

Rpt. 13.

No. 131213

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

19. JUL 1950

Date of writing Report 24. 6. 1950 When handed in at Local Office 19. Port of Liverpool
No. in Survey held at Birkenhead Date, First Survey 1/3/50 Last Survey 20/6/1950
Reg. Book. 36766 on the M.V. "BRITISH TRUST"

Built at Birkenhead By whom built Cammell Laird & Co. Ltd. Yard No. 1200 When built 1950
Owners British Tanker Co. Ltd. Port belonging to London
Installation fitted by Cammell Laird & 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. No 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 In main engine room. 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 In main engine room or special platform.

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 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 circuit breakers (one pole equalising) fitted with overload and reverse current trips.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit Double-pole switch and fuses.

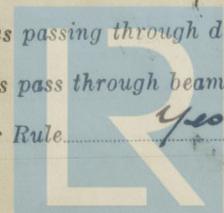
Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard 3 ammeters 3 voltmeters — synchronising devices. For compound machines in parallel are the ammeters and reversed current protection devices connected on the pole opposite to the equaliser connection Yes Earth Testing, state means provided Earth Resistor

Switches, Circuit Breakers and Fuses, are they as per Rule Yes, are the fuses an Approved Type Yes make of fuses Siemens Zeiss, are all fuses labelled Yes If circuit breakers are provided for the generators, at what overload do they operate 50% overload, and at what current do the reversed current protective devices operate 10% R.C.

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 44 Volts, 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 Main cables L.C.A.B on undersides of fore and aft gangways. Circuit wiring L.C.B or L.C.A.B supported on ways or clamped to structure. All cables protected as necessary.

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



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Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule. Yes Emergency Supply, state position here.

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. 80 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. Flame-proof fittings

and where are the controlling switches fitted. in midship accommodation Are all fittings suitably ventilated. Yes

Searchlight Lamps, No. of ~~Wing~~ only either fixed or portable, are they of the carbon arc or of the filament type. —

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. None 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. Yes

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. Semicon 'Zest'. 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. Mascioni location of transmitter. Lancashire and receiver. K. 36/37 P. S. Gifford. 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.	Holland Wolff & Co	75	110	682	600	Oil Engines	Holland Wolff & Co
	1	Scindland Forges Engle-Ltd	30	110	272	500	Steam Engine	Scindland Forges Engle-Ltd
EMERGENCY ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.					
		No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands Sq. ins. or sq. mm.	MAXIMUM CURRENT IN AMPERES. In the Circuit.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
MAIN GENERATOR	75	1.	9/1.083	682	738	76	V.C. L.C.A.B.
" EQUALISER	30	1	6 1/1.083	-	540	38	-
" EQUALISER	1	37/0.88	272	296	50	" "	
EMERGENCY GENERATOR							
ROTARY TRANSFORMER: MOTOR							
" GENERATOR							

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

DESCRIPTION.							
Midship Section Board	51.	1	37/0.88	200	296	380	V.C. L.C.A.B.
" " "	"	1	37/0.88	65	296	380	" "
Aft " " "	52	1	37/0.88	272	296	80	" "
Stow Connection Box							

LIGHTING, HEATING, WIRELESS, NAVIGATION LIGHTS, ETC., CABLES.							
DESCRIPTION.	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands Sq. ins. or sq. mm.	MAXIMUM CURRENT IN AMPERES. In the Circuit.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.	PROTECTIVE COVERING.
Navigation (main and alternative)	1	7/0.29	2 ✓	15	120	V.I.R	L.C.B.
Bridge Lighting Dist B DB. 21	1	7/0.64	18 ✓	75	130	V.C.	"
Captains Bridge Tug	1	7/0.64	34 ✓	75	100	"	-
Upper " "	1	7/0.64	40	75	60	"	-
Cargo Lighting	1	7/0.44	15 ✓	31	144	V.I.R	"
Bridge Deck Tug Port	1	7/0.64	29	75	40	V.C.	-
" " " Stair	1	7/0.64	36 ✓	75	20	"	-
Upper Deck Tug Port	1	7/0.44	24 ✓	31	144	V.I.R	"
" " " Stair	1	7/0.44	28 ✓	31	24	"	-
Poop " " Port Tug	1	7/0.44	28 ✓	31	70	"	-
" " " Off " " D9A	1	7/0.44	9 ✓	31	140	"	-
" " " Stair	1	7/0.44	26 ✓	31	32	"	-
Engine Room Tug. Stair Lower	1	7/0.44	10 ✓	31	40	"	L.C.A.B.
" " " Port	1	7/0.44	10 ✓	31	40	"	L.C.A.B.
" " " Stair Upper	1	7/0.44	10 ✓	31	80	"	L.C.A.B.
" " " Port	1	7/0.44	10 ✓	31	182	"	L.C.A.B.
" Power. DB	1	7/0.29	12 ✓	15	90	"	L.C.B.
Battery Charging Board	1	7/0.29	6 ✓	15	36	"	L.C.A.B.
Engine Kettle	1	7/0.44	13.5 ✓	31	80	"	"
Officer	1	7/0.44	18.5 ✓	31	120	"	L.C.B.
Emergency Lighting Board	1	7/0.29	10 ✓	15	30	"	L.C.A.B.
Watertank	1	7/0.64	40	75	110	V.C.	L.C.B.
Radar	1	7/0.64	25 ✓	75	130	"	"
Gyro Compass	1	3/0.36	5 ✓	10	110	V.I.R	"

MOTOR CABLES.									
ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.							
Tunneling Gear Motor	1	10	1	19/0.52	82 ✓	104	150	V.C.	L.C.A.B.
Desal. Generator S.W. Pump	1	3	1	7/0.44	26 ✓	31	50	V.I.R.	"
Workshop Motor	1	3	1	7/0.44	26 ✓	31	150	"	"
Lab. Oil Pumped Motor	2	2.5	1	7/0.44	22 ✓	31	130	"	"
Oil Fuel "	1	2.5	1	7/0.44	22	31	90	"	"
Cylone "	1	2	1	7/0.44	18 ✓	31	160	"	"
Grinder "	1	1	1	7/0.29	9 ✓	15	130	"	"
Forced Draught Fan	1	7	1	7/0.64	67 ✓	75	120	V.C.	"
Engine Boiler Fan Vent Fan	2	1.5	1	7/0.29	12.4	15	180	V.I.R.	"
Boat Winches	4	7.5	1	7/0.64	65 ✓	75	120	V.C.	L.C.B.
Accommodation Luggage Tug	3	0.2	1	3/0.29	2 ✓	5	120	V.I.R.	L.C.B.
" " " 0.25	1	3/0.29	2.5 ✓	5	120	V.I.R.	"	"	
Steerostack Fans	4	2.5	1	7/0.44	17 ✓	31	80	"	"
Refrig. Compressor	1	44	1	7/0.64	35 ✓	75	20	V.C.	L.C.A.B.
Cooling Fan	1	0.25	1	3/0.29	2.5 ✓	5	50	V.I.R.	"
" Pump	1	1	1	7/0.29	11 ✓	15	140	"	"
Fresh Water Pump	2	0.75	1	7/0.29	7 ✓	15	30	"	L.C.B.
Air Conditioning Unit Fans	1	0.25	1	3/0.29	2.5 ✓	5	30	"	"
" " " Compressor	1	1.5	1	7/0.44	14 ✓	31	20	"	"
Supply Fan	1	0.5	1	7/0.29	5 ✓	15	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.



Electrical Contractors. Date.....

COMPASSES.

Have the compasses been adjusted under FOR AND ON BEHALF OF
CAMMELL LAIRD & CO. LIMITED Yes

Syde,
TECHNICAL MANAGER
SHIPBUILDING DEPT.

Builder's Signature. Date. 30 JUN 1950

Have the foregoing descriptions and schedules been verified and found correct Yes

Is this installation a duplicate of a previous case Yes If so, state name of vessel BRITISH TRIUMPH

Plans. Are approved plans forwarded herewith Yes If not, state date of approval

Certificates. Are certificates of test for motors engaged on essential sea 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 installed on board under special survey in accordance with the approved plans & the Rules for Electrical Equipment. The installation has been tested under full working conditions and found satisfactory. The materials & workmanship are good.

(The Surveyor is requested not to write, on or below the space for Committee's Minute.)

Total Capacity of Generators 180 Kilowatts.

2m.9.49.—Transfer. (MADE AND PRINTED IN ENGLAND.)

The amount of Fee ... £ 67 : 0 : 0 When applied for,
12 JUL 1950

When received,

Travelling Expenses (if any) £ : : 19

S. Hafford.
Surveyor to Lloyd's Register of Shipping.

Committee's Minute LIVERPOOL 18 JUL 1950

Assigned See Minutes in his. H.S. Rps.

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