

Rpt. 13.

No. 95908.

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 11 SEP 1929

-9 SEP. 1929

Port of

Liverpool.

Date of writing Report

19

When handed in at Local Office

No. in Survey held at

Birkenhead

Date, First Survey

8/6/29

Last Survey

13/8/

1929.

Reg. Book.

6187 on the SS THOMAS HOLT.

(Number of Visits 2)

Tons

Gross 3560

Net

No. and dia

Built at BIRKENHEAD.

By whom built MESSRS CAMMELL LAIRD & CO LTD

Yard No. 956

When built 1929.

Owners

MESSRS JOHN HOLT & CO LTD.

Port belonging to

Liverpool

Electric Light Installation fitted by THE SUNDERLAND FORGE & ENG CO LTD.

Contract No.

When fitted 1929.

System of Distribution DOUBLE WIRE.

Pressure of supply for Lighting 110

volts, Heating 110

volts, Power

volts.

Direct or Alternating Current, Lighting DIRECT.

Power

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.

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

If there more than one generator is fitted are they arranged to run in parallel, is an adjustable regulating resistance fitted in

series with each shunt field

Are all terminals accessible, clearly marked, and furnished with sockets YES, are they so spaced or shielded that they cannot be accidentally earthed,

Are the lubricating arrangements of the generators as per Rule YES.

Position of Generators IN MAIN ENGINE ROOM. AFTER END. STARBOARD.

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.

Are the bedplates and frames of the generating plant efficiently earthed YES, are the prime movers and

Are their respective generators in metallic contact YES.

Main Switch Boards, where placed IN MAIN ENGINE ROOM. AFT BULKHEAD. STARBOARD.

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

Are the 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

Is the mica or micanite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework 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

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 DOUBLE POLE SWITCH

AND FUSES FOR GENERATOR. SINGLE POLE SWITCH & DOUBLE POLE FUSES FOR EACH OUTGOING CIRCUIT.

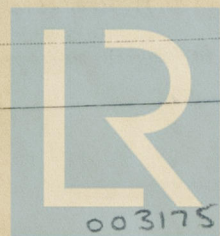
Instruments on main switchboard 1 ammeters 1 voltmeters synchronising device for paralleling purposes.

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system EARTH LAMP, SWITCH &

FUSE ON EACH POLE.

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

At 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

003175-003180-0187 1/2

Cables; Single, twin, concentric, or multicore SINGLE & TWIN are the cables insulated and protected as per Tables IV or V of the Rules JES.
Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 5%.
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 JES.

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 JES.

Support and Protection of Cables, state how the cables are supported and protected ACCOMMODATION: LEAD COVERED & BRAIDED CABLES SECURED WITH BRASS CLIPS; MACHINERY SPACES & HOLDERS: LEAD COVERED ARMOURED & BRAIDED CABLES SECURED WITH GAL IRON 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 clips, are the clips spaced as per Table VIII JES.

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

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 JES.

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

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

Navigation Lamps, are these separately wired JES, controlled by separate switch and separate fuses JES, are the fuses double pole JES.
are the switches and fuses grouped in a position accessible only to the officers on watch JES.
has each navigation lamp an automatic indicator as per Rule JES.

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 JES.
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 GUARDED, WATERTIGHT AND GASTIGHT. DECK LIGHT FITTING.
are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected —.

—, how are the cables led —.

where are the controlling switches situated —.

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 —, are the coils self-contained and readily removable for replacement —.
are 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 —.
are they protected from mechanical injury and damage from water, steam or oil — are their axes of rotation fore and aft —.
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 —.

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

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 —.

If portable lamps 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	10.5	110	95.5	320	SINGLE CYLINDER STEAM ENGINE	—	—
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...	2	.14780	37	.072	95.5	37	V.I.R.	BRAIDED AND GAN IN GAL. WZ. PIPE
	EQUALISER CONNECTIONS	—	—	—	—	—	—	—	—
	AUXILIARY GENERATOR	—	—	—	—	—	—	—	—
	EMERGENCY GENERATOR	—	—	—	—	—	—	—	—
	ROTARY TRANSFORMER...	—	—	—	—	—	—	—	—
	AUXILIARY SWITCHBOARDS	—	—	—	—	—	—	—	—
	ENGINE ROOM	2	.00299	3	.036	7.0	15	V.I.R.	LEAD COVERED ARMOURED & BRAIDED
	BOILER ROOM	—	—	—	—	—	—	—	—
	ACCOMMODATION - SALOON	2	.00701	4	.036	19.6	390	V.I.R.	LEAD COVERED & BRAIDED
	NAVIGATION	2	.00399	3	.036	6.2	156	V.I.R.	LEAD COVERED & BRAIDED
	ENGINEERS & CEN. ACCOMM.	2	.00701	4	.036	11.5	150	V.I.R.	LEAD COVERED & BRAIDED

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.
	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	—	—	—	—	—	—	—
	VENTILATING FANS	—	—	—	—	—	—	—

11 SEP 1929

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.

The Sunderland Forge & Engineering Co. Ltd. Electrical Engineers.

Date 21st Aug 1929.

COMPASSES.

Distance between electric generators or motors and standard compass 138 FEET

Distance between electric generators or motors and steering compass 128 FEET.

The nearest cables to the compasses are as follows:—

A cable carrying 6.2 Ampères 26 feet from standard compass 16 feet from steering compass.

A cable carrying .18 Ampères 10 feet from standard compass LED INTO feet from steering compass.

A cable carrying .18 Ampères LED INTO feet from standard compass 10 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 1° E degrees on S.S.W. - W.S.W. course in the case of the standard compass, and 1 1/2° W degrees on E.S.E. - S.S.E. course in the case of the steering compass.

GAMMELL LAIRD AND COMPANY LIMITED

MANAGER.

Builder's Signature.

Date

4 SEP 1929

Is this installation a duplicate of a previous case. Yes If so, state name of vessel.

Y. Gregory B. Hoch

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

This installation has been fitted in accordance with the Rules & under special Survey. It has been examined under full working conditions & found satisfactory, and is eligible in my opinion for record of 'Elec light' in Register book.

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

24/9/29

Total Capacity of Generators 105 Kilowatts.

The amount of Fee ... £ 10 : 10 : When applied for, 3/9/29.

Travelling Expenses (if any) £ : : When received, 30.9.29.

J. J. Milton.

Surveyor to Lloyd's Register of Shipping.

Committee's Minute LIVERPOOL 10 SEP. 1929

Assigned Electric Light.