

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

23 JUN 1941

Date of writing Report... 4th June, 1941 When handed in at Local Office... 16 June, 1941 Port of Sunderland  
 No. in Survey held at Sunderland Date, First Survey 25th Apr., Last Survey 10th June, 1941  
 Reg. Book. Suppl. (Number of Visits.....)  
87545 on the S.S. "CAPITOL" Tons {Gross 1558  
 Net 885  
 Built at Sunderland By whom built S.P. Austin & Son Ltd. Yard No. 355 When built 1941  
 Owners Gas, Light & Coke Co. Port belonging to London  
 Electrical Installation fitted by The Sunderland Engineering Co. Ltd. Contract No. 355 When fitted 1941  
 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 insulated Voltage of supply for Lighting 110  
 Heating no Power no Direct no Alternating Current, Lighting yes Power no 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 only one fitted, 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 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 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 aft  
inside generating set  
 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 "Eumy 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 quick break knife switch and  
double pole fuse  
 Are compartments containing switchboards composed of fire-resisting material or lined as per Rule no Instruments on main switchboard one  
 ammeters one 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 Earth lamps coupled to E through rods & 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 none fitted, 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 no,  
 state maximum fall of pressure between bus bars and any point under maximum load 4.4V, 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.	Amps.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN ... ..	1	12.5	110	114	880	Single cylinder steam engine		
EMERGENCY ...								
ROTARY TRANSFORMER								

GENERATOR CABLES.									
DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (used plus return feet)	INSULATED WITH.	HOW PROTECTED.	
		No. in Parallel Per Cable.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.				
MAIN GENERATOR ... ..	12.5	1	19/08	114	118	14	V.I.R.	L.C.B.	
" " EQUALISER ... ..									

[illegible]

WIRELESS	1	7/0244	6	31	7a	V.I.R.	L.C.
NAVIGATION LIGHTS O.B. (off mid. t.b.)	1	7/0244	16	31	4	V.I.R. <td>L.C.</td>	L.C.
LIGHTING AND HEATING	1	7/0244	18	31	110	V.I.R. <td>L.C.A.B.</td>	L.C.A.B.
Saloon Ltg. O.B. (off mid. t.b.)	1	7/0244	9	15	80	V.I.R. <td>L.C.A.B.</td>	L.C.A.B.
Off Ltg. O.B.	1	7/0244	30	31	110	V.I.R. <td>L.C.A.B.</td>	L.C.A.B.
Engine Room Ltg. O.B.							
Shore Connection							

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.
<i>no more fitted</i>		



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.

*M<sup>rs</sup> Sunderland Forge & Eng Works*  
*H. J. Gandy*

Electrical Engineers.

Date *6-6-1941*

#### COMPASSES.

Minimum distance between electric generators or motors and standard compass *137 feet*

Minimum distance between electric generators or motors and steering compass *131 feet*

The nearest cables to the compasses are as follows:—

A cable carrying *.14* Ampères *on the* ~~foot from~~ standard compass *6* feet from steering compass.

A cable carrying *.14* Ampères *6* feet from standard compass *on the* ~~foot 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 *Every* course in the case of the standard compass, and *Nil* degrees on *Every* course in the case of the steering compass.

**FOR & PAULSON & SON, LIMITED**

*F. W. G. Gdale*

Builder's Signature.

Date *9/11/41*

**MANAGING DIRECTOR**

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 *10.2.41 and 18.2.41*

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 in accordance with the approved plans. The materials used and the workmanship are good. On completion trials of the equipment were witnessed and found satisfactory and the insulation resistance of all circuits was measured and found good. This equipment is in my opinion suitable for a classed vessel.*

*Noted*  
*L.P.*  
*24/6/41*

Total Capacity of Generators *12.5* Kilowatts.

The amount of Fee ... £ *13* - : When applied for *16 JUN 1941*

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

*Ganterson*

Surveyor to Lloyd's Register of Shipping.

*31. 4 JUL 1941*

Committee's Minute .....

Assigned *See Mtd. JE 33126*

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.)



© 2020

Lloyd's Register  
Foundation