

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

13 MAR 1929

Received at London Office

Date of writing Report

19

When handed in at Local Office

12-3-1929

Port of Newcastle-on-Tyne

No. in Survey held at *Newcastle.*

Date, First Survey *6 Dec/1928* Last Survey *11 Feb* 1929

(Number of Visits...*11*...)

Reg. Book Supp. *S.S. "Hopemount."*

90459 on the

Tons { Gross *7434.*

Net *4529.*

Built at *Newcastle.*

By whom built *Swan Hunter & Wigham Richardson* No. *1357*

When built *1929*

Owners *Hopemount Shipping Co Ltd*

Port belonging to *Newcastle*

Electric Light Installation fitted by *Swan Hunter & Wigham Richardson Ltd.* Contract No. *1357*

When fitted *1929*

System of Distribution

Double wire

Pressure of supply for Lighting

110

volls, Heating

volls, Power

volls.

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*

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 *no*

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*

Position of Generators

Engine room port 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 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

Engine room port 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

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*

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

if semi-insulating material is used, are all conducting parts insulated from the slab *Yes*

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*

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 change

over switch & double pole fuses for main generators. Double pole switch & fuses on each outgoing circuit.

Instruments on main switchboard

2 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 lamps

connected to earth through 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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004440-004449-0054 1/2

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 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 conductor protected from moisture by being suitably sealed with insulating compound yes

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 head covered braided cables in engine rooms. head covered braided cables in steel conduit aloft before soft 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 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 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 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 yes
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 yes

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 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 fitted
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 rooms
special pump room fittings
in galvanised conduit outside pump room
where are the controlling switches situated at distribution boxes

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
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 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	10	110	97	375	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	.07892	19	.072	97	30	R.I.R.	Lead covered braided
	EQUALISER CONNECTIONS								
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM	2	.00455	7	.029	10.5	30	50	50
	BOILER ROOM								
	ACCOMMODATION	2	.00701	7	.036	18.5	150	50	50
	to Forward	2	.0396	19	.052	26.5	600	50	50
	Navigation	2	.00455	7	.029	5.2	750	50	50
	WIRELESS	2	.02214	7	.064	15.0	720	50	50
	SEARCHLIGHT								
	MASTHEAD LIGHT	2	.00194	3	.029	.36	300	50	50
	SIDE LIGHTS	2	.00194	3	.029	.36	60	50	50
	COMPASS LIGHTS	2	.00194	3	.029	.25	20	50	50
	STEER LIGHTS	2	.00194	3	.029	.36	760	50	50
	CARGO LIGHTS								
	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								
	CIRC. SEA WATER PUMPS								
	CIRC. FRESH WATER PUMPS								
	AIR COMPRESSOR								
	FRESH WATER PUMP								
	ENGINE TURNING GEAR								
	ENGINE REVERSING GEAR								
	LUBRICATING OIL PUMPS	3	.00455	7	.029	16	90	R.I.R.	Lead covered braided
	OIL FUEL TRANSFER PUMP								
	WINDLASS								
	WINCHES, FORWARD								
	WINCHES, AFT								
	STEERING GEAR								
	(a) MOTOR GENERATOR								
	(b) MAIN MOTOR	1	.00455	7	.029	16	75	50	50
	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.

FOR SWAN, HUNTER, & WIGHAM RICHARDSON, LTD. Electrical Engineers. Date 6/3/29.
J. Ross P.D.T.

COMPASSES.

Distance between electric generators or motors and standard compass 250 feet
 Distance between electric generators or motors and steering compass 240 feet.
 The nearest cables to the compasses are as follows:—
 A cable carrying .25 Amperes on the ~~foot~~ standard compass 10 feet from steering compass.
 A cable carrying .25 Amperes 10 feet from standard compass on the ~~foot~~ 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.

FOR SWAN, HUNTER, & WIGHAM RICHARDSON, LTD.
T. Cunningham Builder's Signature. Date 6. Mar. 1929

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 Societies 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

25. 3. 29

J.R.M.

25. 3. 29

Total Capacity of Generators 20 Kilowatts.

The amount of Fee ... £ 17 : 10 : 14.2.19.29

Travelling Expenses (if any) £ : : 19.2.19.29

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

Committee's Minute

Assigned *Dec 1928*

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



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