

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

10 JAN 1945

Date of writing Report... 21-12-44... When handed in at Local Office... 19... Port of... LIVERPOOL.

No. in Survey held at... LYTHAM AND PRESTON. Date, First Survey... 9/5/44 Last Survey... 21/12/44
Reg. Book. (Number of Visits... 5...)on the... S.S. "FRESHTARN" Tons { Gross... 283
Net...

Built at... LYTHAM. By whom built... LYTHAM S. BROS & ENG. CO. LTD. Yard No. 876 When built... 1944

Owners... THE ADMIRALTY. Port belonging to... LONDON.

Electrical Installation fitted by... LYTHAM S. BROS & ENG. CO. LTD. Contract No. 876 When fitted... 1944

Is vessel fitted for carrying Petroleum in bulk... No. Is vessel equipped with D.F. 16 E.S.D. No. Gy.C. No. Sub.Sig. No.

Have plans been submitted and approved... Yes / System of Distribution... Three 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 generators.

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... Insulated with mica, if of synthetic insulating material is it an Approved Type... Is the frame effectually earthed... Yes

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 fuses

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

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule... Yes 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 Lamp.

Switches, Circuit Breakers and Fuses, are they as per Rule... Yes are the fuses an approved type... Admissibly Pattern, 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... Admissibly Pattern

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...

state maximum fall of pressure between bus bars and any point under maximum load... 3 lbs., 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... None

PARTICULARS OF GENERATING PLANT.								
DESCRIPTION OF GENERATOR.	No. of	RATED AT			Revs. per Min.	DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampères.			Fuel Used.	Flash Point of Fuel.
MAIN ...	1	10 ✓	110 ✓	91 ✓	500	Steam Engine		
EMERGENCY ...								
ROTARY TRANSFORMER								

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 ...	1	10 ✓	110 ✓	91 ✓	500	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 Poles.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	10	1	4.083	91	118	30	Rubber	Lead Covered.
EQUALISER								
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
GENERATOR								

[illegible]

WIRELESS
NAVIGATION LIGHTS
LIGHTING AND HEATING
ENGINE ROOM.
NAVIGATION AND SIGNALLING.
FORWARD.
DG. SUPPLY CABLES.
BOILER ROOM AND MIDSHIPS.
MASTHEAD LIGHT.
BOW LIGHTS.
COMPASS LIGHTS
all cables "W.E. Grade".								

[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 LYTHAM SHIPBUILDING and
ENGINEERING COMPANY, LIMITED
R. Friedenthal

Electrical Engineers.

Date 30/12/44

COMPASSES.

Minimum distance between electric generators or motors and standard compass 35 ft

Minimum distance between electric generators or motors and steering compass 30 ft

The nearest cables to the compasses are as follows:—

A cable carrying 20 Ampères 4 feet from standard compass 6 feet from steering compass.

A cable carrying 20 Ampères 4 feet from standard compass 10 feet from steering compass.

A cable carrying 5.5 Ampères 8 feet from standard compass 10 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.

THE LYTHAM SHIPBUILDING and
ENGINEERING COMPANY, LIMITED
R. Friedenthal

Builder's Signature.

Date 30/12/44

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

Plans. Are approved plans forwarded herewith No. If not, state date of approval 10.12.42.

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 and in accordance with the approved plans and requirements of the Rules and specification. The installation has been tested under full working conditions and found satisfactory. The materials and workmanship are good.

Noted

Thus

17.1.45

Total Capacity of Generators 10. Kilowatts.

The amount of Fee ... £ 10 : 0 : 0 When applied for, 5 JAN 1945

Travelling Expenses (if any) £ 1 : 19/8 When received, 19.

L. Hafford.

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Transmit to London

FRI. 19 JAN 1945

See F.E. machy. rpt.



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Lloyd's Register
Foundation