.P. switches and D.P. fuses for outgoing circuits

Instruments on main switchboard 5 ammeters 2 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 earth lamp.

Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules Yes.

Construction and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule Yes.



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11066-0053 1/2

Insulation of Cables, state type of cables, *main twin* are the cables insulated and protected as per Tables III or IV of the Rules *yes*
Fall of Pressure, state maximum between bus bars and any point of the installation *Branch wiring both twin and single 2.5'*

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 *none*

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 *lead covered w lead covered and armoured clipped to under decks w on bulk heads*

If cables are run in wood casings, are the casings and caps secured by screws *none*, 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 VI *yes*

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements *none*

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 *L.T. Glands and L.T. Deck tubes*

Bushes in Beams and Non-watertight Positions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed *lead bushes* 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 *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 *none*

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 *yes. Guarded.*

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 *1 wired only no search light supplied*, 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*, are their axis 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 *none*, 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 *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	16	110	145	450	oil engine	Marine oil 843.8.	150°F
AUXILIARY								
EMERGENCY								
ROTARY TRANSFORMER	1	.5	30	16	-			

LIGHTING AND HEATING CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Conductors.	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.					
	MAIN GENERATOR... ..	2	.150 ✓	34	.042	145	40	V. G. R.	Lead covered	
	AUXILIARY GENERATOR	-								
	EMERGENCY GENERATOR	-								
	ROTARY TRANSFORMER...	2	.0400 ✓	19	.052	16	20	V. G. R.	Lead covered	
	AUXILIARY SWITCHBOARDS ...	-								
	ENGINE ROOM	}								
	BOILER ROOM		2	.0040 ✓	4	.036	5	10	V. G. R.	Lead covered & armoured
	Navigation		2	.0040 ✓	4	.036	4	80	" " "	" " "
	Forward		2	.0040 ✓	4	.036	9	40	" " "	" " "
	Aft		2	.0040 ✓	4	.036	9	60	" " "	" " "
	Dining Saloon		2	.0040 ✓	4	.036	6	48	" " "	" " "
	Deck House	2	.0040 ✓	4	.036	6	50	" " "	" " "	
	Hot Water Heats	2	.0400 ✓	19	.052	50	130	" " "	" " "	
	Grill	2	.0400 ✓	19	.052	50	128	" " "	" " "	
	2 hot plates	2	.0040 ✓	4	.036	10	60	" " "	" " "	

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	2	.0040 ✓	4	.036	10	30	V. G. R.	Lead covered & Armoured
	MAIN BILGE LINE PUMPS ...	2	.0040 ✓	4	.036	5	40	" " "	" " " "
	GENERAL SERVICE PUMP ...								
	EMERGENCY BILGE PUMP ...								
	SANITARY PUMP								
	SEA SEA WATER PUMPS ...	2	.0030 ✓	3	.036	5	30	" " "	" " " "
	FRESH FRESH WATER PUMPS	2	.0030 ✓	3	.036	5	30	" " "	" " " "
	AIR COMPRESSOR								
	FRESH WATER PUMP								
	ENGINE TURNING GEAR ...								
	ENGINE REVERSING GEAR ...								
	LUBRICATING OIL PUMPS ...								
	OIL FUEL TRANSFER PUMP ...	2	.0030 ✓	3	.036	5	40	" " "	" " " "
	WINDLASS	2	.0400 ✓	19	.052	55	350 350	" " "	" " " "
	WINCHES, FORWARD	-							
	WINCHES, AFT	-							
	STEERING GEAR	2	.0225 ✓	4	.064	10	144	" " "	" " " "
	WORKSHOP MOTOR	2	.0040 ✓	4	.036	14	30	" " "	" " " "
	VENTILATING FANS	-							
	Captain	2	.0145 ✓	4	.052	24	130	" " "	" " " "
	Relieving	2	.0225 ✓	4	.064	28	60	" " "	" " " "
	Del. Purifier	2	.0030 ✓	3	.036	1.4	40	" " "	" " " "
	Heating Fan	2	.0030 ✓	3	.036	1.4	30	" " "	" " " "
	Burbs	2	.0400 ✓	19	.052	45	15	" " "	" " " "
	100 Edison Cells. 225 A.H.								
	26 " " 225 " "								

for Lighting in Engine Room
w. wireless on upper deck in lead box

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.

102 CLAUD HAMILTON, LIMITED

Electrical Engineers.

Date 20th Sept 26.

COMPASSES.

Distance between electric generators or motors and standard compass 20

Distance between electric generators or motors and steering compass 10

The nearest cables to the compasses are as follows:—

A cable carrying 55 Ampères 20 feet from standard compass 20 feet from steering compass.

A cable carrying 45 Ampères 20 feet from standard compass 10 feet from steering compass.

A cable carrying 3 Ampères 6 feet from standard compass 6 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 any course in the case of the standard compass, and Nil degrees on any course in the case of the steering compass.

AILSA SHIPBUILDING CO., LIMITED.

Muir

General Manager.

Builder's Signature.

Date 21st SEP 1926

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 felled on board under special survey. Tested under full working conditions and found satisfactory. The workmanship was found to be good and sound.

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

J. S. Rankin
5/11/22

Total Capacity of Generators 2 each 16 Kilowatts

The amount of Fee £ 23.0.0

When applied for, 5/7/24

Travelling Expenses (if any) £ 1.1.0

When received, 8/7/24

J. S. Rankin
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW 2-NOV 1926

Assigned

Elec. Light.



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