

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report... 23rd MARCH 1948... When handed in at Local Office... 24 MAR 1948... Port of... NEWCASTLE-ON-TYNE

No. in Survey held at... BIRTH... Date, First Survey... 11th MARCH 1948... Last Survey... 19th MARCH 1948... Reg. Book... (Number of Visits... THREE...)

24330 on the S.S. FREEMAN HATCH. Tons { Gross... 1793 Net... 995

Built at... SURGEON BAY, WIS. By whom built... LEATHAM SMITH S.B.G. Yard No... - When built... 1943

Owners... MINISTRY OF TRANSPORT. Port belonging to... LONDON.

Electrical Installation fitted by... LEATHAM SMITH S.B.G. Contract No... - When fitted... 1943

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

Have plans been submitted and approved... - System of Distribution... TWO WIRE-INSULATED Voltage of supply for Lighting... 120

Heating... - Power... 120 Direct or Alternating Current, Lighting... D.C. Power... D.C. 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... 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... - Have certificates of

test for machines under 100 kw. been supplied... No and the results found as per rule... - 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... NEAR 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... SINDANYO, 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... 300 AMP. DOUBLE POLE

CIRCUIT BREAKER WITH OVERLOAD, UNDER VOLTAGE AND REVERSE CURRENT TRIPS ALSO A TRIPLE POLE KNIFE SWITCH

and for each outgoing circuit... DOUBLE POLE QUICK BREAK SWITCH WITH A FUSE ON EACH POLE

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule... YES Instruments on main switchboard... 2

ammeters... 2 voltmeters... - synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connection... YES Earth Testing, state means provided... EARTH LAMPS

Switches, Circuit Breakers and Fuses, are they as per Rule... YES, are the fuses an approved type... AMERICAN PATTERN, are all fuses labelled as

per Rule... - If circuit breakers are provided for the generators, at what overload current did they open when tested... 350 A, 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 30 A 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... -

state maximum fall of pressure between bus bars and any point under maximum load... - 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

B.L.I. form attached to Rpt. 8

supported and protected MAIN CABLES - LEAD COVERED ARMOURD CLIPPED TO "L" BRACKETS.

ACCOMMODATION CABLES - LEAD COVERED ARMOURD CLIPPED TO BULKHEADS.

Navigation Lamps, are they separately wired. YES controlled by separate double pole switches. YES and fuses. YES. Are the switches and fuses in a position accessible only to the officers on watch. YES, is an automatic indicator fitted. YES. Secondary Batteries, are they constructed and fitted as per Rule. -, are they adequately ventilated. - what is the battery capacity in ampère hours. -

and where are the controlling switches fitted _____, are all fittings suitably ventilated Yes

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

....., are their fittings as per Rule..... Heating and Cooking, is the general construction as per Rule.....

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

installed as per Rule YES and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water,

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

motors coupled to oil fuel transfer and unit pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compartment.....

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

100 BHP intended for essential services been supplied and the results found as per Rule..... Control Gear and Resistances, are they constructed and

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

less than 150° F. Have all the special requirements of the Rules for such ships been complied with....., are all fuses of the cartridge type.....

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

ships..... Are the cables lead covered as per Rule..... Spare Gear, if the vessel is for open sea service have spares been provided as per

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.....**YES**.....

PARTICULARS OF GENERATING PLANT.						WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.		
DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	Fuel Used.	Flash Point of Fuel.
		Kilowatts.	Volts.	Ampères.	Revs. per Min.			
MAIN	2	25	120	208	400	STEAM ENGINE.		
EMERGENCY ...								
ROTARY TRANSFORMER								

GENERATOR TABLE.							
DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (Lead plus return feet).	INSULA- TED WITH.	HOW PROTECTED.
		No. in Parallel Per Pole.	Sectional Area No. and size of ins. or of lead.				
MAIN GENERATOR	25	1	250,000	208	280	VC.	L.C. + A.
" " EQUALISER		1	# 2	104	134	VC.	L.C. + A.
EMERGENCY GENERATOR							
ROTARY TRANSFORMER: MOTOR							
" " GENERATOR							

[illegible]

WIRELESS	1	# 4	32	70	120.	V.C.	L.C. + A.
NAVIGATION LIGHTS	1	# 12	65	25	200.	V.C.	L.C. + A.
LIGHTING AND HEATING							
FLOODLIGHTS PANEL.	1	# 6	23	46	200.	V.C.	L.C. + A.
FORE DECK PLUGS	1	# 12	65	25	210.	V.C.	L.C. + A.
AFT DECK PLUGS	1	# 12	55	25	200.	V.C.	L.C. + A.
AFT LIGHTING PANEL	1	# 6	17	46	260.	V.C.	L.C. + A.
ENGINE ROOM LIGHTING PANEL	1	# 4	54.	70	20	V.C.	L.C. + A.
BRIDGE QUARTERS LIGHTING.	1	# 4	47.	70	200.	V.C.	L.C. + A.
DECK LIGHTS PANEL	1	# 4.	17.5	70	120	V.C.	L.C. + A.
BATTERY CHARGING PANEL.	1	# 12.	16	25	20	V.C.	L.C. + A.

[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.

Electrical Engineers.

Date

COMPASSES.

Minimum distance between electric generators or motors and standard compass.....

Minimum distance between electric generators or motors and steering compass.....

The nearest cables to the compasses are as follows:—

A cable carrying Ampères feet from standard compass feet from steering compass.

A cable carrying Ampères feet from standard compass 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

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted

The maximum deviation due to electric currents was found to be degrees on course in the case of the
standard compass, and degrees on course in the case of the steering compass.

Builder's Signature.

Date

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

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

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith

General Remarks (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.).....

THE ELECTRICAL INSTALLATION OF THIS SHIP TO THE STANDARDS OF THE AMERICAN BUREAU OF SHIPPING HAS BEEN
IN OPERATION FOR APPROXIMATELY 5 YEARS AND WAS FOUND TO BE IN SATISFACTORY CONDITION EXCEPT THAT NO ALTERNATIVE
SUPPLY WAS AVAILABLE FOR THE NAVIGATION CIRCUIT. AN ALTERNATIVE SUPPLY HAS BEEN ARRANGED FROM THE WHEELHOUSE D.B.

THE MATERIALS USED AND THE WORKMANSHIP ARE SATISFACTORY.

IN MY OPINION, THE ELECTRICAL INSTALLATION OF THIS SHIP IS IN A SATISFACTORY CONDITION AND ELIGIBLE TO
RECEIVE THE SOCIETY'S CLASSIFICATION OF L.M.C. 3. 48.

Noted

21.5.48

R

Total Capacity of Generators 50 Kilowatts.

INCLUSIVE FEE SEE LONDON ENDORSEMENT

DATED 28th JAN. 1948

The amount of Fee £ : : When applied for, 19.....

LICENCE SUPERVISION

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

Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 28 MAY 1948

Assigned

See F.E. mshy. rpt