

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office - 9 DEC 1927

Date of writing Report 19 27 When handed in at Local Office 7/12 1927 Port of NEWCASTLE-ON-TYNE

No. in Survey held at Sunderland Date, First Survey 14 Oct. Last Survey 21 Nov 1927
Reg. Book. Supt. 41799 on the S.S. "Masimpur" (Number of Visits 9)

Tons { Gross 5586
Net 3201
When built 1927

Built at Sunderland By whom built Sir J. Hain & Sons Ltd Yard No. 698

Owners The Burmah Oil Co. Ltd Port belonging to Rangoon.

Electric Light Installation fitted by The Sunderland Forge & Eng Co. Ltd Contract No. When fitted 1927.

System of Distribution DOUBLE WIRE

Pressure of supply for Lighting 110 volts, Heating - 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 YES

Generators, do they comply with the requirements regarding overload YES, are they compound wound YES

are 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 NO, is an adjustable regulating resistance fitted in series with each shunt field

Are 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 YES

Position of Generators MAIN ENGINE ROOM

is the ventilation in way of the generators satisfactory YES, are they clear of all inflammable material YES

if 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 YES

are their axis of rotation fore and aft YES

Earthing, are the bedplates and frames of the generating plant efficiently earthed YES, are the prime movers and their respective generators in metallic contact YES

Main Switch Boards, where placed MAIN 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 YES

are 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

are they constructed wholly of durable, incombustible non-absorbent materials YES, is all insulation of high dielectric strength and of permanently high insulation resistance YES

if semi-insulating material is used, are all conducting parts connected to one pole insulated from the slab with mica or micanite and the slab similarly insulated from its framework YES

and is the frame effectively earthed YES. Are 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 YES

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches DOUBLE POLE SWITCH AND FUSES FOR EACH MAIN GENERATOR. DOUBLE POLE, DOUBLE THROW, SWITCH & FUSES FOR EACH OUTGOING CIRCUIT.

Instruments on main switchboard TWO ammeters ONE 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 EARTH LAMP, 2 WAY SWITCH & FUSE ON EACH POLE.

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules YES

Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule YES

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

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 4.7

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 JES

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 JES

Support and Protection of Cables, state how the cables are supported and protected MAINS:- LEAD COVERED, ARMOURED & BRAIDED CABLES RUN IN GALV IRON PIPES. MACHINERY SPACES:- LEAD COVERED ARMOURED BRAIDED SECURED WITH GAL IRON CLIPS. ACCOM:- LEAD COVERED SECURED WITH BRASS CLIPS.
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 JES.

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 NONE MADE.

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

Bushes in Beams and Non-watertight Positions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed JES 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 JES

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

Navigation Lamps, are these separately wired JES, controlled by separate switch and separate fuses JES.
are the fuses double pole JES, are the switches and fuses grouped in a position accessible only to the officers on watch JES.
has each navigation lamp an automatic indicator as per Rule JES, are separate screens provided for the use of oil and electric side lights _____
are separate oil lanterns provided for the mast head lights and side lights _____

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

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected SPECIAL GAS TIGHT.
CAST IRON PUMP ROOM FITTINGS. _____, how are the cables LV
IN GAS TIGHT IRON TUBING.
where are the controlling switches situated OUTSIDE PUMP ROOM. ✓

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 JES, are the coils self-contained and readily removable for replacement JES.
are the brushes, brush holders, terminals and lubricating arrangements as per Rule JES, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material JES.
are they protected from mechanical injury and damage from water, steam or oil JES are their axis of rotation fore and aft JES.
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 JES

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

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

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	10	110	91	330	STEAM ENGINE.		
AUXILIARY	—							
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. Amperes.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR...	2	10090	19	.083	91 ✓	30	V.I.R.	LEAD COVERED ARMOURED & BRAIDED ✓
	AUXILIARY GENERATOR	—							
	EMERGENCY GENERATOR	—							
	ROTARY TRANSFORMER...	—							
	AUXILIARY SWITCHBOARDS	—							
	ENGINE ROOM	2	.00701	7	.036	13.4 ✓	30	V.I.R.	LEAD COVERED ARMOURED & BRAIDED ✓
	BOILER ROOM	2	.03460	19	.052	26.1 ✓	432	V.I.R.	LEAD COVERED ARMOURED & BRAIDED ✓
	SALOON & FORWARD NAVIGATION.	2	.02214	7	.064	16.1 ✓	448	V.I.R.	LEAD COVERED ARMOURED & BRAIDED ✓
	WIRELESS	2	.02214	7	.064	25 ✓	480	V.I.R.	LEAD COVERED ARMOURED & BRAIDED ✓
	SEARCHLIGHT	—							
	MASTHEAD LIGHT...	2	.00194	3	.029	.9 ✓	352	V.I.R.	LEAD COVERED ARMOURED & BRAIDED ✓
	SIDE LIGHTS...	2	.00194	3	.029	.9 ✓	88	V.I.R.	LEAD COVERED ✓
	COMPASS LIGHTS	2	.00194	3	.029	.2 ✓	48	V.I.R.	LEAD COVERED ✓
	POOP LIGHTS	2	.00701	7	.036	22.3 ✓	144	V.I.R.	LEAD COVERED ARMOURED & BRAIDED ✓
	CARGO LIGHTS	2	.03960	19	.052	34.6 ✓	128	V.I.R.	LEAD COVERED ARMOURED & BRAIDED ✓
	ARC LAMPS	—							
	HEATERS	—							

MOTOR CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Amperes.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP								
	MAIN BILGE LINE PUMPS								
	GENERAL SERVICE PUMP								
	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								
	WINDLASS								
	WINCHES, FORWARD								
	WINCHES, AFT								
	STEERING GEAR								
	WORKSHOP MOTOR	1	.01046	7	.044	27 ✓	176	V.I.R.	LEAD COVERED ARMOURED & BRAIDED ✓
	VENTILATING FANS								

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.

p.pro. THE SUNDERLAND FORGE & ENGINEERING CO. LTD.

A. Haffey Electrical Engineers.

Date 1.12.27.

COMPASSES.

Distance between electric generators or motors and standard compass 209 FEET

Distance between electric generators or motors and steering compass 201 FEET

The nearest cables to the compasses are as follows:—

A cable carrying 16.1 Ampères 18 feet from standard compass 14 feet from steering compass.

A cable carrying .2 Ampères 10 feet from standard compass LED INTO feet from steering compass.

A cable carrying .2 Ampères LED INTO feet from standard compass 10 feet from steering compass.

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

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 all course in the case of the standard compass, and nil degrees on all course in the case of the steering compass.

BIR JAMES LAING & SONS LIMITED

W. Richardson
SECRETARY.

Builder's Signature.

Date

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

General Remarks (State quality of workmanship, opinions as to class, &c.)

The above installation is in accordance with the Society's Rules. The vessel is eligible in my opinion for notation elec light wireless

It is submitted that this vessel is eligible for THE RECORD. Elec light

W.T. Badger
9/12/27

Total Capacity of Generators 20 Kilowatts

The amount of Fee *NWC. etc* £ 17: 10: { When applied for, 2 Dec 19 27

Travelling Expenses (if any) £ : : { When received, 8 Dec 19 27 *know*

W.T. Badger
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned *Elec light*

Im. 9.21.—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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