

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

12 FEB 1931

Received at London Office

Date of writing Report 26. 1. 1931. When handed in at Local Office 9. 2. 1931 Port of GLASGOW.

No. in Survey held at GREENOCK. Date, First Survey 22. 12. 30 Last Survey 29. 1. 1931. Reg. Book. (Number of Visits 7)

89691 on the m.v. "BRITISH PRIDE" Tons {Gross 7106 Net

Built at PORT GLASGOW. By whom built MESSRS. LITHGOWS. LTD. Yard No. 849 When built 1931

Owners THE BRITISH TANKER CO. LTD. Port belonging to LONDON.

Electric Light Installation fitted by TELFORD GRIER & MACKAY LTD Contract No. 849 When fitted 1931

Is the Vessel fitted for carrying Petroleum in bulk YES.

System of Distribution Two Wire

Pressure of supply for Lighting 110 volts, Heating - volts, Power 110 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 rating 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, 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 Starboard Side Main 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 In Main Engine Room near 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, 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 -

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 Each Generator

Double pole Circuit Breaker Overload & Reverse with Interlocked Equalizer Switch

Each Outgoing Circuit Double Pole Switch & two S.P. Fuses

Instruments on main switchboard Three ammeters Three 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

Earth Lamps.

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



Cables: Single, twin, concentric, or multicore single are the cables insulated and protected as per Tables IV or V of the Rules yes

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 5 volts

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets yes

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 yes

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 Galv. Steel Tube where run on deck or up Masts. Clipped to Bulkheads elsewhere

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 clips, are the clips spaced as per Table VIII yes

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements none

Joints in Cables, state if any, and how made, insulated, and protected none

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

Bushes in Beams and Non-watertight Partitions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed yes state the material of which the bushes are made lead

Earthing Connections, state what earthing connections are fitted and their respective sectional areas Lead covering and screwing efficiently bonded to each by means of glands & clips.

are their connections made as per Rule yes

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule yes

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

has each navigation lamp an automatic indicator as per Rule yes

Secondary Batteries, are they constructed and fitted as per Rule -

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight yes, are any fittings placed in spaces in which goods are liable to be stacked in close proximity to them; if so, how are they protected none

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected Watertight

Fittings with Flameproof Cable Glands and Broad Flameproof Joints, how are the cables led In Galv. Watertight Steel Tube

where are the controlling switches situated Outside the Spaces in case of Pump Room Fittings In case of Centre Castle - Watertight Switch in Space & DP. Master Control the Outside Space

Searchlight Lamps, No. of -, whether fixed or portable -, are their fittings as per Rule -

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

Motors, are their working parts readily accessible yes, are the coils self-contained and readily removable for replacement yes, are the brushes, brush holders, terminals and lubricating arrangements as per Rule yes, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material yes

are they protected from mechanical injury and damage from water, steam or oil yes are their axes of rotation fore and aft yes

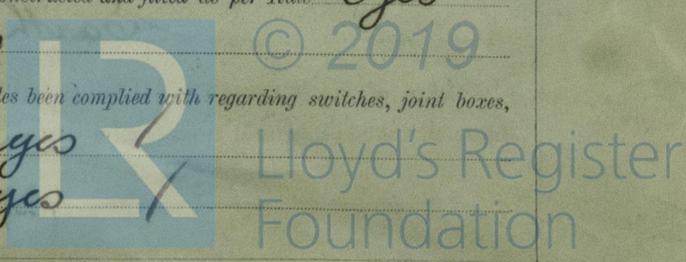
if situated near unprotected woodwork or other combustible material, are the motors of the totally enclosed, pipe ventilated, forced draught, drip or flame proof type -, if not of this type, state distance of the combustible material horizontally or vertically above the motors - and -

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed and fitted as per Rule yes

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

Ships carrying Oil having a Flash Point less than 150° F. Have the special requirements of the Rules been complied with regarding switches, joint boxes, section and distribution boards, protection of cables, method of distribution, lead of cables, lights and fittings yes

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



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 ...	Two	65	110	591	300	Diesel Engine	Diesel Oil	Above 150° F
AUXILIARY ...	One	10	110	91	250	Steam Engine	-	-
EMERGENCY ...								
ROTARY TRANSFORMER								

GENERATOR, LIGHTING AND HEATING CONDUCTORS.

DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
	No. per Pole.	Total Effective Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
MAIN GENERATOR ...	Two	.4	2-3/4	.083	591	592	80 ft	Paper	L.C. A + B.
EQUALISER CONNECTIONS ...	one	.2	34	.083	295	296	-	Paper	L.C. A + B.
AUXILIARY GENERATOR ...	one	.045	19	.042	91	94	40 ft.	V.G.R.	L.C. A + B.
EMERGENCY GENERATOR ...									
ROTARY TRANSFORMER } MOTOR GENERATOR ...									
ENGINE ROOM ...									
BOILER ROOM ...									
AUXILIARY SWITCHBOARDS ...									
Accommodation	one	.03	19	.044	29	53	510 ft.	V.G.R.	L.C. A + B.
Navigation	one	.004	4	.036	5	24	590 ft	V.G.R.	L.C. A + B.
Forward	one	.01	4	.044	4	31	840 ft	V.G.R.	L.C. A + B.
Aft	one	.004	4	.036	13	24	190 ft.	V.G.R.	L.C. A + B.
Machinery	one	.004	4	.036	14	24	20 ft.	V.G.R.	L.C. A + B.
ACCOMMODATION ...									
WIRELESS ...	one	.01	4	.044	9	31	600 ft	V.G.R.	L.C. A + B.
SEARCHLIGHT ...									
MASTHEAD LIGHT ...									
SIDE LIGHTS ...									
COMPASS LIGHTS ...									
POOP LIGHTS ...									
CARGO LIGHTS ...									
ARC LAMPS ...									
HEATERS ...									

MOTOR CONDUCTORS.

DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
		No. Per Pole.	Total Effective Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
BALLAST PUMP ...										
MAIN BILGE LINE PUMPS	one	one	.04	19	.052	100	104	160	Paper	L.C. A + B.
GENERAL SERVICE PUMP										
EMERGENCY BILGE PUMP										
SANITARY PUMP ...	one	one	.04	19	.052	84	104	160	Paper	L.C. A + B.
CIRC. SEA WATER PUMPS	one	one	.045	19	.042	152	154	100	Paper	L.C. A + B.
CIRC. FRESH WATER PUMPS										
AIR COMPRESSOR ...										
FRESH WATER PUMP ...										
ENGINE TURNING GEAR ...										
ENGINE REVERSING GEAR ...										
LUBRICATING OIL PUMPS No 1 No 2	2 each	one	.1	19	.083	165	191	120	Paper	L.C. A + B.
OIL FUEL TRANSFER PUMPS										
WINDLASS ...										
WINCHES, FORWARD ...										
WINCHES, AFT ...										
STEERING GEAR—										
(a) MOTOR GENERATOR ...										
(b) MAIN MOTOR ...	one	one	.1	19	.083	180	191	300	Paper	L.C. A + B.
WORKSHOP MOTOR ...	one	one	.01	4	.044	40	42	200	Paper	L.C. A + B.
VENTILATING FANS										
Refrigerator	one	one	.04	19	.052	90	104	200	Paper	L.C. A + B.
Centre Cebu. Dis. Box	four	one	.04	19	.052	100	104	160	Paper	L.C. A + B.
Forced Draft Fan	one	one	.01	4	.044	35	42	100	Paper	L.C. A + B.

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.

TELFORD, GRIER & MACKAY, LTD.

Electrical Engineers.

Date 3rd Feb 31

Edmund Mackay

COMPASSES.

Distance between electric generators or motors and standard compass 200 ft.

Distance between electric generators or motors and steering compass 200 ft.

The nearest cables to the compasses are as follows:—

A cable carrying 5 Ampères 8 feet from standard compass 5 feet from steering compass.

A cable carrying 1/2 Ampères one feet from standard compass one 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.

LITHGOWS LIMITED.

John McFulloch Secretary Builder's Signature.

Date 5/2/31

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

DM 11/31/31

A.B.
9/2/31

Total Capacity of Generators 140 Kilowatts.

The amount of Fee ... £ 33 : 10 : 0 at 9/6.

Travelling Expenses (if any) £ 1 : 1 : 0 3. 2. 31

W. Haffner
Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 11 FEB 1931

Assigned *Elec Light*



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