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st. 13.

No. 44066

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 29 OCT 1924

Date of writing Report 21-10-1924 When handed in at Local Office 27 10 1924 Port of GLASGOW.

Survey held at GRANGEMOUTH, Date, First Survey 14.8.24 Last Survey 7.10.1924
Reg. Book. (Number of Visits 2)

on the S. S. "KONINI" Tons { Gross 1420
Net

built at GRANGEMOUTH. By whom built THE GRANGEMOUTH D^Y Yard No. 407 When built 1924.

owners THE UNION STEAM SHIP CO LTD. Port belonging to DUNEDIN N. Z

Electric Light Installation fitted by THE GRANGEMOUTH DOCKYARD CO LTD Contract No. 407 When fitted 1924

System of Distribution TWO WIRE. ✓
Pressure of supply for Lighting 110 ✓ volts, Heating ✓ volts, Power ✓ volts.

Direct or Alternating Current, Lighting DIRECT. ✓ Power ✓

alternating current system, state frequency of periods per second ✓

as 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 YES.

they over compounded 5 per cent. ONE GENERATOR, 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

ries with each shunt field YES

all terminals accessible and clearly marked YES, are they so spaced or shielded that they cannot be accidentally earthed,

short circuited YES Are the lubricating arrangements of the generators as per Rule YES

Position of Generators ENGINE ROOM STARTING PLATFORM. STARBOARD SIDE.

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

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

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 NEAR GENERATOR.

If the generators and main switchboard are not placed in the same compartment, is each generator provided with

fuse on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard IN SAME COMP.

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

D.P. MAIN SWITCH & FUSES. S.P. SWITCHES & D.P. FUSES FOR OUTGOING 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 LAMPS.

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.

Oct 10.2

h Yes.

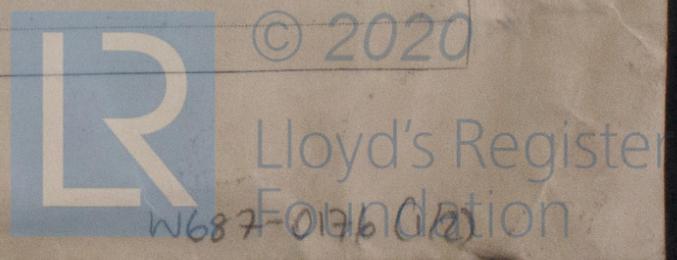
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LLOYD



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 | 6 | 110 | 54.5 | 400 | Steam Engine | | |
| 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 | 1 pair | .094 | 19 | 14 | 54 | 30 | VIR. | Lead. Connect. |
| | AUXILIARY GENERATOR | | | | | | | | |
| | EMERGENCY GENERATOR | | | | | | | | |
| | ROTARY TRANSFORMER | | | | | | | | |
| | AUXILIARY SWITCHBOARDS | | | | | | | | |
| | ENGINE ROOM | 1 pair | .0185 | 7 | 18 | 10 | 300 | | |
| | BOILER ROOM | 1 pair | .0125 | 7 | 18 | 8 | 250 | VIR. | |
| | WIRELESS | 1 pair | .0125 | 7 | 18 | 15 | 140 | VIR. | Armoured |
| | SEARCHLIGHT | | | | | | | | |
| | MASTHEAD LIGHT | 1 pair | .003 | 3 | 30 | 1.0 | 280 | VIR. | Vulcaniz. |
| | SIDE LIGHTS | 1 pair | .003 | 1 | 16 | 1.0 | 80 | VIR. | Lead. |
| | COMPASS LIGHTS | 1 pair | .003 | 1 | 16 | 1.0 | 60 | | |
| | POOP LIGHTS | 1 pair | .003 | 3 | 30 | 2.5 | 400 | | Armoured |
| | CARGO LIGHTS | 1 pair | .003 | 3 | 30 | 4.0 | 300 | | |
| | 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 | | | | | | | | |

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 2.5 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. P.I. CABLES.

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 CLIPPED TO FRAMES. BLUNDER SIDES OF DECKS.

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 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 OR FIBRE.

Earthing Connections, state what earthing connections are fitted and their respective sectional areas NO EARTH CONNECTIONS EXCEPT ON MAIN SWITCH BOARD FRAME. 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 NO EMERGENCY SUPPLY.

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 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 , whether fixed or portable , are their fittings as per Rule

Are 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 YES.

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

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 THE BRANSMOUTH DOCKYARD CO., LTD.

Electrical Engineers.

Date 22 Oct 1924

Aspen Miller
 MANAGER DIRECTOR

COMPASSES.

Distance between electric generators or motors and standard compass 160 ft.
 Distance between electric generators or motors and steering compass 150 ft.
 The nearest cables to the compasses are as follows:—
 A cable carrying 6.5 Ampères 6' 10" feet from standard compass 8' 0" feet from steering compass.
 A cable carrying .4 Ampères in feet from standard compass in 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.

FOR THE BRANSMOUTH DOCKYARD CO., LTD.

Builder's Signature.

Date 22 Oct 1924

Aspen Miller
 MANAGER DIRECTOR

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 fitted on board under special survey. Tested under full working conditions and found satisfactory. The workmanship was found to be good and sound.*

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

J.W.
 30/10/24

Total Capacity of Generators *6* Kilowatts

The amount of Fee ... £ 6.0.0 : *When applied for, 17.10.24*
 Travelling Expenses (if any) £ 8.9. : *When received, 22.10.24*

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

Committee's Minute *GLASGOW 28 OCT 1924*

Assigned *Elec. Light* *W.M.*

A.L.
 27/10/24

Im. 9. 27.—Transfer.
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

