

Rpt. 13.

No. 45290

REPORT ON ELECTRIC FITTINGS

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

27 JAN 1926

Date of writing Report 13-1-1926 When handed in at Local Office

10 Port of GLASGOW.

No. in Survey held at
Reg. Book.

GLASGOW.

Date, First Survey 11th Nov 1925 Last Survey 25th Dec 1925

(Number of Visits 6)

88208 on the

S.S. "BENARTY"

Tons { Gross 5435
Net

Built at GLASGOW

By whom built MESSRS C. CONNELL & CO Yard No. 405

When built 1925.

Owners MESSRS W. THOMSON & CO

Port belonging to LEITH.

Electric Light Installation fitted by MESSRS H. T. ROBERTSON & CO

Contract No. 406 When fitted 1925.

System of Distribution

Double Wire ✓

Pressure of supply for Lighting

100 ✓

volts, Heating

100 ✓

volts, Power

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

One generator

, is an adjustable regulating resistance fitted in

series with each shunt field

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 Generator

Stand Side Top of Eng Store

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 Board, where placed

Alongside Generator

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

D/P Main Switch

D/P Circuit Switches for each outgoing circuit

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

Two Lamps in series earthed

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



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Foundation

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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.

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*

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. *Recommendations Lead Ca'd by Brass Clips*

If cables are run in wood casings, are the casings and caps secured by screws _____, are the cap screws of brass _____, are the cables run in separate grooves _____. If armoured and lead covered cables are secured by metal clings, are the _____

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements

Joints in Cables, state if any, and how made, insulated, and protected *No Joints* *Yes*

Watertight Glands and Deck Tubes, are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands

Bushes in Beams and Non-watertight Positions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently

Earthing Connections, state what earthing connections are fitted and their respective sectional areas

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule 200 200 are their connections made as per Rule 200 200

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven

Navigation Lamps, are these separately wired yes, controlled by separate switch and separate fuses yes

the fuses double pole yes, are the switches and fuses grouped in a position accessible only to the officers on watch yes

each navigation lamp an automatic indicator as per Rule Yes, are separate screens provided for the use of oil and electric side light Yes

separate oil lanterns provided for the mast head lights and side lights *yes*

tings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, and which

any fillings placed in spaces in which goods are liable to be stacked in close proximity to them: if so, how are they protected?

able to be stacked in close proximity to them; if so, how are they protected

... or explosive dust or gases are liable to be present, if so, how are they protected. no

...how are the cables led

are the controlling switches situated

are the controlling switches situated

Searchlight Lamps No. 41

Lamps, other than those of the foregoing description, whether fixed or portable, and their fittings as per Rule

Lamps, other than searchlight lamps, No. of _____, are their live parts insulated from the frame or case _____, are their fittings as per Rule _____.

are their working parts readily accessible ☒ , are the coils self-contained and readily removable for replacement ☒

the brushes, brush holders, terminals and lubricating arrangements as per Rule _____, are the motors placed in well ventilated compartments in which

inflammable gases cannot accumulate and clear of all inflammable material

...protected from mechanical injury and damage from water, steam or oil

are their axis of rotation fore and aft

....., if not of this type, state distance of the combustible material horizontally or vertically from the

rol Gear and Resistances, are the generator field and motor speed regulators, starting..... and

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule.....

...s carrying Oil having a Flash Point less than 150 F. Have the ...

and distribution boards, protection of cables, method of distribution, etc.

table lamps for use in dangerous spaces are supplied, use those of	
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For use in dangerous spaces are supplied, are they of a type approved by the Home Office

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	1	10	100	100	Compound Steam Eng.			
AUXILIARY								
EMERGENCY								
ROTARY TRANSFORMER								

[illegible]

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.

H. S. Robertson & Co.

Electrical Engineers.

Date 15/1/26

COMPASSES.

Distance between electric generators or motors and standard compass

100 ft

Distance between electric generators or motors and steering compass

100 ft

The nearest cables to the compasses are as follows:—

A cable carrying 6 Ampères 10 feet from standard compass 10 feet from steering compass.

A cable carrying .3 Ampères into feet from standard compass into 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 7/16 degrees on every course in the case of the standard compass, and 7/16 degrees on every course in the case of the steering compass.

For CHARLES CONNELL & CO., Limited.

M. C. Bauman

SECRETARY.

Builder's Signature.

Date

21/1/26

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. W. D.
29/1/26

Total Capacity of Generators 10 Kilowatts

The amount of Fee ... £ 10.0.0. When applied for, 12.1.26

Travelling Expenses (if any) £ : : When received, 15.1.26

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

Committee's Minute GLASGOW 26 JAN 1926

Assigned Elec. Light. WZM



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