

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

11 NOV 1943

Received at London Office 12 NOV 1943

Date of writing Report.....19..... When handed in at Local Office.....19..... Port of HULL
 No. in Survey held at Beverley & Hull Date, First Survey 12.8.43 Last Survey 7.1.11.1943
 Reg. Book. (Number of Visits.....).....
 on the H.M.T. GULLAND Tons {Gross 452
 Net 144
 Built at Beverley By whom built Lock, Walton & Summit Yard No. 719 When built 1943
 Owners The Admiralty Port belonging to.....
 Electrical Installation fitted by Wm. B. Bawley & Son Ltd Contract No. When fitted 1943
 Is vessel fitted for carrying Petroleum in bulk Yes Is vessel equipped with D.F. Yes E.S.D. Yes Gy.C. Yes Sub.Sig. Yes

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 28 Power 28 If Alternating Current state periodicity — Prime Movers, Yes
 has the governing been tested and found as per Rule when full 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
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 Admiralty 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, starboard side on platform
—, 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 generators
—
 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 with mica units mounted on framework insulated 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 Double pole, quick
break knife switches & double pole fuses
 and for each outgoing circuit Double pole, quick break knife switches & double pole 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 Lamps connected to earth via switches & 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 —

with insulating compound or waterproof insulating tape. 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. Are cables in machinery spaces, galleys, laundries, etc., lead covered. Yes or run in conduit. State how the cables are supported and protected. In machinery spaces are L.C. clipped to perforated steel plate in direct to start work, in accommodation etc clipped to wood battens or direct to wood work.

Are all lead sheaths, armouring and conduits effectually 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. Emergency Supply, state position. 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. are they adequately ventilated. what is the battery capacity in ampere hours.

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.

Admiralty pattern magazine fittings and where are the controlling switches fitted. Pass back above, are all fittings suitably ventilated. Yes, are all fittings and accessories constructed and installed as per Rule. Yes. Searchlight Lamps, No. of. 2-10", 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. No. 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. and vertically. Are motors coupled to oil fuel transfer and unit pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compartment.

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. Admiralty supply. Control Gear and Resistances, are they constructed and fitted as per Rule. Yes. Lightning Conductors, where required are they fitted as per Rule. Steel masts. 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. Are the fittings for pump rooms, tween deck spaces, etc., in accordance with the special requirements for such ships. Are the cables lead covered as per Rule. 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 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	1	20KW	115	174	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	20KW	1	37/093	174	214	20'	VIR	L.C. AP61852 WE
" " EQUALISER								
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

MAIN DISTRIBUTION CABLES.

DESCRIPTION.	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.			
AUX. SWITCHBOARDS AND SECTION BOARDS							
Life lighting engine & boiler rooms etc	1	7/044	20	31	120'	VIR	L.C. AP61923 WE
Hand lamps & forward lighting	1	7/044	20	31	150'	"	"
D.E.	1	7/044	18	31	20'	"	"

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS	1	7/036	15	24	140'	VIR	L.C. AP61933 WE
NAVIGATION LIGHTS	1	7/036	3	24	150'	"	"
LIGHTING AND HEATING							
Engine & boiler rooms	1	7/036	10	24	30'	"	"
Aft accommodation lighting	1	7/036	10	24	30'	"	"
" " heating	1	7/069	20	46	20'	"	6191
Searchlight	1	7/044	18	31	150'	"	6192
Forward lighting (cruiser)	1	7/036	15	24	40'	"	6193
" " (officers)	1	7/044	10	31	20'	"	6192
" " heating	1	7/044	25	31	16'	"	"
Radio	1	7/044	14	31	210'	"	"
D.A.D.R.	1	7/044	25	31	160'	"	"
Y.M.T.	1	7/044	10	31	160'	"	"

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
Vent fan 5"	3	1/2	1	3/036	2.5	10	25'	VIR L.C. AP61953 WE
" " 7 1/2"	1	1/2	1	3/036	4.5	10	25'	" " " "
" " 12 1/2"	1	1 1/2	1	7/036	14	24	30'	" " 6193
Refug (D.A.R.) 7 1/2 cft	1	1/2	1	3/036	5.2	10	20'	" " 6195
" " 3 1/2"	1	1/2	1	3/036	5.2	10	40'	" " " "

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.
100, ROYAL STREET,
HULL.

Electrical Engineers.

Date 30. 10. 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 from standard compass 6 feet from steering compass.

A cable carrying 25 Ampères 6 feet from standard compass inside 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

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 1/2 degrees on every course in the case of the

standard compass, and 1/2 degrees on every course in the case of the steering compass.

COOK, WELTON & GEMMELL, LTD.

Builder's Signature

Date 2-11-43

General Manager

Is this installation a duplicate of a previous case

Yes

If so, state name of vessel

ROSEVEAN

Plans. Are approved plans forwarded herewith

Yes

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 of this vessel 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 steam vessel.

Noted

LL

17/11/43

Total Capacity of Generators 20 Kilowatts.

ADMIRALTY

A/c rendered from
London 22.11.43

The amount of fee 17: 10: 0

When applied for

1.1 NOV 1943

Travelling Expenses (if any) £ : :

When received

19

L. H. Connell

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI 19 NOV 1943

Assigned

See for machinery rpl.



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Lloyd's Register
Foundation