

11 FEB 1953

Rpt. 13.

No. 23163

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 30 - 1 - 19 53. When handed in at Local Office 19 Port of Leith

No. in Survey held at Leith Date, First Survey 30 - 9 - 51 Last Survey 20 - 1 - 19 53  
Reg. Book. (No. of Visits 5)

on the Twin screw motor tug "M.S.C." "RANGER" Tons { Gross 154.18  
Net

Built at Leith By whom built Messrs Henry Robb Ltd. Yard No. 415 When built 1953.

Owners Manchester Ship Canal Co., Ltd. Port belonging to Manchester.

Installation fitted by Messrs Henry Robb Ltd. When fitted 1953.

Is vessel equipped for carrying Petroleum in bulk No Is vessel equipped with D.F. No E.S.D. No Gy.C. No Sub.Sig. No Radar No

Plans, have they been submitted and approved Yes System of Distribution Two Wire Voltage of Lighting 110

Heating Power 110 D.C. or A.C., Lighting D.C. Power D.C. If A.C. state frequency

Prime Movers, has the governing been found as per Rule when full load is thrown on and off Yes Are turbine emergency governors fitted with a trip switch Yes Generators, are they compound wound Yes, and level compounded under working conditions Yes

Are the generators arranged to run in parallel Yes Is the compound winding connected to the negative or positive pole negative

Have machines 100 kw. and over been inspected by the Surveyors during manufacture and testing Yes Have certificates of test for machines under 100 kw. been supplied and the results found as per Rule Yes Position of Generators At forward end of Engine Room

is the ventilation in way of generators satisfactory Yes are they clear of inflammable material and protected from mechanical injury and damage from water, steam and oil Yes Switchboards, where are main switchboards placed At forward end of engine room

are they in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water, steam and oil Yes, what insulation 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 Yes Is the construction as per Rule, including locking of screws and nuts Yes Description of Main Switchgear for each generator and arrangement of equaliser switches Double pole switches & fuses

and the switch and fuse gear (or circuit breakers) for each outgoing circuit Double pole switches & fuses

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard 1 ammeters 1 voltmeters synchronising devices. For compound machines in parallel are the ammeters and reverse current protection devices connected on the pole opposite to the equaliser connection Yes Earth Testing, state means provided 2 lamps in series w/cd common point earthed Preference Tripping, state if provided Yes, and tested Yes

Switches, Circuit Breakers and Fuses, are they as per Rule Yes, are the fuses an Approved Type Yes make of fuses ARTIC, are all fuses labelled Yes If circuit breakers are provided for the generators, at what overload do they operate Yes, and at what current do the reverse current protective devices operate Yes

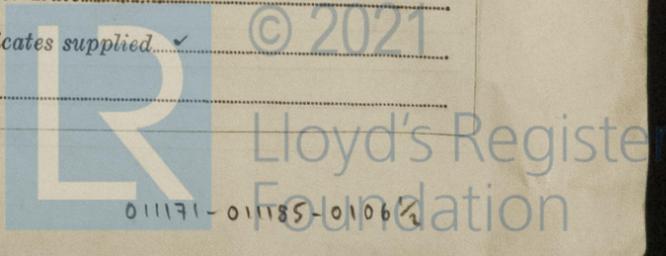
Cables, are they insulated and protected as per Rule Yes, if otherwise than as per Rule are they of an Approved Type Yes, state maximum fall of pressure between bus bars and any point under maximum load 2 volts. Are all paper insulated and varnished cambric insulated cables sealed at the ends Yes

Are all the cable runs in accessible positions not exposed to drip or accumulation of water or oil, high temperatures or risk of mechanical damage Yes, are any cables laid under machines or floorplates No, if so, are they adequately protected Yes State type of cables (if in conduit this should also be stated) in machinery spaces lead covered - for power in conduit for lighting, galleys lead covered and laundries State how the cables are supported or protected Lead covered cables are clipped to perforated tray plate. Cables for engine room lighting in conduit.

Are all lead sheaths, armouring and conduits effectually bonded and earthed Yes Are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands Yes, where unarmoured cables pass through beams, etc., are the holes effectively bushed Yes Refrigerated chambers, are the cables and fittings as per Rule Yes

Have refrigeration fan motors been constructed under survey Yes and test certificates supplied Yes

Are the motors accessible for maintenance at all times Yes



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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.

HENRY ROBB LIMITED

*A. Wilson* DIRECTOR

Electrical Contractors.

Date *25/1/53*

COMPASSES.

Have the compasses been adjusted under working conditions *none fitted.*

HENRY ROBB LIMITED

*A. Wilson* DIRECTOR

Builder's Signature.

Date *25/1/53*

Have the foregoing descriptions and schedules been verified and found correct *yes*

Is this installation a duplicate of a previous case *yes*. If so, state name of vessel *motor Tugs M.S.C. "Quarry" & "Quest"*

Plans. Are approved plans forwarded herewith *yes*. If not, state date of approval *✓*

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

General Remarks. (State quality of workmanship and materials, opinions as to class, etc.)

*This installation has been efficiently installed on board in accordance with the Rule Requirements and the Approved plans*

*The materials and workmanship have been found good*

*upon completion the installation was found satisfactory under full working conditions.*

2m.8.50.—Transfer. (MADE AND PRINTED IN ENGLAND.)  
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

#  
*27*  
13.2.53

*Noted 21/1/53*

Total Capacity of Generators *26* Kilowatts.

The amount of Fee *Lt. Acc. £ 13* : *✓* : *✓* When applied for, *3/1/1953*  
*Gr. Acc. 13* : *✓* : *✓*

Travelling Expenses (if any) £ : : *10*

*Thomas Donaldson*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute *GLASGOW 10 FEB 1953*

Assigned *SEE ACCOMPANYING MACHINERY REPORT*

*27*  
*3/2/53*



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