

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 11th Nov. 1924 When handed in at Local Office 19 Port of Barrow-in-Furness

No. in Survey held at Barrow Date, First Survey 24 April Last Survey 2nd May 1924
Reg. Book. 88952 on the S.S. "Glanskyd" Tons { Gross 1525
Net 820

Built at Barrow By whom built Bickers Ltd. Yard No. 604 When built 1924

Owners Harrison Bros & Co. Port belonging to London

Electric Light Installation fitted by Bickers Ltd. Contract No. 604 When fitted 1924

System of Distribution

Pressure of supply for Lighting 110 volts, Heating Power

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

Generators, do they comply with the requirements regarding overload are they compound wound
are they over compounded 5 per cent. no, if not compound wound state distance between each generator

Where 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 no

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

Position of Generators

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

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

are their axis of rotation fore and aft

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

Main Switch Boards, where placed

Alongside Dynamo
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

are they protected from mechanical injury and damage from water, steam or oil 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, incombustible non-absorbent materials is all insulation of high dielectric strength and of permanently high insulation resistance no slate base if semi-insulating material is used, are all conducting parts connected to one pole insulated from the slab with mica or micanite and the slab similarly insulated from its framework and is the frame effectively earthed

Are the following fittings as per Rule, viz.:— spacing or shielding of live parts accessibility of all parts absence of fuses on back of board proportion of omnibus bars individual fuses to voltmeter, pilot or earth lamp connections of switches

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches no equaliser

In Dynamo. DP switch + fuses. In Branches. CP switch + DP fuses

Instruments on main switchboard one ammeters one 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

Two lamps. switches + fuses.

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

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

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Insulation of Cables, state type of cables, single or twin both are the cables insulated and protected as per Tables III or IV of the Rules Yes

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 5.4 volts

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.007 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 cables used

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 Supported by clips to bulkheads and underside of decks etc. Protected by Armoring, tubing & lead sheathing

If cables are run in wood casings, are the casings and caps secured by screws no casings 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 VI 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 Positions, 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, are separate screens provided for the use of oil and electric side lights Yes, are separate oil lanterns provided for the mast head lights and side lights 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, 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, how are the cables led Yes, where are the controlling switches situated Yes

Searchlight Lamps, No. of None, whether fixed or portable Yes, are their fittings as per Rule Yes

Are Lamps, other than searchlight lamps, No. of None, 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 None, 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 axis 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 Yes and Yes

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed 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.	Amperes.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN ...	One	4	110	36	650	Reciprocating 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...	2	0.225	4	0.644	46	6	V.I.R.	Imp. Insided
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM ...	Two	0.03	3	0.36	12	14	"	Armoured
	BOILER ROOM ...								
	WIRELESS ...								
	SEARCHLIGHT ...								
	MASTHEAD LIGHTS...	2	0.075	1	0.44	2	260-7300	V.I.R.	Armoured & Conducts
	SIDE LIGHTS ...	2	0.116	1	0.44	2	66	"	Lead lined
	COMPASS LIGHTS ...	2	0.115	1	0.44	25	20-26	"	"
	POOP LIGHTS ...								
	CARGO LIGHTS ...	2	0.115	1	0.44	3.3	100-7120	"	Armoured.
	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 ...								
	OIL FUEL TRANSFER PUMP								
	WINDLASS ...								
	WINCHES, FORWARD ...								
	WINCHES, AFT ...								
	STEERING GEAR ...								
	WORKSHOP MOTOR ...								
	VENTILATING FANS ...								

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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 VICKERS Limited.

S. L. J. Jam.

Director.

Electrical Engineers.

Date 17/11/24

COMPASSES.

Distance between electric generators ~~or motors~~ and standard compass *50 ft.*
 Distance between electric generators ~~or motors~~ and steering compass *40 ft.*

The nearest cables to the compasses are as follows:—

A cable carrying *.2* Ampères *1* feet from standard compass *4 1/2* feet from steering compass.
 A cable carrying *.4* Ampères *5* feet from standard compass *1* feet from steering compass.
 A cable carrying *.8* Ampères *2 1/2* feet from standard compass *4* 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 VICKERS Limited.

S. L. J. Jam.

Director.

Builder's Signature.

Date 17/11/24

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. *This installation has been efficiently fitted, and proved satisfactory under working conditions. In my opinion the vessel is eligible to have the notation of "Electric light" made in the Register Book.*)

It is submitted that this vessel is eligible for THE RECORD. Elec. Light.
R.M.
20/11/24.

Total Capacity of Generators *4* Kilowatts

The amount of Fee ... £ *5 : 0* :
 Travelling Expenses (if any) : £ :
 When applied for, *2nd May 1924*
 When received, *2nd May 1924*

Wm Cowie

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Im. 322.—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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