

# REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office..... WED NOV. 22 1922

Date of writing Report 20. 11. 1922 When handed in at Local Office 20. 11. 1922 Port of Glasgow

No. in Survey held at GLASGOW. Date, First Survey 26<sup>th</sup> Sept Last Survey 10<sup>th</sup> Nov 1922  
Reg. Book. (Number of Visits..... 7)56895 on the 5.5" CLAN MACFARLANE " Tons { Gross 6222  
Net 3849.75

Built at IRVINE By whom built Messrs The Clyde Shipbuilding &amp; Engineering Co. Ltd. and No. 490 When built 1922

Owners CAYZER IRVINE &amp; CO LTD Port belonging to GLASGOW.

Electric Light Installation fitted by MESSRS THE SUNDERLAND FORGE &amp; ENG. CO LTD Contract No. 190. When fitted 1922.

System of Distribution Two Wire

Pressure of supply for Lighting 100 volts, Heating ✓ volts, Power ✓

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 overload 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 no ✓, 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 In 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 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 Close to Generators ✓

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 ✓, 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 yes ✓, 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 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 Double pole

switch &amp; fuse for generator Single pole switch &amp; double pole fuses for outgoing circuits

Instruments on main switchboard 1 ammeter 1 voltmeter 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 lamps

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 the same as per rule yes ✓



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Foundation







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.

p.pro. THE SUNDERLAND FORGE & ENGINEERING CO., LTD.

Electrical Engineers.

Date 13th October 1922.

#### COMPASSES.

Distance between electric generators or motors and standard compass 158 feet

Distance between electric generators or motors and steering compass 150 feet

The nearest cables to the compasses are as follows:—

A cable carrying 15.1 Ampères 4 feet from standard compass 12 feet from steering compass.

A cable carrying 56 Ampères 8 feet from standard compass led into steering compass.

A cable carrying 56 Ampères led into standard compass 8 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.

The maximum deviation due to electric currents was found to be 12 degrees on any course in the case of the standard compass, and 12 degrees on any course in the case of the steering compass.

FOR AND ON BEHALF OF  
AYRSHIRE DOCKYARD CO., LIMITED.

D. M. Ball

Builder's Signature.

Date 14th November 1922

General Manager

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 found satisfactory. The workmanship was found to be good.

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

Elec. Light

CHAB  
23/11/22

Total Capacity of Generators 20 Kilowatts

The amount of Fee ... £ 17 : 10 : 20/11/22

Travelling Expenses (if any) £ : : See debit book.

Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 21 NOV 1922

Assigned Elec. Light

Im 822—Transfer.  
(The Surveys are requested not to write on or below the space for Committee's Minute.)

MT.  
20.11.22



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