

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL) Received at London Office

22 AUG 1930

Date of writing Report 15th Aug. 1930 When handed in at Local Office 21st Aug. 1930 Port of Aberdeen

No. in Survey held at Aberdeen Date, First Survey 18-7-30 Last Survey 14-8-1930
Reg. Book. on the steam trawler "MARY A. HASTIE". Tons { Gross 243.7
Net 105.4

Built at Aberdeen By whom built A. Hall & Co. Ltd. Yard No. 630 When built 1930

Owners R. Hastie & Sons Ltd. Port belonging to North Shields

Electric Light Installation fitted by Claid Hamilton (Abn.) Ltd Contract No. _____ When fitted 1930

System of Distribution Two wire volts, Power 110 Heating ✓

Pressure of supply for Lighting 110 volts, Heating ✓ Direct Current. Power ✓

Direct or Alternating Current, Lighting Direct Current. 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

Position of Generators Starboard side of engine room, are they clear of all inflammable material yes

is the ventilation in way of the generators satisfactory yes, are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched 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 are the prime movers and _____

Earthing, are the bedplates and frames of the generating plant efficiently earthed yes

their respective generators in metallic contact yes

Main Switch Boards, where placed In engine room 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 ✓

Switchboards, are they placed in accessible positions, free from inflammable gases and acid fumes 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 _____

and is the frame effectively earthed ✓ 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 _____, connections of switches _____

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches D.P. switch + fuses to generator, S.P. switch & D.P. fuses to 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 Earth lamps

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

Cables: *Single + twin* are the cables insulated and protected as per Tables IV or V of the Rules *yes*

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load *2 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 *none*

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, uplates 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 *Clipped to under side of deck + to bulkheads*

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 *none*

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 *through earth lamps*

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*

Secondary Batteries, are they constructed and fitted as per Rule *none*

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 stowed 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 led

where are the controlling switches situated

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

Are Lamps, other than searchlight lamps, No. of *none* are their live parts insulated from the frame or case , are their fittings as per Rule

Motors, are their working parts readily accessible *none*, 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

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	<i>one</i>	<i>3</i>	<i>110</i>	<i>27.5</i>	<i>480</i>	<i>Steam engine.</i>		
AUXILIARY								
EMERGENCY								
ROTARY TRANSFORMER								

GENERATOR, LIGHTING AND HEATING CONDUCTORS.

DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT AMPERES.		Approximate Length (Lead and Return) Feet.	Insulated with	HOW PROTECTED.
	No. per Pole.	Total Effective Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
MAIN GENERATOR	<i>2</i>	<i>0.02092</i>	<i>7</i>	<i>.044</i>	<i>23 1/2</i>	<i>62</i>	<i>12</i>	<i>V.I.R.</i>	<i>Braided + Taping</i>
EQUALISER CONNECTIONS									
AUXILIARY GENERATOR									
EMERGENCY GENERATOR									
ROTARY TRANSFORMER MOTOR GENERATOR									
ENGINE ROOM									
BOILER ROOM									
AUXILIARY SWITCHBOARDS									
<i>Forward</i>	<i>1</i>	<i>0.01046</i>	<i>7</i>	<i>.044</i>	<i>18</i>	<i>31</i>	<i>110</i>	<i>"</i>	<i>Braided + Taping</i>
<i>Engine room + Cabin</i>	<i>1</i>	<i>0.00194</i>	<i>3</i>	<i>.029</i>	<i>5 1/2</i>	<i>7.8</i>	<i>20</i>	<i>"</i>	<i>"</i>
<i>Navigation lights</i>	<i>1</i>	<i>"</i>	<i>3</i>	<i>.029</i>	<i>2</i>	<i>"</i>	<i>10</i>	<i>"</i>	<i>"</i>
ACCOMMODATION	<i>1</i>	<i>"</i>	<i>3</i>	<i>"</i>	<i>2</i>	<i>"</i>	<i>90</i>	<i>"</i>	<i>Braided</i>
<i>Deck 2 circuits each</i>	<i>1</i>	<i>"</i>	<i>3</i>	<i>"</i>	<i>1 1/2</i>	<i>"</i>	<i>110</i>	<i>"</i>	<i>Braided + Taping</i>
<i>" 2 " "</i>	<i>1</i>	<i>"</i>	<i>3</i>	<i>"</i>	<i>1 1/2</i>	<i>"</i>	<i>12</i>	<i>"</i>	<i>"</i>
<i>Fishroom</i>	<i>1</i>	<i>"</i>	<i>3</i>	<i>"</i>	<i>1 1/2</i>	<i>"</i>	<i>125</i>	<i>"</i>	<i>"</i>
WIRELESS									
SEARCHLIGHT									
<i>FISHING + MASTHEAD LIGHTS 3 screws each</i>	<i>1</i>	<i>"</i>	<i>3</i>	<i>"</i>	<i>1/2</i>	<i>"</i>	<i>200</i>	<i>"</i>	<i>Braided + Taping</i>
<i>SIDE LIGHTS P.S. each</i>	<i>1</i>	<i>"</i>	<i>3</i>	<i>"</i>	<i>1/2</i>	<i>"</i>	<i>42</i>	<i>"</i>	<i>Braided</i>
<i>COMPASS LIGHTS</i>	<i>1</i>	<i>"</i>	<i>3</i>	<i>"</i>	<i>1/2</i>	<i>"</i>	<i>15</i>	<i>"</i>	<i>"</i>
<i>DECK LIGHTS</i>	<i>1</i>	<i>"</i>	<i>3</i>	<i>"</i>	<i>1/2</i>	<i>"</i>	<i>30</i>	<i>"</i>	<i>Braided + Taping</i>
CARGO LIGHTS									
ARC LAMPS									
HEATERS									

MOTOR CONDUCTORS.

DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT AMPERES.		Approximate Length (Lead and Return) Feet.	Insulated with	HOW PROTECTED.
		No. per Pole.	Total Effective Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
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										

