

Rpt. 13.

No. 16414

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

9 JUL 1926

Date of writing Report 8th July 1926 When handed in at Local Office 8th July 1926 Port of WEST HARTLEPOOLNo. in Survey held at West Hartlepool Date, First Survey 18th May Last Survey 23rd June 1926
Reg. Book. (Number of Visits.....6.....)on the SS. "FIRBY"Tons { Gross
NetBuilt at Hartlepool By whom built Messrs W. Gray & Co Yard No. 979 When built 1926

Owners _____ Port belonging to _____

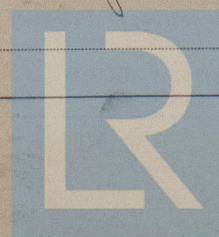
Electric Light Installation fitted by Messrs Charles Chapman & Co Contract No. 979 When fitted 1926**System of Distribution**Pressure of supply for Lighting 110 volts, Heating _____ volts, Power _____ volts.Direct or Alternating Current, Lighting Direct Power _____

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 YesGenerators, do they comply with the requirements regarding overload Yes, are they compound wound Yesare 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 YesAre 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**is the ventilation in way of the generators satisfactory Yes, are they clear of all inflammable material Yesif 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 Yesare their axis of rotation fore and aft YesEarthing, are the bedplates and frames of the generating plant efficiently earthed Yes are the prime movers and their respective generators in metallic contact YesMain Switch Boards, where placed Engine room starboard side near dynamoIf 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 YesSwitchboards, are they placed in accessible positions, free from inflammable gases and acid fumes Yesare 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 8'-0"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 poleinsulated 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 partsYes, 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 YesMain Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches Double poleswitch & fuses in dynamo mains. Single pole switch & double pole fuses in each outgoing circuitInstruments 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 Earth lampsconnected to earth through switches & fusesSwitches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules YesSection and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule Yes

WS871-0216

1/2



© 2021

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

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 2.5 Cells

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 Armoured & braided cables through lead & iron decks slipped to underside of deck

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 None made

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 Yes, 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 fitted

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 no, are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected no, how are the cables led no

where are the controlling switches situated no

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

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

Motors, are their working parts readily accessible no, are the coils self-contained and readily removable for replacement no, are the brushes, brush holders, terminals and lubricating arrangements as per Rule no, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material no, are they protected from mechanical injury and damage from water, steam or oil no, are their axis of rotation fore and aft no, 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 no, if not of this type, state distance of the combustible material horizontally or vertically above the motors no and no

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed as per Rule no

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule no

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 no

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office no

PARTICULARS OF GENERATING PLANT.									
DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY.	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.		
		Kilowatts.	Volts.	Amps.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.	
MAIN ...	1.	7 1/2	110	68	450	single cylinder 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. Amps.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
1.	MAIN GENERATOR...	2	.06500	19	.064	68.	40	Pure rubber	Lead Covered
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM ...	2	.00701	7	.036	12.2	60	"	Lead & Armoured
	BOILER ROOM ...								
2.	Saloon & Forward	2	.01462	7	.052	16.6	220	"	Armoured & Braided
3.	Engine room aft	2	.01046	7	.044	10.6	72	"	"
4.	WIRELESS ...	2	.00701	7	.036	15	224	Pure rubber	Armoured & Braided
	SEARCHLIGHT ...	2	.00152	1	.044	1.02	220	"	In iron pipes
5.	MASTHEAD LIGHT...	2	.00152	1	.044	1.02	40	"	Lead covered
6.	SIDE LIGHTS...	2	.00152	1	.044	.5	12	"	"
7.	COMPASS LIGHTS ...	2	.00152	1	.044	1.02	260	"	Armoured & Braided
8.	DECK LIGHTS ...	2	.00152	1	.044	1.02	100	"	Braided & Comp'd
9.	CARGO LIGHTS ...	2	.00194	168	.38	3		"	"
	ARC LAMPS ...								
	HEATERS ...								
MOTOR CONDUCTORS.									
Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Amps.	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 ...								

WSS-0216 2/2

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 Clarke, Chapman & Co., Ltd.
W. W. Woodcock
Director

Electrical Engineers.

Date

July 5th 1926

COMPASSES.

Distance between electric generators or motors and standard compass 96 ft

Distance between electric generators or motors and steering compass 90 "

The nearest cables to the compasses are as follows:—

A cable carrying .5 Amperes 12 feet from standard compass 6 feet from steering compass.

A cable carrying .5 Amperes 6 feet from standard compass 12 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 all course in the case of the standard compass, and nil degrees on all course in the case of the steering compass.

FOR WILLIAM GRAY & Co., LIMITED.

A. Mc. Glashan

Director.

Builder's Signature.

Date

7th July, 1926

Is this installation a duplicate of a previous case. Yes

If so, state name of vessel

SS. "AINDERBY"

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

This installation has been fitted under survey.
The materials and workmanship are good and efficient. On completion it was tried under full working conditions and found satisfactory.

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

Total Capacity of Generators 7 1/2 Kilowatts

The amount of Fee ...

£ 7 10

When applied for.

1.7.26

Travelling Expenses (if any) £

When received.

3.7.26

R. D. Shilston
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Elec. Lt

1m. 322.—Transfer.
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



© 2021

Lloyd's Register
Foundation