

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

13 JUL 1942

Date of writing Report... 7.6.42... When handed in at Local Office... 10 JUL 1942... Port of... HULL

No. in Survey held at... HULL & HULL... Date, First Survey... 4.5.42... Last Survey... 5.6.1942... Reg. Book... (Number of Visits... 8...)

on the... **EMPIRE RACE**... Tons { Gross... 829... Net... 676 }

Built at... HULL... By whom built... J. J. Seaton & Co... Yard No... 421... When built... 1942-

Owners... The Ministry of War Transport... Port belonging to... Electrical Installation fitted by... J. J. Seaton & Co... 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... Constant pressure & D.C. Voltage of supply for Lighting... 110...

Heating... Power... Direct or Alternating Current, Lighting... D.C... Power... 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... Yes

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... Yes... 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, Starboard side

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... Sandanya

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... DP Switches & fuses with double bus bars, one pair to each generator

and for each outgoing circuit... DP change over switch & DP 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

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 1/2 lbs. are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets... None... Are paper insulated and varnished cambric insulated cables sealed at the ends

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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.

J. Bacha
W.M. BROADBENT & SONS LTD
ENGLAND

Electrical Engineers.

Date *7th May 1942*

COMPASSES.

Minimum distance between electric generators or motors and standard compass.....

Minimum distance between electric generators or motors and steering compass.....

The nearest cables to the compasses are as follows:—

A cable carrying Ampères feet from standard compass feet from steering compass.

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Have the compasses been adjusted with and without the electric installation at work at full power.....

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted.....

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

Compass
Corrects
gear

Builder's Signature.

Date.....

Is this installation a duplicate of a previous case..... *Yes* If so, state name of vessel *EMPIRE BIRCH*

Plans. Are approved plans forwarded herewith..... *No* If not, state date of approval *26.6.41 (for Humber Electric Co.)*

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 Electric installation has been installed in accordance with the Rules, the approved plans & the Specification

The materials & workmanship are good & when tried under working conditions the installation was found satisfactory in every respect.

Wick
Flu
15.7.42

Total Capacity of Generators..... *8* ✓ Kilowatts.

The amount of Fee £ *8 : 0 : 0* When applied for, *2.6.1942*
25% for Special *2 0 0*
Travelling Expenses (if any) £ *10 0 0* When received, *2.6.1942*

W. S. Shivers
Surveyor to Lloyd's Register of Shipping.

TUE 21 JUL 1942

Committee's Minute.....

Assigned..... *See Nil 2.6. 51670*

5m.4.30.—Transfer. (MADE AND PRINTED IN ENGLAND.)
(The Surveyors are requested not to write on or below the space for Committee's Minute.)