

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 15 JAN 1930

Date of writing Report 9.12.1929 When handed in at Local Office 14.1.1930 Port of GLASGOW.

No. in Survey held at TROON. Date, First Survey 8 Last Survey 10.12.1929
Reg. Book. (Number of Visits.....)

18508 on the S.S THE MONARCH. Tons { Gross 824 Net

Built at TROON. By whom built THE RIKSA S.B. CO. LTD Yard No. 412. When built 1929.

Owners MESSRS J. HAY & SONS LTD Port belonging to GLASGOW.

Electric Light Installation fitted by MESSRS CLAUD HAMILTON LTD Contract No. 412 When fitted 1929.

Is the Vessel fitted for carrying Petroleum in bulk No. ✓

System of Distribution double wire distributing fuse box

Pressure of supply for Lighting 110 volts, Heating none volts, Power none 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.

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 only one, 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 5 Sect 2. Engine Room

Position of Generators Engine Room, 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 none 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

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 same compartment

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 none 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 micaite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework 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.

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 D.P. main switch and fuses for general and 3. P. switches and D. P. fuses for out going circuits

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.

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 3 Sect 6.

Cables: Single, twin, concentric, or multicore main line are the cables insulated and protected as per Tables IV or V of the Rules Yes.
Brand wiring small
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 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 no paper
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 V. 9. R. Lead covered and V. 9. R. lead covered in tubing
 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 —
Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements none
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 —
—, 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 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
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 no. are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected no. how are the cables led —. where are the controlling switches situated —
Searchlight Lamps, No. of none, 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 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 —. 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	3	110	28	350	direct coupled to 4 cylinder steam engine			
AUXILIARY									
EMERGENCY									
ROTARY TRANSFORMER									

DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
	No. per Pole.	Total Effective Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
MAIN GENERATOR	2	.01	4	.044	28	31	12	V. 9. R.	Lead in tubing
EQUALISER CONNECTIONS									
AUXILIARY GENERATOR									
EMERGENCY GENERATOR									
ROTARY TRANSFORMER MOTOR GENERATOR									
ENGINE ROOM									
BOILER ROOM	2	.002	3	.029	4.5	4.8	3	" " "	" " "
AUXILIARY SWITCHBOARDS									
Accom. office	2	.003	3	.036	6	12	210	" " "	" " "
Engineers	2	.002	3	.029	3	4.8	50	" " "	" " "
hangar	2	.002	3	.029	4	4.8	220	" " "	" " "
ACCOMMODATION									
WIRELESS									
SEARCHLIGHT	2	.002	3	.029	1	4.8	130	" " "	" " "
MASTHEAD LIGHT	4	.002	3	.029	1	4.8	40	" " "	" " "
SIDE LIGHTS	4	.002	3	.029	3	4.8	60	" " "	" " "
COMPASS LIGHTS									
POOP LIGHTS									
CARGO LIGHTS									
ARC LAMPS									
HEATERS									

DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
		No. Per Pole.	Total Effective Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
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.

For **CLAUD HAMILTON, LIMITED**

W. Lawrence
MANAGER (ELECTRICAL DEPT.)

Electrical Engineers.

Date *9th Jan. 30.*

COMPASSES.

Distance between electric generators or motors and standard compass *88*

Distance between electric generators or motors and steering compass *80*

The nearest cables to the compasses are as follows:—

A cable carrying *6* Ampères *12* feet from standard compass *10* feet from steering compass.

A cable carrying *1* Ampères *10* feet from standard compass *10* feet from steering compass.

A cable carrying _____ Ampères _____ 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 *any* course in the case of the standard

compass, and *Nil* degrees on *any* course in the case of the steering compass.

AILSA SHIPBUILDING CO., LIMITED.

Smiles

General Manager.

Builder's Signature.

Date

13th Jan. 1930

Is this installation a duplicate of a previous case *No*. If so, state name of vessel *S.S. Beeseris*

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

This 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

J.H.

27/1/30.

Total Capacity of Generators *3* Kilowatts.

The amount of Fee ... £ *5.00* : { When applied for, *7-1-1930*
Travelling Expenses (if any) £ *5.6* : { When received, *9-1-1930*

J. Rankin
Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW 14 JAN 1930**

Assigned *Elec Light*

Im. 12. 23.—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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