

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.

7 DEC 1943

Date of writing Report.....19..... When handed in at Local Office.....6 DEC 1943..... Port of.....Hull.....
 No. in Survey held at.....Selby & Hull..... Date, First Survey.....6.10.43..... Last Survey.....14.11.43.....
 Reg. Book..... (Number of Visits.....15.....)
 on the.....A/S M/S Trawler H.M.T. "GILLSTONE" J. 2680..... Tons { Gross.....459.....
 Net.....144.....
 Built at.....Selby & Hull..... By whom built.....Cochrane & Sons. Ltd..... Yard No.....1271..... When built.....
 Owners.....The Admiralty..... Port belonging to.....
 Electrical Installation fitted by.....Wm. Broady & Son..... Contract No..... When fitted.....
 Is vessel fitted for carrying Petroleum in bulk.....No Is vessel equipped with D.F.....No E.S.D.....Yes Gy.C.....No Sub.Sig.....No

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.....D.C. Power.....D.C. 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..... 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.....No, 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.....Supply 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, on platforms starboard side.
 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 Units mounted to framework..... 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..... 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 and double pole fuses.
 and for each outgoing circuit.....Double Pole, quick break, knife switches, and double pole fuses.
 Are compartments containing switchboards composed of fire-resisting material or lined as per Rule.....Yes Instruments on main switchboard.....two
 ammeters.....two 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 coupled to earth via switches and 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.....3V, 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.....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.
MAIN	1	20	115	174	500	Steam Engine	
Aux.	1	7½	110	68	550	" "	
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	20	1	37/.083	174	295 ✓	22	V.C.	A.P. 13972
" " xx-65132 Aux. ...	7½	1	19/.064	68	134 ✓	50	V.C.	" 13975
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR ...								
" " " GENERATOR ...								

[illegible]

WIRELESS	1	7/.036	15	24	140'	V.I.R.	L.C. A.P. 6193D W.T.
NAVIGATION LIGHTS	1	7/.036	3	24	150'	"	" " " "
LIGHTING AND HEATING							
Communication & fans	1	7/.044	20	31	20'	"	" " 6192D "
" heating & Engine Room Fan.	1	7/.029	18	18	40'	"	" " 6194D "
Ward Room and officers accom.	1	7/.036	15	24	20'	"	" " 6193D "
Engine & Boiler Rooms	1	7/.036	10	24	30'	"	" " " "
10" Projector	1	7/.036	18	24	150'	"	" " " "
R.D.F.	1	7/.064	25	46	160'	"	" " 6191D "
A/S	1	7/.036	14	24	210'	"	" " 6193D "
Forward Lighting	1	7/.044	25	31	40'	"	" " 6192D "
" Heating	1	7/.044	30	31	16'	"	" " " "
Vent. Fans.	1	7/.044	25	31	10'	"	" " " "

[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 11. 11. 43.

COMPASSES.

Minimum distance between electric generators or motors and standard compass 80'0"

Minimum distance between electric generators or motors and steering compass 74'0"

The nearest cables to the compasses are as follows:—

A cable carrying .1 Ampères inside ~~feet~~ standard compass 68 feet from steering compass.

A cable carrying .25 Ampères 6' feet from standard compass inside ~~feet~~ 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 Yes

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.

Is this installation a duplicate of a previous case Yes

If so, state name of vessel

H.M.T "GULLAND"

Plans. Are approved plans forwarded herewith

If not, state date of approval

19.4.41.

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 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.

Notes
L.H.
10/12/43

Total Capacity of Generators 27.5 Kilowatts.

Specification

The amount of Fee ... £ 21 : 5 : 6 DEC 1943

Classification 21 5

Travelling Expenses (if any) £ : : When received. 19.

ADMIRALTY

A/c rendered from
London 15.12.43

Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 14 DEC 1943

Assigned

See file machy r/f.



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Foundation