

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

7 MAY 1944

Date of writing Report... 20. 4. 1944 When handed in at Local Office... 19... Port of... Liverpool.

No. in Survey held at... Liverpool and Birkenhead Date, First Survey... 3/2/44 Last Survey... 19/4/1944
Reg. Book.

on the... S.S. "C. 625" (Number of Visits... 4) Tons { Gross... 351 Net... 142

Built at... Liverpool. By whom built... W. J. Yarwood & Sons Ltd. Yard No... 726 When built... 1944.

Owners... Port belonging to...

Electrical Installation fitted by... W. J. Yarwood & Sons Ltd. Contract No... 726 When fitted... 1944

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... D.C Power... 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... 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 adjacent to generator.

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... Indanyo... 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 switch

and double pole fuses

and for each outgoing circuit... Double pole switch and double pole fuses.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule... Instruments on main switchboard... 1

ammeters... 1 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... 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... 1 Volt, 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

Are all lead sheaths, armouring and conduits effectually bonded and earthed. Yes Refrigerated chambers, are the cables and fittings as per Rule. —

Are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands. Yes where unarmoured cables pass through beams, etc., are the holes effectually bushed. Yes and with what material Lead

Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule. Yes Emergency Supply, state position. —

and method of control. —

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof Yes. Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present. No, if so, how are they protected -

are all fittings and accessories constructed and installed as per Rule 4-2. Searchlight Lamps, No. of —, whether fixed or portable —

are the frames effectually earthed....., are heaters in the accommodation of the convection type..... Motors, are all motors constructed and

steam and oil _____, if situated near unprotected combustible material state minimum distance from same horizontally _____ and vertically _____. Are

Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing..... Have certificates of test for motors under

fitted as per Rule.....Yes..... Lightning Conductors, where required are they fitted as per Rule.....-..... Ships carrying Oil having a Flash Point

are they of an approved type..... Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special requirements for such

Rule.....Yes....., are they suitably stored in dry situations.....Yes..... Insulation Tests, has the insulation resistance of all circuits and apparatus been tested

and found satisfactory.....740.

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	ONE	7.5	110	68	550	Steam Engine		
EMERGENCY								
ROTARY TRANSFORMER								

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel For Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rate.			
MAIN GENERATOR	7.5	1	19.064	68	83	25	Rubber	Enclosed.
" " EQUALISER								
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

[illegible]

WIRELESS
NAVIGATION LIGHTS	2.13	1	3/036	2.13	10	✓ 120	✓	✓	R.C.
AUXILIARY SUPPLY	3/036	1	3/036	2.13	10	✓ 120	✓	✓	R.C.
LIGHTING AND HEATING	7/0044	1	7/0044	27	31	✓ 30	✓	✓	R.C. in conduit
DEGAUSSING SUPPLY.	7/064	1	7/064	440	440	✓ 20	✓	✓	R.C.
MASTHEAD LIGHT.	3/029	1	3/029	56	5	✓ 200	✓	✓	R.C. in conduit
PORT, STARBOARD LIGHT	3/029	1	3/029	56	5	✓ 60	✓	✓	R.C.
STEER LIGHT.	3/029	1	3/029	56	5	✓ 100	✓	✓	R.C. in conduit
All Cables W.E. grade.									
U.S.									

[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.

W. J. YARWOOD & SONS (1938) LTD
Albert Yarwood

Electrical Engineers.

Date *Apr 22/44*

COMPASSES.

Minimum distance between electric generators or motors and standard compass..... *45 ft.*

Minimum distance between electric generators or motors and steering compass..... *40 ft.*

The nearest cables to the compasses are as follows:—

A cable carrying *2.13* Ampères *8* feet from standard compass *6* feet from steering compass.

A cable carrying *.18* Ampères *in* feet from standard compass *in* 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 *1/2* degrees on *any* course in the case of the standard compass, and *1/2* degrees on *any* course in the case of the steering compass.

Builder's Signature.

Date *Apr 22/44*

Albert Yarwood

Is this installation a duplicate of a previous case..... *Yes* If so, state name of vessel *Yes. S.S. 614. Yarwood Co 713.*

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

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.).....

Total Capacity of Generators..... *7.5.* Kilowatts.

The amount of Fee ... £ *7 : 10 : 0* When applied for, *26 APR 1944*

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

S. S. 614
Surveyor to Lloyd's Register of Shipping.

Committee's Minute *LIVERPOOL - 2 MAY 1944*

FRI. 12 MAY 1944

Assigned..... *Transmit to London. See J. Macky off.*