

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

13 AUG 1942

Received at London Office.....

Date of Writing Report... 8th JULY 1942 When handed in at Local Office... 8th JULY 1942 Port of... GLASGOW.No. in Survey held at... GLASGOW... Date, First Survey... 25.5.42 Last Survey... 9th JULY 1942
Reg. Book. (Number of Visits... 6)35749 on the M.V. "BRITISH MERIT" Tons { Gross... 8100
Net... 4750

Built at... GLASGOW By whom built... HARLAND & WOLFE LTD. Yard No... 1117G When built... 1942

Owners... BRITISH TANKER CO. LTD. Port belonging to... LONDON.

Electrical Installation fitted by... HARLAND & WOLFE LTD. Contract No... - When fitted... 1942

Is vessel fitted for carrying Petroleum in bulk... YES Is vessel equipped with D.F... YES E.S.D... YES G.C... YES Sub.Sig... -

Have plans been submitted and approved... YES System of Distribution... TWO WIRE Voltage of supply for Lighting... 110

Heating... - 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... No, 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... 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

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... Near 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...

DOUBLE POLE CIRCUIT BREAKER WITH OVERLOAD RELEASE

and for each outgoing circuit... DOUBLE POLE CHANGEOVER SWITCH AND DOUBLE POLE FUSES

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule... YES Instruments on main switchboard... Two

ammeters... Two 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.

07720

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 —, have they been tested under working conditions —. 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 4.9 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 — 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, for run in conduit —. State how the cables are supported and protected MAINS - LEAD COVERED ARMoured AND BRAIDED CLIPPED TO STEEL TRAYS IN ENGINE ROOM AND RUN IN PIPES ALONG OPEN DECK - ACCOMMODATION SPACES LEAD COVERED CLIPPED.

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 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 — 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 YES. Secondary Batteries, are they constructed and fitted as per Rule —, are they adequately ventilated —. 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 BY.

SPECIAL GAS-TIGHT FITTINGS USED MAINLY FROM OUTSIDE SPACES WITH L.C.A.B. CABLE.

and where are the controlling switches fitted BY DISTRIBUTION BOXES REMOTE FROM SPACES, are all fittings suitably ventilated YES, are all fittings and accessories constructed and installed as per Rule YES. Searchlight Lamps, No. of ONE, whether fixed or portable PORTABLE, are their fittings as per Rule YES. 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 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 —. 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 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.		
MAIN	2	30	110	273	550	STEAM ENGINES.	
EMERGENCY							
ROTARY TRANSFORMER							

GENERATOR CABLES.									
DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (load plus return feet).	INSULATED WITH.	HOW PROTECTED.	
		No. in Parallel For Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.				
MAIN GENERATOR (FORWARD) No.1	30	1	61/093	273	288	40	RUBBER	L.C.A.B.	
" " EQUALISER									
MAIN GENERATOR (AFT) No.2.	30	1	61/093	273	288	36	"	"	
EMERGENCY GENERATOR									
ROTARY TRANSFORMER: MOTOR									
" " GENERATOR									
MAIN DISTRIBUTION CABLES.									
AUX. SWITCHBOARDS AND SECTION BOARDS									
VENT FAN DB. F.1.		1	19/064	72.4	83	180	RUBBER	L.C.A.B.	
ENGINE ROOM MOTORS DB. M.1.		1	19/072	77.2	97	60	"	"	
D/G. INSTALLATION.		1	19/083	17.5	118	50	"	L.C.A.B.	
LIGHTING AND HEATING, ETC., CABLES.									
WIRELESS		MAIN SWITCHBOARD	1	19/052	30	64	120	RUBBER	L.C.A.B. + L.C.
NAVIGATION LIGHTS		SDB. " "	1	7/064	30	46	120	"	L.C.
LIGHTING AND HEATING		MAIN	1	7/064	19	46	120	"	L.C.A.B. + L.C.
LIGHTING Etc. FORWARD & MIDSHIPS (SDB SWITCHBOARD).		SDB	1	7/064	19	46	120	"	L.C.
" " AFT & POOP S.B. No. 3			1	19/082	45	64	120	"	"
" " ENG. & BOILER ROOMS S.B. No. 4			1	7/064	45	46	60	"	"
DECK PORTABLE CONNECTIONS.		S.B. No. 2	1	7/064	33	46	120	"	"
MOTOR CABLES.									
ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.							
TURNING GEAR	1	10	1	19/084	80	83	120	RUBBER	L.C.A.B.
ENGINE ROOM VENT. FAN	1	1 1/2	1	7/039	12.4	15	150	"	"
AFT. ACCOM. VENT. FAN.	1	4	1	7/052	33	37	150	"	"
MIDSHIP ACCOM. VENT. FAN.	1	4	1	19/052	33	64	720	"	L.C.A.B. & L.C.
WORKSHOP MOTOR	1	3	1	7/044	27	31	90	"	L.C.A.B.
FUEL OIL PURIFIER	1	3	1	7/044	25.1	31	180	"	"
LUB. OIL PURIFIER	1	3	1	7/044	25.1	31	100	"	"

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.

For HARLAND AND WOLFF, LIMITED

Electrical Engineers.

Date 5th AUG. 1942

Manager.

COMPASSES.

Minimum distance between electric generators or motors and standard compass 15 FEET FROM MIDSHIP VENT. FAN.

Minimum distance between electric generators or motors and steering compass 20 FEET FROM MIDSHIP VENT. FAN.

The nearest cables to the compasses are as follows:—

A cable carrying 19 Ampères 5 feet from standard compass 7 feet from steering compass.

A cable carrying 0.1 Ampères LED INTO feet from standard compass 6 feet from steering compass.

A cable carrying 0.1 Ampères 6 feet from standard compass LED INTO 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.

For HARLAND AND WOLFF, LIMITED

Builder's Signature.

Date 5th AUG. 1942

Manager.

Is this installation a duplicate of a previous case YES If so, state name of vessel BRITISH VIGILANCE

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

The electrical installation of this vessel has been fitted on board under special survey, tested under full 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, 21/7/42

Travelling Expenses (if any) £ : : When received, 10/8/42

Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 11 AUG 1942

Assigned Transmitted to Wokingham



© 2020

Lloyd's Register Foundation