

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report..... 5 AUG 1943 When handed in at Local Office..... 5 AUG 1943 Received at London Office..... 9 AUG 1943

No. in Survey held at Selly & Hull Port of HULL

Reg. Book. H.M.T GRILSE Date, First Survey 9. 6. 43 Last Survey 9. 4. 43  
(Number of Visits..... 2)

Built at Selly By whom built Cochran & Son Ltd Tons { Gross 387  
Net 127

Owners The Admiralty Yard No. 1265 When built 1943

Electrical Installation fitted by Wm Brondy & Sons Ltd Port belonging to.....

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

Contract No..... When fitted 1943

Have plans been submitted and approved Yes System of Distribution two wire Voltage of supply for Lighting 110

Heating 110 Power 110 Direct or Alternating Current, Lighting DB Power DB 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 Admiralty supplied 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 on platform

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 starboard side near 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 insulated with mica, 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 Double pole, quick break knife switches & double pole fuses

and for each outgoing circuit Double pole, quick break knife switches & double pole fuses

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes 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 Lamps connected to earth via switches & 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....., 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....., state maximum fall of pressure between bus bars and any point under maximum load 3K, 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.....

003444-003449-0047



Fittings, are all fittings on weather decks, in stokeholds, engine rooms and where ever exposed to drip or condensed moisture, weather proof. 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 admiralty fittings in magazines & spirit rooms.

and where are the controlling switches fitted on mess decks above, are all fittings suitably ventilated Yes, are all fittings and accessories constructed and installed as per Rule. Yes Searchlight Lamps, No. of 2-10", whether fixed or portable. 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. No 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. Admiralty Control Gear and Resistances, are they constructed and fitted as per Rule. Yes Lightning Conductors, where required are they fitted as per Rule. Steel onest 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

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	20	115	174	400	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.	Rule.			
MAIN GENERATOR ... ..	20	1	37/003	174	214	40'	KIR	L.C. 6185A W.E.
" " EQUALISER ... ..								
EMERGENCY GENERATOR ... ..								
ROTARY TRANSFORMER: MOTOR ... ..								
GENERATOR ... ..								

[illegible]

WIRELESS	1	7/036	15	24	200'	V.I.R.	L.C.	AP01922	W.E.
NAVIGATION LIGHTS	1	7/036	8	24	120'	"	"	"	"
LIGHTING AND HEATING									
Engine & boiler rooms	1	7/036	7	24	60'	"	"	"	"
500 ft after lighting	1	7/036	10	24	50'	"	"	"	"
600 ft aft of forward	1	7/036	5	24	80'	"	"	"	"
Officers "	1	7/036	10	24	32'	"	"	"	"
Radiators	1	7/064	40	46	160'	"	"	6191	"
10" Searchlight	1	7/080	20	24	72	"	"	6193	"
Radio	1	7/044	31	120		"	"	6192	"
R.D.F.	1	7/064	25	46	120	"	"	6194	"

ALL IMPORTANT MOTORS TO BE ENUMERATED	No.	B.H.P.										
Vent fan ER 12"	1	1 1/4	1	7/029	14	15	60'	VIR	LC. 8PB194A WE			
" " 7 1/2"	1	1/2	1	3/036	4.5	10	80'	"	"	6190A		
" " 5"	4	1/2	1	3/036	2.5	10	90'	"	"	"	"	"
Domestic auto upfy	2	1/2	1	3/036	5.2	10	90'	"	"	"	"	"



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.  
BRIDGES STREET,  
HULL.

Electrical Engineers.

Date 2.7.43.

#### COMPASSES.

Minimum distance between electric generators or motors and standard compass 65ft

Minimum distance between electric generators or motors and steering compass 70ft

The nearest cables to the compasses are as follows:—

A cable carrying 2 Ampères inside feet from standard compass 5 feet from steering compass.

A cable carrying 12 Ampères 5 feet from standard compass inside 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

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 COCHRANE & SONS, LTD.

Builder's Signature.

Date

DIRECTOR

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

Plans. Are approved plans forwarded herewith No If not, state date of approval 16.9.41.

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

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

The electrical equipment of this vessel was installed under special survey and in accordance with the approved plans and with the specification. The materials used are of good quality and the workmanship is good. On completion the equipment was operated under working conditions with satisfactory results and the insulation resistance of all circuits and apparatus was measured and found good.

This equipment is in my opinion suitable for a classed vessel.

Noted  
L.F.  
10/8/43.

Total Capacity of Generators 20 Kilowatts.

The amount of Fee ... £ 35 : 0 :  
When applied for, 17.10. - 5 AUG 1943  
Travelling Expenses (if any) £ : :  
When received, 19.

ADMIRALTY.

A/c rendered from  
London 26 AUG 43

Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 20 AUG 1943

Assigned see minute no  
J.E. Rpt.



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Foundation