

Rpt. 13.

No. 30455

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 13 SEP 1930

Date of writing Report 20.8.1930 When handed in at Local Office 12.9.1930 Port of SUNDERLAND.

No. in Survey held at SUNDERLAND Date, First Survey 11/8/30 Last Survey 20/8/30 19
Reg. Book.

90822. on the S.S. HARPENDEN.

(Number of Visits 2)

Tons Gross 4,678.

Net 3774.

Built at SUNDERLAND By whom built BARTRAM & SONS LTD Yard No. 270 When built 1930

Owners NATIONAL S.S. CO. (J. & C. HARRISON) Port belonging to LONDON.

Electric Light Installation fitted by THE SUNDERLAND FORGE & ENG. CO Contract No. 270 When fitted 1930

System of Distribution

DOUBLE WIRE.

Pressure of supply for Lighting 110. volts, Heating - volts, Power 110. volts.

Direct or Alternating Current, Lighting DIRECT. Power -

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 YES.

Where more than one generator is fitted are they arranged to run in parallel - 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 YES.

Position of Generators

ENGINE ROOM.

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

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 ENGINE ROOM.

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 YES.

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

D.P. SWITCH & D.P. HANDLE TYPE FUSES FOR GENERATOR. D.P. SWITCHES & D.P. FUSES FOR EACH CIRCUIT.

Instruments on main switchboard 1 ammeters 1 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

LAMPS CONNECTED TO SWITCH & FUSE ON EACH POLE TO EARTH.

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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Foundation

005387-005396-0226 1/2

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								
	MAIN BILGE LINE PUMPS								
	GENERAL SERVICE PUMP								
	EMERGENCY BILGE PUMP								
	SANITARY PUMP								
	CIRC. SEA WATER PUMPS								
	CIRC. FRESH WATER PUMPS								
	AIR COMPRESSOR								
	FRESH WATER PUMP								
	ENGINE TURNING GEAR								
	ENGINE REVERSING GEAR								
	LUBRICATING OIL PUMPS								
	OIL FUEL TRANSFER PUMP								
	WINDLASS								
	WINCHES, FORWARD								
	WINCHES, AFT								
	STEERING GEAR—								
	(a) MOTOR GENERATOR								
	(b) MAIN MOTOR								
	WORKSHOP MOTOR								
	VENTILATING FANS								

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.

I, THE ENGINEER AND ELECTRICIAN FOR THE

Thos Thompson

Electrical Engineers.

Date

COMPASSES.

Distance between electric generators or motors and standard compass 120 FEET.

Distance between electric generators or motors and steering compass 116 FEET.

The nearest cables to the compasses are as follows:—

A cable carrying 3.1 Ampères 8 feet from standard compass 6 feet from steering compass.

A cable carrying Ampères feet from standard compass 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 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.

For Bartram & Sons Ltd.

R. M. Barham

Builder's Signature.

Date Aug 24 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 on board under special survey. Tested under full working conditions and found satisfactory. The materials and workmanship were found to be good and sound.

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

J. S. Rankin

Total Capacity of Generators 10 Kilowatts.

The amount of Fee ... £10.0.0

When applied for, 1 SEP 1930

Travelling Expenses (if any) £

When received, 3 SEP 1930

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

Committee's Minute

TUE. 23 SEP 1930

Assigned

Elec. Light



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