

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

Date of writing Report 12th Dec. 1942 When handed in at Local Office 28th Dec. 1942 Port of Sunderland

No. in Survey held at Sunderland Date, First Survey 9th Nov. Last Survey 11th Dec. 1942
Reg. Book. Suppt. (Number of Visits.....)

88726 on the B.S. "THISTLEMAIR" Tons { Gross 72.27
Net 42.93

Built at Sunderland By whom built J. L. Thompson & Sons Ltd. Yard No. 622 When built 1942

Owners Allyn Line Ltd. Port belonging to Sunderland

Electrical Installation fitted by The Sunderland Eng. Co. Ltd. Contract No. 622 When fitted 1942

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 2 wire insulated Voltage of supply for Lighting 110

Heating no Power 110 Direct or Alternating Current, Lighting yes Power yes If Alternating Current state periodicity no 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 no Generators, are they compound wound yes, are they level compounded under working conditions yes,

if not compound wound state distance between generators no and from switchboard no 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 no 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 aft

yes, 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 no and vertically no, 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 on aft 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 no and vertically no, what insulation material is used for the panels "Economy Linings", 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 no 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 knife switch and double pole fuses

and for each outgoing circuit Double pole double throw knife switch and double pole fuses

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule yes Instruments on main switchboard 2 amms ammeters 2 voltmeters no synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the equaliser connection no Earth Testing, state means provided E lamps connected to E through two fuses

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 no, are the reversed current protection devices connected on the pole opposite to the equaliser connection no, have they been tested under working conditions, and at what current did they operate no 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 full of pressure between bus bars and any point under maximum load 44.4 v. are the ends of all cables having a sectional area of 0.01 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.

GENERATOR CABLES.

MAIN DISTRIBUTION CABLES

LIGHTING AND HEATING, ETC., CABLES.

Note W.E. cables. In addition to the cables supplied the 1/044 L.C. cable used for out circuit wiring in the accommodation and the 3/019 taped and braided cables used in pipe are W.E. installed.

MOTOR CABLES.

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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.

P. PRO THE SUNDERLAND FORGE & ENGINEERING CO., LTD.

H. V. Gurney

Electrical Engineers.

Date *14-12-1942*

COMPASSES.

Minimum distance between electric generators or motors and standard compass *100 feet*

Minimum distance between electric generators or motors and steering compass *96 feet*

The nearest cables to the compasses are as follows:—

A cable carrying *.1/4* Ampères *on the* feet from standard compass *7* feet from steering compass.

A cable carrying *.1/4* Ampères *7* feet from standard compass *on the* 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 *his* degrees on *every* course in the case of the standard compass, and *his* degrees on *every* course in the case of the steering compass.

H. V. Gurney Builder's Signature.

Date *16/12/1942*

Is this installation a duplicate of a previous case *Yes* If so, state name of vessel *"Elmwood"*

Plans. Are approved plans forwarded herewith *Yes* If not, state date of approval *11/5/42 & 9/6/42*

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 installed under special survey. The materials used are of good quality and the workmanship is good. On completion the equipment was run under working conditions with satisfactory results and the insulation resistance of all circuits was measured and found good. This equipment is in my opinion suitable for a classed vessel.

Notes

8/1/43

Total Capacity of Generators *30* Kilowatts.

The amount of Fee ... £ *22* : *10* : *14* When applied for, *14 Dec. 1942*

Travelling Expenses (if any) £ : : When received, *16 Dec. 1942* *How.*

G. Harrison

Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI. 8 JAN 1943*

Assigned *See Std. 2E 33568*



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