

Rpt. 13.

No. 14369

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 14 MAR 1931

Date of writing Report 11. 3. 1931 When handed in at Local Office 11. 3. 1931 Port of Middleburgh

No. in Survey held at Steektin, South Bank Date, First Survey 6. 2. 31. Last Survey 2. 3. 1931.

Reg. Book.

on the No. NOTRE DAME DE FRANCE

Tons { Gross 1450.
Net 224.

Built at Steektin on Iers By whom built Smiths Dock Co. Yard No. 950 When built 1931.

Owners Gournay Freres. Port belonging to Boulogne

Electric Light Installation fitted by RICHARD PICKERSGILL & SONS, LTD. Contract No. When fitted 1931.

Is the Vessel fitted for carrying Petroleum in bulk No.

System of Distribution

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. 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, 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 Starboard side of Engine Room Yes

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 Forward End of Engine Room Store Bulkhead

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 —, individual fuses to voltmeter, pilot or earth lamp Yes, connections of switches

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches

1 Double Pole Switch & fuses on main, Single Pole Switches &

Double Pole fuses out outgoing circuits

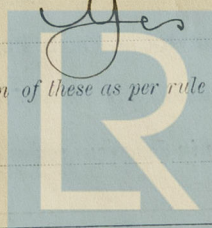
Instruments on main switchboard 1 ammeter 1 voltmeter — synchronising device for paralleling purposes.

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system 2 Lamps in

Series across each pole to Guard

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

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



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Cables: Single, twin, concentric, or multicore Yes are the cables insulated and protected as per Tables IV Yes of the Rules

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

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 cable

Supported with galvanised clips + 3/4" Sep Screws in Engine Room + Holders,
Lead covered + brass clips in Accommodation, are the cables run in Lead, 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 None

Joints in Cables, state if any, and how made, insulated, and protected None

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 Dynamic bonding to ship's frame - No. of conductors 19 - Diameter of conductors 0.001 inch
Sectional areas 0.02840, 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 Yes

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

are the cables led Yes

where are the controlling switches situated Yes

Searchlight Lamps, No. of None, whether fixed or portable None, 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 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 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 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. | Amperes. | Revs. per Min. | | Fuel Used. | Flash Point of Fuel. | |
| MAIN ... | 1 | 5 | 110 | 45.5 | 430 | Steam Engine | | | |
| AUXILIARY ... | | | | | | | | | |
| EMERGENCY ... | | | | | | | | | |
| ROTARY TRANSFORMER | | | | | | | | | |

| GENERATOR, LIGHTING AND HEATING CONDUCTORS. | | | | | | | | | |
|---|---------------|--|------------------------|-----------|---------------------------------|-------|--|----------------|--------------------------|
| 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 ... | 1 | 0.02840 | 19 | 0.044 | 36.9 | 53.0 | 247ft | 43R. | Lead Armoured + Braided. |
| EQUALISER CONNECTIONS ... | | | | | | | | | |
| AUXILIARY GENERATOR ... | | | | | | | | | |
| EMERGENCY GENERATOR ... | | | | | | | | | |
| ROTARY TRANSFORMER } MOTOR GENERATOR... | 1 | 0.00101 | 1 | 0.036 | 6.0 | 24.0 | 20ft | 43R. | Lb. + Armoured |
| ENGINE ROOM... | | | 7 | | | | | | |
| BOILER ROOM... | | | | | | | | | |
| AUXILIARY SWITCHBOARDS ... | | | | | | | | | |
| ACCOMMODATION ... | 1 | 0.00101 | 1 | 0.026 | 8.1 | 24.0 | 145ft | 43R. | Lb. + Armoured |
| " Forward | 1 | 0.00435 | 1 | 0.029 | 6.2 | 18.2 | 240ft | 43R. | Lb. |
| " Aft | 1 | 0.00435 | 1 | 0.029 | 5.0 | 18.2 | 50ft | 43R. | Lb. |
| WIRELESS ... | 1 | 0.00101 | 1 | 0.036 | 10.0 | 24.0 | 140ft | 43R. | Lb. + Armoured |
| SEARCHLIGHT ... | 1 | 0.00194 | 3 | 0.029 | 5 | 7.8 | 260ft | 43R. | Lb. + Armoured |
| MASTHEAD LIGHT ... | 1 | 0.00194 | 3 | 0.029 | 5 | 7.8 | 60ft | 43R. | Lead Armoured |
| SIDE LIGHTS ... | 1 | 0.00194 | 3 | 0.029 | 5 | 7.8 | 20ft | 43R. | Lb. |
| COMPASS LIGHTS ... | | | | | | | | | |
| POOP LIGHTS ... | | | | | | | | | |
| CARGO LIGHTS ... | | | | | | | | | |
| ARC LAMPS ... | | | | | | | | | |
| HEATERS ... | | | | | | | | | |

| MOTOR CONDUCTORS. | | | | | | | | | | |
|----------------------------|----------------|---------------|--|------------------------|-----------|---------------------------------|-------|--|----------------|----------------|
| 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.

RICHARD PICKERSGILL & SONS, LTD.

A.H. Spence Electrical Engineers.

Date *March 6th 1931*

COMPASSES.

Distance between electric generators or motors and standard compass (*Pole Compass*) *About 47' 0"*

Distance between electric generators or motors and steering compass (*Roof Compass*) *" 42' 0"*

The nearest cables to the compasses are as follows:—

A cable carrying *.5* Ampères *about 12* feet from standard compass (*Pole*) *about 4* feet from steering compass. (*Roof*)

A cable carrying *.5* Ampères *about 12* feet from standard compass (*Pole*) *about 8* feet from steering compass. (*Roof*)

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 *No* degrees on _____ course in the case of the standard

compass, and *No* degrees on _____ course in the case of the steering compass.

FOR SMITH'S DOCK COMPANY, LTD.

H.W. Townshend Builder's Signature.

Date *10th March 1931*

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 material and workmanship are good.
This electric light installation has been fitted aboard under
special survey in accordance with the Rules. It has been
tested under working conditions with satisfactory results 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
J. D. H. 16/3/31

Total Capacity of Generators *5* Kilowatts.

The amount of Fee ... £ *5-0-0* When applied for, *13-1-1931*

Travelling Expenses (if any) £ : : When received, *21/3/31*

P. J. Man
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 20 MAR 1931

Assigned

Elec Light



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