

Rpt. 13.

No. 14226

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

30 SEP 1930

Date of writing Report 26. 9. 1930 When handed in at Local Office 26. 9. 1930 Port of MIDDLESBROUGH.

No. in Survey held at South Bank. Date, First Survey 1 May Last Survey 5 June 1930

Reg. Book. 60802 Sup. on the s/s 'Daily Mail'

(Number of Visits.....5.....)

Tons { Gross 386
Net 165

Built at South Bank By whom built Messrs South Dock Co Yard No. 915 When built 1930-6.

Owners Boston Deep Sea Fishing & Ice Co. Ltd. Port belonging to Fleetwood.

Electric Light Installation fitted by RICHARD PICKERSGILL & SONS, LTD. Contract No. When fitted June 1930

System of Distribution Double Wire

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 — yes

Generators, do they comply with the requirements regarding rating — 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 —, is an adjustable regulating resistance fitted in series with each shunt field —

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 Starboard Side 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 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 Starboard side 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 — 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 micanite 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 — 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 D. S. Main

switch and fuses. Outgoing Circuits Single pole switches with D. S. fuses.

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 lamps in

series across positive and negative to earth

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, concentric, or multicore. Single 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 tail

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 & Armoured cable supported with W.S. Crabb clips. Lead covered, with 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 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 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 Lead

Earthing Connections, state what earthing connections are fitted and their respective sectional areas 19/044 fitted with 2 terminals & bolted to dynamo bed plate & seating.

, 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 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 —

, how are the cables led —

where are the controlling switches situated yes

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 —

Lighting 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	5	110	45	430	Underland engine	✓	✓
AUXILIARY ...						Engine. Steam		
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	0.02840	19	0.044	45	21	V. I. R.	W.S. Crabb pipe
	EQUALISER CONNECTIONS ...								
	AUXILIARY GENERATOR ...								
	EMERGENCY GENERATOR ...								
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS...								
	ENGINE ROOM ...								
	BOILER ROOM ...								
	ACCOMMODATION ...								
	Eng. Rm. ...	2	0.0299	3	0.036	4.5	10	V. I. R.	Lead Armoured
	Aft ...	2	0.0299	3	0.036	5.8	30	"	"
	Bridge ...	2	0.0299	3	0.036	5.8	30	"	"
	Forward ...	2	0.0299	3	0.036	5.8	30	"	"
	WIRELESS ...	2	0.07005	7	0.036	10	135	"	"
	SEARCHLIGHT ...								
	MASTHEAD LIGHT...	2	0.01521	1	0.044	4000	160	"	"
	SIDE LIGHTS...	2	"	1	0.044	"	50	"	Lead Covered
	COMPASS LIGHTS...	2	"	1	0.044	"	30	"	"
	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 ...								
	(a) MOTOR GENERATOR...								
	(b) MAIN MOTOR ...								
	WORKSHOP MOTOR ...								
	VENTILATING FANS ...								



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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

A.T. Sprucey

COMPASSES.

Distance between electric generators or motors and standard compass

75 feet

Distance between electric generators or motors and steering compass

65 feet

The nearest cables to the compasses are as follows:—

A cable carrying Ampères feet from standard compass 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

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 *nil* degrees on *each* course in the case of the standard compass, and *nil* degrees on *each* course in the case of the steering compass.

For SMITH'S DOCK COMPANY, L^{td}

J.W. Cairns

Builder's Signature.

Date *25/9/30*

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 and 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 suitable for
THE REGISTRATION*

Elec Light

25/9/30

Total Capacity of Generators *5* Kilowatts.

The amount of Fee ...

£ *5-0-0*

When applied for,

19 June 1930

Travelling Expenses (if any) £

When received,

July 1930

P.J. McA.
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Elec. Lt.



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