

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report

19

When handed in at Local Office

2 MAR. 1928

Port of

NEWCASTLE-ON-TYNE.

3 MAR 1928

SUNDERLAND

No. in Survey held at

Sunderland

Date, First Survey

Jan 10

Last Survey

Feb 3 1928

Reg. Book. S.S.P.

40279

on the S.S. barica indica

(Number of Visits.....)

Tons

Gross 6371

Net 3927

Built at Sunderland

By whom built W. Dooxford & Sons Ltd. Yard No. 586

When built 1928

Owners Atlantoka Plonidha Ivo Racio Port belonging to Dubrovnik

Electric Light Installation fitted by The Sunderland Forge & Eng Co. Ltd. Contract No. 586. When fitted 1928.

System of Distribution

Double Wire Distribution Box

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

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

Mechanically coupled

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 both Poles

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

& fuses for Main Generator Single Pole Switch & Double Pole fuses for each outgoing circuit

Instruments on main switchboard

1

ammeters

1

volts

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

Switch & fuse on each pole

Switches, Circuit Breakers and Fusible Out-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



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W434-0174 (10)

Insulation of Cables, state type of cables, single or twin ~~Singles~~ Twins 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 4.14 Volts

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 In Accom. Lead Covered & Braided Cables

supported with brass clips. In holds L.C.A.B. cables run in galv'd W.I. Pipe. In Eng. Room L.C.A.B. cables supported with galv'd iron 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 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 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

Earth Testing Set

—, are their connections made as per Rule Yes

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 —

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 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 —

None

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

None

—, 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 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 —

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 ...	1	12 1/2	110	114	340	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. Ampères.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR...	2	100	19	.083	114	70	VIR	L.C.A.B.
	AUXILIARY GENERATOR	—							
	EMERGENCY GENERATOR	—							
	ROTARY TRANSFORMER...	—							
	AUXILIARY SWITCHBOARDS	—							
	ENGINE ROOM	2	.002	3	.029	75	50	VIR	L.C.A.B.
	BOILER ROOM	2	.002	3	.029	75	50	VIR	L.C.A.B.
	Engine Room Crew	2	.007	7	.036	16.82	150	VIR	L.C.A.B.
	Navigation	2	.007	7	.036	5.46	290	VIR	L.C.A.B. in Pipe
	Gal. Room Forecastle	2	.01	7	.044	14.28	320	VIR	"
	Refrig. Machinery	2	.04	19	.052	48	280	VIR	"
	WIRELESS	2	.007	7	.036	17	280	VIR	L.C.A.B. in Pipe
	SEARCHLIGHT	—							
	MASTHEAD LIGHT...	2	.002	3	.029	55	576	VIR	L.C.A.B. in Pipe
	SIDE LIGHTS	2	.002	3	.029	55	72	VIR	L.C.A.B.
	COMPASS LIGHTS	2	.002	3	.029	2	28	VIR	L.C.A.B.
	POOP LIGHTS	2	.007	7	.036	7.36	320	VIR	L.C.A.B. in Pipe
	CARGO LIGHTS	2	.003	3	.036	3.27	256	VIR	L.C.A.B. in Pipe
	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								
	WORKSHOP MOTOR								
	VENTILATING FANS								
	Refrig. Mc. Motor	1	.04	19	.052	48	280	VIR	L.C.A.B. in Pipe

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. LD. Electrical Engineers.

Date 22nd Feb. 1928.

Thos Thompson

COMPASSES.

Distance between electric generators or motors and standard compass 128 feet

Distance between electric generators or motors and steering compass 120 feet

The nearest cables to the compasses are as follows:—

A cable carrying 5.45 Ampères 8 feet from standard compass 9 feet from steering compass.

A cable carrying 2 Ampères 8 feet from standard compass Led Into ~~feet from~~ steering compass.

A cable carrying 2 Ampères Led Into ~~feet from~~ standard compass 8 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.

WILLIAM DORFORD & SONS

W. Gallacher

Builder's Signature.

Date 27/2/28.

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 electric light wireless

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

W.D.
7/3/28

Total Capacity of Generators 12.5 Kilowatts

The amount of Fee ... £ 13 : — : When applied for, 7 Feb 19 28

Travelling Expenses (if any) £ : : When received, 8 Feb 19 28 *W.D.*

W.T. Badger

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Elec Light



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