

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

10 JUN 1940

Received at London Office.....

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

No. in Survey held at Hull Date, First Survey 4. 4. 40. Last Survey 12. 6. 1940.
Reg. Book. (Number of Visits 8.....)on the H.M.S. "BAY" Tons Gross 450.34
Net 143.15.

Built at Selly By whom built. Behne Sons Ltd. Yard No. 1209 When built 1940. 4

Owners The Admiralty Port belonging to.....

Electrical Installation fitted by Wm. Broadly & Sons Ltd. Contract No. When fitted.....

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 current Voltage of supply for Lighting 110
two-wire

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 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

Positive Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing Have certificates of
The Generators have been supplied & inspected by the Admiralty

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 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 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 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 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 Earth Panels & switches. J. Eggen.

Are all lead sheaths, armouring and conduits effectively bonded and earthed. Yes Refrigerated chambers, are the cables and fittings as per Rule. ✓

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. None and method of control. ✓

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. 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. 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 effectively 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

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

AUX. SWITCHBOARDS AND SECTION BOARDS		MAIN DISTRIBUTION CHASES						
D.C.	One	7/044	30	31	✓	—	V.I.R	L.C.
Margalia	..	7/036	15	24	✓	150	"	"
Winegar	..	"	25	"	"	135	"	"
Sp. connection	..	37/072	136	152	✓	70	"	"
Forward Piping	..	7/044	23	31	"	150	"	"
Aft. do.	..	"	29	"	"	120	"	"
Forward Radiators	..	"	18	"	"	150	"	"
Aft. do.	..	"	27	"	"	120	"	"
Rundies	..	"	—	"	"	—	"	"

LIGHTING AND HEATING, ETC., CRUISE.									
NAVIGATION LIGHTS	one	1/.044	15 mase	5	240 mase	V.I.R.	L.C.	Tough Rubber Sheeting & in dome cases P.P.P. providing	
LIGHTING AND HEATING	one	70/.0076	do.	10	90 mase	"	"		
	all Rigging	one	1/.004	3 mase	5	140 mase	"	L.C.	
	Radiation sight disk	"	3/036	9	10	20 mase	"	"	
	Signalling Projection (direct from Rear Board)	"	7/036	19	24	140	"	"	

[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 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

HMS. Birch

Hull Rpt 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 & the Society's Rules. The workmanship & materials are good and after subjected to the tests required by the Admiralty & proscribed in the Rules & also after tried under full ^{working} conditions the installation was found satisfactory in every respect.

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

Noted

27/6/40

Total Capacity of Generators 15 Kilowatts.

The amount of Fee ...

Included with
machinery

When applied for,

.....19.....

Travelling Expenses (if any) £

When received,

.....19.....

FRL 28 JUN 1940

Committee's Minute

Assigned

See Hull. JE 50743

Lyley & P. Collins

Surveyor to Lloyd's Register of Shipping.



© 2021

Lloyd's Register
Foundation