

T2. TANKER G.E.C. TYPE

No. 106705

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 10 NOV 1944
of writing Report 27th OCT 19 49 When handed in at Local Office 14 NOV 1949 19

Port of NEWCASTLE-ON-TYNE
in Survey held at SOUTH SHIELDS Date, First Survey Sept 22nd Last Survey Oct 22nd 19 49

(No. of Visits 8)
Tons { Gross 10720
Net 6370

built at MOBILE ALA. By whom built ALABAMA DD & SB CO. Yard No. — When built 1945

owners BALTIC TRADING CO. Port belonging to LONDON BRITISH.

Installation fitted by ALABAMA DD & SB CO. When fitted 1945

vessel equipped for carrying Petroleum in bulk Yes Is vessel equipped with D.F. Yes E.S.D. Yes Gy.C. Yes Sub. Sig. —

ns, have they been submitted and approved. No System of Distribution 3 wire AC Voltage of Lighting 115

Power 450 D.C. or A.C., Lighting A.C. Power AC. If A.C. state frequency 60

me Movers, has the governing been found as per Rule when full load is thrown on and off. Yes Are turbine emergency governors fitted

h a trip switch. Yes Generators, are they compound wound —, and level compounded under working conditions. —

ot compound wound state distance between generators. — and from switchboard. — Are the generators arranged to run

parallel. Yes, are shunt field regulators provided. Yes Is the compound winding connected to the negative or positive pole

Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing. No Have certificates of

for machines under 100 kw. been supplied. No and the results found as per Rule. —

ition of Generators. in engine room.

he ventilation in way of generators satisfactory. Yes are they clear of inflammable material and protected from mechanical injury and

amage from water, steam and oil. Yes Switchboards, where are main switchboards placed. near generator - on Forward

d of main control platform.

they in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water,

m and oil. Yes, what insulation is used for the panels. Dead front board, if of synthetic insulating

erial is it an Approved Type. —, if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as

as possi Rule. — Is the construction as per Rule, including locking of screws and nuts. Yes Description of Main Switchgear

each generator and arrangement of equaliser switches. 3 Pole Circuit Breaker with overload releases with time lags

each leg. Reverse current relay.

the switch and fuse gear (or circuit breakers) for each outgoing circuit. 3-Pole Circuit Breaker with 3-overloads.

compartments containing switchboards composed of fire-resisting material or lined as per Rule. Yes Instruments on main switchboard. 15

3 wattmeters and 2 freq. meters
meters 7 voltmeters 1 synchronising devices. For compound machines in parallel are the ammeters and reversed current

ection devices connected on the pole opposite to the equaliser connection. — Earth Testing, state means provided. Earth

atches, Circuit Breakers and Fuses, are they as per Rule. Yes, are the fuses an Approved Type. American Pattern,

e of fuses. —, are all fuses labelled. Yes If circuit breakers are provided for the generators, at what

load do they operate. 150 FL. and at what current do the reversed current protective devices operate. 10% FL.

t Boxes, Section Boards and Distribution Boards, is the construction as per Rule. Yes

es, are they insulated and protected as per Rule. Yes, if otherwise than as per Rule are they of an Approved Type. American Pattern

maximum fall of pressure between bus bars and any point under maximum load. —, are the ends of all cables having a sectional

of 0.01 square inch and above provided with soldering sockets. No all mechanical connectors Are all paper insulated and varnished cambric insulated

es sealed at the ends. Yes Are all the cable runs in accessible positions, not exposed to drip or accumulation of water or oil,

temperatures or risk of mechanical damage. Yes, are any cables laid under machines or floorplates. Yes, if so, are they

ately protected. Yes Are cables in machinery spaces, galleys, laundries, etc., lead covered. Yes or run in conduit.

f the "HR" type. — State how the cables are supported or protected. All cables - lead covered and armoured

n in "U" brackets

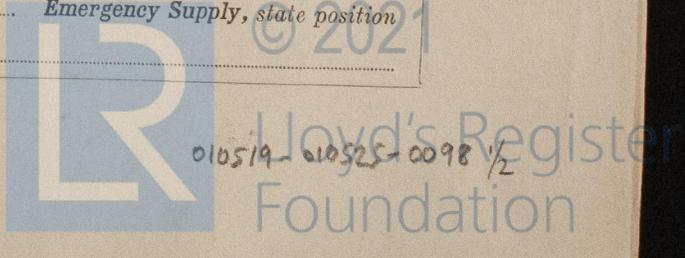
all lead sheaths, armouring and conduits effectually bonded and earthed. Yes Are all cables passing through decks and watertight

heads provided with deck tubes or watertight glands. Yes, where unarmoured cables pass through beams, etc., are the holes

ipping-ly bushed. Yes Refrigerated chambers, are the cables and fittings as per Rule. —

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

separate house on poop.



Navigation Lamps, are they separately wired Yes controlled by separate double pole switches and fuses Yes. Are the switches and fuses 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 56.

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 Nigan Flameproof Fittings and where are the controlling switches fitted in accommodation midship in alley are all fittings suitably ventilated Yes.

Searchlight Lamps, No. of 1, whether fixed or portable portable, are they of the carbon arc or of the filament type Filament.

Heating and Cooking, is the general construction as per Rule Yes, are the frames effectually earthed Yes, are heaters in 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 Yes. Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing No.

Have certificates of test for motors under 100 BHP intended for essential sea services been supplied and the results found as per Rule No.

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 an Approved Cartridge Type American Pattern, make of fuse —. 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 Fathometer location of transmitter Yard Pump Room and receiver Yard Pump Room.

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				PRIME MOVER.	
			Kilowatts per Generator.	Volts.	Ampères.	Revs. per Min.	TYPE.	MAKER.
MAIN ...	2	G.E.C.	400	450/3/60	642	1200	Turbine	G.E.C.
Propulsion Exciters	1	Elect. Mach. Trans.	75	"	120.5	750	Diesel	Rover
Ships Aux Exciters	2	G.E.C.	75	110	682	1200	Turbine	G.E.C.
EMERGENCY ROTARY TRANSFORMER	2	G.E.C.	55	120	458	1200	Turbine	G.E.C.

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (feet) (incl. cable trays).	INSULATION.	PROTECTIVE COVERING.
		No. in Parallel per Pole.	Sectional Area of Standard Size Sq. ins. or sq. mm.	In the Circuit.	A.B.E. (feet).			
MAIN GENERATOR	400	1	0.7854	642	705	30	V.C.	L & A.
" EQUALISER								
EMERGENCY GENERATOR	75	1	0.0829	120.5	158	30	V.C.	L & A.
PROPULSION GEAR EXCITER	75	1	0.7854	682	705	35	V.C.	L & A.
SHIPS AUX EXCITER	55	1	0.5890	458	582	40	V.C.	L & A.
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

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

DESCRIPTION.	No. in Parallel per Pole.	Sectional Area of Standard Size Sq. ins. or sq. mm.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (feet) (incl. cable trays).	INSULATION.	PROTECTIVE COVERING.
WORKSHOP POWER SECT. BOARD	1	0.0082	9.0	25.5	100	V.C. L & A. 3-CORE
GALLEY POWER PANEL 3-15KVA TRANS.	1	0.0521	34.0	83	150	V.C. L & A. 3-CORE
MIDSHIP 440 VOLT PANEL	1	0.0051	4.5	18.5	220	V.C. L & A. 3-CORE
LIGHTING TRANSFORMERS 3-15KVA.	1	0.0521	34	83	20	V.C. L & A. 3-CORE
DOMESTIC REFRIG PANEL	1	0.0051	11	18.5	150	V.C. L & A. 3-CORE
EMERGENCY SWITCHBOARD TIE	1	0.0829	100	113	70	V.C. L & A. 3-CORE
SHORE CONNECTION BOX	1	0.51	-	466	150	V.C. L & A. 3-CORE

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

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (feet) (incl. cable trays).	INSULATION.	PROTECTIVE COVERING.	
	No. in Parallel per Pole.	Sectional Area of Standard Size Sq. ins. or sq. mm.	In the Circuit.	A.B.E. (feet).				
WINCHES	1	0.0261	43.5	72	250	V.C.	L & A	2-CORE
NAVIGATION	1	0.0082	2	34	250	"	"	"
MIDSHIP & FORECASTLE LTG.	1	0.0829	50	113	230	"	"	3 "
POOP & BOAT DECK LTG.	1	0.0261	13	54.5	60	"	"	3 "
UPPER DECK ACCOMM ^y LTG.	1	0.0521	13	83	50	"	"	3 "
ENGINE ROOM LTG.	1	0.0521	25	83	20	"	"	3 "
BOILER ROOM LTG.	1	0.0206	15	46.5	60	"	"	3 "
BATTERY CHARGING	1	0.003	10	13	40	"	"	3 "

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (feet) (incl. cable trays).	INSULATION.	PROTECTIVE COVERING.	
			No. in Parallel per Pole.	Sectional Area of Standard Size Sq. ins. or sq. mm.	In the Circuit.	A.B.E. (feet).				
MAIN CIRC. PUMP MOTOR	1	125	1	0.2356	156	234	90	V.C.	L & A.	3-CORE
FIRE & BUTTERWORTH PUMP	2	50	1	0.0521	63	83	130	"	"	"
STEERING GEAR	2	30	1	0.0261	38	54.5	150	"	"	"
LATHE MOTOR	1	2	1	0.0051	3.1	18.5	10	"	"	"
DRILLING M/C MOTOR	1	1	1	0.0051	1.7	18.5	20	"	"	"
GRINDER MOTOR	1	3	1	0.0051	4.4	18.5	20	"	"	"
MAIN CONDENSATE MOTOR	2	25	1	0.0206	32	46.5	60	"	"	"
AUX. CIRC. PUMP MOTOR	1	30	1	0.0261	38	54.5	80	"	"	"
AUX. CONDENSATE PUMP MOTOR	1	15	1	0.013	19	34.5	70	"	"	"
COOLER CIRC. FAN MOTOR	1	10	1	0.0082	13	25.5	65	"	"	"
FUEL OIL SERVICE PUMP MOTOR	2	7 1/2	1	0.0051	10	18.5	50	"	"	"
LUB. OIL SEPARATOR MOTOR	1	2	1	0.0051	3.1	18.5	90	"	"	"
LUB. OIL SERVICE PUMP MOTORS	2	5	1	0.0051	6.9	18.5	60	"	"	"
FORCED DRAUGHT FAN MOTORS	3	50	1	0.0521	63	83	170	"	"	"
EVAPORATOR FEED PUMP MOTOR	1	1	1	0.0051	1.7	18.5	90	"	"	"
AFT. ACCOMM. VENT FANS	2	1 1/2	1	0.0051	2.4	18.5	150	"	"	"
FRESH WATER PUMP MOTORS	2	2	1	0.0051	3.1	18.5	110	"	"	"
ENGINE ROOM VENT FANS.	4	2	1	0.0051	3.1	18.5	150	"	"	"
DOMESTIC REFRIG MOTOR	1	7.5	1	0.0051	10	18.5	150	"	"	"
REFRIG. CONDENSATE PUMP	1	0.5	1	0.0051	0.9	18.5	150	"	"	"
ATMOSPHERIC DRAIN & RECEIVER PUMP	1	2	1	0.0051	3.1	18.5	90	"	"	"
SHIP SERVICE AIR COMPRESSOR MOTOR	1	5	1	0.0051	6.9	18.5	15	"	"	"
SALT WATER PUMP	1	7 1/2	1	0.0051	10	18.5	135	"	"	"
SANITARY PUMP	1	7 1/2	1	0.0051	10	18.5	130	"	"	"
F.R. BILGE PUMP	2	10	1	0.0082	13	25.5	130	"	"	"
DRINKING WATER PUMP AFT.	1	1	1	0.0051	1.7	18.5	130	"	"	"
" " " MIDSHIP	1	1	1	0.0051	1.7	18.5	50	"	"	"
MAIN MOTOR COOLING FAN	1	15	1	0.013	19	34.5	65	"	"	"
TURBINE TURNING GEAR	1	3	1	0.0051	4.4	18.5	20	"	"	"
MAIN SHAFT TURNING GEAR	1	5	1	0.0051	6.9	18.5	110	"	"	"
COMBUSTION CONTROL COMP ^o MOTOR	1	15	1	0.013	19	34.5	15	"	"	"
CARGO PUMPS	3	200	1	0.8535	249	308	30	"	"	"
CARGO STRIPPING PUMPS	2	50	1	0.0521	63	83	30	"	"	"
PUMP ROOM EXHAUST FAN	1	1.5	1	0.0051	2.2	18.5	36	"	"	"
WIRELESS M/G 450 VOLTS/110 VOLTS DC	1	7.5	1	0.0051	10	18.5	16	"	"	"

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 working conditions.....

Builder's Signature. Date.....

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..... "THELICONUS"

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

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

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

The electrical installation to the standards of the American Bureau of Shipping has been in operation for approximately 4 years. Alternators and exciters examined. Main switchboard examined and all mechanical connectors checked and tightened. Engine room motors examined internally and externally. Emergency alternator and switchboard examined. The lighting fittings in the tween deck space centre castle have been replaced with flameproof fittings (switches in accommodation alleyway). All fittings and power circuits examined and megger tested. All found satisfactory. The fresh water pump motor and pump removed from tween deck space centre castle and repositioned in the Steward's store in the officer's accommodation.

The materials and workmanship are satisfactory.

In my opinion the electrical equipment of this vessel is in a satisfactory condition and eligible to receive the Society's classification of L.M.C. (with date)

Noted sub 15/12/29

Total Capacity of Generators..... 875 ✓ Kilowatts.

The amount of Fee ...	£	:	:	When applied for,
SUNDAY ATTENDANCE FEE.	£ 5 : 5 : 0.			19
Travelling Expenses (if any) £	:	:	:	When received,
				19

J. W. Wright & R. Stone.
Surveyors to Lloyd's Register of Shipping.

Committee's Minute..... TUES. 20 DEC 1948

Assigned..... See minute on f.e. rpt

Im. 11.15-Transfer. (MADE AND PRINTED IN ENGLAND.)

(The Surveyors are requested not to write on or below the space for Committee's Minute.)



© 2021

Lloyd's Register Foundation