

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

11 AUG 1926

Received at London Office.....

Date of writing Report 24.7.1926 When handed in at Local Office 9.8.1926 Port of GLASGOW.
 No. in Survey held at GLASGOW. Date, First Survey 8th Apr Last Survey 11th June 1926
 Reg. Book. 38253. on the "M.Y. BRITISH DIPLOMAT" (Number of Visits.....)
 Built at CLYDEBANK. By whom built MESSRS J. BROWN & CO Yard No. 507. When built 1926.
 Owners THE BRITISH TANKER CO LTD Port belonging to LONDON. Tons { Gross 5820
 Net 4555
 Electric Light Installation fitted by MESSRS J. BROWN & CO LTD Contract No. 507 When fitted 1926.

System of Distribution TWO WIRE INSULATEDPressure of supply for Lighting 110 volts, Heating 110 volts, Power 110 volts.Direct or Alternating Current, Lighting DIRECT Power DIRECT.

If alternating current system, state frequency of periods per second _____

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off YESGenerators, do they comply with the requirements regarding overload YES, are they compound wound YESare they over compounded 5 per cent. YES, if not compound wound state distance between each generator _____Where more than one generator is fitted are they arranged to run in parallel YES, is an adjustable regulating resistance fitted in series with each shunt field YESAre all terminals accessible and clearly marked YES, are they so spaced or shielded that they cannot be accidentally earthed, or short circuited YES Are the lubricating arrangements of the generators as per Rule YESPosition of Generators IN ENGINE ROOM.is the ventilation in way of the generators satisfactory YES, are they clear of all inflammable material YESif situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generators _____ and _____, are the generators protected from mechanical injury and damage from water, steam or oil YESare their axis of rotation fore and aft YESEarthing, are the bedplates and frames of the generating plant efficiently earthed YES are the prime movers and their respective generators in metallic contact YESMain Switch Boards, where placed AT FORWARD END OF ENGINE ROOM.

If the generators and main switchboard are not placed in the same compartment, is each generator provided with a fuse on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard _____

Switchboards, are they placed in accessible positions, free from inflammable gases and acid fumes YESare they protected from mechanical injury and damage from water, steam or oil YES, if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards _____ and _____are they constructed wholly of durable, incombustible non-absorbent materials YES, is all insulation of high dielectric strength and of permanently high insulation resistance _____, if semi-insulating material is used, are all conducting parts connected to one pole insulated from the slab with mica or micapite and the slab similarly insulated from its framework YES, and is the frame effectively earthed YESAre the following fittings as per Rule, viz. :— spacing or shielding of live parts YES, accessibility of all parts YES, absence of fuses on back of board YES, proportion of omnibus bars YES, individual fuses to voltmeter, pilot or earth lamp YES, connections of switches YESMain Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches FOR EACH 50. K.W. GENERATOR, AD.P. CIRCUIT BREAKER WITH O/L & R/C. TRIPS, AND A S.P. EQUALIZER SWITCH SO INTERLOCKED WITH THE CIRCUIT BREAKER THAT THIS EQUALIZER SWITCH MUST BECLOSED BEFORE THE CIRCUIT BREAKER AND CANNOT BE OPENED UNTIL THE MAIN CIRCUIT IS BROKEN. THE 8. K.W. GEN. & ALL OUTGOING CIRCUITS HAVE D.P. SWITCHES AND FUSES.Instruments on main switchboard 3 ammeters 3 voltmeters _____ synchronising device for paralleling purposes.Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system TWO LAMPS IN SERIES ACROSS'BUS-BARS WITH WIRE BETWEEN LAMPS EARTHED. VOLTMETER ALTERNATIVELY FROM POSITIVE OR NEGATIVE TO EARTH.Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules YESSection and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule YES

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Lloyd's Register
Foundation

W289-0070 1/2

Insulation of Cables, state type of cables, single or twin SINGLE are the cables insulated and protected as per Tables III or IV of the Rules YES

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 5.1

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.007 square inch and above provided with soldering sockets YES

Paper Insulated Cables, If cables are paper covered, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound _____

Cable Runs, are the cables fixed as far as possible in accessible positions not exposed to drip or accumulation of water or oil, or to high temperature from boilers, steam pipes, uptakes or other hot objects, or to avoidable risk of mechanical damage YES

Support and Protection of Cables, state how the cables are supported and protected LEAD COVERED OR LEAD COVERED WITH STEEL WIRE ARMOURING AND BRAIDING, CLIPPED TO STEEL PLATING.

If cables are run in wood casings, are the casings and caps secured by screws _____, are the cap screws of brass _____, are the cables run in separate grooves _____ . If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VI YES

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements _____

Joints in Cables, state if any, and how made, insulated, and protected _____

Watertight Glands and Deck Tubes, are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands YES

Bushes in Beams and Non-watertight Positions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed YES state the material of which the bushes are made LEAD

Earthing Connections, state what earthing connections are fitted and their respective sectional areas _____

_____ are their connections made as per Rule _____

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule YES

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven _____

Navigation Lamps, are these separately wired YES controlled by separate switch and separate fuses YES

are the fuses double pole YES are the switches and fuses grouped in a position accessible only to the officers on watch YES

has each navigation lamp an automatic indicator as per Rule YES are separate screens provided for the use of oil and electric side lights YES

are separate oil lanterns provided for the mast head lights and side lights YES

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight YES

are any fittings placed in spaces in which goods are liable to be stacked in close proximity to them; if so, how are they protected No.

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected GASTIGHT FITTINGS WITH GLASS GLOBES FITTED IN PUMP ROOM ENTRANCE.

IN STEEL CONDUIT OUTSIDE OF ENTRANCE. how are the cables led _____

where are the controlling switches situated D.P. SWITCH OUTSIDE OF, BUT NEAR ENTRANCE TO COMPARTMENT.

Searchlight Lamps, No. of _____ whether fixed or portable _____ are their fittings as per Rule _____

Are Lamps, other than searchlight lamps, No. of _____ are their live parts insulated from the frame or case _____ are their fittings as per Rule _____

Motors, are their working parts readily accessible YES are the coils self-contained and readily removable for replacement YES

are the brushes, brush holders, terminals and lubricating arrangements as per Rule YES are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material YES

are they protected from mechanical injury and damage from water, steam or oil YES are their axis of rotation fore and aft YES

if situated near unprotected woodwork or other combustible material, are the motors of the totally enclosed, pipe ventilated, forced draught, drip or flame proof type _____; if not of this type, state distance of the combustible material horizontally or vertically above the motors _____ and _____

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed as per Rule YES

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule YES

Ships carrying Oil having a Flash Point less than 150° F. Have the special requirements of the Rules been complied with regarding switches, joint boxes, section and distribution boards, protection of cables, method of distribution, lead of cables, lights and fittings YES

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office YES

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY.	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	2	50	110/115	434	465/450	COMPOUND EXPOSED FORCED LUB. ENGINE.		
AUXILIARY	1	8	110/115	63.4	620/600	SINGLE CYL. " " " "		
EMERGENCY								
ROTARY TRANSFORMER								

LIGHTING AND HEATING CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Ampères.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR	37	.30240	37	.103	434	108	RUBBER	LEAD COVERED & ARMOURED.
	AUXILIARY GENERATOR	13	.06000	13	.064	63.4	80	"	" " " "
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER								
	AUXILIARY SWITCHBOARDS								
E1	ENGINE ROOM	2	.00701	7	.036	15.35	260	"	" " " "
E2	BOILER ROOM	2	.00701	7	.036	14.40	60	"	" " " "
A	LIGHTING ON BRIDGES & NAVIGATION LIGHTS.	2	.03	13	.044	32.70	620	"	" " " "
B1	LIGHTING FORWARD	2	.02214	7	.064	9.80	860	"	" " " "
C	LIGHTING IN PUMP RM. ENTRANCE	2	.00239	3	.036	1.8	366	"	" " " "
D	LIGHTING AFT.	2	.01046	7	.044	13.1	180	"	LEAD COVERED.
	WIRELESS	2	.03	13	.044	7.8	630	"	LEAD COVERED & ARMOURED.
	SEARCHLIGHT								
	MASTHEAD LIGHTS.	4	.00134	3	.023	.91	400	"	" " " "
	SIDE LIGHTS	4	"	"	"	"	100	"	" " " "
	COMPASS LIGHTS	4	"	"	"	.27	120	"	" " " "
	POOP LIGHTS	4	"	"	"	"	140	"	" " " "
	CARGO LIGHTS	2	"	"	"	1.63	40	"	" " " "
	ARC LAMPS								
F & G.	HEATERS	4	.14780 .10030	37 13	.072 .083	150 111.5	620 860	"	" " " "

MOTOR CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Ampères.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP	1	.0600	13	.064	78.5	228	RUBBER	LEAD COVERED & ARMOURED.
	MAIN BILGE LINE PUMPS	1	.02214	7	.064	43.5	268	"	" " " "
	GENERAL SERVICE PUMP	1	.03960	13	.052	60.0	268	"	" " " "
	EMERGENCY BILGE PUMP								
	SANITARY PUMP								
	CIRC. SEA WATER PUMPS								
	CIRC. FRESH WATER PUMPS								
	AIR COMPRESSOR								
	FRESH WATER PUMP								
	ENGINE TURNING GEAR								
	ENGINE REVERSING GEAR								
	LUBRICATING OIL PUMPS								
	OIL FUEL TRANSFER PUMP	1	.02214	7	.064	43.5	128	"	" " " "
	WINDLASS								
	WINCHES, FORWARD								
	WINCHES, AFT								
	STEERING GEAR	1	.24650	37	.093	138	280	"	LEAD COVERED.
	WORKSHOP MOTOR	1	.01046	7	.044	26	50	"	" " " "
	VENTILATING FANS	1	.02214	7	.064	22.5	120	"	" " " & AFT.
	REFRIGERATOR	1	.06000	13	.064	78.5	600	"	" " " "
	LUB. OIL. SEPARATOR.	1	.00701	7	.036	16	230	"	" " " "
	FUEL " " "	1	"	"	"	20	70	"	" " " "

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All Conductors are of annealed copper conforming to British Standard Specification No. 7.
The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.
The foregoing is a correct description.

John Brown & Company, Limited.

Electrical Engineers.

Date 2nd Aug. 1926

McInderson
Clydebank Secretary

COMPASSES.

Distance between electric generators or motors and standard compass 30 FEET (WIRELESS M/A).

Distance between electric generators or motors and steering compass " "

The nearest cables to the compasses are as follows:—

A cable carrying 4.55 Ampères 10 feet from standard compass 10 feet from steering compass.

A cable carrying .263 Ampères 1 foot from standard compass 1 foot from steering compass.

A cable carrying _____ Ampères _____ feet from standard compass _____ feet from steering compass.

Have the compasses been adjusted with and without the electric installation at work at full power _____

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted YES _____

The maximum deviation due to electric currents was found to be NIL degrees on _____ course in the case of the standard compass, and NIL degrees on _____ course in the case of the steering compass.

John Brown & Company, Limited.

McInderson
Clydebank Secretary

Builder's Signature.

Date 2nd Aug 1926.

Is this installation a duplicate of a previous case *Yes*. If so, state name of vessel *M.V. Lemen*.

General Remarks (State quality of workmanship, opinions as to class, &c.) *This installation has been fitted on board under special survey. Tested under full working conditions and found satisfactory in every way. The workmanship was found to be good and sound.*

It is submitted that this vessel is eligible for the Register. Elec. Light. J.S.R. 12/8/26.

Total Capacity of Generators 108 Kilowatts

The amount of Fee ... £ 31 18 0 { When applied for, 26/6/26
Travelling Expenses (if any) £ : : { When received, 1/7/26

J.S. Rankin
Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 10 AUG 1926

Assigned *Elec. Light. W.M.*

A.C. 9/8/26.

Im. 921.—Transfer. (The Signatories are requested not to write on or below the space for Committee's Minute.)



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