

Rpt. 13.

No. 35506

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

13 FEB 1951

Received at London Office

Date of writing Report 29. 1. 51 19 When handed in at Local Office FEB - 6 1951 19 Port of Sunderland  
 No. in Survey held at Sunderland Date, First Survey 16. 10. 51 Last Survey 30. 1. 51 19  
 Reg. Book. (No. of Visits 13)  
90816 on the m.v. "BRITISH NAVIGATOR"  
 Built at Sunderland By whom built J.L. Thompson & Sons Ltd Yard No. 664 When built 1950  
 Owners British Tanker Company Port belonging to London  
 Installation fitted by Sunderland Forge & Engineering Co. Ltd When fitted 1950/1  
 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 2-wire ins. Voltage of Lighting 110  
 Heating - 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 room, on raised deck starboard side.  
 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 angle-iron framework, adjacent to generators.  
 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 ebony "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 construction as per Rule, including locking of screws and nuts yes Description of Main Switchgear for each generator and arrangement of equaliser switches a triple-pole (one pole for equaliser) air-break circuit breaker fitted with O/L, & R/V, & N/V tripping devices.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit a double-pole knife 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 E. lamps

Switches, Circuit Breakers and Fuses, are they as per Rule yes, are the fuses an Approved Type yes, make of fuses "ZED", are all fuses labelled yes If circuit breakers are provided for the generators, at what overload do they operate 10%, and at what current do the reversed current protective devices operate 15%

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 less than 6.0 at 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 feeders: V.C.L.C.A.B. cables on fore and aft gangway clipped to sheet steel troughing with cover plate fitted. Accommodation, L.C.B. cables clipped to the surface of wooden grounds and protected where necessary by wood or metal guards.

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

005107-005117-0145

© 2020  
 Lloyd's Register  
 Foundation



Insulation Tests, has the insulation resistance of all circuits and apparatus been tested and found satisfactory.....yes.....

DESCRIPTION OF GENERATOR.	No. of	MAKER.	RATED AT				PRIME MOVER.	
			Kilowatts per Generator.	Volts.	Ampères.	Revs. per Min.	TYPE.	MAKER.
MAIN ...	2	S.F.&Eng.Co.	75	110	682	500	Diesel	Mirrlees Bickerton & Day Ltd
	I	S.F.&Eng.Co.	30	110	272	500	Steam	S.F.&Eng.Co.Ltd
EMERGENCY ...								
ROTARY								
TRANSFORMER								

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULA- TION.	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 ... .. No. 1.	75	2	37/.103	682 ✓	816	26	V.C.	L.C.B.
" " EQUALISER ... ..		I	"		408	I3	"	"
" " No. 2.	75	2	"	682 ✓	816	38	"	"
" " eq.		I	"		408	I9	"	"
" " No. 3.	30	I	"	272 ✓	408	58	"	"
" " eq.		I	"		408	29	"	"
EMERGENCY GENERATOR ... ..								
ROTARY TRANSFORMER: MOTOR ... ..								
" " GENERATOR...								

[illegible][illegible]

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.							
Bridge Thremotanks	2	3	I	7/.052	26 ✓	37	2/56	V.I.R.	L.C.B.
Bridge Deck Boat Winches	2	7.5	I	7/.064	63 ✓	80	2/54	V.C.	"
Pantry Vent Fan	1	1	I	3/.036	5 ✓	10	26	V.I.R.	"
Air Conditioning Comprsr.	1	1.5	I	7/.029	13.5 ✓	15	25	"	"
Pantry Supply Fan	1	0.2	I	3/.036	2 ✓	10	26	"	"
Aft Theromotanks	2	3	I	7/.052	26 ✓	37	2/51	"	"
Aft Boat Winches	2	7.5	I	7/.064	63 ✓	80	20.90	V.C.	"
Eng,Rm.Vent Fans	2	1.5	I	7/.036	16 ✓	24	2/45	V.I.R.	"
Mixer Motor	1	0.5	I	3/.036	5 ✓	10	65	"	"
Galley Vent Fans	2	0.2	I	3/.029	3 ✓	5	15.25	"	"
Galley Blower	1	0.25	I	3/.029	3 ✓	5	25	"	"
Refrig.Fan	1	0.2	I	3/.036	3 ✓	(5)	60	"	"
Refrig.Exhaust Fans	1	1.2	I	3/.029	3 ✓	5	12	"	"
Refrig.Compressors	2	4	I	7/.064	34 ✓	80	2/22	V.C.	"
Oil Purifiers	3	3	I	7/.044	26 ✓	31	3/57	V.I.R.	L.C.A.B.
ditto	1	3	I	7/.044	26 ✓	31	40	"	"
Forced Draught Fan	1	7	I	19/.044	56 ✓	93	80	V.C.	"
Lathe Motor	1	3.5	I	7/.064	32 ✓	80	18	"	"
Grinder Motor	1	1	I	7/.029	10 ✓	15	39	V.I.R.	"
Refrig.Pump	1	1	I	7/.029	10 ✓	15	70	"	"
Crane Motor	1	3	I	7/.044	26 ✓	31	58	"	"
S.W.Pump	1	0.75	I	7/.029	9 ✓	15	25	"	"
Priming Pump	1	1.5	I	7/.044	16 ✓	31	39	"	"
Frig.F.W.Pumps	2	0.75	I	3/.036	9 ✓	10	10.12	"	L.C.



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 Contractors.

Date 1/2/51

#### COMPASSES.

Have the compasses been adjusted under working conditions... yes

Builder's Signature.

Date 3/2/51

Have the foregoing descriptions and schedules been verified and found correct... yes

Is this installation a duplicate of a previous case... no If so, state name of vessel -

Plans. Are approved plans forwarded herewith... no If not, state date of approval D. 11.10.50; S.15.11.50

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 under special survey in accordance with the Approved plans and the special requirements of Section 15 of the Electrical Rules; The materials and workmanship are good. On completion, satisfactory trials of the equipment were witnessed and the insulation resistance of all circuits was measured and found good. This equipment is in my opinion suitable for a classed vessel.

(Note: The Pump Room Lighting arrangements are in accordance with the Secretary's letter and accompanying plan of 3rd November 1950)

Noted sub 27/2/51

Total Capacity of Generators (2 x 75, 1 x 30) 180 Kilowatts.

The amount of Fee ... £ 69. 0. 0 :

When applied for,  
FEB 12 1951

When received,

Travelling Expenses (if any) £ :

19

Surveyor to Lloyd's Register of Shipping.

FRI. 2 MAR 1951

Committee's Minute

Assigned

See F.E. Mchly. rpt.