

Rpt. 13.

No. 50725.

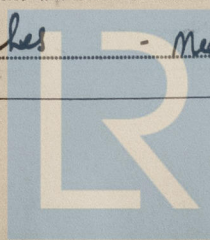
REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

JUN 17 1940

Date of writing Report.....19..... When handed in at Local Office.....10 JUN 1940..... Port of **HULL**
No. in Survey held at **HULL** Date, First Survey **14.12.39** Last Survey **1.6.1940**
Reg. Book. **"BLACKTHORN"** (Number of Visits.....12.....) Gross.....452.....
on **H.M.T.** Tons Net.....144.....
Built at **Beverley** By whom built **Cook, Walton & Gemmell Ltd.** Yard No. **652** When built **1940-4.**
Owners **The Admiralty** Port belonging to.....
Electrical Installation fitted by **Wm. Broadly & Sons, Ltd.** Contract No. ☒ When fitted **1940-4.**
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 **Parallel - constant current** 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 ☒ Are turbine emergency governors fitted with a
trip switch as per Rule ☒ Generators, are they compound wound ☒ are they level compounded under working conditions ☒
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 ☒ 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 ☒ Have certificates of
test for machines under 100 kw. been supplied ☒ and the results found as per rule ☒ Are the lubricating arrangements and the construction
of the generators as per rule ☒ Position of Generators **Engine Room.**
is the ventilation in way of generators satisfactory ☒ are they clear of inflammable material ☒ 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 ☒ are the bedplates and frames earthed ☒ and the prime movers and generators in metallic
contact ☒ Switchboards, where are main switchboards placed **Engine Room - adjacent to generator.**
are they in accessible positions, free from inflammable gases and acid fumes ☒ are they protected from mechanical injury and damage from water, steam
and oil ☒ if situated near unprotected combustible material state distance from same horizontally ☒ and vertically ☒ what insulation
material is used for the panels **Units mounted on frame work insulated with mica strips.** 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 ☒
Is the construction as per Rule ☒ including accessibility of parts ☒ absence of fuses on the back of the board ☒ individual fuses
to pilot and earth lamps, voltmeters, etc. ☒ locking of screws and nuts ☒ labelling of apparatus and fuses ☒ fuses on the "dead"
side of switches ☒ 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 - Meggar.**

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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 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 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 Yes.

Special Admiralty pattern lamps in Magazine with cables in conduit. and where the controlling switches fitted Stokers' mess deck - adjacent, are all fittings suitably ventilated Yes, are all fittings and accessories constructed and installed as per Rule Yes. Searchlight Lamps, No. of One, 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 Yes. 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 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 ✓. 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 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.

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 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.
" " EQUALISER								
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

AUX. SWITCHBOARDS AND SECTION BOARDS	D.C.	one.	7/044	30	31	-	V.P.R.	L.C.
Navigation	"	"	7/036	15	24	150	"	"
Wireless	"	"	"	25	"	135	"	"
Shore connections	"	"	37/072	136	152	70	"	"
Frid lighting	"	"	7/044	23	31	150	"	"
Aft " "	"	"	"	29	"	120	"	"
Fwd Radiators	"	"	"	18	"	150	"	"
Aft " "	"	"	"	27	"	120	"	"
Radio	"	"	"	-	"	-	"	"

NAVIGATION LIGHTS	LIGHTING AND HEATING	all lighting radiators & hot oil Signalling Projector (direct from main board)	One	1/044	1.5 max	5	240 max	V.I.R.	L.C.
			One	70/0876	11	10	90 max	"	Tough rubber sheathing & in some cases also bronze banding.
			One	1/004	3 max	5	140 max	"	L.C.
			"	3/036	9	10	30 max	"	"
			"	7/036	19	24	140	"	...

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.
Tolls Cars Only		

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 31st May 1940.

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. yes. If so, state name of vessel H.M.T. "BIRCH" - Reg. No 50672.

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

The Requisite Stores and spare gear have been demanded & checked on board the vessel.

Noted
J.P.
18/6/40

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

The amount of Fee

Included
with machinery

When applied for,

.....19.....

Travelling Expenses (if any)

When received.

.....19.....

Committee's Minute

TUE 18 JUN 1940

Assigned

See Reg. No 50725

Surveyor to Lloyd's Register of Shipping.



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