

# REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 9<sup>th</sup> July 19 26 When handed in at Local Office 10<sup>th</sup> July 19 26 Port of Aberdeen Received at London Office 12 JUL 1926

No. in Survey held at Aberdeen Date, First Survey 19.4.26 Last Survey 9.7. 1926.  
Reg. Book. on the STEEL SCREW TUG "FOREMOST 41" (Number of Visits 11)

Built at Aberdeen By whom built A. Hall & Co. Ltd. Yard No. 597 Tons { Gross 244  
Net 12 When built 1926

Owners James Dredging, Towing, & Transport Co. Ltd. Port belonging to London

Electric Light Installation fitted by James Thomson Contract No. - When fitted 1926

System of Distribution Double wire ✓

Pressure of supply for Lighting 110 volts ✓ 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 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 -

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 In 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 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 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 Same Compartment

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 insulating materials used ✓, 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 fuses and single pole switches for each outgoing circuit.

Instruments on main switchboard one ammeter, one 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 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 ✓



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

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 2 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 None

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 Metal clips, lead covered, and lead covered and armoured

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 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 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 V. Fibre

Earthing Connections, state what earthing connections are fitted and their respective sectional areas ✓

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 None

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 None

how are the cables led

where are the controlling switches situated ✓

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

Arc Lamps, other than searchlight lamps, No. of None, are their live parts insulated from the frame or case -, are their fittings as per Rule -

Motors, are their working parts readily accessible None, 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 None

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.

Table with columns: DESCRIPTION OF GENERATOR, No. of, KILOWATTS, Volts, Amperes, 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, COMPOSITION OF STRAND (No., Diameter), Total Maximum Current, Approximate Length, Insulated with, HOW PROTECTED. Lists various lighting and heating conductors throughout the ship.

MOTOR CONDUCTORS.

Table with columns: Ref. No., DESCRIPTION, No. of Motors, Effective Area of each Conductor, COMPOSITION OF STRAND (No., Diameter), Total Maximum Current, Approximate Length, Insulated with, HOW PROTECTED. Lists various motor conductors.

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.

James Thomson Electrical Engineers. Date 23<sup>rd</sup> June 1926.

COMPASSES.

Distance between electric generators ~~or motors~~ and standard compass 56 feet

Distance between electric generators ~~or motors~~ and steering compass 64 "

The nearest cables to the compasses are as follows:—

A cable carrying 3.3 Ampères 8 feet from standard compass 8 feet from steering compass.

A cable carrying 6.5 Ampères 16 feet from standard compass 16 feet from steering compass.

A cable carrying .2 Ampères in from standard compass in 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 ALEXANDER HALL & CO., L<sup>td</sup>:

A. G. Morda Secretary. Builder's Signature. Date 23<sup>rd</sup> June 1926

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 the vessel in a satisfactory manner and in accordance with the Rules, the materials and workmanship are good. On completion the installation was tried under full working conditions with satisfactory results.*

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

AWD 15/7/26

Total Capacity of Generator 2 Kilowatts

The amount of Fee ... £ 3 : 0 : 0 When applied for, 10.7.26

Travelling Expenses (if any) £ : : 17/2/26 When received, 21/6/26

A. G. Forster Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 16 JUL 1926

Assigned Elec Light

Im. 0.24.—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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