

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 19 SEP 1929

Date of writing Report 18. 9. 1929 When handed in at Local Office 18. 9. 1929 Port of Middlesbrough

No. in Survey held at Haverton Hill-on-Tees Date, First Survey 20. 8. 29 Last Survey 4. 9. 1929
Reg. Book. (Number of Visits 4)

41652 Sup. the S. S. "Ousebridge"

Tons { Gross 5601
Net 3533.

Built at Haverton Hill-on-Tees By whom built Furness Shipbuilding Co Ltd Yard No. 146 When built 1929

Owners Hout of England S.S. Co. Ltd (Ingers) Port belonging to West Hartlepool

Electric Light Installation fitted by Furness Shipbuilding Co Ltd Contract No. 146 When fitted 1929

System of Distribution

Double wire

Pressure of supply for Lighting 110 volts, Heating - volts, Power - 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 rating yes, are they compound wound yes

are they over compounded 5 per cent. Level, 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 yes

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 Aft end of Engine Room Top Flat

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 axes 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 Aft end of Engine Room Top Flat

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, 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 micaite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework yes and is the frame effectively earthed yes

Are the fittings as per Rule regarding: - spacing or shielding of live parts, 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

Double pole switch fuses for Generator & each Outgoing circuit

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

2-10 watt lamps in series & middle point earthed

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



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Cables: Single, twin, ~~conductor~~ *are the cables insulated and protected as per Tables IV or V of the Rules* IV
Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 3.7
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
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 *Lead covered and armoured cables are supported by galvan iron clips. Lead covered cables supported by brass 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 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 *Porcelain junction boxes in w/s boxes*
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 *(yes) lead*
Earthing Connections, state what earthing connections are fitted and their respective sectional areas *Generator .0300*
Switchboard .0300
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*
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 *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
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 *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.	Amperes.		Fuel Used.	Flash Point of Fuel.
MAIN	1	8 1/2	110	77	360	Sunderland Forge	
AUXILIARY					Engine (Open Type)		
EMERGENCY					Steam		
ROTARY TRANSFORMER							

ENGINE
DYNAMO

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.				
E. 116	MAIN GENERATOR...	2	.0600	19	.064	77	38'	V. I. R.	Lead covered armoured and braided
E. 115	EQUALISER CONNECTIONS								
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM	2	.0100	7	.044	15.4	14'	V. I. R.	Lead covered armoured and braided
	BOILER ROOM								
	ACCOMMODATION AFT...	2	.0100	7	.044	9.8	320'		
	NAVIGATION	2	.0100	7	.044	4.5	360		
	PIRSHIP & STEAMERS	2	.0100	7	.044	19.0	280'		
	WIRELESS	2	.0100	7	.044	12.0	350'	V. I. R.	Lead covered armoured and braided
	SEARCHLIGHT	2	.0020	3	.029	.36	400'		
	MASTHEAD LIGHT...	2	.0020	3	.029	.36	560'		
	SIDE LIGHTS	2	.0020	3	.029	.36	60'		
	COMPASS LIGHTS	2	.0020	3	.029	.1	30'		
	STEAM LIGHTS	2	.0020	3	.029	.36	80'		
	CARGO LIGHTS	2	.0020	3	.029	12.0	80'	V. I. R.	Lead covered armoured and braided
	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								
	(a) MOTOR GENERATOR...								
	(b) MAIN MOTOR								
	WORKSHOP MOTOR								
	VENTILATING FANS								



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UK 66-0052(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 FURNESS SHIPBUILDING CO. LIMITED

Electrical Engineers.

Date 15th Sept. 1929

P. S. G. Power

COMPASSES.

Distance between electric generators or motors and standard compass 100'
Distance between electric generators or motors and steering compass 90'
The nearest cables to the compasses are as follows:—
A cable carrying 1 Ampères 3 feet from standard compass 3 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 all course in the case of the standard compass, and nil degrees on all course in the case of the steering compass.

for FURNESS SHIPBUILDING CO. LIMITED,

J. M. Governor

Builder's Signature.

Date

Director

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 materials and workmanship are good.
This electric light installation has been fitted under special survey
& in accordance with the Rules. In my opinion it is suitable for
a vessel classed with this Society.

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

24/9/29

Total Capacity of Generators 8½ Kilowatts.

The amount of Fee ... £ 8. 10. 0
When applied for, 9-9-1929
Travelling Expenses (if any) £ : :
When received, 1.11.29

P. I. Man

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Elec. Lt.

Im 228.—Transfer.
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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Foundation