

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Inspected at London Office 20 MAR 1946

Date of writing Report 5TH MARCH 1946 When handed in at Local Office 16/3/46 Port of GLASGOW
 No. in Survey held at GREENOCK Date, First Survey 13TH NOVEMBER 45 Last Survey 22ND FEBRUARY 1946
 Reg. Book. 36865 on the BRITISH SUCCESS Tons { Gross 8215
 Net 4769

Built at GLASGOW By whom built BLYTHSWOOD SHIPBUILDING CO. LTD. Yard No. 81 When built 1945
 Owners BRITISH TANKER CO. LTD. Port belonging to GLASGOW
 Electrical Installation fitted by MESSRS SUNDERLAND FORGE & ENGINEERING CO. LTD. Contract No. 81 When fitted 1945
 Is vessel fitted for carrying Petroleum in bulk YES Is vessel equipped with D.F. YES E.S.D. YES Gy.C. — Sub.Sig. —

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 D.C. Power D.C. 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 No 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 YES 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 IN ENGINE ROOM PORT SIDE
 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 IN ENGINE ROOM ABOVE 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 SINDANYO if of synthetic insulating material is it an Approved Type YES 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

300 AMP. D.P. KNIFE PATTERN SWITCH WITH 'ZED' TYPE FUSES.

and for each outgoing circuit 200, 150, 100, 60 OR 30 AMP D.P.C.O. SWITCH WITH APPROPRIATE SIZE

'ZED' TYPE FUSE

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule YES Instruments on main switchboard 2
 ammeters 2 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, 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 YES
 state maximum fall of pressure between bus bars and any point under maximum load 14.43 POUNDS 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 YES

with insulating compound 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. YES 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. MAINS - L.C.A.B. CABLES CLIPPED TO STEEL CHANNEL.
MACHINERY SPACE - L.C. CABLES CLIPPED TO STEEL TRAY.
ACCOMMODATION - L.C. CABLE CLIPPED TO WOODWORK.
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 effectually bushed. YES and with what material. FIBRE. Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule. YES Emergency Supply, state position. 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. YES Secondary Batteries, are they constructed and fitted as per Rule. YES are they adequately ventilated. YES what is the battery capacity in ampere hours. 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. FLAMEPROOF FITTINGS INSTALLED IN CENTRE CASTLE SPACE + IN PUMPROOMS IN ACCORDANCE WITH RULE REQUIREMENTS.
and where are the controlling switches fitted. IN ACCOMMODATION are all fittings suitably ventilated. YES are all fittings and accessories constructed and installed as per Rule. YES Searchlight Lamps, No. of YES whether fixed or portable. YES 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 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. 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 Are the fittings for pump rooms, tween deck spaces, etc., in accordance with the special requirements for such ships. YES Are the cables lead covered as per Rule. 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 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.		
MAIN	2	30	110	273	550	STEAM ENGINE	
EMERGENCY							
ROTARY TRANSFORMER							

GENERATOR CABLES.							
DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.
		No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.		
MAIN GENERATOR	30	1	37/103	273	385	46	V.C.
" " EQUALISER							L.C.A.B.
EMERGENCY GENERATOR							
ROTARY TRANSFORMER: MOTOR							
" " GENERATOR							

MAIN DISTRIBUTION CABLES.							
DESCRIPTION.	No. in Parallel Per Pole.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.
		Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
AUX. SWITCHBOARDS AND SECTION BOARDS							
MIDSHIP SECTION PANEL	1	37/103	279	385	600	V.C.	L.C.A.B.
AFT SECTION BOARD	1	19/083	133	191	108	V.C.	L.C.A.B.
ENGINE ROOM 1 st SECTION	1	7/064	53	75	128	V.C.	L.C.A.B.
VENT FAN SECTION	1	7/064	51	75	206	V.C.	L.C.A.

LIGHTING AND HEATING, ETC., CABLES.							
WIRELESS	1	7/064	35	75	132	V.C.	L.C.
NAVIGATION LIGHTS	1	7/064	30	75	132	V.C.	L.C.
LIGHTING AND HEATING							
PORT DECK LIGHTING D.B. PORT	1	7/064	20	42	114	V.C.	L.C.
PORT DECK LIGHTING D.B. STBD	1	7/064	10	42	144	V.C.	L.C.
UPPER DECK LIGHTING D.B. AFT	1	7/064	12.6	42	210	V.C.	L.C.
UPPER DECK LIGHTING D.B.	1	7/064	17	42	102	V.C.	L.C.
BRIDGE DECK LIGHTING D.B. PORT	1	7/064	20	42	84	V.C.	L.C.
BRIDGE DECK LIGHTING D.B. STBD	1	7/064	21	42	34	V.C.	L.C.
ENGINE ROOM D.B. N°1	1	7/029	12.5	15	198	V.C.	L.C.A.B.
ENGINE ROOM D.B. N°3	1	7/029	9	15	84	V.C.	L.C.A.B.
Suez Canal Protector	1	7/064	60	75	456	V.C.	L.C.A.B.
SHORE CONNECTION	1	37/103	273	385	140	V.C.	L.C.A.B.

MOTOR CABLES.									
ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.							
THERMOTANK FANS	2	4	1	7/064	17	75 ✓	138	V.C.	L.C.
AFT BOAT WINCHES.	2	2	1	7/064	18	42 ✓	222	V.C.	L.C.
FW'D BOAT WINCHES.	2	2	1	7/064	18	42 ✓	170	V.C.	L.C.
WORKSHOP MOTOR	1	3	1	7/064	25	42 ✓	280	V.C.	L.C.A.B.
OIL PURIFIERS	2	2	1	7/064	17	42 ✓	210	V.C.	L.C.A.B.
ENGINE ROOM VENT FANS.	3	2	1	7/029	17	15 ✓	24	V.C.	L.C.A.B.

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.

P.Pro. THE SUNDERLAND FORGE & ENGINEERING CO. LTD.

Electrical Engineers.

Date 9.3.46

COMPASSES.

Minimum distance between electric generators or motors and standard compass.....

THIRTY FEET.

Minimum distance between electric generators or motors and steering compass.....

TWENTY-FOUR FEET.

The nearest cables to the compasses are as follows:—

A cable carrying 10 Amperes 8 feet from standard compass 6 feet from steering compass.

A cable carrying 2 Amperes LED INTO feet from standard compass LED INTO feet from steering compass.

A cable carrying Amperes 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 Any course in the case of the

standard compass, and Nil degrees on Any course in the case of the steering compass.

BLYTHWOOD SHIPBUILDING CO., LTD.

Builder's Signature.

Date 13/3/46

SECRETARY

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

Plans. Are approved plans forwarded herewith No If not, state date of approval 27/6/45

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

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

The electrical equipment of this vessel has been fitted on board under Special Survey, tested under working conditions and found satisfactory. The materials and workmanship are good.

Total Capacity of Generators 60 Kilowatts.

The amount of Fee ... £ 28 : 10 :

When applied for, 23-2-1946

Travelling Expenses (if any) £ : - :

When received.

19

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW 19 MAR 1946

Assigned

SEE ACCOMPANYING MACHINERY REPORT.



© 2020

Lloyd's Register Foundation