

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

31 MAY 1950

Received at London Office

Date of writing Report 19.5. 1950 When handed in at Local Office 26.5. 1950 Port of MIDDLESBROUGH.

No. in Survey held at HAVERTON HILL - ON - TEES Date, First Survey 10.1.50 Last Survey 9.5. 1950
Reg. Book. (No. of Visits 16)36201. on the M.V. "BRITISH GENERAL" Tons { Gross.....
Net.....

Built at HAVERTON HILL - ON - TEES By whom built FURNESS SHIPBUILDING CO. Yard No. 434 When built 1950.

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

Installation fitted by FURNESS SHIPBUILDING CO. LTD. When fitted 1950.

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

Plans, have they been submitted and approved YES System of Distribution TWO WIRE Voltage of Lighting 110

Heating 110 Power 110 D.C. or A.C., Lighting D.C. Power D.C. If A.C. state frequency -

Prime Movers, has the governing been found as per Rule when full load is thrown on and off YES. Are turbine emergency governors fitted with a trip switch - Generators, are they compound wound YES, and level compounded under working conditions YES.

if not compound wound state distance between generators - and from switchboard - Are the generators arranged to run in parallel YES, 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.

Position of Generators ENGINE STARTING PLATFORM LEVEL, FORWARD OF MAIN ENGINES.

is the ventilation in way of generators satisfactory YES, are they clear of inflammable material and protected from mechanical injury and damage from water, steam and oil YES. Switchboards, where are main switchboards placed ON PLATFORM ABOVE

GENERATORS, ARRANGED THWAFTSHIPS FACING AFT.

are they in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water, steam and oil YES, what insulation is used for the panels SINDANYO EBONY FINISH, 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 construction as per Rule, including locking of screws and nuts YES. Description of Main Switchgear

for each generator and arrangement of equaliser switches TRIPLE POLE AIR BREAK CIRCUIT BREAKER WITH OVERLOAD AND TIME DELAYS ON TWO POLES, REVERSE CURRENT TRIP, NO-VOLT COIL RELEASE, AND THIRD POLE CONNECTED TO EQUALISER.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit TRIPLE POLE DOUBLE THROW AND DOUBLE POLE SINGLE THROW QUICK BREAK KNIFE SWITCH AND DOUBLE POLE FUSES.

(TRIPLE POLE C.O. SWITCH INTERLOCKED WITH GENERATOR CIRCUIT BREAKERS)

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule YES. Instruments on main switchboard 3 ammeters 4 voltmeters - synchronising devices. For compound machines in parallel are the ammeters and reversed current

protection devices connected on the pole opposite to the equaliser connection YES. Earth Testing, state means provided EARTH LAMPS COUPLED TO EARTH THROUGH SWITCHES AND FUSES.

Switches, Circuit Breakers and Fuses, are they as per Rule YES, are the fuses an Approved Type YES.

make of fuses SIEMENS 'Z', are all fuses labelled YES. If circuit breakers are provided for the generators, at what overload do they operate 25%, and at what current do the reversed current protective devices operate 10%

Joint Boxes, Section Boards and Distribution Boards, is the construction as per Rule YES.

Cables, are they insulated and protected as per Rule 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 < 6.6 V, are the ends of all cables having a sectional

area of 0.01 square inch and above provided with soldering sockets YES. Are all paper insulated and varnished cambric insulated cables sealed at the ends 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 any 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 -

or of the "HR" type - State how the cables are supported or protected FORWARD MAINS CLIPPED TO SOLID STEEL

PLATES ON FORE AND AFT GANGWAY AND COVERED WITH SOLID PLATE. GENERATOR MAINS AND CABLES IN ENGINE ROOM CLIPPED TO STEEL PLATE AND PERFORATED STEEL TRAY PLATES. L.C. CABLES IN ACCOMMODATION CLIPPED TO WOOD GROUNDS.

Are all lead sheaths, armouring and conduits effectually bonded and earthed 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. Refrigerated chambers, are the cables and fittings as per Rule YES.

Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule. **YES.** Emergency Supply, state position **ENGINE ROOM ABOVE MAIN SWITCHBOARD - AUTOMATIC ON FAILURE OF 110 VOLT SUPPLY.**

Navigation Lamps, are they separately wired. **YES.** controlled by separate double pole switches 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.** Is an alternative supply provided. **YES.**

Secondary Batteries, are they constructed and fitted as per Rule. **YES.** are they adequately ventilated. **YES.** state battery capacity in ampere hours. **'NIFE' SYSTEM - 45 AMP. HOURS.**

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof. **YES.** Are any 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. **'WIGAN' FLAMEPROOF FITTINGS.**

and where are the controlling switches fitted. **OFFICERS QUARTERS MIDSHIPS.** Are all fittings suitably ventilated. **YES.**

Searchlight Lamps, No. of. **—**, whether fixed or portable. **—**, are they of the carbon arc or of the filament type. **—**

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 and placed in well-ventilated compartments in which inflammable gases cannot accumulate and protected from damage from water, steam and oil. **YES.**

Are motors coupled to oil fuel transfer and 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. **—** Have certificates of test for motors under 100 BHP intended for essential sea services been supplied and the results found as per Rule. **—**

Control Gear and Resistances, are they constructed and fitted as per Rule. **YES.** Lightning Conductors, where required are they fitted as per Rule. **—** 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 an Approved Cartridge Type. **YES.** make of fuse. **SIEMENS 'Z'** 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.** E.S.D., if fitted state maker. **HUGHES** location of transmitter. **ENG. RM. DOUBLE BTM.** and receiver. **ENG. RM. DOUBLE BTM.** Spare Gear, if the vessel is for open sea service have spares been provided as per Rule and 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	MAKER.	RATED AT				TYPE.	PRIME MOVER.
			Kilowatts per Generator.	Volts.	Ampères.	Revs. per Min.		
MAIN	2	W.H. ALLEN, SONS & CO. LTD.	75	110	682	450	DIESEL.	W.H. ALLEN, SONS & CO. LTD.
	1	SUNDERLAND FORGE	30	110	273	500	STEAM.	SUNDERLAND FORGE
EMERGENCY ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
		No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	75	2	37/103	682	816	72	V.C.	L.C.A.+B.
"		1	37/103	341	408	32	V.C.	L.C.A.+B.
"	75	2	37/103	682	816	58	V.C.	L.C.A.+B.
"		1	37/103	341	408	25	V.C.	L.C.A.+B.
	30	1	37/083	273	314	32	V.C.	L.C.A.+B.
		1	19/083	137	202	16	V.C.	L.C.A.+B.
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
"								

MAIN DISTRIBUTION CABLES (to Section Boards, Distribution Fuse Boards, etc.).

DESCRIPTION.	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
MAIN SWITCHBOARD TO SHORE CONNECTION.	1	19/083	200	202	130	V.C.	L.C.A.+B.
MAIN SWITCHBOARD TO ENGINE RM. S.B. 'A'	1	19/064	71	143	130	V.C.	L.C.A.+B.
MAIN SWITCHBOARD TO PORT PAS. UPPER DK. S.B. 'B'	1	19/064	112	143	130	V.C.	L.C.A.+B.
MAIN SWITCHBOARD TO WORKSHOP S.B. 'C'	1	7/044	44	45	152	V.C.	L.C.A.+B.
MAIN SWITCHBOARD TO PORT PAS. UPPER DK. D.B. 'D'	1	7/044	23	45	196	V.C.	L.C.A.+B.
MAIN SWITCHBOARD TO PORT PAS. POOP DK. D.B. 'E'	1	7/044	22	45	224	V.C.	L.C.A.+B.
MAIN SWITCHBOARD TO STBD. PAS. UPPER DK. D.B. 'J'	1	7/044	18	45	158	V.C.	L.C.A.+B.
MAIN SWITCHBOARD TO STBD. PAS. POOP DK. D.B. 'K'	1	7/044	22	45	170	V.C.	L.C.A.+B.
MAIN SWITCHBOARD TO ELECTRIC KETTLE SOCKET	1	7/029	10	15	230	V.I.R.	L.C.A.+B.
MAIN SWITCHBOARD TO ENGINE ROOM PORT D.B. 'G'	1	7/044	26	45	182	V.C.	L.C.A.+B.
MAIN SWITCHBOARD TO ENGINE ROOM STBD. D.B. 'H'	1	7/044	25	45	172	V.C.	L.C.A.+B.
MAIN SWITCHBOARD TO EMERGENCY LIGHTING PANEL.	1	7/029	15	15	70	V.I.R.	L.C.A.+B.

LIGHTING, HEATING, WIRELESS, NAVIGATION LIGHTS, ETC., CABLES.

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN SWITCHBOARD TO MIDSHIPS SUB-SWITCHBOARD.	1	37/093	250	363	530	V.C.	L.C.A.+B.
MAIN SWITCHBOARD TO WIRELESS & RADAR.	1	37/093	45	363	530	V.C.	L.C.A.+B.
SUB-SWITCHBOARD TO C.O. SWITCH CHARTROOM.	2	7/044	13	45	240	V.C.	L.C.A.+B.
C.O. SWITCH CHARTROOM TO WHEELHOUSE D.B. 'A'	1	7/044	13	45	48	V.C.	L.C.A.+B.
D.B. 'A' TO NAVIGATION.	1	7/044	25	45	50	V.C.	L.C.A.+B.
SUB-SWITCHBOARD TO NAV. BRIDGE. D.B. 'B'	1	7/044	10	45	200	V.C.	L.C.A.+B.
SUB-SWITCHBOARD TO WIRELESS.	1	19/064	27	143	280	V.C.	L.C.A.+B.
SUB-SWITCHBOARD TO RADAR.	1	7/064	36	80	250	V.C.	L.C.A.+B.
SUB-SWITCHBOARD TO GYRO-COMPASS	1	7/029	5	15	260	V.I.R.	L.C.A.+B.
SUB-SWITCHBOARD TO ECHO SOUNDER.	1	7/029	5	15	220	V.I.R.	L.C.A.+B.
SUB-SWITCHBOARD TO KETTLE SOCKET OUTLET.	1	7/036	10	24	250	V.I.R.	L.C.A.+B.
SUB-SWITCHBOARD TO AIR CONDITIONING UNIT.	1	7/036	17	24	160	V.I.R.	L.C.A.+B.
SUB-SWITCHBOARD TO FORECASTLE D.B. 'F'	1	7/044	4	45	744	V.C.	L.C.A.+B.
SUB-SWITCHBOARD TO SUZ CANAL PROJECTOR.	1	19/064	30	143	860	V.C.	L.C.A.+B.

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
ENGINE ROOM CRANE.	1	3	1	7/044	26.5	45	150	V.C.	L.C.A.+B.
BOILER ROOM FORCED DRAUGHT FAN.	1	7	1	7/064	67.0	80	300	V.C.	L.C.A.+B.
FUEL OIL PURIFIER.	1	2.5	1	7/036	22.0	24	150	V.I.R.	L.C.A.+B.
LUB. OIL PURIFIERS.	2	2.5	1	7/036	22.0	24	170/180	V.I.R.	L.C.A.+B.
S.W. CIRCULATING PUMP.	1	2.5	1	7/036	21.5	24	140	V.I.R.	L.C.A.+B.
PRIMING PUMP.	1	1.5	1	7/036	13.2	24	170	V.I.R.	L.C.A.+B.
F.W. PUMPS. NOS. 1 & 2.	2	0.75	1	3/036	7.5	10	40/40	V.I.R.	L.C.A.+B.
UNIVERSAL MACHINE TOOL	1	3.0	1	7/036	26	24	50	V.I.R.	L.C.A.+B.
GRINDER.	1	1.5	1	7/036	16	24	120	V.I.R.	L.C.A.+B.
REFRIG. COMPRESSORS 1 & 2	2	4.0	1	7/044	35	45	60/80	V.C.	L.C.A.+B.
REFRIG. PUMP.	1	1.0	1	3/036	8	10	220	V.I.R.	L.C.A.+B.
REFRIG. FAN.	1	0.25	1	3/029		5		V.I.R.	L.C.A.+B.
BOAT HOISTS. PORT & STBD.	2	7.5	1	7/064	65	80	120/170	V.C.	L.C.A.+B.
THERMOTANKS. NOS. 3 & 4	2	2.5	1	7/036	21	24	140/110	V.I.R.	L.C.A.+B.
ENGINE ROOM SUPPLY FAN.	1	1.5	1	7/029	12.4	15	130	V.I.R.	L.C.A.+B.
BOILER ROOM SUPPLY FAN.	1	1.5	1	7/029	12.4	15	140	V.I.R.	L.C.A.+B.
GALLEY VENT FANS	2	0.2	1	3/029	1.9	5	60/60	V.I.R.	L.C.A.+B.
VEG. ROOM FAN.	1	0.25	1	3/029	2.5	5	80	V.I.R.	L.C.A.+B.
REFRIG. MCHY VENT NO. 4.	1	0.25	1	3/029	3.2	5	90	V.I.R.	L.C.A.+B.
GALLEY BLOWER	1	0.25	1	3/029	2.6	5	80	V.I.R.	L.C.A.+B.
MIXING MACHINE	1	0.5	1	3/036	5.7	10	80	V.I.R.	L.C.A.+B.
BOAT HOIST MIDSHIPS PORT & STBD.	2	7.5	1	7/064	65	80	90/170	V.C.	L.C.A.+B.
THERMOTANK NOS. 1 & 2	2	2.5	1	7/044	21	45	160/180	V.C.	L.C.A.+B.