

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

21 MAY 1942

Received at London Office

Date of writing Report 13th May 1942 When handed in at Local Office 20 MAY 1942 Port of Sunderland

No. in Survey held at Sunderland Date, First Survey 10th April Last Survey 12th May 1942  
Reg. Book. Suppt. (Number of Volls. ....)

36447 on the S.S. "ELMWOOD" Tons { Gross 7167  
Net 4247

Built at Sunderland By whom built J. L. Thompson & Co., Ltd. Yard No. 616 When built 1942

Owners J. L. Thompson & Co., Ltd. Port belonging to London

Electrical Installation fitted by The Sunderland Eng. & Inf. Co. Ltd. Contract No. 616 When fitted 1942

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

Have plans been submitted and approved Yes System of Distribution 200 wire illuminated Voltage of supply for Lighting 110

Heating Power 110 Direct or Alternating Current, Lighting Yes Power Yes 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,

not compound wound state distance between generators Yes and from switchboard Yes 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 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

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 Yes and vertically Yes, 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 Yes and vertically Yes, what insulation

material is used for the panels "Gony Linsamp" 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 Yes 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 fuse

and for each outgoing circuit Double pole double throw quick break knife switch

and double pole fuse

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard 200

ammeters 200 voltmeters Yes synchronising devices Yes For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connection Yes Earth Testing, state means provided E lamps connected to E through one fuse

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 Yes, 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 Yes 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 4.44, 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

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	15	110	136.5	850	Single cylinder steam engines	
EMERGENCY ... ..							
ROTARY TRANSFORMER							

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.	Rule.			
MAIN GENERATORS ... ..	2 x 15	1	19/018	136.5	19/	60 x 80	V.C.	L.C. in pipe
" " EQUALISER ... ..								
EMERGENCY GENERATOR ... ..								
ROTARY TRANSFORMER: MOTOR ... ..								
" " GENERATOR ... ..								

[illegible]

WIRELESS	NAVIGATION LIGHTS	LIGHTING AND HEATING	Act. Trans. Recd.	Offrs' Ltg. S.B.	Pass. Cargo S.B.	Engrs' Ltg. S.B.	Trans. Cargo	App. Ltg. S.B.	Engine Rm. Ltg. S.B.
1	1	1	1	1	1	1	1	1	1
7/0.64	7/0.86	7/0.86	7/0.86	7/0.44	7/0.44	7/0.86	7/0.44	7/0.44	7/0.44
15	6	6	6	14	20	8	22	10	10
46	24	24	24	31	31	24	31	31	31
38	60	60	60	6	240	8	12	190	330
V.I.P.	Do.	Do.	Do.	Do.	Do.	Do.	Do.	Do.	Do.
In pipe & L.C.	L.C.	Do.	Do.	Do.	In pipe	L.C.	Do.	In pipe	Do.

[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.

*The Lunderland Long only tested.*

Electrical Engineers.

Date *14. 5. 1942*

*A. S. Gurney*

#### 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 *.14* Ampères *on the* feet from standard compass *7* feet from steering compass.

A cable carrying *.14* 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.

*JOSEPH L. R. N. Thompson*

Builder's Signature.

Date *16/5/42.*

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

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

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 operated under working conditions with satisfactory results and the insulation resistances of all circuits was measured and found good. This equipment is in my opinion suitable for a classed vessel.*

*Noted*

*27/5/42.*

Total Capacity of Generators *30* Kilowatts.

The amount of Fee ... £ *22 : 10* : *1* 9 MAY 1942

Travelling Expenses (if any) £ : : When received. ....19....

Committee's Minute *TUE 2 JUN 1942*

Assigned *See Std. J.E. 33397*

*Garrison*

Surveyor to Lloyd's Register of Shipping.

5m. 4.38.—Transfer. (MADE AND PRINTED IN ENGLAND.)  
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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