

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

25 JAN 1928

Date of writing Report

19

When handed in at Local Office

24/1/1928

Port of

Newcastle-on-Tyne

No. in Survey held at

Newcastle

Date, First Survey

1st Sept/27

Last Survey

9th Jan 1928

Reg. Book. Supp

(Number of Visits)

14

40000 on the

M.V. British Loyalty

Tons

Gross 6993

Net

Built at

Newcastle

By whom built

Palmer & Co Ltd

Yard No. 969

When built 1928

Owners

British Tanker Co Ltd

Port belonging to

London

Electric Light Installation fitted by

Palmer & Co Ltd

Contract No. 969 When fitted 1928

System of Distribution

Doubly 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

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

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 bodyplates 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

Engine room forward bulkhead starboard side

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 micrite 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

3-pole C. Breakers fitted

to each main generator, with overloads & reverse current coils. Double pole

switch & fuses fitted on each outgoing circuit

Instruments on main switchboard

5

ammeters

4

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 coupled

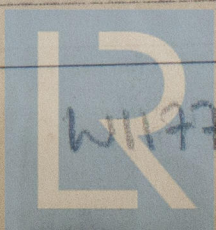
to earth through S.P. switches & fuses

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



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Lloyd's Register Foundation

25 JAN 1928

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Amps.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	2	65	110	590	300	Diesel Engines		
AUXILIARY	1	10	110	91	310	Single cylinder steam engine		
EMERGENCY								
ROTARY TRANSFORMER								

LIGHTING AND HEATING CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Conductors.	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.				
	MAIN GENERATOR (2 per pole)	2	.7435	91	.103	590	186	Paper.	Lead covered arm braided
	EQUALISER CONNECTIONS	1	.7435	91	.103	590	186	do	do
	AUXILIARY GENERATOR	2	.1009	19	.083	91	96	Y. J. R.	do
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM	2	.01046	7	.044	23.7	39	do	do
	BOILER ROOM	2	.0396	19	.052	30.0	360	do	do
	ACCOMMODATION Afternoon midships	2	.1009	19	.083	56.8	570	do	do
	WIRELESS	2	.01046	7	.044	135	675	do	do
	SEARCHLIGHT								
	MASTHEAD LIGHT	2	.00194	3	.029	9	490	do	do
	SIDE LIGHTS	2	.00194	3	.029	9	114	do	Lead covered
	COMPASS LIGHTS	2	.00194	3	.029	25	20	do	do
	STERN LIGHTS	2	.00299	3	.036	9	826	do	Lead covered arm braided
	CARGO LIGHTS	2	.003	70	.0076	3	70	do	Specially arm braided
	ARC LAMPS								
	HEATERS								

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	1	.0396	19	.052	64.5	228	Paper	Lead covered arm braided
	CIRC. SEA WATER PUMPS	2	.1009	19	.083	196	250	do	do
	CIRC. FRESH WATER PUMPS								
	AIR COMPRESSOR								
	FRESH WATER PUMP								
	ENGINE TURNING GEAR								
	ENGINE REVERSING GEAR								
	LUBRICATING OIL PUMPS	2	.0396	19	.052	96	270	do	do
	OIL FUEL TRANSFER PUMP	1	.02214	7	.064	50	126	do	do
	WINDMILLS								
	WINCHES, FORWARD								
	WINCHES, AFT								
	STEERING GEAR								
	(a) MOTOR GENERATOR								
	(b) MAIN MOTOR	1	.1009	19	.083	154	224	do	do
	WORKSHOP MOTOR	1	.02214	7	.064	25.5	153	V. I. R.	do
	VENTILATING FANS								
	Refrigerator	1	.0396	19	.052	86.0	228	Paper	do
	Forced draught fan	1	.02214	7	.064	47.0	132	do	do
	Overhead crane	1	.02214	7	.064	53.5	213	Y. I. R.	do
	Oil fuel separator	1	.00455	7	.029	10.35	221	do	do
	Lubricating oil separator	1	.00455	7	.029	10.35	210	do	do

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 lighting, 6 for power*

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

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 *clipped to special plating in engine room.*

Main cables carried along fore safe gangway.

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 *—*

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 Partitions, where wire-armoured 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 *Emergency lights are fitted in engine room + fed by a battery, so arranged that they are switched on automatically on failure of main supply*

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 *Yes*

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and where 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 fumes are liable to be present, if so, how are they protected *Yes in pump room entrance protected with stout glass bowl to be opened from the outside*, how are the cables led *in a galvanised iron pipe outside*

where are the controlling switches situated *double pole switches in acc. passages outside saloon*

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 axes of rotation fore and aft *Yes except steering gear motor*

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 regulators, starters and controllers constructed and fitted as per Rule *Yes*

Lightning Conductors, where lightning conductors are required, are they 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*

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.

W. H. Pomeroy
Palmer's S. & L. Co.

Electrical Engineers.

Date 23/1/28

COMPASSES.

Distance between electric generators or motors and standard compass

212 feet

Distance between electric generators or motors and steering compass

205 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 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. H. Pomeroy

Builder's Signature.

Date

SHIPYARD MANAGER.

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.)

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

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

W. T. Badger
26/1/28

Total Capacity of Generators 140 Kilowatts.

The amount of Fee ... £ 33: 10/-

When applied for,
21/1/28

Travelling Expenses (if any) £

When received,
26/1/28

W. T. Badger

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUES. 31 JAN 1928

Assigned

Elec Light