

Rpt. 13.

No. 9721

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL) 23 APR 1927

Received at London Office.....

Date of writing Report 19 When handed in at Local Office 22-4-1927 Port of BELFAST

No. in Survey held at BELFAST Date, First Survey 10th March Last Survey 6 April 1927
Reg. Book. (Number of Visits.....6.....)90511 on the New Steel M.S. "Port Fremantle" Tons { Gross
Messrs Workman, Clark Net

Built at Belfast By whom built & Co. Ltd. Yard No. 489 When built 1927

Owners Messrs Commonwealth & Dominion Line Port belonging to London

Electric Light Installation fitted by Messrs The Sunderland Forge & Engineering Co. Ltd. Contract No. 489 When fitted 1927

System of Distribution Double Wire.

Pressure of supply for Lighting 220 volts, Heating 220 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

Position of Generators In Main Engine Room (2 on Port Side 1 on Starboard Side), Are the lubricating arrangements of the generators as per Rule Yes

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 In Main Engine Room, Forecastle, F & A. Switch Rooms & Poop. 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 In 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, 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 Triple Pole

Overload, Reverse Current Circuit Breakers, 3rd Pole acts as equaliser. Double Pole Overload

Circuit Breakers & Double Pole Switches & Fuses on outgoing circuits.

Instruments on main switchboard 4 ammeters 3 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 Lamp, switch & Fuse on each pole

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	1	0.2	37	0.083	152 ✓	240	N.R.	Lead cov. 9mm br.
	MAIN BILGE LINE PUMPS ...	1	0.2	37	0.083	55 ✓	72	do	do
	GENERAL SERVICE PUMP ...	1	0.075	19	0.072	93 ✓	110	do	do
	EMERGENCY BILGE PUMP ...								
	SANITARY PUMP	1	0.075	19	0.072	83 ✓	180	do	do
	CIRC. SEA WATER PUMPS ...	1	0.2	37	0.083	152 ✓	165	do	do
	CIRC. FRESH WATER PUMPS	2	0.2	37	0.083	152 ✓	106	do	do
	AIR COMPRESSOR	2	0.5	61	0.103	310 ✓	215	do	do
	FRESH WATER PUMP	1	0.04	19	0.052	50 ✓	85	do	do
	ENGINE TURNING GEAR ...	2	0.06	19	0.064	72 ✓	100	do	do
	ENGINE REVERSING GEAR ...								
	LUBRICATING OIL PUMPS ...	2	0.075	19	0.072	93 ✓	80	do	do
		2	0.007	7	0.036	24 ✓	80	do	do
	OIL FUEL TRANSFER PUMP	1	0.1	19	0.083	38 ✓	140	do	do
	WINDLASS	1	0.25	37	0.093	215 ✓	40	do	do
	WINCHES, FORWARD ...	8	0.3	37	0.103	270 ✓	180	do	do
	WINCHES, AFT	6	0.3	37	0.103	270 ✓	185	do	do
	STEERING GEAR	2	0.1	19	0.083	134 ✓	48	do	do
			0.007	7	0.036	26 ✓	64		
	WORKSHOP MOTOR	2	0.007	7	0.036	9 ✓	140	do	do
	VENTILATING FANS	5	0.007	7	0.036	115 ✓	36	do	do
	Refrig. Circ. Pump	1	0.2	37	0.083	152 ✓	240	do	do
	Overhead Crane	1	0.04	19	0.052	28 ✓	84	do	do
	Oil Purifiers	3	0.007	7	0.036	10.8 ✓	108	do	do
	Main Refrig. m/c	2	0.75	91	0.103	457 ✓	90	Varn. Camd	do
		2	0.04	19	0.052	52 ✓	60		
	Brine Pumps	1	0.04	19	0.052	55 ✓	70	N.R.	do
	Cooler Fans	3	0.0225	7	0.064	20 ✓	512	do	do
	Capstans	2	0.12	37	0.064	152 ✓	144	do	do
	Blower Motor	1	0.007	7	0.036	8.8 ✓	90	do	do

The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.

Electrical Engineers.

Date 15.4.27.

COMPASSES.

Distance between electric generators or motors and standard compass

{ 160 feet between Generator & Compass
40 " " motors & "
160 " " Generator & "
40 " " motors & "

Distance between electric generators or motors and steering compass.

The nearest cables to the compasses are as follows :—

A cable carrying 2.3 Amperes 4 feet from standard compass 6 feet from steering compass.

A cable carrying **14** Amperes **2** feet from standard compass **2** feet from steering compass.

A cable carrying _____ Amperes _____ 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 all course in the case of the standard

compass, and five degrees on all courses in the case of the steering compass.

PRO WORKMAN, CLARK & CO., LIMITED

ASSISTANT SECRETARY.

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 efficiently fitted and is in accordance with the rules. The generator and motor were satisfactory in trial.

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

See Light.

26/4/27

Total Capacity of Generators 750 Kilowatts

The amount of Fee £ 50 : 5 -

When applied for, - 22-4-27

Travelling Expenses (if any) £ : : 26.4.1927

Committee's Minute

Assigned

Elec Light

Ref Annex.

Surveyor to Lloyd's Register of Shipping.