

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 30. 5. 1942. When handed in at Local Office 8 JUL 1942. Port of HULL Received at London Office 10 JUL 1942

No. in Survey held at 4 Hull Date, First Survey Apr 7, '42 Last Survey 28. 5. 1942
Reg. Book. (Number of Visits 12....)on the Steam Hauler DUNKERY. Tons { Gross 5.11
Net 16.7

Built at Beverley By whom built Cook Weller & Gurnell Yard No. 688 When built 1942

Owners The Admiralty Port belonging to

Electrical Installation fitted by Wm Broady & Son 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 Contactor, pressure, Reeler. Voltage of supply for Lighting 110

Heating 110 Power 110 Direct or Alternating Current, Lighting D.C. Power D.C. 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 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 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 Unit moulds 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

D.P. Switches & fuses

and for each outgoing circuit D.P. 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, 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 bunkers 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 led mounted lamp lamps in Magazine etc.
and where are the controlling switches fitted. Miss 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" whether fixed or portable. fixed are their fittings as per Rule. Yes. Heating and Cooling, 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. 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. 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 ...	<u>One</u>	<u>15</u>	<u>110</u>	<u>136</u>	<u>500</u>	<u>Steam Engine</u>	<u>✓</u>	<u>✓</u>
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 ...	<u>15</u>	<u>One</u>	<u>37/072</u>	<u>136</u>	<u>152</u>	<u>40</u>	<u>V.I.R</u>	<u>L.C</u>
" " EQUALISER ...								
SHORE CONNECTION		"	"	"	"	<u>60</u>	"	"
EMERGENCY GENERATOR ...								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR ...								

MAIN DISTRIBUTION CABLES.

AUX. SWITCHBOARDS AND SECTION BOARDS ...								
<u>Yard Radiator</u>	<u>One</u>	<u>19/052</u>	<u>56</u>	<u>64</u>	<u>200</u>	<u>V.I.R</u>	<u>L.C</u>	
<u>D.G.</u>	"	<u>19/044</u>	<u>32</u>	<u>53</u>	<u>50</u>	"	"	"
<u>Yard lighting</u>	"	<u>7/044</u>	<u>31</u>	<u>31</u>	<u>300</u>	"	"	"
<u>Aft do</u>	"	"	<u>25</u>	"	<u>60</u>	"	"	"
<u>Asdic</u>	"	"	"	"	<u>250</u>	"	"	"
<u>Search light 20"</u>	"	<u>7/036</u>	<u>10</u>	<u>24</u>	<u>220</u>	"	"	"
<u>do 6"</u>	"	"	<u>3</u>	"	"	"	"	"
<u>Navigation</u>	"	"	<u>11</u>	"	"	"	"	"

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS ...	<u>One</u>	<u>7/036</u>	"	<u>24</u>	<u>220</u>	<u>V.I.R</u>	<u>L.C</u>	
NAVIGATION LIGHTS	"	<u>1/044</u>	<u>5</u>	<u>5</u>	<u>350</u>	"	"	<u>L.C</u>
LIGHTING AND HEATING	"	<u>70/0076</u>	<u>max</u>	<u>10</u>	"	"	"	<u>T.R. Steelhead</u>
<u>Heating (sub circuit)</u>	"	<u>3/036</u>	<u>10 max</u>	<u>10</u>	<u>140</u>	"	"	<u>L.C</u>
<u>Lighting do</u>	"	<u>1/044</u>	<u>1 max</u>	<u>5</u>	<u>350</u>	"	"	<u>L.C</u>

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.							
<u>Ventilating Fan 5"</u>	<u>2</u>	<u>1/4</u>	<u>One</u>	<u>3/036</u>	<u>2.5</u>	<u>10</u>	<u>180</u>	<u>V.I.R</u>	<u>L.C</u>
<u>do 7 1/2"</u>	<u>1</u>	<u>1/2</u>	"	"	<u>4.5</u>	"	"	"	"
<u>Refrigerator 3 1/2 c.f.r</u>	<u>1</u>	"	"	"	<u>5.2</u>	"	<u>50</u>	"	"
<u>do 7 1/2"</u>	<u>1</u>	"	"	"	"	"	<u>80</u>	"	"

"Sunken."

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
HULL

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

Is this installation a duplicate of a previous case

Yes

If so, state name of vessel

Bird life (test house modification)

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 of 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
Jm

14.7.42

Total Capacity of Generators 15 Kilowatts.

The amount of Fee ... £ 30 : 0 : When applied for 8 JUL 1942

Travelling Expenses (if any) £ : : When received. 19.....

Committee's Minute

FRI. 17 JUL 1942

Assigned

See Shil No. 51663

Surveyor to Lloyd's Register of Shipping.



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Foundation