

Rpt. 13.

No. 76277

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office... WED. 10 JAN. 1923

Date of writing Report 29/12 1922 When handed in at Local Office 8/1 1923 Port of NEWCASTLE-ON-TYNE

No. in Survey held at Newcastle Date, First Survey 28 Aug Last Survey 13 Dec 1922
Reg. Book. (Number of Visits 11)

55286 on the S.S. British Premier Tons { Gross 6046
Net 3517.

Built at Newcastle-on-Tyne By whom built Palmer & Roberts Yard No. 925 When built 1922

Owners The British Tanker Co Ltd Port belonging to London

Electric Light Installation fitted by Palmer & Roberts Ltd Contract No. 925 When fitted 1922

System of Distribution Double wire distribution system

Pressure of supply for Lighting 110 volts, Heating — volts, Power 220 volts.

Direct or Alternating Current, Lighting Direct Power alternating

If alternating current system, state frequency of periods per second 50

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 steam act, motor gen } shunt wound

are they over compounded 5 per cent. yes steam act only, if not compound wound state distance between each generator —

Where more than one generator is fitted are they arranged to run in parallel power yes, lighting 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 on dynamo flat

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 —

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 engine room on dynamo flat aft end

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 circuit breaker fitted

with blow out coils + 3 pole switch on AC generators, double pole change-over switch + fuses on DC generators for lighting, 3 pole switch + fuses on each outgoing circuit for power + 2 pole switches + fuses on each outgoing circuit for lighting

Instruments on main switchboard 4 AC + 1 DC ammeters 2 AC + 1 DC voltmeters one 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 through double pole fuses to earth ✓

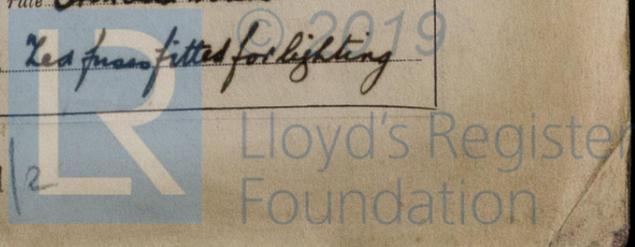
Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules yes ✓

Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule iron clad boxes with switches + fuses for lighting + iron clad boxes with 3 pole switches + fuses for power, 2 pole fuses fitted for lighting

RETAIN

RETAIN

W351 - 0043 1/2



RETAIN

Insulation of Cables, state type of cables, single or twin single + 3 core are the cables insulated and protected as per Tables III or IV of the Rules. Yes

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

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. 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 sealed in trifurcating boxes

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 on special plating in engine room. Lighting cables run in channel bar troughing filled in with compound along fore-cast gangway

If cables are run in wood casings, are the casings and caps secured by screws Yes, are the cap screws of brass Yes, are the cables run in separate grooves Yes. If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VI Yes

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

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

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 Positions, 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 are their connections made as per Rule

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 steam driven dynamo coupled through double pole change over switch of fuses to main switchboard

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, are separate screens provided for the use of oil and electric side lights Yes, are separate oil lanterns provided for the mast head lights and side lights Yes

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 Yes fitted with glass. shades & heavy metal guards

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected Yes, in pump room entrance protected by stout glass bowl only to be opened from outside & operated by double pole switches. how are the cables led in galvanised iron pipe wholly outside

where are the controlling switches situated double pole switches in accommodation passage

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

Arc 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 axis of rotation fore and aft Yes except steering gear 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 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	2	120 KVA	220		1000	Release Impulse Turbo 7500 RPM		
MAIN	1	10	110	91		Induction motor 220 vch		
EMERGENCY	1	10	110	91	340	single cylinder steam engine		
ROTARY TRANSFORMER	1	1 1/2	135-180	111-9.3	1500/1800	DC motor 110 volts		

LIGHTING AND HEATING CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Ampères.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR...	3	.3024	31	.103	315	80	Paper	Lead cov. arm & shielded
	MAIN GENERATOR	2	.1478	37	.072	91	21	Rubber	do
	EMERGENCY GENERATOR	2	.1478	37	.072	91	21	do	do
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM	2	.01046	7	.064	15.98	108	do	do
	BOILER ROOM	2	.01046	7	.064	5.44	118	do	do
	After accommodation	2	.02214	7	.064	29.93	162	do	do
	Accommodation for navigation	2	.1478	37	.072	57.93	654	do	do
	WIRELESS	2	.02214	7	.064	13.6	690	do	do
	SEARCHLIGHT								
	MASTHEAD LIGHT MAIN	2	.00194	3	.029	1.02	360	do	do
	" FORW	2	.00194	3	.029	4.28	90	do	do
	SIDE LIGHTS	2	.00194	3	.029	.28	20	do	do
	COMPASS LIGHTS	2	.00194	3	.029	1.02	678	do	do
	STERN LIGHTS	2	.00194	3	.029	1.02	81	do	do
	CARGO LIGHTS	2	.003	70	.0076	3		do	finally air shielded overall.
	ARC LAMPS								
	HEATERS								

RETAIN

MOTOR CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Ampères.	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	2	.1009	19	.083	125	90	Paper	Lead cov. arm shielded
	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	1	.02214	7	.064	50	85	do	do
	WORKSHOP MOTOR								
	VENTILATING FANS								
	Camberland system	1	.00701	7	.036	6.6	66	Rubber	do
	Oil purifier motor	1	.01046	7	.044	10	120	do	do
	Refrigerator	1	.00701	7	.036	26	20	Paper	do
	Feed pump	1	.02214	7	.064	50	98	do	do
	Forced draught fan	1	.02214	7	.064	69	138	do	do
	do	1	.02214	7	.064	69	138	do	do
	Motor generator	1	.02214	7	.064	40	64	do	do

W357-0043 2/2

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.

Palmer's Shipbuilding & Iron Co., Ltd.

W. Mallinson

Electrical Engineers.

Date *Jan 5 1923*

COMPASSES.

Distance between electric generators or motors and standard compass *224 feet*
 Distance between electric generators or motors and steering compass *19 feet*
 The nearest cables to the compasses are as follows:—
 A cable carrying *.28* Amperes *on the* ~~feet from~~ standard compass *7* feet from steering compass.
 A cable carrying *.28* Amperes *7* feet from standard compass *on the* ~~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 *nil* degrees on *all* course in the case of the steering compass.

PALMERS SHIPBUILDING & IRON CO. LTD.

W. S. Simpson

Builder's Signature.

Date *5/1/23.*

SHIPYARD MANAGER.

Is this installation a duplicate of a previous case *yes* If so, state name of vessel *British Offices*

General Remarks (State quality of workmanship, opinions as to class, &c.)

The above installation is in accordance with the Society's Rules. This vessel is eligible in my opinion for notation as light wireless.

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

A.H.D.
26/1/23

Total Capacity of Generators *202* Kilowatts

The amount of Fee £ *36* : *11* : *18/12/22* When applied for,
 Travelling Expenses (if any) £ : : *5/1/23* When received,

W. T. Badger.
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Im. 322.—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minutes.)



© 2019

Lloyd's Register Foundation