

REPORT ON ELECTRICAL EQUIPMENT

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

17 JAN 1952

Date of writing Report 20.12.51 19 When handed in at Local Office DEC 28 1951 19 Received at London Office Port of Sunderland

No. in Survey held at Sunderland Date, First Survey 18. 7. 51. Last Survey 20.12. 51 19

Reg. Book. m.v. "BRITISH MAPLE" (No. of Visits 15)

35056 on the Tons { Gross 1686 Net 1495

Built at Sunderland By whom built Sir J. Laing & Sons Ltd Yard No 792 When built 1951

Owners British Tanker Company Port belonging to London.

Installation fitted by Sunderland Forge & Engineering Co. Ltd When fitted 1951

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.D. 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 stools: Nos. 1&3, Starb. No. 2 Port.

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 one raised deck at engine

room starboard bulkhead.

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 current 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 psi 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 V.C.L.C.A.B. main feeders along

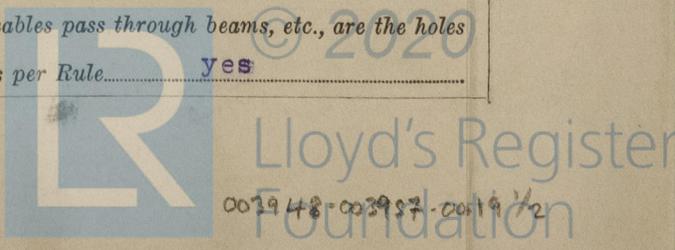
fore and aft gangways clipped to solid sheet metal troughing: Accommodation, L.C. cables

clipped to the surface 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



Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule... yes Emergency Supply, state position fuses
 Battery-fed skeleton lighting system in machy spaces operating on failure of supply or E.A. yes
 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 2 of 80 A.H.
 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" & "Victor" flameproof lighting fittings as approved installed in centrecastle bridge spaces and pump rooms (see Secy's letter 4.II.50)
 and where are the controlling switches fitted... in officers quarters 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... 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... "ZED" Are the fittings for pump rooms, tween deck spaces, etc., in accordance with the special requirements for such ships... no Are the cables lead covered as per Rule... yes
 E.S.D., if fitted state maker... Marconi location of transmitter... Eng. Rm. Cofferdam. Port and receiver... ditto Starb.
 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	S.F.&E.Co.Ltd.	75	110	682	500	Diesel	British Polar Eng.
		Nos. 40957, 40958						Nos. P.U.163, P.U.164
	1	S.F.&E.Co.Ltd.	30	110	273	500	Steam	S.F.&E.Co.Ltd
EMERGENCY ROTARY TRANSFORMER		No. 40954						No. 40953

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 ...	No. 1. 75	2	37/.103	682	816	88	V.C.	L.C.B.
" " EQUALISER ...		1	"	408	44		"	"
" " No. 2. 75		2	"	682	816	34	"	"
" " eq.		1	"	408	17		"	"
" " No. 3. 30		2	19/.083	273	404	80	"	"
" " eq.		1	"	202	40		"	"
EMERGENCY GENERATOR ...								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR...								

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.
Midship Section Board	1	37/.103	244	408	454	V.C.	L.C.A.B.
W/T. & Radar Supply	1	37/.103	75	408	454	"	"
Aft Lighting & Power Section Panel	1	37/.072	197	260	130	"	"
Refrigeration Machy. Section Panel	1	19/.064	82	143	246	"	"
Shore Connection	1	37/.103	-	408	72	"	"
Engine Room Auxillary Section	1	7/.064	62	80	64	"	"
" " " "	1	7/.064	68	80	122	"	"
" " " "	1	7/.064	60	80	18	"	"

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.			
Navigation - Main supply	1	7/.064	30	80	120	V.C.	L.C.B.
do. Alt. Supply	1	7/.064	-	80	48	"	"
Upper Bridge Lighting DB, 2	1	7/.064	24	80	62	"	"
Port Bridge Ltg. DB, 3	1	7/.064	28	80	58	"	"
Star. " " " 4	1	7/.064	23	80	43	"	"
Mid. " " " 5	1	7/.064	16	80	36	V.I.R.	"
Radar Supply	1	7/.064	45	80	102	V.C.	"
Gyro Compass Supply	1	7/.029	10	15	108	V.I.R.	"
W/T. Supply	1	7/.064	30	80	128	V.C.	"
Suez Canal Projector	1	19/.083	-	202	640	"	L.C.A.B.
Aft Boat Lights, DB, 6, Port	1	7/.036	18	24	106	V.I.R.	L.C.B.
" " " " 7, Star.	1	7/.036	15	24	60	"	"
Galley Range Blowers DB, 8	1	7/.064	53	80	52	V.C.	"
Aft Lighting Port, DB, 9	1	7/.064	26	46	108	V.I.R.	"
" " Star. DB, 10	1	7/.064	26	46	44	"	"
Engine Room Lighting DBs (4)	1	7/.036	4/15	24	3/130	"	L.C.A.B.
Foremast Floods	1	7/.036	4	24	500	"	"
Mainmast Floods	1	7/.036	4	24	530	"	"
Pofecastle Lighting	1	3/.036	4	10	520	"	"
Echo Sounding Supply	1	3/.036	5	10	90	"	L.C.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.
Forced Draught Fan	1	7	1	7/.064	58	80	230	V.C.	L.C.A.B.
Boiler Oil Calorifier	1	7.5	1	7/.064	61	80	60	"	"
" " Purifier	1	7.5	1	7/.064	61	80	62	"	"
Lub Oil Purifiers	2	2	1	7/.036	18	24	52	V.I.R.	"
Generator Circulating Pump	1	1.5	1	7/.036	16	24	144	"	"
Priming Pump	1	1.5	1	7/.036	16	24	150	"	"
Diesel Oil Purifier	1	2	1	7/.036	18	24	50	"	"
Universal M/c tool	1	3	1	7/.044	26	31	50	"	"
Grinder Motor	1	1	1	7/.036	10	24	66	"	"
Crane Motor	1	3	1	7/.044	26	31	140	"	"
Bridge Thermotanks	2	2.5	1	7/.044	24	31	2/98	"	L.C.B.
Bridge Boat Winches	2	7.5	1	7/.064	61	80	144.74	V.C.	"
Exhaust Fan	1	0.5	1	3/.036	5.8	5	180	V.I.R.	"
Supply Fan	1	0.5	1	3/.036	5.7	10	98	"	"
Air Conditioning Unit	1	-	1	7/.044	26	31	48	"	"
Aft Boat Winches	2	7.5	1	7/.064	61	80	200.68	V.C.	"
Aft Thermotanks	2	2.5	1	7/.036	23.7	24	2/140	V.I.R.	"
Engine Room Vent Fans	2	1.5	1	7/.044	16	31	2/160	"	"
Galley Vent Fans	2	0.2	1	3/.029	1.9	5	90.140	"	"
Fridge Exhaust Fan	1	0.2	1	3/.029	1.9	5	60	"	L.C.A.B.
Galley Range Blower	1	0.5	1	3/.036	5.7	10	70	"	"
Refrigerating Compressors	2	4	1	7/.064	35	80	2/56	V.C.	"
" Fan	1	0.125	1	3/.029	2	5	66	V.I.R.	"
" Circ. Pump	1	1	1	7/.029	10	15	160	"	"
Mono Pumps	2	0.75	1	7/.029	8	15	52.64	"	"

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.

THE SUNDERLAND FORGE & ENGINEERING CO., LTD.

Electrical Contractors.

Date 24/12/51.

N. Mann

COMPASSES.

yes

Have the compasses been adjusted under working conditions.

SIR JAMES LAING & SONS LIMITED

Builder's Signature.

Date 27.12.51

M. Mann
 Managing Director

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. m.v. "British Birch"

Plans. Are approved plans forwarded herewith. yes & "As Fitted". 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 Pump Room lighting arrangements are in accordance with the Secretary's letter of 14.4.50. The electrical equipment of this vessel has been installed under special survey and, with the above qualification, complies with Section 15 of the electrical Rules. The arrangements in general principle accord with those shown on the approved plans. 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.

Noted COM 4.2.52

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

The amount of Fee ... £ 69. 0. 0. When applied for, JAN 11 1952

Travelling Expenses (if any) £ : : When received, 19

Surveyor to Lloyd's Register of Shipping.

S. D. Mann

FRI. 8 FEB 1952

Committee's Minute

Assigned

S. F. E. Mosley rpt

211.9.14.—Transfer. (MADE AND PRINTED IN ENGLAND.)
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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