

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

15 AUG 1941

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 20.5.41 Last Survey 4.6.1941
Reg. Book. H.M.T. "FLOTTA" (Number of Visits.....)

on the H.M.T. "FLOTTA" Tons {Gross... 452
Net... 142

Built at Selby By whom built Lochrane & Sons Yard No. 1227 When built 1941-6

Owners The Admiralty Port belonging to.....
Electrical Installation fitted by Wm Broady & Sons Ltd. Contract No. When fitted 1941-6

Is vessel fitted for carrying Petroleum in bulk..... 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 140 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

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 framework insulated with mica strips, if of synthetic insulating material is it an Approved Type

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"

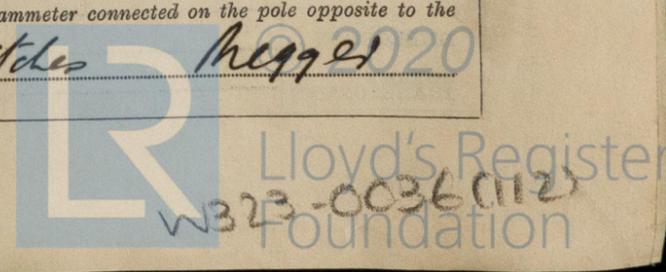
side of switches Yes Description of Main Switchgear for each generator and arrangement of equaliser switches D.P. switches & fuses

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 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 through Bunkers and in magazine space.

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 effectually 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 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 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 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. Lighting 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 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								

MAIN DISTRIBUTION CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.		
AUX. SWITCHBOARDS AND SECTION BOARDS DG		One	7/044	30	31	-	VIR	LC
Navigation			7/036	15	24	150	"	"
Wireless				25		135	"	"
Shore connection			37/072	136	152	70	"	"
Deck lighting			7/044	23	31	150	"	"
Aft				29	31	120	"	"
Shed radiators				27		150	"	"
Aft				27		120	"	"
Asdic							"	"
Search light			7/036	15	24	150	"	"

LIGHTING AND HEATING, ETC., CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.		
Navigation Lights		One	1/044	15 max	5	240 max	VIR	LC.
Lighting and Heating		One	1/044	3 max	5	140 max	"	LC.
All lighting			3/036	9	10	20 max	"	"
Radiators of high			3/036	10	10	60	"	"
Signalling projector				3		60	"	"
6"							"	"

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	CONDUCTORS.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.		
7 1/2" Vent Fan	1	.5	One	3/036	4	10	50	VIR	LC
5"	2	.2	"	"	2	"	100	"	"
3 1/2 cu. ft. Refrigerator	1	.5	"	1/044	4	5	20	"	"

Table fans and table fans 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 8. 7. 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 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.

numerous cables in compasses and vicinity of both compasses and electric installation not available

Builder's Signature. Date

Is this installation a duplicate of a previous case *Yes* If so, state name of vessel *H.M.T. "ASH" with minor additions.*

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 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* Kilowatts.

The amount of Fee ... £ *15* : - : *8.7.41* When applied for,19.....
 Travelling Expenses (if any) £ : : *41* When received,19.....

D. J. ...
 Surveyor to Lloyd's Register of Shipping.

TUE. 19 AUG 1941

Committee's Minute
 Assigned *See Vol 26 51286*

2m.10.38.—Transfer. (MADE IN ENGLAND.)
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)