

# REPORT ON ELECTRIC FITTINGS

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

No. 13391

FRI. SEP. 14 1923

Date of writing Report

Port of Aberdeen

No. in Survey 1000

Aberdeen

Reg. No.

Steel S.S. "Annaghier"

No. 586

Built at Aberdeen

By John Lewis &amp; Sons Ltd

No. 43

When built 1923

Owners Messrs John Kelly Ltd

Port belonging to

Belfast

Electric Light Installation fitted by The Sunderland Forge &amp; Engineering Co. Ltd

System of Distribution Double Wire Distribution Boxes

Pressure of supply for lighting 100

Direct or Alternating Current, Lighting 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

Generators, do they comply with the requirements regarding ventilation

are they over compounded 4 per cent

Where more than one generator is fitted are they arranged to run in parallel

Are all terminals accessible and clearly marked

Position of Generators Starboard side in Engine Room

is the ventilation in way of the generators sufficient

if situated near combustible material, state distance of same horizontally

are their axis of rotation fore and aft

Earthing, are the bedplates and frames of the generators placed efficiently with their respective generators in metallic contact

Main Switch Boards, where placed Starboard side in Engine Room near to Dynamo

a fuse on each insulated pole as near as possible to the terminals of the pole

Switchboards, are they placed in accessible positions, free from obstruction

are they protected from mechanical injury and damage from water, steam, etc.

woodwork or other combustible material, state distance of same horizontally

are they constructed wholly of durable, incombustible non-absorbent materials

permanently high insulation resistance

insulated from the slab with mica or micanite and the slab similarly insulated from the frame

frame effectively earthed

accessibility of all parts

individual fuses to voltmeter, pilot or earth lamp

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of switches

Double Pole Switch &amp; Fuses for Generator Single Pole Switches &amp; Double Pole Fuses for feeder circuits

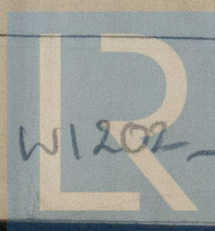
Instruments on main switchboard One ammeters One voltmeter

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system

Earth Lamps

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

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



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**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 4.5

**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 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 Mains in Galvanised iron pipes made watertight & Branch wiring in Brass clips

If cables are run in wood casings, are the casings and caps secured by screws yes, are the cap screws of brass yes, are the cables run in separate grooves yes. 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 yes

**Joints in Cables**, state if any, and how made, insulated, and protected No joints

**Watertight Glands and Deck Tubes**, are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands Through bulkheads in watertight packing glands, through Decks in W.T. Deck tubes

**Bushes in Beams and Non-watertight Positions**, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed No cables through Beams

**Earthing Connections**, state what earthing connections are fitted and their respective sectional areas Generator 7.064 - .0225 sq in

Earth Lamps 3/029 - .002 sq in

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 yes

**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 yes

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

how are the cables led yes

where are the controlling switches situated yes

**Searchlight Lamps**, No. of 1, whether fixed or portable yes, are their fittings as per Rule yes

**Are Lamps**, other than searchlight lamps, No. of 1, are their live parts insulated from the frame or case yes, are their fittings as per Rule yes

**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 yes

if not of this type, state distance of the combustible material horizontally or vertically above the motors yes

**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	1	3 1/2	100	35		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	.06	19	.100"	35		V.I.R	Braided
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM								
	BOILER ROOM	2	.010	7	.044	4.35	10 Yds.	V.I.R	L.B. & Braided
	Cargo Holders	2	.010	7	.044	13.2	34 Yds.	V.I.R	Run in Screws
	Accommodation	2	.010	7	.044	15.2	32 Yds.	V.I.R	Salv. W. & Pipes
	Navigation	2	.010	7	.044	8.25	40 Yds.	V.I.R	made Watertight
	WIRELESS								
	SEARCHLIGHT								
	MASTHEAD LIGHT...	2	.002	3	.029	1.1		V.I.R	L.B. & Braided
	SIDE LIGHTS	2	.002	3	.029	1.1		V.I.R	L.B. & Braided
	COMPASS LIGHTS	2	.002	3	.029	.3		V.I.R	L.B. & Braided
	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. 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								
	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 ROADS & ENGINEERING CO. LTD.

J. Thompson

Electrical Engineers.

Date 20 AUG '23

#### COMPASSES.

Distance between electric generators or motors and standard compass

50 feet

Distance between electric generators or motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying 6.6 Amperes 8 feet from standard compass feet from steering compass.

A cable carrying .6 Amperes 3 feet from standard compass feet from steering compass.

A cable carrying Amperes 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 course in the case of the standard compass, and NIL degrees on course in the case of the steering compass.

FOR JOHN LEWIS & SONS, LTD.,

J. J. Donald

SECT.

Builder's Signature.

Date 12.9.23

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 various parts of the installation were examined during the fitting on board. the materials and workmanship are good, and on completion the light was tried at full power, and found satisfactory.

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

J.P.  
11/9/23

Total Capacity of Generators 3.5 Kilowatts

The amount of Fee ... £ 5 : 0 :

When applied for,  
13.9.23

Travelling Expenses (if any) £ :

When received,  
See debit book.

Ridley Howell

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Im 432—Transfer.  
(The Surveyor are requested not to write on or below the space for Committee's Minute.)



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