

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

4 OCT 1943

27 SEP 1943

Received at London Office.....

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

No. in Survey held at Beverly & Hull Date, First Survey 4. 4. 43 Last Survey 4. 9. 43
Reg. Book. (Number of Visits.....9.....)

on the H.M. Jan Lager FARNE Tons {Gross...454
Net...144.....

Built at Beverly By whom built Locke Weston & Co. Ltd Yard No. 713 When built 1943

Owners The Admiralty Port belonging to ✓

Electrical Installation fitted by Wm. Brandy & Son Contract No. When fitted 1943

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 DC 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 —, 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 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, 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 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 on frame work, 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 push break knife switches & double pole fuses

and for each outgoing circuit Double pole push 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 etc. clipped to perforated steel truss or direct to steel workwork in accommodation etc. clipped to wood battens or direct to woodwork*

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 effectually 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 fittings* and where are the controlling switches fitted... *on mess decks above*, are all fittings suitably ventilated... *Yes* are all fittings and accessories constructed and installed as per Rule... 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... *Admiralty* Have certificates of test for motors under 100 BHP intended for essential services been supplied and the results found as per Rule... *Yes* Control Gear and Resistances, are they constructed and fitted as per Rule... *Yes* Lightning Conductors, where required are they fitted as per Rule... *Yes* 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	20	1	37/085	174	214	20'	VIR	L.C. AP6185A WE
" EQUALISER			093					
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	1	7/044	20	31	120'	VIR	L.C. AP6192A WE
Engine room aft lighting	1	7/044	20	31	150'	"	"
Accommodation forward lighting	1	7/044	18	31	20'	"	"

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS	1	7/036	15	24	140	VIR	L.C. AP6193A WE
NAVIGATION LIGHTS	1	7/036	3	24	150	"	"
LIGHTING AND HEATING							
Engine & boiler room	1	7/036	10	24	20	"	"
Accommodation lighting	1	7/064	20	46	20	"	6192
Searchlight	1	7/044	18	31	150	"	6192
Forward lighting (truss)	1	7/036	15	24	42	"	6193
" (Officers)	1	7/036	10	24	20	"	"
" heating	1	7/044	25	31	160	"	6192
R.D.F.	1	7/044	15	31	210	"	"
W.T.	1	7/044	25	31	160	"	"

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.
			No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
Vent fan 5"	3	1/2	1	3/036	2.5	10	25'	VIR	L.C. AP6195A WE
" 7 1/2"	1	1/2	1	3/036	4.5	10	25	"	6193
" 12 1/2"	1	1 1/2	1	7/036	14	24	20	"	6195
Rafay (DAR) 7 1/2 cu ft	1	1/2	1	3/036	5.2	10	20	"	"
" 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,
ENGLISH STREET,
HULL

Electrical Engineers.

Date 8.9.43.

COMPASSES.

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

Minimum distance between electric generators or motors and steering compass 75'-0"

The nearest cables to the compasses are as follows:—

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

A cable carrying 25 Ampères five 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 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.

COOK, WELTON & GEMMELL, LTD.

Builder's Signature
General Manager

Date 10-9-43

Is this installation a duplicate of a previous case Yes If so, state name of vessel BRYHER

Plans. Are approved plans forwarded herewith No 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 measured and found good.

This equipment is in my opinion suitable for a classed vessel

Noted
7/10/43

Total Capacity of Generators 20 Kilowatts.

The amount of Fee 17 10 : When applied for, 27 SEP 1943
Y.E. Specification 17 10 :
Travelling Expenses (if any) £ : : When received. 19.....

ADMIRALTY
A/c rendered from London 12.11.43

W.F. Cornwell
Surveyor to Lloyd's Register of Shipping.

FRI. 8 OCT 1943

Committee's Minute

Assigned see minutes on J.E. Rpt

5m. 4. 38.—Transfer. (MADE AND PRINTED IN ENGLAND.)
(The Surveyors are requested not to write on or below the space for Committee's Minutes.)

