

Rpt. 13.

No. 46091

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

1 DEC 1926

Date of writing Report

19

When handed in at Local Office 29-11-26 19

Port of GLASGOW

No. in
Reg. Book.

Survey held at PORT GLASGOW

Date, First Survey 23rd July

Last Survey 8th Sept 1926

(Number of Visits 2)

65942 on the BUCKET HOPPER DREDGER "CARRONWATER".

Tons

Gross 1232

Net 566

Built at PORT GLASGOW

By whom built MESSRS FERGUSON BROS. Yard No. 279

When built 1926

Owners THE LONDON, MIDLAND & SCOTTISH RLY. Port belonging to

Electric Light Installation fitted by MESSRS J. CHARTERS.

Contract No. 279 When fitted 1926.

System of Distribution Double wire looping-in System without jointing. ✓

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

Direct or Alternating Current, Lighting Direct Current ✓ 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 compounded 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 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 Starboard 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

< 12" and < 48", 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 mounted on angle iron brackets secured to ship's side beside dynamo.

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 < 12" and < 48"

are they constructed wholly of durable, incombustible non-absorbent materials Enamelled slate panels, is all insulation of high dielectric strength and of permanently high insulation resistance Micanite.

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 both poles insulated, 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 One D.P. Q.B. switch & 2 S.P. H.D. fuses for Dynamo & 4-50% S.P. Q.B. switches and eight S.P. 50% H.D. fuses for 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 One set earth lamps with switches & fuses

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.

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office ☒

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	✓			✓				
	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.

J. Charters.

Electrical Engineers.

Date 2nd Sept 1926.

COMPASSES.

Distance between electric generators or motors and standard compass 57'

Distance between electric generators or motors and steering compass one compass fitted.

The nearest cables to the compasses are as follows:—

A cable carrying 5.8 Ampères 8 feet from standard compass ✓ feet from steering compass.

A cable carrying 5.2 Ampères 40 feet from standard compass ✓ feet from steering compass.

A cable carrying 27 Ampères in feet from standard compass ✓ feet from steering compass.

Has the compass 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 ✓ degrees on ✓ course in the case of the steering compass.

FERGUSON BROTHERS (PORT GLASGOW) LTD.

Robert Ferguson

DIRECTOR. Builder's Signature.

Date

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 workmanship was found to be good and sound.

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

J. Rankin
3/10/26

Total Capacity of Generators 4.6 Kilowatts

The amount of Fee ... £ 6.0.0 : When applied for, @ 4/6

Travelling Expenses (if any) £ 10/6 : When received, 2/11/26 p.m. 5/1.

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

Committee's Minute GLASGOW 30 NOV 1926

Assigned Elec. Light.

SB



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