

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

13 JUL 1944

Date of writing Report... 1st JULY 1944 When handed in at Local Office... 11. 7. 1944 Port of... GLASGOW

No. in Survey held at... GLASGOW Date, First Survey... 15th MARCH Last Survey... 30th JUNE 1944
Reg. Book. (Number of Visits... 14)

37490 on the... EMPIRE ROSEBERY Tons { Gross 2370 Net 1281

Built at... GLASGOW By whom built... BLYTHSWOOD S.B.C. Yard No. 77 When built... 1944

Owners... MINISTRY OF WAR TRANSPORT Port belonging to... GLASGOW

Electrical Installation fitted by... MESSRS SUNDERLAND FORGE & ENG. CO. LTD Contract No. 77 When fitted... 1944

Is vessel fitted for carrying Petroleum in bulk... YES Is vessel equipped with D.F. YES E.S.D. YES 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... 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... In engine room near generators

are they in accessible positions, free from inflammable gases and acid fumes... —, 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... Sindamfo, 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...

150 AMP. D.P. Knife pattern switch with cartridge type fuses.

and for each outgoing circuit... 60 AMP. D.P. Knife pattern switches with cartridge type fuses.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule... — 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... — 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... —, 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... 5.8 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.

| PARTICULARS OF GENERATING PLANT. | | | | | | | |
|----------------------------------|--------|------------|--------|----------|-----------|--|------------|
| DESCRIPTION OF GENERATOR. | No. of | RATED AT | | | DRIVEN BY | WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE. | |
| | | Kilowatts. | Volts. | Ampères. | | Revs. per Min. | Fuel Used. |
| MAIN ... | 2 | 10 | 110 | 91 | 850 | STEAM ENGINE | - |
| EMERGENCY ... | | | | | | | |
| ROTARY TRANSFORMER | | | | | | | |

PARTICULARS OF GENERATING PLANT

| DESCRIPTION OF GENERATOR. | No. of | RATED AT | | | | DRIVEN BY | WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE. | |
|---------------------------------|--------|------------|--------|----------|-------------------|--------------|---|----------------------|
| | | Kilowatts. | Volts. | Ampères. | Revs. per Min. | | Fuel Used. | Flash Point of Fuel. |
| MAIN | 2 | 10 | 110 | 91 | 850 | STEAM ENGINE | - | - |
| EMERGENCY .. | | | | | | | | |
| ROTARY TRANSFORMER | | | | | | | | |

GENERATOR CABLES.

| DESCRIPTION. | KILOWATTS. | CONDUCTORS. | | MAXIMUM CURRENT IN AMPERES. | | APPROX. LENGTH (feet plus return feet). | INSULATED WITH. | HOW PROTECTED. |
|----------------------------------|------------|----------------------------|---|-----------------------------|-------|---|-----------------|----------------|
| | | No. in Parallel For Poles. | Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm. | In the Circuit. | Rule. | | | |
| MAIN GENERATOR | 10 | 1 | 19/052 | 91 | 104 | 70 | Y.C. | L.C. |
| " " EQUALISER | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| EMERGENCY GENERATOR | | | | | | | | |
| ROTARY TRANSFORMER: MOTOR | | | | | | | | |
| " " GENERATOR | | | | | | | | |

MAIN DISTRIBUTION CABLES.

[illegible]

LIGHTING AND HEATING, ETC., CABLES.

[illegible]

MOTOR CABLES.

| | No. | B.H.P. | | | | | | |
|-----------------------|-----|--------|---|---------|----|----|-----|-----------|
| DOMESTIC REFRIGERATOR | 1 | 2 | 1 | 7/06/44 | 18 | 31 | 120 | W.E. L.C. |
| RETAIN | | | | | | | | |

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.

P. Pro The Sunderland Forge & Engineering Co. Ltd.

Electrical Engineers.

Date 29th June 1944

J. C. Shanks
Branch Manager.

COMPASSES.

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

Twelve feet.

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

Fifteen feet.

The nearest cables to the compasses are as follows:—

A cable carrying 6 Ampères 9 feet from standard compass 7 feet from steering compass.

A cable carrying 16 Ampères led into ~~feet from~~ standard compass led into ~~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.

BLYTHSWOOD SHIPBUILDING CO., LTD.

Builder's Signature.

Date 3rd July 1944

Is this installation a duplicate of a previous case.....

No

If so, state name of vessel.....

Plans. Are approved plans forwarded herewith.....

No

If not, state date of approval.....

10/3/44

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 and in accordance with the approved plans and the Secretary's letter dated 22nd June 1944. All the requirements of the M.O.W.T. Specification have been carried out. The installation tested under working conditions and found satisfactory. The materials and workmanship are good.

Noted

A. J. H.

18/7/44

27E
11-7-44

Total Capacity of Generators..... 20 Kilowatts.

The amount of Fee ... £ 17 : 10 :

When applied for,
10 : 7 : 19 : 44

SPECIFICATION FEE £ 4 : 7/6

Travelling Expenses (if any) £ : :

When received,
.....19.....

Surveyor to Lloyd's Register of Shipping.

J. M. Gardiner

GLASGOW

11 JUL 1944

Committee's Minute.....

Assigned.....



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Lloyd's Register
Foundation