

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 21 FEB 1928

Date of writing Report 19 When handed in at Local Office 20. 2. 1928 Port of WEST HARTLEPOOL

No. in Survey held at West Hartlepool Date, First Survey 29 Dec Last Survey 26 Jan 1928
Reg. Book. (Number of Visits 9)

41837 on the S.S. MANSEPOOL Tons { Gross 4890
Net 3010

Built at Hartlepool By whom built Messrs J. Gray & Co Yard No. 996 When built 1928

Owners Port Shipping Co. Ltd. (Incorporated in England) Port belonging to WEST HARTLEPOOL

Electric Light Installation fitted by Messrs Clarke Chapman & Co Contract No. 996 When fitted 1928.

System of Distribution Double wire system

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 Yes

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 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 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 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 Engine room starboard side near dynamo.

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 Yes

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 Double pole switches & fuses on dynamo main, single pole switched double pole fuses on each outgoing circuit

Instruments 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 Beater lamps coupled to earth through switches & fuses.

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



Removed from vessel & replaced by 15 3/4 hp steam driven dynamo.
 as given below. (See his report 114350 7.6.40) For degassing apparatus

Cables: Single, twin, concentric, or multicore single are the cables insulated and protected as per Tables IV of the Rules Yes

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 2.8 volts

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 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 subject to drip or accumulation of water or oil, or to high temperature from boilers, steam pipes, valves 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 lined in engine room. Lead lined in cabin etc. Armoured braided in cargo spaces. Lead lined 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 VIII 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 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 See Rules

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 See Rules

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 See Rules

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

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 See Rules

are they protected from mechanical injury and damage from water, steam or oil no, are their axes 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

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

Lighting 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	Ampères	Revs. per Min.		Fuel Used	Flash Point of Fuel
MAIN	1	42	110	68	450	Single cylinder		
AUXILIARY						Steam engine		
EMERGENCY	1	15 3/4	105	150	500	Steam		
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 Ampères	Approximate Length (Lead and Return) Feet	Insulated with	HOW PROTECTED
				No.	Diameter				
1	MAIN GENERATOR	2	.0600	19	.064	68	30	Pure rubber	Lead lined
	EQUALISER CONNECTIONS								
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER								
	AUXILIARY SWITCHBOARDS								
2	ENGINE ROOM	2	.00701	7	.036	11.4	60	" "	Lead lined
	BOILER ROOM								
	ACCOMMODATION								
3	Salon forward	2	.01462	7	.052	17.4	220	" "	Armoured & Braided
4	Engine room aft	2	.01046	7	.044	11.8	80	" "	Armoured & Braided
5	WIRELESS	2	.00701	7	.036	15	224	" "	Armoured & Braided
	SEARCHLIGHT								
6	MASTHEAD LIGHT	2	.00152	1	.044	.9	250	" "	Emulsion & Glass
	SIDE LIGHTS	2	.00152	1	.044	.9	30	" "	Lead lined
	COMPASS LIGHTS	2	.00152	1	.044	.5	12	" "	" "
9	POOP LIGHTS	2	.00152	1	.044	.9	260	" "	Armoured & Braided
10	CARGO LIGHTS	2	.00455	168	.38	2.5	100	" "	Braided & Compounded
	ARC LAMPS								
	HEATERS								

MOTOR CONDUCTORS.

Ref. No.	DESCRIPTION	No. of Motors	Effective Area of each Conductor Sq. Ins.	COMPOSITION OF STRAND		Total Maximum Current Ampères	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								

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.

H. Walker Electrical Engineers. Date
Chairman

COMPASSES.

Distance between electric generators or motors and standard compass *96 feet*

Distance between electric generators or motors and steering compass *90 "*

The nearest cables to the compasses are as follows:—

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

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

For William Gray & Co., Limited.

Wm. S. Simpson

Builder's Signature.

Date

General Manager.

Is this installation a duplicate of a previous case *yes* If so, state name of vessel *SS. ROCKPOOL*

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. See light 21/3/28

Total Capacity of Generators *712* Kilowatts.

The amount of Fee ... £ *7 : 10* : *4.2.1928*

Travelling Expenses (if any) £ *✓* : *12/3/28*

B.D. Shilston & A. Daintith
Surveyors to Lloyd's Register of Shipping.

Committee's Minute

Assigned *See light*

1m.l.27.—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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