

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

SEP 16 1940

Date of writing Report..... 1940..... When handed in at Local Office..... 20/8/40..... Port of..... NEWCASTLE-on-TYNE.....
 No. in Survey held at..... WALKER..... Date, First Survey..... 18-7-40..... Last Survey..... 2-8-40.....
 Reg. Book..... on the..... SS 'ERDEK'..... Tons {Gross..... 691..... Net..... 265.....
 Built at..... Walker..... By whom built..... Swan Hunter & Wigham Richardson..... Hard No. 1664..... When built..... 1940.....
 Owners..... H.M. GOVERNMENT..... Port belonging to..... NEWCASTLE.....
 Electrical Installation fitted by..... Clarke Chapman & Co. Ltd..... Contract No. 1664..... When fitted..... 1940.....
 Is vessel fitted for carrying Petroleum in bulk..... No..... Is vessel equipped with D.F..... No..... E.S.D..... No..... Gy.C..... No..... Sub.Sig..... No.....
 Have plans been submitted and approved..... Yes..... System of Distribution..... Two wire..... Voltage of supply for Lighting..... 110.....
 Heating..... Power..... Direct or Alternating Current, Lighting..... Direct Power..... If Alternating Current state frequency..... Prime Movers,
 has the governing been tested and found efficient when the whole 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....., 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..... 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 starboard side.....
 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..... Ebony Sindanyo....., 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
 quick-break Knife switch and double pole fuses
 and for each outgoing circuit..... Double-pole quick break Knife switches and double pole fuses
 Are compartments containing switchboards composed of fire-resisting material or lined as per Rule..... Yes..... Instruments on main switchboard..... one
 ammeters..... one..... 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 coupled to earth via switches & fuses

PARTICULARS OF GENERATING PLANT.

| PARTICULARS OF GENERATING PLANT. | | | | | | WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE. | |
|----------------------------------|--------|------------|--------|----------|-----------|--|----------------------|
| DESCRIPTION OF GENERATOR. | No. of | RATED AT | | | DRIVEN BY | Fuel Used. | Flash Point of Fuel. |
| | | Kilowatts. | Volts. | Ampères. | | | |
| MAIN ... | 1 | 10 | 110 | 91 | 600 | Single cylinder vert. steam engine | |
| | | | | | | | |
| EMERGENCY ... | | | | | | | |
| ROTARY TRANSFORMER | | | | | | | |

GENERATOR CABLES.

| GENERATOR CABLES. | | | | | | | | |
|----------------------------------|------------|---------------------------|---|-----------------------------|-------|---|-----------------|-------------------------|
| DESCRIPTION. | KILOWATTS. | CONDUCTORS. | | MAXIMUM CURRENT IN AMPERES. | | APPROX. LENGTH (feet plus return feet). | INSULATED WITH. | HOW PROTECTED. |
| | | No. in Parallel Per Pole. | Sectional Area or No. and Dia. of Strands Sq. ins. or sq. mm. | In the Circuit. | Rate. | | | |
| MAIN GENERATOR | 10 | 1 | 19/072 | 91 | 97 ✓ | 30' | V.I.R | h galvanised steel pipe |
| " EQUALISER | | | | | | | | |
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| EMERGENCY GENERATOR | | | | | | | | |
| ROTARY TRANSFORMER: MOTOR | | | | | | | | |
| " GENERATOR | | | | | | | | |

MAIN DISTRIBUTION CABLES.

[illegible]

LIGHTING AND HEATING, ETC., CABLES.

| LIGHTING AND HEATING, ETC., CABLES. | | | | | | | |
|-------------------------------------|---|-------|-----|------|------|-------|-----------------------|
| WIRELESS | 1 | 7/026 | 8 | 20 | 200' | V.I.R | galvanised steel pipe |
| NAVIGATION LIGHTS | 1 | 7/029 | 4 | 18.2 | 200' | V.I.R | " " " " |
| LIGHTING AND HEATING | 1 | 7/029 | 10 | 18.2 | 20' | V.I.R | " " " " |
| Engine & boiler room | 1 | 7/052 | 24 | 37 | 180' | V.I.R | " " " " |
| Accommodation and hold | 1 | 7/060 | 9.1 | 31 | 400' | V.I.R | " " " " |
| Refriger | | | | | | | |
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MOTOR CABLES.

[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 Clarke, Chapman & Co., Ltd.

W. E. Taylor Director Electrical Engineers. Date 9-8-40

COMPASSES.

Minimum distance between electric generators ~~or motors~~ and standard compass 80'

Minimum distance between electric generators ~~or motors~~ and steering compass 70'

The nearest cables to the compasses are as follows:—

A cable carrying 12 Ampères feet from standard compass ^{inside} feet from steering compass.

A cable carrying 10 Ampères ^{inside} feet from standard compass feet from steering compass.

A cable carrying 4 Ampères 10 feet from standard compass 5 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 every course in the case of the standard compass, and Nil degrees on every course in the case of the steering compass.

SWAN, HUNTER, & WHAM RICHARDSON, LTD.

W. E. Taylor

Builder's Signature.

Date 12th August 1940

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

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

The electrical equipment of this vessel was installed under special survey. The workmanship and material used are good. The governing regulation and compounding of the generator set was tested. The insulation resistance of each circuit was measured and found satisfactory. In my opinion, the installation is suitable for a crossed vessel.

Noted
F. E. 17/9/40

Total Capacity of Generators 10 Kilowatts.

The amount of Fee ... £ 10 : 0 :
When applied for, 11 SEP 1940
Travelling Expenses (if any) £ : :
When received, 14.9.1940

W. E. Brown
Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI! 20 SEP 1940

Assigned See minute on Machinery
F. E. report.



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Foundation