

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 27 FEB 1946

Date of writing Report 9TH FEBRUARY 1946. When handed in at Local Office 25.1.46 Port of GLASGOWNo. in Survey held at PORT GLASGOW Date, First Survey 11TH DECEMBER '45 Last Survey 6TH FEBRUARY 1946
Reg. Book. (Number of Visits 5)16530 on the EMPIRE FRIEDA Tons { Gross 295
Net -

Built at PORT GLASGOW By whom built FERGUSON BRAS (PORT GLASGOW) LTD Yard No. 377 When built 1945

Owners MINISTRY OF WAR TRANSPORT Port belonging to GLASGOW

Electrical Installation fitted by J. CHARTERS Contract No. 377 When fitted 1945

Is vessel fitted for carrying Petroleum in bulk - Is vessel equipped with D.F. - E.S.D. - Gy.C. - Sub.Sig. -

Have plans been submitted and approved YES System of Distribution TWO WIRE Voltage of supply for Lighting 110

Heating - Power 110 Direct or Alternating Current, Lighting D.C. Power D.C. 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 No, 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 - and the results found as per rule - Are the lubricating arrangements and the construction

of the generators as per rule YES Position of Generators STARBOARD SIDE 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 NEAR GENERATORS

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 SINDARYA, 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. SWITCH AND FUSES

and for each outgoing circuit. D.P. SWITCH AND FUSES

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule - Instruments on main switchboard 2

ammeters 2 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, 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

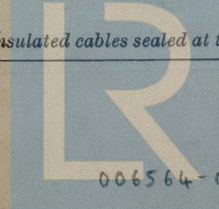
protection devices connected on the pole opposite to the equaliser connection - have they been tested under working conditions, and at what current

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 W.E.

state maximum fall of pressure between bus bars and any point under maximum load 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 YES



and found satisfactory. YES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel For Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	10	1	12/064	91	135	36	V.c.	L.C.
" " EQUALISER								
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
GENERATOR								

[illegible]

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.

J. Charters

Electrical Engineers.

Date *13th Feb '46*

COMPASSES.

Minimum distance between electric generators or motors and standard compass *SEVENTY FEET*

Minimum distance between electric generators or motors and steering compass *SIXTY-FOUR FEET*

The nearest cables to the compasses are as follows:—

A cable carrying *.136* Ampères *LED INTO* feet from standard compass *LED INTO* feet from steering compass.

A cable carrying *3.6* Ampères *10* feet from standard compass *6* 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.

FERGUSON BROTHERS (PORT GLASGOW) LTD.

Builder's Signature.

Date *22nd Febry. 1946.*

Peter Ferguson

MANAGING DIRECTOR

Is this installation a duplicate of a previous case *-* If so, state name of vessel *-*

Plans. Are approved plans forwarded herewith *No* If not, state date of approval *21/3/45 REC. LETTER FROM ROYAL CANADIAN MOUNTED POLICE*

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith *No SEE LETTER ATTACHED.*

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

The electrical equipment of this vessel has been fitted on board under special survey, tested under working conditions and found satisfactory. All the requirements of the approved plans and M.C.B.T. specification have been carried out. The materials and workmanship are good.

Noted

Mar 11. 3. 46

Total Capacity of Generators *20* Kilowatts.

The amount of Fee ...	£	17	:	10	:	When applied for, <i>at 5th</i> 19
SPECIFICATION FEE ...	£	4	:	7	:	When received, 19
Travelling Expenses (if any)	£	:	:	15	:	19

J. M. Gardiner

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW 26 FEB 1946

Assigned

See L.R. 23237



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Lloyd's Register
Foundation