

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

14 JAN 1930

Received at London Office

Date of writing Report 10th Jan^y 1930 When handed in at Local Office 13th Jan^y 1930 Port of Leith

No. in Survey held at Burntisland Date, First Survey 18th Nov^r 1924 Last Survey 9th Jan^y 1930
Reg. Book. (Number of Visits 7)

43015 on the S/S 'ZOUAVE' Tons { Gross 4253
Net 2628

Built at Burntisland By whom built Burntisland S.B. Co. Yard No. 158 When built 1930

Owners The Zinal Steamship Co. Ltd. Port belonging to London
Electric Light Installation fitted by Burntisland S.B. Co. Ltd. Contract No. ✓ When fitted 1930

System of Distribution Two Wire
Pressure of supply for Lighting 110 volts, Heating — volts, Power — volts.

Direct or Alternating Current, Lighting Direct Power —
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 rating 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 —, is an adjustable regulating resistance fitted in series with each shunt field —

Are all terminals accessible, clearly marked, and furnished with sockets Yes, are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched Yes
Are the lubricating arrangements of the generators as per Rule Yes

Position of Generators Engine Room Stbd side
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 3 feet and —, are the generators protected from mechanical injury and damage from water, steam or oil Yes

are their axes of rotation fore and aft Yes
Earthing, are the bedplates and frames of the generating plant efficiently earthed Bolted direct to Earth are the prime movers and their respective generators in metallic contact Yes

Main Switch Boards, where placed Engine Room Stbd side
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 3 feet and —

are they constructed wholly of durable, non-ignitable 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 insulated from the slab with mica or micanite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework Yes

and is the frame effectively earthed Bolted direct to Earth. Are the fittings as per Rule regarding:— 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 one Double Pole Main Switch 30 amp capacity, and 30 amp Single Pole switches for outgoing circuits.

Instruments on main switchboard one 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 Two Earth lamps

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

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

Cables: Single, twin, concentric, or multi-core Single are the cables insulated and protected as per Tables IV or V of the Rules Yes

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 3 volts

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.04 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 Yes

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 Run in conduit through Cargo Spaces, and in Engine Room supported with gal clips, Cable L.C. + W.C.

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 VIII 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 none

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 Partitions, 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 Dynamo Bedplate and Switchboard Bolted direct to Earth.

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

Secondary Batteries, are they constructed and fitted as per Rule —

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 —

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected —

how are the cables led —

where are the controlling switches situated —

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

Arc 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 —, are the coils self-contained and readily removable for replacement —

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

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

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 and fitted as per Rule —

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 —

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

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	<u>One</u> <u>24820</u>	<u>7</u>	<u>110</u>	<u>63.5</u>	<u>400</u>	<u>Vertical Steam Engine</u>		
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. Ampères.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR...	<u>2</u>	<u>.0400</u>	<u>19</u>	<u>.052</u>	<u>48</u>	<u>18</u>	<u>Rubber</u>	<u>Lead Covered + W.C.</u>
	EQUALISER CONNECTIONS								
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM	<u>2</u>	<u>.0070</u>	<u>7</u>	<u>.036</u>	<u>9</u>	<u>7</u>	<u>Rubber</u>	<u>Lead Covered + W.C.</u>
	BOILER ROOM								
	ACCOMMODATION <u>Engineers</u>	<u>2</u>	<u>.0070</u>	<u>7</u>	<u>.036</u>	<u>8</u>	<u>90</u>	<u>Rubber</u>	<u>Steel Conduit</u>
	<u>Medical Saloon</u>	<u>2</u>	<u>.0070</u>	<u>7</u>	<u>.036</u>	<u>12</u>	<u>160</u>	<u>"</u>	<u>"</u>
	<u>Crews</u>	<u>2</u>	<u>.0070</u>	<u>7</u>	<u>.036</u>	<u>6</u>	<u>330</u>	<u>"</u>	<u>"</u>
	<u>Navigation</u>	<u>2</u>	<u>.0070</u>	<u>7</u>	<u>.036</u>	<u>4</u>	<u>200</u>	<u>"</u>	<u>"</u>
	WIRELESS	<u>2</u>	<u>.0070</u>	<u>7</u>	<u>.036</u>	<u>9</u>	<u>210</u>	<u>Rubber</u>	<u>Steel Conduit</u>
	SEARCHLIGHT								
	MASTHEAD LIGHT...	<u>2</u>	<u>.0020</u>	<u>3</u>	<u>.029</u>	<u>.36</u>	<u>150</u>	<u>Rubber</u>	<u>Wire Armoured</u>
	SIDE LIGHTS...	<u>2</u>	<u>.0020</u>	<u>3</u>	<u>.029</u>	<u>.36</u>	<u>90</u>	<u>Rubber</u>	<u>Lead Covered</u>
	COMPASS LIGHTS...	<u>2</u>	<u>.0020</u>	<u>3</u>	<u>.029</u>	<u>.18</u>	<u>30</u>	<u>Rubber</u>	<u>Lead Covered</u>
	POOP LIGHTS								
	CARGO LIGHTS								
	ARC LAMPS								
	HEATERS								

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								
	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								
	(a) MOTOR GENERATOR								
	(b) MAIN MOTOR								
	WORKSHOP MOTOR								
	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.

FOR THE BURNTISLAND SHIPBUILDING COMPANY LTD.

[Signature] Electrical Engineers.
 MANAGING DIRECTOR.

Date 10/1/30

COMPASSES.

Distance between electric generators or motors and standard compass 112 ft.
 Distance between electric generators or motors and steering compass 105 ft.
 The nearest cables to the compasses are as follows:—
 A cable carrying 36 Ampères 7" feet from standard compass 7" feet from steering compass.
 A cable carrying Ampères feet from standard compass feet 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 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 any course in the case of the standard compass, and Nil degrees on any course in the case of the steering compass.

FOR THE BURNTISLAND SHIPBUILDING COMPANY LTD.

[Signature] Builder's Signature.
 MANAGING DIRECTOR.

Date 10/1/30

Is this installation a duplicate of a previous case Yes If so, state name of vessel 4s "Zitella"

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

This installation has been efficiently fitted on board in accordance with the Rules.

The Materials & workmanship are sound & good, & the installation was found satisfactory under full load working conditions.

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

[Signature]
 14/1/30

Total Capacity of Generators 7 Kilowatts.

The amount of Fee ... £ 4 0 0
 Travelling Expenses (if any) £ : :
 When applied for, 13th Jan 19 30
 When received, 14th Feb 19 30

[Signature]
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

[Signature]
 Elec Light

Im. 238.—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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