

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

NOV 28 1940

Date of writing Report 20th Nov. 1940 When handed in at Local Office 27 NOV 1940 Port of Sunderland

No. in Survey held at Sunderland and Newcastle Date, First Survey 16th July Last Survey 19th Nov. 1940
Reg. Book. Suppl. (Number of Visits 3)

89805 on the S.S. "RICHMOND HILL" Tons { Gross 7579
Net 5586

Built at Sunderland By whom built Bartram & Sons, Ltd. Yard No. 284 When built 1940

Owners Putney Hill S.S. Co. Ltd. Port belonging to London

Electrical Installation fitted by Bartram & Sons, Ltd. Contract No. 284 When fitted 1940

Is vessel fitted for carrying Petroleum in bulk No Is vessel equipped with D.F. Yes E.S.D. No Gy.C. No Sub.Sig. No

Have plans been submitted and approved Yes System of Distribution Single wire Voltage of supply for Lighting 110

Heating No Power 110 Direct or Alternating Current, Lighting Yes Power Yes If Alternating Current state frequency No 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 No Generators, are they compound wound Yes, are they level compounded under working conditions Yes,

if not compound wound state distance between generators No and from switchboard No 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

Positive Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing No Have certificates of

test for machines under 100 kw. been supplied Yes 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 Staircase - Engine room stairway side aft
Tripart - Top of engine room stairway side aft

No, 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 No and vertically No, 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 Main switch - E.R. stairway side on aft bulk-

head auxiliary switch - Top of E.R. stairway side near diesel generating set.

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 No and vertically No, what insulation

material is used for the panels "Sinsamp", 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 No 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 Single pole

Knife switch and double pole fuse

and for each outgoing circuit Single pole knife switch and double pole fuse

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule No Instruments on main switchboards Three

ammeters Three voltmeters No synchronising devices No For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connection No Earth Testing, state means provided E. lamps connected to E. through fuses

and where are the controlling switches fitted....., are all fittings suitably ventilated.....
are all fittings and accessories constructed and installed as per Rule..... Searchlight Lamps, No. of....., whether fixed or portable.....
....., are their fittings as per Rule..... Heating and Cooking, is the general construction as per Rule.....
are the frames effectually earthed....., are heaters in the accommodation of the convection type..... Motors, are all motors constructed and
installed as per Rule..... 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..... 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....., are they suitably stored in dry
situations..... Insulation Tests, has the insulation resistance of all circuits and apparatus been megger tested and found satisfactory.....

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.		
		Kilowatts.	Volts.	Amperes.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.	
MAIN ...	1	15	110	136	590	Wright exp. atom engine			
Emergency	1	15	110	136	590	Wright exp. atom engine			
Emergency	1	9	110	82	1000	Wright exp. diesel engine	fuel oil	above 115°F	
EMERGENCY ...									
ROTARY TRANSFORMER									

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	1	37/072	136	152	30	V.I.R.	L.C.A.B.
" " EQUALISER								
DEGAUSSING GENERATOR	15	1	37/072	136	152	30	V.I.R.	L.C.A.B.
AUXILIARY GENERATOR	9	1	19/064	82	83	130	V.I.R.	L.C.A.B. + on pipe
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
GENERATOR								

AUX. SWITCHBOARDS AND SECTION BOARDS ...									
Cargo Htg. Section Board fus.:-	1	7/0.004	20	31	84	V.I.R.	L.C. & A.		
supp.:- Forward cargo Htg. S.B.	1	7/0.036	10	24	400	V.I.R.	In t. g. circuit		
Aft cargo Htg. S.B.	1	7/0.036	10	24	160	V.I.R.	In t. g. circuit		
Engine Room Section Board fus.:-	1	7/0.004	33	46	8	V.I.R.	Sound awoke.		
supp.:- Engine Room Htg. S.B.	1	7/0.004	17	31	24	V.I.R.	In t. g. circuit		
Refrig. Htg.	1	7/0.004	10	31	336	V.I.R.	In t. g. circuit		

WIRELESS	1	7/044	15	31	✓	386	V.I.R.	L.C. & A. & B. emman
NAVIGATION LIGHTS	1	7/044	8	31	✓	70	V.I.R.	L.C. & A. & B. emman
LIGHTING AND HEATING	1	7/044	10+8	31	✓	336+70	V.I.R.	L.C. & A. & B. emman
Insurance & Aft. Ltg. & B's	1	7/044	9+8	31	✓	14+70	V.I.R.	L.C. & A. & B. emman

[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.

FOR AND ON BEHALF OF
BARTHA and SONS LTD.

Electrical Engineers.

Date 21st Nov. 1940.

(GEOFF MCFETRICH)

DIRECTOR & SECRETARY

COMPASSES.

Minimum distance between electric generators or motors and standard compass 116 feet

Minimum distance between electric generators or motors and steering compass 115 feet

The nearest cables to the compasses are as follows:—

A cable carrying 14 Ampères on the feet from standard compass 7 feet from steering compass.

A cable carrying 14 Ampères 7 feet from standard compass on the 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 has found to be 1/2 degrees on Every course in the case of the standard compass, and 1/2 degrees in Every course in the case of the steering compass.

BARTHA and SONS LTD.

Builder's Signature.

Date 21st Nov. 1940.

(GEOFF MCFETRICH)

DIRECTOR & SECRETARY

Is this installation a duplicate of a previous case No If so, state name of vessel

General Remarks (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.) The electrical

equipment of this vessel has been installed under special survey and in accordance with the approved plans and drawings etc. The materials used are of good quality and the workmanship is good. On completion the equipment was run under working conditions with satisfactory results and the insulation resistance of all circuits was measured and found satisfactory. This equipment is in my opinion suitable for a classed vessel.

Noted
L.F.
2/12/40.

Total Capacity of Generators 24 + 15 D.C. Kilowatts.

The amount of Fee ... £ 19 : 10 : 27 NOV 1940

Travelling Expenses (if any) £ : : When received. 9-1-41

Gautson

Surveyor to Lloyd's Register of Shipping.

FRI 13 DEC 1940

Committee's Minute

Assigned See Sd. No. 33009

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



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