

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 24. 10. 1929 When handed in at Local Office 24. 10. 1929 Port of Middlesbrough Received at London Office 25 OCT 1929

No. in Survey held at Haverton Hill on Ties Date, First Survey 3rd Sept Last Survey 17. 10. 1929.

Reg. Book. 39249 Sup. the S. S. APPELDORÉ

(Number of Visits 18)

Tons { Gross 5217
Net 3149.

Built at Haverton Hill on Ties By whom built Furness Shipbuilding Co Ltd Yard No. 148 When built 1929

Owners Maritime Shipping & Trading Co Ltd Port belonging to Bideford

Electric Light Installation fitted by Furness Shipbuilding Co Ltd Contract No. 148 When fitted 1929

System of Distribution

Double wire

Pressure of supply for Lighting 110 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 rating yes, are they compound wound yes

are they over compounded 5 per cent. Level, 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, 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 yes

Position of Generators Starboard side of 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 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 Starboard side of 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 -

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, 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 micanite 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

Double pole switches & fuses for Generator & each outgoing circuit

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

2. 10 watt lamps in series & middle point earthed

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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Cables: Single, twin, concentric, or multicore *Single & Twin* are the cables insulated and protected as per Tables IV or V of the Rules *IV*
Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load *3.5V*
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
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 *Lead covered & armoured cables are supported by galv iron clips. Lead covered cables supported by brass 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 *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 *Porcelain junction boxes in W/S cases*
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 *.05*
.05
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
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
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 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 *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 | | | Revs. per Min. | DRIVEN BY | WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE. | | |
| | | Kilowatts. | Volts. | Ampères. | | | Fuel Used. | Flash Point of Fuel. | |
| MAIN | 1 | 12 | 110 | 109 | 340 | Sunderland Forge 60 | ✓ | ✓ | |
| AUXILIARY | 1 | 10 | fitted for | | | Engine 522mm | | | |
| EMERGENCY | | | 1,422 | Hull | 57500 | Steam | | | |
| 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. | | | | |
| EM 0991 DYN 0981 | MAIN GENERATOR... | 2 | .1000 | 19 | .083 | 109. | 24 | V. I. R. | Lead covered armoured & braided |
| | EQUALISER CONNECTIONS | | | | | | | | |
| | AUXILIARY GENERATOR | | | | | | | | |
| | EMERGENCY GENERATOR | | | | | | | | |
| | ROTARY TRANSFORMER... | | | | | | | | |
| | AUXILIARY SWITCHBOARDS | | | | | | | | |
| | ENGINE ROOM | 2 | .0100 | 7 | .044 | 16.1 | 10 | | |
| | BOILER ROOM | | | | | | | V. I. R. | Lead covered armoured & braided |
| | ACCOMMODATION ENA 2 OFF. | 2 | .0100 | 7 | .044 | 24.0 | 140 | | |
| | " CREW | 2 | .0100 | 7 | .044 | 11.6 | 420 | | |
| | NAVIGATION | 2 | .0100 | 7 | .044 | 4.0 | 430 | | |
| | WIRELESS | 2 | .0100 | 7 | .044 | 12.0 | 430 | V. I. R. | Lead covered armoured and braided |
| | SEARCHLIGHT | 2 | .0020 | 3 | .029 | 3.6 | 360 | | |
| | MASTHEAD LIGHT | 2 | .0020 | 3 | .029 | 3.6 | 600 | | |
| | SIDE LIGHTS | 2 | .0020 | 3 | .029 | 3.6 | 170 | | |
| | COMPASS LIGHTS | 2 | .0020 | 3 | .029 | 1 | 30 | | |
| | POOP LIGHTS | 2 | .0020 | 3 | .029 | 3.6 | 80 | | |
| | CARGO LIGHTS | 2 | .0100 | 7 | .044 | 18.5 | 140 | | |
| | 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— | | | | | | | | |
| | (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.

P. S. Cove

Electrical Engineer.

Date 23. 10. 29

COMPASSES.

Distance between electric generators or motors and standard compass 110

Distance between electric generators or motors and steering compass 95

The nearest cables to the compasses are as follows:—

A cable carrying 1 Ampères 3 feet from standard compass 3 feet from steering compass.

A cable carrying Ampères feet from standard compass 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.

FOR FURNESS SHIPBUILDING CO. LIMITED,

John M. Robertson

Builder's Signature.

Date 23. 10. 29

Secretary.

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 materials and workmanship are good.
This electric light installation has been fitted under special survey in accordance with the Rules and is, in my opinion, suitable for a vessel classed with this Society.

It is submitted that
this vessel is eligible for
THE RECORD.

elec. light

P. J. Maer
3/10/29

Total Capacity of Generators 12. Kilowatts.

The amount of Fee ... £ 12-0-0

When applied for,

When received,

Travelling Expenses (if any) £

2. 12. 29

Committee's Minute

TUE. 5 NOV '29

Assigned

elec. light

P. J. Maer

Surveyor to Lloyd's Register of Shipping.

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



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