

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

23 MAR 1942

Date of writing Report... 18. 3. 1942 When handed in at Local Office... 20 MAR 1942 Port of... HULL

No. in Survey held at... Hull Date, First Survey... 21. 1. 42. Last Survey... 18. 3. 1942. (Number of Visits... 13.)

on the... Steam Trawler PORTSDOWN Tons { Gross... 511 Net... 167

Built at... Beverley. By whom built... Cook, Walter & Grumold Yard No... 685 When built... 1942

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

Electrical Installation fitted by... Wm Broady & Sons Es. Contract No... When fitted... 1942

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... Yes System of Distribution... Voltage of supply for Lighting... 110

Heating... 110 Power... 110 Direct or Alternating Current, Lighting... DC Power... DC If Alternating Current state frequency... 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... 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

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... 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 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... that mounted on framework 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 compose 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 mea... 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, are the reversed current protection devices connected on the pole opposite to the equaliser connection Yes, have they been tested under working conditions Yes. 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 Yes, 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 exposed ends Yes with insulating compound Yes or waterproof insulating tape Yes. 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 Yes. Are cables in machinery spaces, galleys, laundries, etc., lead covered Yes or run in conduit Yes. State how the cables are supported and protected Clipped to trays or bulkheads.

Cables run in solid drawn conduit in bunker magazine spaces.
D.G. Cable in special steel tube in bunker with gland + draining arrangements

Are all lead sheaths, armouring and conduits effectually bonded and earthed Yes. Refrigerated chambers, are the cables and fittings as per Rule Yes. 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 Yes. Emergency Supply, state position None and method of control Yes.

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 Yes, are they adequately ventilated Yes. 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 Special Admiralty type lamps in Magazine etc.

and where are the controlling switches fitted Main deck above, are all fittings suitably ventilated Yes, are all fittings and accessories constructed and installed as per Rule Yes. Searchlight Lamps, No. of One - 20" One - 6", whether fixed or portable Fixed 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 Yes. 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 Yes and vertically Yes.

Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing Yes. 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 Yes, are all fuses of the cartridge type Yes. Are they of an approved type Yes. If portable lamps for use in dangerous spaces are supplied, are they of a self-contained battery-fed flameproof type Yes. 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 megger 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	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	40	V.I.R.	L.C.
" " EQUALISER								
SHORE CONNECTION	—	"	"	"	"	60	"	"
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

MAIN DISTRIBUTION CABLES.

AUX. SWITCHBOARDS AND SECTION BOARDS								
For'd Redialor	One	19/052	56	64	200	V.I.R.	L.C.	
D.G.	"	19/044	32	53	50	"	"	
For'd lighting	"	7/044	31	31	300	"	"	
Aft do	"	"	25	"	60	"	"	
Galley	"	"	—	"	250	"	"	
Search light 20"	"	7/036	10	24	220	"	"	
do 6"	"	"	3	"	"	"	"	
Navigation	"	"	11	"	"	"	"	

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS								
WIRELESS	One	7/036	—	24	220	V.I.R.	L.C.	
NAVIGATION LIGHTS	"	1/044	One	5	350	"	"	
LIGHTING AND HEATING	"	7/0076	One	10	350	"	T.R. Sheathed	
Heating (suit circuits)	"	3/036	10 max	10	140	"	L.C.	
Lighting do.	"	1/044	1 max	5	350	"	"	

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
Vulcanizing Saw 5"	2	1/4	One	3/036	2.5	10	180	V.I.R. L.C.
" 7 1/2"	1	1/2	"	"	4.5	"	"	"
Refrigerator 3 1/2 cu ft.	1	"	"	"	5.2	"	50	"
do 7 1/2"	1	"	"	"	"	"	80	"

Portdown

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 12.2.42

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, 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

*Minimum of 10 feet in vicinity of compass
of 10 ft conductors for cables
of 10 ft conductors for cables
of 10 ft conductors for cables*

Is this installation a duplicate of a previous case Yes. If so, state name of vessel BIRD LIA with minor modifications

General Remarks (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.)
This installation has been fitted on board in accordance with the approved Admiralty plans & requirements & the Society's Rules. The workmanship & materials are good & when tried under working conditions & tested as required by the Admiralty & the Rules the installation was found satisfactory in every respect.

*Noted
23/3/42*

Total Capacity of Generators 15 Kilowatts.

The amount of Fee ... £ 30 : 0 } When applied for, 20 MAR 1942
Travelling Expenses (if any) £ : : } When received,19.....

Lyke
Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE 24 MAR 1942

Assigned See HUL JE 51550

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