

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

8 JUL 1949

Received at London Office

Date of writing Report... 16th June 49 When handed in at Local Office... 16th June 49 Port of... Rio de Janeiro

No. in Survey held at... Rio de Janeiro Date, First Survey... 28/8/47 Last Survey... 16/6/ 1949
Reg. Book. (Number of Visits... 8)

on the... Twin Screw steamer "RIO MINHO", ex Transport Ferry 3018 Tons { Gross... Net...

Built at... Newcastle By whom built... Hawthorn Leslie & Co. Yard No. 680 When built... 1945

Owners... E.G. Fontes & Co. Port belonging to... Rio de Janeiro

Electrical Installation fitted by... Partly fitted on arrival completed by... Contract No. When fitted... 1949
E.G. Fontes & Co.

Is vessel fitted for carrying Petroleum in bulk... no Is vessel equipped with D.F. yes E.S.D. no Gy.C. no Sub.Sig. no

Have plans been submitted and approved... System of Distribution... two - wire Voltage of supply for Lighting... 220

Heating... Power... 220 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

rip 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

positive... 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... no and the results found as per rule... Are the lubricating arrangements and the construction

of the generators as per rule... yes Position of Generators... 2-steam in E.R. at Lower deck level. One Emergency

Diesel on Main Deck, 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... are the bedplates and frames earthed... yes and the prime movers and generators in metallic

contact... yes Switchboards, where are main switchboards placed... On main deck level inside E.R. at Centre Line

Bulkhead

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... Bakelite, if of synthetic insulating material is it an Approved Type... no, if of

semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule... yes Is the frame effectually earthed... yes

the construction as per Rule... yes, including accessibility of parts... yes, absence of fuses on the back of the board... yes, individual fuses

pilot and earth lamps, voltmeters, etc... yes, locking of screws and nuts... yes, labelling of apparatus and fuses... yes, fuses on the "dead"

of switches... yes Description of Main Switchgear for each generator and arrangement of equaliser switches... Each equipped with 2 -

pole circuit breaker with overtension, over current and no-volt cut out. Knife switches

with fuses.

and for each outgoing circuit... 2 - pole knife switch with fuses.

compartments containing switchboards composed of fire-resisting material ~~XXXXX~~ as per Rule... yes Instruments on main switchboard... 4

volts... 3 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... Indicator lamps on each board.

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... 260amps, are the reversed current

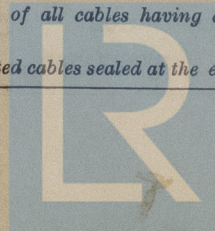
protection devices connected on the pole opposite to the equaliser connection... have they been tested under working conditions, and at what current

they operate... Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule... yes

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... -

the maximum fall of pressure between bus bars and any point under maximum load... 0.05V, 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



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and found satisfactory.....yes.....

0207 2/2

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.

E. Fontenle Electrical Engineers. Date 1st June 1949

COMPASSES

Minimum distance between electric generators or motors and standard compass 25'

Minimum distance between electric generators or motors and steering compass 15'

The nearest cables to the compasses are as follows:—

A cable carrying 10 Ampères 12' feet from standard compass 10' feet from steering compass.

A cable carrying 10 Ampères 14' feet from standard compass 10' 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 no

The maximum deviation due to electric currents was found to be nil degrees on 00 course in the case of the standard compass, and nil degrees on 00 course in the case of the steering compass.

E. Fontenle Builder's Signature. Date 30/5/49

Is this installation a duplicate of a previous case Transport Ferry type. If so, state name of vessel

Plans. Are approved plans forwarded herewith If not, state date of approval 27/5/49

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith Not available

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

The Electrical Installation has been installed in conformity with the Society's Rules and Regulations. Insulation resistance tests carried out on all circuits, satisfactorily.

The material and workmanship are good.

The original builders stated they could not furnish certificates for the generators or motors, which had been supplied from stock by the Admiralty.

The installation is eligible, in my opinion, to be classed with this Society.

The following are now in accordance with the Approval letter of 21st June 1949:—

The three 60kW generators are stabilised shunt wound.

The shore connection cable is 500,000 cm.

The Interconnector cable, between the main switchboards, is suitably protected by fuses at both ends.

An alternative supply to the Navigation lights has been led direct from the main switchboard, with the switch on the bridge marked "Emergency Navigation".

Total Capacity of Generators 180 Kilowatts.

The amount of Fee ... £6,000,00 When applied for, 27/6/1949

Travelling Expenses (if any) £ 330,00 When received,

M. Caldwell
Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI, 6 JAN 1950

Assigned Deferred



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