

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report APRIL 28th 1923 When handed in at Local Office May 8th 1923 Port of MIDDLESBROUGH THU. MAY. 10 1923

No. in Survey held at MIDDLESBROUGH Date, First Survey While Building Last Survey 19
Reg. Book. (Number of Visits.....)

on the Steam Drifter "Noqi"

Tons { Gross 298.21
Net 114.27

Built at South Bank-on-Tees By whom built Smith's Dock Co. Yard No. 775 When built 1923

Owners Heale and West Port belonging to ARDF

Electric Light Installation fitted by R. Pickersgill & Sons Ltd Contract No. Stockton on Tees When fitted Feb/23

System of Distribution Double wire throughout

Pressure of supply for Lighting 100 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 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 one fitted, 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 Engine room (Starboard 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 —

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 on Starboard Bulkhead which is protected by asbestos

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 — 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 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 none, proportion of omnibus bars —, individual fuses to voltmeter, pilot or earth lamp Yes, connections of switches ✓

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

Double pole main + single pole circuit switches with double pole fuses

controlling mains to each installation Board

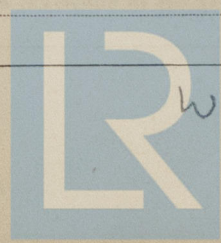
Instruments on main switchboard 1 ammeters 1 voltmeters — synchronising device for paralleling purposes.

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

on end 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



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Lloyd's Register Foundation

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

Fail of Pressure, state maximum between bus bars and any point of the installation under maximum load nil

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 Rubber maulais

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 by bundle clips of W.G.Iron for Armoured Cable for trams + Eugene locom, Bundles for head wires in accommodation

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 except mechanical

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 Main switchboard and Generator with 7/14 V.L.R. cable.

✓, 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 none

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 No

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 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 protected where are the controlling switches situated industrial house

Searchlight Lamps, No. of none, whether fixed or portable ✓, are their fittings as per Rule ✓

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

Motors, are their working parts readily accessible Wireless only, 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 axis 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 as per Rule ✓

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 ✓

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	3.5	100	36	600	Steam			
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	.036	7	14	36	12 ft	Rubber	Iron pipes
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS								
No. 1	ENGINE ROOM	2	.0030	3	.036	2.0	40 ft	"	Armoured
No. 2	BOILER ROOM	2	.0015	1	.044	1.0	80 ft	"	Armoured
No. 2	Navigation	2	.0030	3	.036	2.0	60 ft	"	Do
No. 3	Deck & Cargo	2	.0020	2	.036	8.0	60 ft	"	Do
No. 4	Aft. Accom.	2	.0030	3	.036	2.0	40 ft	"	Do
	WIRELESS ... masts	2	.007	2	.036	3.5	115 ft	Rubber	Armoured
	SEARCHLIGHT	1		1					
	MASTHEAD LIGHT...	2	.0015	1	.044	1.4	200 ft	Rubber	Armoured
	SIDE LIGHTS ... Circuits	2	.0015	1	.044	1.4	80 ft	Do	Do
	COMPASS LIGHTS	2	.0015	1	.044	1.2	20 ft	Do	Brass Pipes
	POOP LIGHTS	1		1					
	CARGO LIGHTS	2	.003	3	.036	2.0	40 ft	Rubber	Armoured
	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.

RICHARD PICKERSGILL & SONS, LTD.

Electrical Engineers.

Date

Feb/23

COMPASSES.

Distance between electric generators or motors and standard compass 52 ft.

Distance between electric generators or motors and steering compass 52 ft.

The nearest cables to the compasses are as follows:—

A cable carrying .5 Ampères 2 feet from standard compass 4 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

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

FOR SMITH'S DOCK COMPANY, L^d

J. W. Cairns

Builder's Signature.

Date

Wharfedale Manager

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. To complete the survey the following)

requires to be done:— Main switch Board, fuse boxes and cable connexions of same to be fitted in accordance with the Rules: Automatic indicators to be fitted to the navigation light circuits and the whole installation examined under working conditions. It is stated this will be done at Cardiff. The Cardiff Surveyors have been advised.

This installation is of good materials and workmanship and will in our opinion render the vessel eligible to have the notation of "Electric Light" when the survey has been completed.

It is submitted that this vessel WILL BE eligible for the record Elec. Light when the installation has been completed as stated above. J.W.C.

10-5-23

Total Capacity of Generators 3.5 Kilowatts

The amount of Fee ... £ 37:10-0
Travelling Expenses (if any) £ : :
When applied for, 23.2.19.23
When received, 3.3.19.23

Wm Morrison & D. S. Whitford
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned