

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

12 MAY 1942

Received at London Office

11 MAY 1942

HULL

Date of writing Report... 17. 4. 19. 42 When handed in at Local Office... 19. Port of... HULL

No. in Survey held at... Hull Date, First Survey... 11. 12. 41. Last Survey... 11. 4. 19. 42. (Number of Visits... 9.)

Reg. Book. on the... S. Trade **BONITO** Tons { Gross... 387. Net... 127.

Built at... Selby By whom built... Colvane & Sons Ltd. Yard No... 1239. When built... 1942-4

Owners... The Admiralty Port belonging to... ✓

Electrical Installation fitted by... Wm Broady & 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... No Gy.C... ✓ Sub.Sig... ✓

Have plans been submitted and approved... Yes System of Distribution... Parallel constant pressure 2 wire Voltage of supply for Lighting... 110

Heating... 110 Power... 110 Direct or Alternating Current, Lighting... D.C. Power... DC 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... 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... Yes, 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... Admiralty Supply ✓ 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... Insulation mounted on frame work with 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... 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...

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... 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

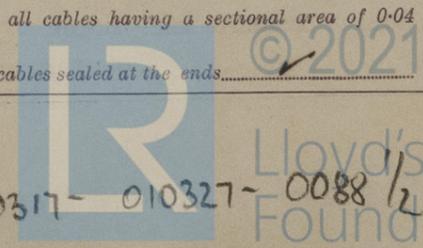
did they operate... ✓ Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule... Yes.

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... 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 ends... ✓

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 . Are cables laid under machines or floorplates . If so, are they adequately protected . Are cables in machinery spaces, galleys, laundries, etc., lead covered or run in conduit . State how the cables are supported and protected Clipped to trays or bulkheads.

Cables run in solid drawn conduit in bulkhead & magazine spaces.
DG. Cables run in special steel tubes in bulkheads with glands & drainage arrangements.

Are all lead sheaths, armouring and conduits effectually bonded and earthed . 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 . Where unarmoured cables pass through beams, etc., are the holes effectually bushed 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 Below and method of control .

Navigation Lamps, are they separately wired controlled by separate double pole switches and fuses . Are the switches and fuses in a position accessible only to the officers on watch . Is an automatic indicator fitted . Secondary Batteries, are they constructed and fitted as per Rule . Are they adequately ventilated . What is the battery capacity in ampere hours 100.

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof . Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present . If so, how are they protected Special Admiralty pattern lamps in magazine & spirit room.

and where are the controlling switches fitted mess deck above. Are all fittings suitably ventilated .

are all fittings and accessories constructed and installed as per Rule . Searchlight Lamps, No. of One 20" whether fixed or portable fixed 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 . 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 . 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 . 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 . Are they suitably stored in dry situations . Insulation Tests, has the insulation resistance of all circuits and apparatus been tested and found satisfactory .

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Amps.	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 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	U.I.R.	L.C AP 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 Packalor	One	7/064	44	46	110	V.I.R.	L.C - AP 6191A
" Lighting + Bell Circuit	"	7/044	31	31	130	"	" 6192A
Off'r " " "	"	"	29	"	24	"	" " "
Acc'd " " "	"	"	14	"	190	"	" " "
DG.	"	"	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.

WIRELESS ...	NAVIGATION LIGHTS	LIGHTING AND HEATING	CONDUCTORS.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
		followed by	One 1/044	15	5	220	V.I.R. L.C AP 6196 A
			70/0076	max	10	max	T.R.S. " 7985 A
		Sub circuit	1/044	3	5	70	V.I.R. L.C AP 6196 A
		Lighting Radiators	3/036	9	10	80	" " 6195 A.

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.
Ventilating Fan 5'			One 3/036	10	10	V.I.R.	L.C AP 6195 A
" " 7 1/2'			"	"	"	"	"
Refrigerator 3 1/2 cu ft 7 1/2'			"	"	"	"	"
Fans + Refrig 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.
ENGRS & ELECTRICIANS
HULL

J. Buckler

Electrical Engineers.

Date 18. 4. 42.

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, motor and other electro-magnetic apparatus within the vicinity of the compasses been noted.....

The maximum deviation due to electric current 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..... *No* If so, state name of vessel *1st of Fish (ex Gulfoss) CLASS.*

Plans. Are approved plans forwarded herewith..... *No* If not, state date of approval..... *16-9-41*

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

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 & the Specifications. When tests under working conditions & as specified in the Rules it was found satisfactory in every respect.

Noted

15-5-42

Total Capacity of Generators..... *15* Kilowatts.

The amount of Fee £ *30 : 0* : When applied for, *5 MAY 1942*

Travelling Expenses (if any) £ : : When received, *7 MAY 1942*

Dyke J. Johnson
Surveyor to Lloyd's Register of Shipping.

Committee's Minute..... *WED. 27 MAY 1942*

Assigned..... *See Inl. J.E. 51601*

5m. 4.38.—Transfer. (MADE AND PRINTED IN ENGLAND.)
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

