

Rpt. 13.

No. 28901

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

Date of writing Report..... 19..... When handed in at Local Office 26 SEP 1924 Port of SUNDERLAND.

No. in Survey held at SUNDERLAND Date, First Survey Aug 20 Last Survey Aug 28 1924
Reg. Book. (Number of Visits.....)

on the SS. "KAFIRSTAN"

Tons { Gross 5193
Net 3226

Built at Sunderland By whom built James Scott Bros Yard No. 417 When built 1924

Owners Common Bros Port belonging to Newcastle

Electric Light Installation fitted by James Clarke Chap. man to Ltd Contract No. When fitted 1924

RETAIN

System of Distribution Double wire

Pressure of supply for Lighting 100 volts, Heating _____ 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 overload Yes, are they compound wound _____

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 _____, is an adjustable regulating resistance fitted in series with each shunt field Yes

Are all terminals accessible and clearly marked Yes, are they so spaced or shielded that they cannot be accidentally earthed, or short circuited Yes

Are the lubricating arrangements of the generators as per Rule Yes

Position of Generators Engine room starboard 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 axis 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 near 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 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, incombustible 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 connected to one pole insulated from the slab with mica or micanite and the slab similarly insulated from its framework Yes, and is the frame effectively earthed Yes

Are the following fittings as per Rule, viz. :- 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 Double pole switch & fuses in dynamo mains, in each outgoing circuit single pole switch & double pole fuses

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 each lamp coupled to each through double pole switches & fuses

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

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

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PARTICULARS OF GENERATING PLANT.

Table with columns: DESCRIPTION OF GENERATOR, No. of, RATED AT (Kilowatts, Volts, Ampères, Revs. per Min.), DRIVEN BY, WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE (Fuel Used, Flash Point of Fuel). Includes entries for MAIN, AUXILIARY, EMERGENCY, and ROTARY TRANSFORMER.

LIGHTING AND HEATING CONDUCTORS.

Table with columns: Ref. No., DESCRIPTION, No. of Conductors, Effective Area of each Conductor (Sq. Ins.), COMPOSITION OF STRAND (No., Diameter), Total Maximum Current (Amperes), Approximate Length (Lead and Return) (Feet), Insulated with, HOW PROTECTED. Includes entries for MAIN GENERATOR, ENGINE ROOM, BOILER ROOM, WIRELESS, SEARCHLIGHT, MASTHEAD LIGHT, SIDE LIGHTS, COMPASS LIGHTS, CARGO LIGHTS, ARC LAMPS, HEATERS.

MOTOR CONDUCTORS.

Table with columns: Ref. No., DESCRIPTION, No. of Motors, Effective Area of each Conductor (Sq. Ins.), COMPOSITION OF STRAND (No., Diameter), Total Maximum Current (Amperes), Approximate Length (Lead and Return) (Feet), Insulated with, HOW PROTECTED. Includes entries for 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.

Insulation of Cables, state type of cables, single or twin... are the cables insulated and protected as per Tables III of the Rules. Yes
Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 3.5
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
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
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 Armoured braided cables clipped to underside of deck through holdrings & spacers. Lead covered in accommodation
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 VI Yes
Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements
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
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
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 fitted
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, 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 axis 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 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.

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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 Clarke, Chapman & Co., Ltd.
W. Woodson
 Director.

Electrical Engineers.

Date

COMPASSES.

Distance between electric generators or motors and standard compass 128 ft

Distance between electric generators or motors and steering compass 122 "

The nearest cables to the compasses are as follows:—

A cable carrying .5 Ampères 12 feet from standard compass 6 feet from steering compass.

A cable carrying .5 Ampères 6 feet from standard compass 12 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 all course in the case of the standard compass, and Nil degrees on all course in the case of the steering compass. *J. W. Lewis*

FOR SHORT BROTHERS, LIMITED.

W. Woodson
 DIRECTOR

Builder's Signature.

Date 10 Sept 1924

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 installation has been satisfactorily fitted in the vessel, tested and found good.

It is submitted that this vessel is eligible for the Light
J. W. Lewis
30/9/24

Total Capacity of Generators 8 Kilowatts

The amount of Fee £ 8 : : 250 Aug 19 24
 Travelling Expenses (if any) : £ : : 2 Sep 19 24

S. Davis

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

1m, 9, 23.—Transfer.
 (The Surveyors are requested not to write on or below the space for Committee's Minutes.)



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