

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL) 17 JUN 1942  
Received at London Office.....

Date of writing Report 16-5-42 When handed in at Local Office 15 JUN 1942 Port of Hull

No. in Survey held at Hull Date, First Survey 18-4-42 Last Survey 1-5-42  
Reg. Book. (Number of Visits.....)

on the **St. Travers** **WHITING.** Tons {Gross 38.7  
Net 12.7

Built at **Selby** By whom built **Carver & Sons Ltd** Yard No. **1240** When built **1942-5**

Owners **The Admiralty** Port belonging to.....

Electrical Installation fitted by **Wm Broadly & Son Ltd** Contract No.  When fitted **do**

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  System of Distribution **Parallel circuit from 200v** Voltage of supply for Lighting **110**

Heating  Power  Direct or Alternating Current, Lighting **DC** Power  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  are they level compounded under working conditions

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 **One only**, are shunt field regulators provided  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 **Admiralty Supply** and the results found as per rule  Are the lubricating arrangements and the construction

of the generators as per rule  Position of Generators **Engine Room**

is the ventilation in way of generators satisfactory  are they clear of inflammable material  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  are the bedplates and frames earthed  and the prime movers and generators in metallic

contact  Switchboards, where are main switchboards placed **Engine Room, adjacent to General**

are they in accessible positions, free from inflammable gases and acid fumes  are they protected from mechanical injury and damage from water, steam

and oil  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. Not mica strip. insulation** 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

Is the construction as per Rule  including accessibility of parts  absence of fuses on the back of the board  individual fuses

to pilot and earth lamps, voltmeters, etc.  locking of screws and nuts  labelling of apparatus and fuses  fuses on the "dead"

side of switches  Description of Main Switchgear for each generator and arrangement of equaliser switches.....

**DP. Switches & fuses**

and for each outgoing circuit **DP. Switches & fuses**

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule  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  are the fuses an approved type  are all fuses labelled as

per Rule  If circuit breakers are provided for the generators, at what overload current did they open when tested  are the reversed current

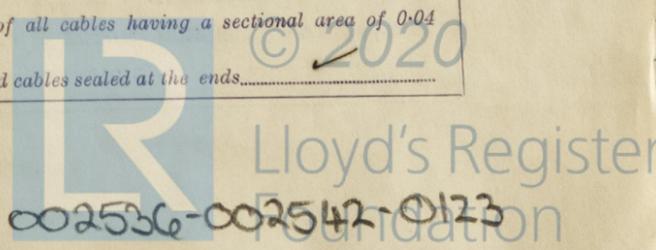
protection devices connected on the pole opposite to the equaliser connection  have they been tested under working conditions, and at what current

did they operate  Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule

Cables, are they insulated and protected as per the appropriate Tables of the Rules  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 **4 volts** are the ends of all cables having a sectional area of 0.04

square inch and above provided with soldering sockets  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. *lps*, are cables laid under machines or floorplates. *clb*, if so, are they adequately protected. *lps*. Are cables in machinery spaces, galleys, laundries, etc., lead covered. *lps* or run in conduit.  State how the cables are supported and protected. *Clipped to truss or bulkheads*

*Cables run in solid drawn conduit in bunkers & magazine spaces*  
*D.G. Cables run in special steel tubes in bunkers with special drainage arrangements*

Are all lead sheaths, armouring and conduits effectively bonded and earthed. *lps*. 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. *lps*, where unarmoured cables pass through beams, etc., are the holes effectively bushed. *lps* and with what material. *Lead*. Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule. *lps*. Emergency Supply, state position. *None*

and method of control. *None*

Navigation Lamps, are they separately wired. *lps* controlled by separate double pole switches. *lps* and fuses. *lps*. Are the switches and fuses in a position accessible only to the officers on watch. *lps*, is an automatic indicator fitted. *clb*. Secondary Batteries, are they constructed and fitted as per Rule. *lps*, are they adequately ventilated. *lps*

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. *lps*. Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present. *lps*, if so, how are they protected.

*Special Admiralty pattern lamps w/ magazine & spirit room.*

and where are the controlling switches fitted. *Men's deck above*, are all fittings suitably ventilated. *lps*, are all fittings and accessories constructed and installed as per Rule. *lps*. Searchlight Lamps, No. of *One - 20"* *fixed*, whether fixed or portable. *portable*, are their fittings as per Rule. *lps*. Heating and Cooking, is the general construction as per Rule. *lps*, are the frames effectually earthed. *lps*, are heaters in the accommodation of the convection type. *lps*. Motors, are all motors constructed and installed as per Rule. *lps* and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water, steam and oil. *lps*, 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. *Supply*. Control Gear and Resistances, are they constructed and fitted as per Rule. *lps*. Lightning Conductors, where required are they fitted as per Rule. *None*. 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. *lps*. Insulation Tests, has the insulation resistance of all circuits and apparatus been tested and found satisfactory. *lps*.

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.	<input checked="" type="checkbox"/>	
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	22	V.I.R.	L.C. A.P. 6187
" " EQUALISER ...						36		
SHORE CONNECTION.								
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 ...							
For'd Radiator	One	7/064	44	46	110	V.I.R.	L.C. AP 6191A
" Lighting + Bell Circuits	"	7/044	31	31	130	"	" 6192A
Aft " "	"	"	39	"	24	"	"
Electric	"	"	14	"	190	"	"
D.G.	"	"	25	"	"	"	"
W/T.	"	7/036	25	24	110	"	" 6193A
Navigation	"	"	19	"	"	"	"
20" Search light	"	"	10	"	115	"	"
6" " "	"	7/029	3	15	110	"	" 6194A.

LIGHTING AND HEATING, ETC., CABLES.

DESCRIPTION.	CONDUCTORS.	MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.	
		In the Circuit.	Rule.				
WIRELESS ...							
NAVIGATION LIGHTS ...	One	1/044	15	5	220	V.I.R.	L.C. AP. 6196A.
HEATING AND HEATING ...		7/0076	max	10	max		T.R.S. " 7988A.
Sub circuits		1/044	3	5	70		L.C. AP. 6196A.
Radiator		3/036	9	10	80		" " 6195A.

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.
Ventilator Fan 5"			One 3/036	10		V.I.R.	L.C. AP. 6195A.
" 7 1/2"			"	"		"	"
Refrigerator 3 1/2 hp			"	"		"	"
" 7 1/2"			"	"		"	"

*Four Refrigerators are not yet fitted. Boxes + pumps are wired as far as practicable.*

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  
ENGLAND

Electrical Engineers.

Date

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

BONITO

Plans. Are approved plans forwarded herewith

Yes

If not, state date of approval

16. 9. 41

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith

Administrators Supply

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

This electrical installation has been fitted on board in accordance with the approved plans, the Society's Rules, & the Admiralty requirements & Specifications.

It has been tested under working conditions & as specified in the Rules & was found satisfactory in every respect.

Noted

19/6/42

Total Capacity of Generators 15 Kilowatts.

The amount of Fee ... £ 30 : 0

When applied for, 15 JUN 1942

Travelling Expenses (if any) £ : :

When received, 19.....

W. S. Shields  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 19 JUN 1942

Assigned

All Incl 26 51628

