

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

When handed in at Local Office

No. in Survey held at Birkenhead

Date, First Survey 8/6/29

Last Survey 13/8/29

1929

Reg. Book.

6187 on the SS THOMAS HOLT.

(Number of Visits 20)

Tons { Gross 3500
Net

No. and dia Built at BIRKENHEAD.

By whom built MESSRS CAMELL 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 JES.

Generators, do they comply with the requirements regarding rating JES., are they compound wound JES.

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

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

ries with each shunt field _____

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

port circuited, or touched JES. Are the lubricating arrangements of the generators as per Rule JES.

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

the ventilation in way of the generators satisfactory JES., are they clear of all inflammable material JES.

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 JES.

are their axes of rotation fore and aft JES.

earthing, are the bedplates and frames of the generating plant efficiently earthed JES. are the prime movers and _____

their respective generators in metallic contact JES.

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 _____

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 JES., if situated near unprotected _____

they protected from mechanical injury and damage from water, steam or oil JES. and _____

woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards _____

they constructed wholly of durable, non-ignitable non-absorbent materials JES., is all insulation of high dielectric strength and of _____

permanently high insulation resistance JES., 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 JES.

is the frame effectively earthed JES. Are the fittings as per Rule regarding:— spacing or shielding of live parts _____

JES., accessibility of all parts JES., absence of fuses on back of board JES., proportion of omnibus _____

JES., individual fuses to voltmeter, pilot or earth lamp JES., connections of switches JES.

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches DOUBLE POLE SWITCH

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

Instruments on main switchboard _____ ammeters _____ 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.

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

Main Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule JES.



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11 SEP 1929

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 ACCOMMODATIONS: LEAD COVERED & BRAIDED CABLES SECURED WITH BRASS CLIPS; MACHINERY SPACES & HOLDS: 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 — are their connections made as per Rule —.

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	.1478	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	4.0	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	456	V.I.R.	LEAD COVERED & BRAIDED
	ENGINEERS & COEN ACCOMM.	2	.00701	4	.036	11.5	150	V.I.R.	LEAD COVERED & BRAIDED
	WIRELESS	2	.00701	4	.036	12.5	435	V.I.R.	LEAD COVERED & BRAIDED
	SEARCHLIGHT	—	—	—	—	—	—	—	—
	MASTHEAD LIGHT	2	.00194	3	.029	3.6	600	V.I.R.	LEAD COVERED ARMOURED & BRAIDED
	SIDE LIGHT	2	.00194	3	.029	3.6	90	V.I.R.	LEAD COVERED & BRAIDED
	COMPASS LIGHTS	2	.00194	3	.029	1.8	32	V.I.R.	LEAD COVERED & BRAIDED
	POOP LIGHTS	2	.00194	3	.029	2.9	300	V.I.R.	LEAD COVERED & BRAIDED
	CARGO LIGHTS - FORWARD	2	.00701	4	.036	13.6	390	V.I.R.	LEAD COVERED & BRAIDED
	CARGO LIGHTS - AFT	2	.00701	4	.036	11.5	135	V.I.R.	LEAD COVERED & BRAIDED
	ARC LAMPS	—	—	—	—	—	—	—	—
	HEATERS	2	.00701	4	.036	18.1	405	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.
				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	—	—	—	—	—	—	—	—
	VENTILATING FANS	—	—	—	—	—	—	—	—

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. 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

[Signature]
 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 and special Survey. It has been examined under full working conditions and 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.

[Signature]
 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.

[Signature]

Surveyor to Lloyd's Register of Shipping.

Committee's Minute LIVERPOOL 10 SEP. 1929

Assigned Electric Light.

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



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