

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

23 JUN 1948

Received at London Office.....

Date of writing Report... 1st June 1948 When handed in at Local Office... 16 June 1948 Port of... Glasgow

No. in Survey held at... Glasgow Date, First Survey... 23 Dec. 1947 Last Survey... 2nd June 1948
(Number of Visits... 16...)

Reg. Book. 38381 on the M. V. BRITISH RANGER Tons {Gross... Net...}

Built at... Glasgow By whom built... Harland & Wolff Ltd. Yard No. 1362 When built... 1948

Owners... British Tanker Co. Ltd. Port belonging to... London British

Electrical Installation fitted by... Harland & Wolff Ltd. Contract No. 1362 When fitted... 1948

Is vessel fitted for carrying Petroleum in bulk... Yes Is vessel equipped with D.F. Yes E.S.D. Yes Gy.C. Yes Radar Type Sub. Sig. 200

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... Yes, 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... in 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... Sindamp, 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... Double pole circuit

breaker, with interlocked equaliser switch fitted with O/L and R/C trips

and for each outgoing circuit... Double pole switch and fuses.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule... Yes Instruments on main switchboard... 3

ammeters... 2 voltmeters... synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connection... Yes 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... Full load, are the reversed current

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

did they operate... 15% Full load 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... Yes

state maximum fall of pressure between bus bars and any point under maximum load... 5.4 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

[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.

For HARLAND AND WORRE LIMITED,

R. J. Allen
General Secretary,

Electrical Engineers.

Date

COMPASSES.

Minimum distance between electric generators or motors and standard compass

13 feet W/T motor generator

Minimum distance between electric generators or motors and steering compass

12 "

The nearest cables to the compasses are as follows:—

A cable carrying 2 Ampères led into feet from standard compass led into feet from steering compass.

A cable carrying 12 Ampères 6 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.

For HARLAND AND WORRE LIMITED,

R. J. Allen
General Secretary,

Builder's Signature.

Date

Is this installation a duplicate of a previous case No If so, state name of vessel

Plans. Are approved plans forwarded herewith

If not, state date of approval

27-5-47

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.)

The electrical equipment of this vessel has been fitted on board under special survey, tested under working conditions, and found satisfactory.
The materials and workmanship are good.

Noted.
J.S.
10-7-48.

Total Capacity of Generators 150 Kilowatts.

The amount of Fee ... £ 45 : 0 :

When applied for,
22 JUN 1948

Travelling Expenses (if any) £ :

When received,
19

J. C. Wright

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

SEE ACCOMPANYING MACHINERY REPORT

Gls. 72844

Assigned

GLASGOW

22 JUN 1948



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Foundation