

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

10 JUN 1941

Received at London Office.....

15 MAY 1941

Date of writing Report.....19..... When handed in at Local Office.....19..... Port of.....

No. in Survey held at..... Hull Date, First Survey..... 19. 2. 41. Last Survey..... 29. 4. 19. 41. (Number of Visits..... 13.....)

Reg. Book..... on the..... H.M.T. "ARRAN" Tons { Gross..... Net.....

Built at..... Beverley By whom built..... Cook, Walton & Hemmell Ltd. Yard No..... 671 When built..... 1941-5

Owners..... The Admiralty Port belonging to..... Contract No..... When fitted..... 1941-5

Electrical Installation fitted by..... Wm. Mooney & Son, Ltd. 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..... Yes System of Distribution..... Parallel - constant Voltage of supply for Lighting..... 110

Heating..... 110 Power..... Direct or Alternating Current, Lighting..... Direct Power..... 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

positive 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..... 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..... 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..... 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..... Unit mounted on framework insulated with mica strips, 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..... Yes 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"

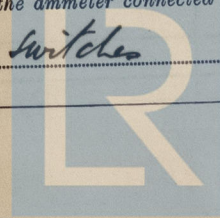
side of switches..... Yes Description of Main Switchgear for each generator and arrangement of equaliser switches..... B.P. switches & fuses

and for each outgoing circuit..... B.P. switches & fuses

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

ammeters..... ne 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 and switches Messer





Navigation Lamps, are they separately wired Ys controlled by separate double pole switches Ys and fuses Ys. Are the switches and fuses in a position accessible only to the officers on watch Ys, is an automatic indicator fitted no. Secondary Batteries, are they constructed and fitted as per Rule none, are they adequately ventilated ✓.

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof Ys. Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present Ys, if so, how are they protected Special Admiralty pattern lamps in magazine with cables in conduit and where are the controlling switches fitted Stokers Mess deck adjacent, are all fittings suitably ventilated Ys, are all fittings and accessories constructed and installed as per Rule Ys. Searchlight Lamps, No. of one, whether fixed or portable portable, are their fittings as per Rule Ys. Heating and Cooking, is the general construction as per Rule Ys, are the frames effectually earthed Ys, are heaters in the accommodation of the convection type Ys. Motors, are all motors constructed and installed as per Rule none and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water, steam and oil ✓, if situated near unprotected combustible material state minimum distance from same horizontally ✓ and vertically ✓.

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 ✓. Lightning Conductors, where required are they fitted as per Rule Ys. 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 ✓. If portable lamps for use in dangerous spaces are supplied, are they of a self-contained battery-fed flameproof type ✓. Spare Gear, if the vessel is for open sea service have spares been provided as per Rule Ys, are they suitably stored in dry situations Ys. Insulation Tests, has the insulation resistance of all circuits and apparatus been megger tested and found satisfactory Ys.

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								

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 ... ..	15	One	37/072	136	152	18	VIR	LC
" " EQUALISER ... ..								
EMERGENCY GENERATOR ... ..								
ROTARY TRANSFORMER: MOTOR ... ..								
" " GENERATOR ... ..								

AUX. SWITCHBOARDS AND SECTION BOARDS	2G.	One	7/044	30	31	-	VIR	LC
Navigation	"	"	7/036	15	24	150	"	"
Wireless	"	"	"	25	"	135	"	"
Shore connection	"	"	39/072	136	152	70	"	"
Dist lighting	"	"	7/044	23	31	150	"	"
Off	"	"	"	29	"	120	"	"
Dist radiators	"	"	"	18	"	150	"	"
Off	"	"	"	27	"	120	"	"
Asdic	"	"	"	-	"	-	"	"

[illegible][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.

WM BROADY & SON LTD.  
ENGLISH SHEET,  
HULL.

Electrical Engineers.

Date 3<sup>rd</sup> May 1941.

#### 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.

COOK, WELTON & GEMMELL LTD.

Builder's Signature.

Date.

6 MAY 1941

Secretary & Director.

Is this installation a duplicate of a previous case.....

If so, state name of vessel.....

H.M.T. "BIRCH"

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 and requirements and the Society's Rules. The workmanship and materials are good and when subjected to the tests required by the Admiralty and prescribed in the Rules and also when tried under full working conditions this installation was found satisfactory in every respect.

Total Capacity of Generators..... 15<sup>kw</sup> Kilowatts.

The amount of Fee ... £ 15<sup>/-</sup> :

When applied for  
15 MAY 1941

Travelling Expenses (if any) £ :

When received.

19.....

FRI. 13 JUN 1941

Committee's Minute .....

Assigned.....

See FIE machs rpt

Lloyd's Register of Shipping.



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