

Rpt. 13.

No. 51476

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

30 JAN 1942

Received at London Office.....

Date of writing Report.....19..... When handed in at Local Office.....27 JAN 1942..... Port of.....HULL

No. in Survey held at.....Hull..... Date, First Survey.....10.10.41..... Last Survey.....22.11.1941.....
Reg. Book..... "EDAY"..... (Number of Visits.....1.....)on the H.M.T. "EDAY"..... Tons {Gross.....52.....
Net.....142.....

Built at Selby By whom built Cochrane & Son Ltd Yard No 1254 When built 1941-11

Owners The Admiralty Port belonging to.....

Electrical Installation fitted by Wm. Broady & Son Ltd Contract No..... When fitted 1941-11

Is vessel fitted for carrying Petroleum in bulk No 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 Constant pressure Parallel Voltage of supply for Lighting 110
2 wire

Heating 110 Power 110 Direct or Alternating Current, Lighting D.C Power D.C If Alternating Current state frequency Prime Movers,

has the governing been tested and found efficient when the whole 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

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

Position 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 Admiralty Supply & Inspection and the results found as per rule Are the lubricating arrangements and the construction

of the generators as per rule Yes Position of Generators Engine Room Starboard Side

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 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 Chris mount on frame work with mica strip insulation, if of synthetic insulating material is it an Approved Type, 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

D.P. Switches & fuses

and for each outgoing circuit D.P. Switches & fuses

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

ammeters One 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

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, are the reversed current protection devices connected on the pole opposite to the equaliser connection Yes, have they been tested under working conditions 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 Volts, 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 exposed ends Yes with insulating compound Yes or waterproof insulating tape Yes. Are all the cable runs in accessible positions, not exposed to drip or accumulation of water or oil, high temperatures or risk of mechanical damage Yes, are cables laid under machines or floorplates No, if so, are they adequately protected Yes. Are cables in machinery spaces, galleys, laundries, etc., lead covered Yes or run in conduit Yes. State how the cables are supported and protected Clipped to trays or bulkheads.

Cables run in solid drawn conduit in bunkers & magazine spaces

Are all lead sheaths, armouring and conduits effectually bonded and earthed Yes. Refrigerated chambers, are the cables and fittings as per Rule Yes. 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 effectively 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 above and method of control Yes.

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 No. Secondary Batteries, are they constructed and fitted as per Rule Yes, are they adequately ventilated Yes. 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 Yes, if so, how are they protected Special Circumstances, valves lamps in magazine etc.

and where are the controlling switches fitted Station house, above, are all fittings suitably ventilated Yes, are all fittings and accessories constructed and installed as per Rule Yes. Searchlight Lamps, No. of One - 20", whether fixed or portable free & portable, are their fittings as per Rule Yes. Heating and Cooking, is the general construction as per Rule Yes. are the frames effectually earthed Yes, are heaters in the accommodation of the convection type Yes. 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 Yes and vertically Yes.

Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing Yes. Have certificates of test for motors under 100 BHP intended for essential services been supplied and the results found as per Rule Yes. 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 Yes, are all fuses of the cartridge type Yes.

are they of an approved type Yes. If portable lamps for use in dangerous spaces are supplied, are they of a self-contained battery-fed flameproof type Yes. 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 megger tested and found satisfactory 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.	Flash Point of Fuel.
MAIN ...	One	15	110	136	500	Steam Engine		
EMERGENCY ...								
ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead 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 GENERATOR ...	15	One	37/072	136	152	18	V.I.R.	L.C. AP. 6187A.
" " EQUALISER ...								
SHORE CONNECTION	—	"	"	"	"	70	"	"
EMERGENCY GENERATOR ...								
ROTARY TRANSFORMER: MOTOR ...								
" GENERATOR ...								

MAIN DISTRIBUTION CABLES.

AUX. SWITCHBOARDS AND SECTION BOARDS	DG...	One	7/044	29	31	—	V.I.R.	L.C. AP. 6192A.
Food lighting	"	"	"	23	"	150	"	"
Alt. lighting	"	"	"	29	"	120	"	"
Food Radiator	"	"	"	18	"	150	"	"
for do	"	"	"	27	"	120	"	"
Gasol.	"	"	"	—	"	—	"	"
Navigation	"	"	7/036	15	24	150	"	AP. 6193A
Wm. lers.	"	"	"	25	"	135	"	"
Search lights	"	"	"	13	"	150	"	"

LIGHTING AND HEATING, ETC., CABLES.

WATERMANS
NAVIGATION LIGHTS	...	One	1/044	15	5	240 max	V.I.R.	L.C. AP. 6196A
LIGHTING AND HEATING	...	"	70/0076	10	10	90 max	"	T.R. Shunt - 7988A
Food lighting sub circuits	"	"	1/044	3 max	5	140 max	"	L.C. AP. 6196A
Radiation - Hot Dish	"	"	3/036	9	10	20"	"	6195A
Smoking Projector	20"	"	"	10	"	60	"	"
"	6"	"	"	3	"	"	"	"

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
7 1/2" Vent Fans	1	15	One	3/036	4	10	50	V.I.R. L.C. AP. 6195A
5" "	2	2	"	"	2	"	100	"
3 1/2" cuf. Refrigerator	1	5	"	1/044	4	5	20	" 6196A.

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.

WM BROADY & SON LTD.
ENGLISH STREET,
HULL.

Electrical Engineers. Date 1/12/41.

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 Amperes feet from standard compass feet from steering compass.
A cable carrying Amperes feet from standard compass feet from steering compass.
A cable carrying Amperes 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..... Yes..... If so, state name of vessel H.M.T. BRECH.

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

This installation has been fitted on board in accordance with the approved Admiralty plans & the requirements of the Vessel's Rules. The workmanship & materials are good & when subjected to the tests prescribed in the Rules & those required by the Admiralty & also when tested under full working conditions the installation was found satisfactory in every respect.

Noted
J.H.
7/2/42

Total Capacity of Generators..... 15..... Kilowatts.

The amount of Fee ... £ 15 : - : When applied for, 27 JAN. 1942
Travelling Expenses (if any) £ : : When received,19.....

L. H. P. Johnson
Surveyor to Lloyd's Register of Shipping.

Committee's Minute.....

Assigned..... See H.M. 51476



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Foundation