

as shown

Rpt. 13.

No. 50695

# REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 3 SEP 1930

Date of writing Report 29. 7. 1930 When handed in at Local Office 1. 9. 1930 Port of GLASSGOW

No. in Survey held at GLASSGOW Date, First Survey 3. 4. 30 Last Survey 6. 8. 1930  
Reg. Book. 76570 on the M.V. LAUREL: (Number of Visits... 10...)

Built at GLASSGOW By whom built THE BLYTHSWOOD SHIPBARD CO. LTD Yard No. 28 Tons (Gross 10014 Net) When built 1930

Owners REDERIAKTIEG OIL TRANSPORTER. (OLSON & BRIGHT A/S MANAGERS) Port belonging to STOCKHOLM.

Electric Light Installation fitted by MESSRS TROUP CURTIS & CO., LTD. Contract No. 28 When fitted 1930

System of Distribution 2 Wire System

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

Direct or Alternating Current, Lighting Direct Current Power Direct Current

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 400, are they compound wound 400

are they over compounded 5 per cent. 400, if not compound wound state distance between each generator

Where more than one generator is fitted are they arranged to run in parallel 400, is an adjustable regulating resistance fitted in series with each shunt field 400

Are all terminals accessible, clearly marked, and furnished with sockets 400, are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched 400 Are the lubricating arrangements of the generators as per Rule Yes

Position of Generators After end of engine room on Dynamo Flats

is the ventilation in way of the generators satisfactory 400, are they clear of all inflammable material 400

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 400

are their axes of rotation fore and aft 400

Earthing, are the bedplates and frames of the generating plant efficiently earthed 400 are the prime movers and their respective generators in metallic contact 400

Main Switch Boards, where placed Before end of Dynamo Flats, After end of engine room.

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 400

are they protected from mechanical injury and damage from water, steam or oil 400, 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 400, is all insulation of high dielectric strength and of permanently high insulation resistance 400

if semi-insulating material is used, are all conducting parts insulated from the slab with mica or micaite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework

and is the frame effectively earthed 400 Are the fittings as per Rule regarding:— spacing or shielding of live parts 400, accessibility of all parts 400, absence of fuses on back of board none, proportion of omnibus bars 1 1/2" x 3/8" Yes

individual fuses to voltmeter, pilot or earth lamp 400, connections of switches Riffs

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches D.P. Circuit Breakers D.P. Riffs switches for sub-circuits. Equalizer switches incorporated in Circuit Breakers

Instruments on main switchboard 2 ammeters 2 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 lamp system

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules 400

Joint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule 400

**Cables:** Single, twin, concentric, or multicore *Single & Twin* 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 *4 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 conductors 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

**Support and Protection of Cables,** state how the cables are supported and protected *See in log book, Sockets and have Deck supported on solid base, Accommodation on work surface, Position, L.C. and L.C.A.Y.B.*

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 VIII *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 *No joints*

**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 *All main cable bonded behind main board to structure, steel work bonded to Distribution Boxes. Distribution Boxes bonded to structure. All cables bonded to earth.* 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 *None*

**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 *None fitted*

**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 *Gaslight fittings enclosed fitted with guards*, how are the cables led *In galvanized gas piping*

where are the controlling switches situated *Gas light switches fitted in approved positions*

**Searchlight Lamps,** No. of *1*, whether fixed or portable *Portable*, are their fittings as per Rule *Yes*

**Lamps,** other than searchlight lamps, No. of *3*, are their live parts insulated from the frame or case *Yes*, are their fittings as per Rule *Yes*

**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 *Yes*, if not of this type, state distance of the combustible material horizontally or vertically above the motors *See tank and motor compartment*

**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 *None fitted*

**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	1576.4 each	110	186		Steam		
AUXILIARY	—							
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 S. (2)	4	0.0214	37	0.072	136	40 feet	V.I.R.	L.C.A.Y.B.
	EQUALISER CONNECTIONS	2	0.0214	37	0.072	65	24 "	V.I.R.	L.C.A.Y.B.
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM	2	0.0214	7	0.064	11	194 feet	V.I.R.	L.C.A.Y.B.
	BOILER ROOM	2	0.0214	3	0.029	1.5	84 feet	V.I.R.	L.C.A.Y.B.
	ACCOMMODATION	2	0.03	19	0.044	22	210 feet	V.I.R.	L.C.A.Y.B.
	"	2	0.03	19	0.052	14.5	800 "	V.I.R.	L.C.A.Y.B.
	"	2	0.07	7	0.056	2	340 "	V.I.R.	L.C.A.Y.B.
	NAVIGATION MAINS	2	0.0214	19	0.052	9.5	800 "	V.I.R.	L.C.A.Y.B.
	WIRELESS	2	0.0360	19	0.052	18	500 feet	V.I.R.	L.C.A.Y.B.
	SEARCHLIGHT	2	0.03	7	0.036	4.75	32 feet	V.I.R.	L.C.A.Y.B.
	MASTHEAD LIGHT	1	0.03	3	0.036	40 watts	188 feet	V.I.R.	L.C.A.Y.B.
	SIDE LIGHTS	2	0.03	3	0.036	40 watts	32 feet	V.I.R.	L.C.A.Y.B.
	COMPASS LIGHTS	2	0.0214	3	0.029	20 watts	32 feet	V.I.R.	L.C.A.Y.B.
	POOP LIGHTS								
	CARGO LIGHTS	6	0.03	3	0.036	120 watts	46 feet	V.I.R.	L.C.A.Y.B.
	ARC LAMPS	3	0.03	3	0.036	300 watts	112 feet	V.I.R.	L.C.A.Y.B.
	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								
	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								
	(a) MOTOR GENERATOR								
	(b) MAIN MOTOR								
	WORKSHOP MOTOR	1	0.0214	7	0.064	41	224 feet	V.I.R.	L.C.A.Y.B.
	VENTILATING FANS	2	0.03	3	0.036	4	120 feet	V.I.R.	L.C.A.Y.B.
	De Laval heaters	2	0.0104	19	0.044	18	168 feet	V.I.R.	L.C.A.Y.B.
	" " " hams	2	0.03	19	0.044	84	168 feet	V.I.R.	L.C.A.Y.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.

FOR TROUP, CURTIS & Co. LTD.

*Troup, Curtis & Co.*

Electrical Engineers.

Date 25<sup>th</sup> August 1930

**COMPASSES.**

Distance between electric generators or motors and standard compass 309 FEET

Distance between electric generators or motors and steering compass 301 FEET

The nearest cables to the compasses are as follows:—

A cable carrying 9.5 Amperes 9 feet from standard compass 11 feet from steering compass.

A cable carrying \_\_\_\_\_ Amperes \_\_\_\_\_ feet from standard compass \_\_\_\_\_ 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 AND NO ERROR FOUND.

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.

BLYTHSWOOD SHIPBUILDING CO., LTD.

*John W Stewart* SECRETARY

Builder's Signature.

Date 29<sup>th</sup> Aug. 1930

Is this installation a duplicate of a previous case h If so, state name of vessel \_\_\_\_\_

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

*The 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.*

*al*  
*1/9/30*

*(Signature)*  
*10/9/30*

Total Capacity of Generators 30 Kilowatts.

The amount of Fee ... £ 22 : 10 : 0 1/8/1930 When applied for,

Travelling Expenses (if any) £ — : — : — 4/8/1930 When received,

*H. Haffner*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 2-SEP 1930

Assigned

*Elec Light* *JMH*

Im. 228.—Transfer. (The Surveys are requested not to write on or below the space for Committee's Minute.)



© 2020

Lloyd's Register Foundation