

## REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

Date of writing Report..... 15.9.1942 When handed in at Local Office..... 29 SEP 1942 Port of..... Hull  
 No. in Survey held at..... Hull Date, First Survey..... 10.8.42 Last Survey..... 3.9.42  
 Reg. Book..... (Number of Visits..... 12)  
 on the..... single screw tug "EMPIRE SAM"  
 Tons { Gross..... 275  
 Net..... Nil  
 Built at..... Hull By whom built..... Buchanan & Son Ltd. Yard No..... 1250 When built..... 1942  
 Owners..... Ministry of War Transport Port belonging to.....  
 Electrical Installation fitted by..... Wm Broady & Son Ltd. Contract No..... ✓ When fitted..... 1942  
 Is vessel fitted for carrying Petroleum in bulk..... No Is vessel equipped with D.F..... ✓ E.S.D..... ✓ Gy.C..... ✓ Sub.Sig..... ✓

Have plans been submitted and approved..... Yes System of Distribution..... Parallel Condenser Pressure Voltage of supply for Lighting..... 110  
 Heating..... ✓ Power..... 110 Direct or Alternating Current, Lighting..... DC Power..... DC If Alternating Current state periodicity..... ✓ Prime Movers,  
 has the governing been tested and found as per Rule when full load is suddenly thrown on and off..... Yes Are turbine emergency governors fitted with a  
 trip switch as per Rule..... ✓ Generators, are they compound wound..... Yes, are they level compounded under working conditions..... Yes  
 if not compound wound state distance between generators..... ✓ and from switchboard..... ✓ Where more than one generator is fitted are they  
 arranged to run in parallel..... ✓, are shunt field regulators provided..... Yes Is the compound winding connected to the negative or positive pole  
 Negative Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing..... ✓ Have certificates of  
 test for machines under 100 kw. been supplied..... Yes and the results found as per rule..... Yes Are the lubricating arrangements and the construction  
 of the generators as per rule..... Yes Position of Generators..... Engine room  
 is the ventilation in way of generators satisfactory..... Yes are they clear of inflammable material..... Yes, if situated  
 near unprotected combustible material state distance from same horizontally..... ✓ and vertically..... ✓, are the generators protected from mechanical  
 injury and damage from water, steam and oil..... Yes, are the bedplates and frames earthed..... Yes and the prime movers and generators in metallic  
 contact..... Yes Switchboards, where are main switchboards placed..... Engine room, adjacent to generator  
 are they in accessible positions, free from inflammable gases and acid fumes..... Yes, are they protected from mechanical injury and damage from water, steam  
 and oil..... Yes, if situated near unprotected combustible material state distance from same horizontally..... ✓ and vertically..... ✓, what insulation  
 material is used for the panels..... Sindanyo, if of synthetic insulating material is it an Approved Type..... Yes, if of  
 semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule..... ✓ Is the frame effectually earthed..... Yes  
 Is the construction as per Rule..... Yes, including accessibility of parts..... Yes, absence of fuses on the back of the board..... Yes, individual fuses  
 to pilot and earth lamps, voltmeters, etc.,..... Yes locking of screws and nuts..... Yes, labelling of apparatus and fuses..... Yes, fuses on the "dead"  
 side of switches..... Yes Description of Main Switchgear for each generator and arrangement of equaliser switches.....  
 D.P. switches and fuses  
 and for each outgoing circuit..... D.P. switches and fuses  
 Are compartments containing switchboards composed of fire-resisting material or lined as per Rule..... ✓ Instruments on main switchboard..... one  
 ammeters..... one voltmeters..... ✓ synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the  
 equaliser connection..... ✓ Earth Testing, state means provided..... Earth lamps & switches  
 Switches, Circuit Breakers and Fuses, are they as per Rule..... Yes, are the fuses an approved type..... Yes, are all fuses labelled as  
 per Rule..... Yes If circuit breakers are provided for the generators, at what overload current did they open when tested..... ✓, are the reversed current  
 protection devices connected on the pole opposite to the equaliser connection..... ✓, have they been tested under working conditions, and at what current  
 did they operate..... ✓ Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule..... Yes  
 Cables, are they insulated and protected as per the appropriate Tables of the Rules..... Yes, if otherwise than as per Rule are they of an approved type..... ✓  
 state maximum fall of pressure between bus bars and any point under maximum load..... 2 volts, are the ends of all cables having a sectional area of 0.04  
 square inch and above provided with soldering sockets..... Yes Are paper insulated and varnished cambric insulated cables sealed at the ends..... ✓



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Foundation



E. SAM

MAR 3

The Electrical Equipment is installed in accordance with the approved plans and the requirements of the Rules.

All Insulated Conductors are guaranteed to have been tested at the maker's works as specified in the Rules.

The foregoing is a correct description.

Electrical Engineers.

Date 18.9.42

# COMPASSES.

Minimum distance between electric generators or motors and standard compass

75 ft

Minimum distance between electric generators or motors and steering compass

70 ft

The nearest cables to the compasses are as follows:—

A cable carrying .05 Ampères ~~let into~~ feet from standard compass ~~let into~~ feet from steering compass.

A cable carrying .1 Ampères 4 feet from standard compass 2 feet from steering compass.

A cable carrying .5 Ampères 4 feet from standard compass 4 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 COCHRANE & SONS LTD.

J. Gray

Builder's Signature.

Date

Is this installation a duplicate of a previous case

Yes

If so, state name of vessel

EMPIRE PAT

Plans. Are approved plans forwarded herewith

No

If not, state date of approval

16.4.42

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith

Yes

General Remarks (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.)

This installation has been fitted on board in accordance with the approved Admiralty plans and requirements and the Society's Rules. The workmanship and materials are good and when tried under working conditions and tested as prescribed by the Admiralty and the Rules the installation was found satisfactory in every respect.

Noted

L. J.

6/10/42

Total Capacity of Generators 6 Kilowatts.

The amount of Fee

£

3

15

25% Spec.

When applied for,

29 SEP 1942

Travelling Expenses (if any) £

When received.

19

L. S. Shields

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI 9 OCT 1942

Assigned

See HUL 26.51748