

# REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 24 NOV 1930

Date of writing Report

19

When handed in at Local Office

19 Nov 1930

Port of BELFAST

No. in Survey held at

BELFAST

Date, First Survey

23 Sept 1930

Last Survey

13 Nov

1930

Reg. Book.

7116 on the M.V. Foylebank

(Number of Visits 9)

Tons

Gross

Net

Built at

Belfast

By whom built

Messrs Harland &amp; Wolff Ltd

Yard No.

878

When built 1930

Owners

Andrew Weir &amp; Co Ltd. (MERS.)

Port belonging to

Glasgow

BELFAST

Electric Light Installation fitted by Messrs Harland &amp; Wolff Ltd

Contract No.

878

When fitted 1930

Is the Vessel fitted for carrying Petroleum in bulk

No.

System of Distribution Two wire direct current to masterboards &amp; distribution boxes

Pressure of supply for Lighting

220

volts, Heating

220

volts, Power

220

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.

Yes

, if not compound wound state distance between each generator

Where more than one generator is fitted are they arranged to run in parallel

Yes

, 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

Port &amp; Starboard motor 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

, 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

On switchboard platform aft motor 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

Yes

, is all insulation of high dielectric strength and of

are they constructed wholly of durable, non-ignitable non-absorbent materials

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

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

Generator is connected to bus-bars by double pole, overload &amp; reverse current circuit breaker with Equalizer Switch &amp; Time limits. Each outgoing circuit has double pole change over switch &amp; double pole fuses.

Instruments on main switchboard

4

ammeters

2

voltmeters

arranged 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 indicating

lamps with change over switch to each set of bus-bars

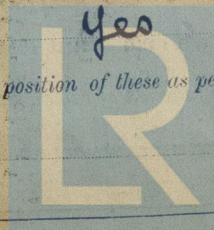
Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules

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 Yes  
Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 6 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 Yes  
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 Cables are hard rubber covered and clipped to perforated plating  
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 all joints are made in properly constructed junction 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 Lead  
Earthing Connections, state what earthing connections are fitted and their respective sectional areas all portable fittings sockets etc fitted to the steel work of the ship are provided with an earthing connection equivalent to working conductor, 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  
STAND-BY Emergency, state position and method of control of the emergency supply and how the generator is driven 50 KW. 220 Volt generator driven by steam engine in motor room stateroom, connected to main switchboard by double pole overload circuit breaker with time limits  
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 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 Yes, how are the cables led Yes  
Where are the controlling switches situated Yes  
Searchlight Lamps, No. of 1, whether fixed or portable Yes, are their fittings as per Rule Yes  
Arc Lamps, other than searchlight lamps, No. of 1, are their live parts insulated from the frame or case Yes, are their fittings as per Rule Yes  
Motors, are their working parts readily accessible Yes, are the coils self-contained and readily removable for replacement Yes, are the brushes, brush holders, terminals and lubricating arrangements as per Rule Yes, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material Yes, are they protected from mechanical injury and damage from water, steam or oil Yes, are their axes of rotation fore and aft Yes, 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 Yes, if not of this type, state distance of the combustible material horizontally or vertically above the motors Yes  
Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed and fitted as per Rule Yes  
Lightning Conductors, where lightning conductors are required, are these fitted as per Rule Yes  
Ships carrying Oil having a Flash Point less than 450° 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 Yes  
If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office Yes

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	3	65	220	295	300	Diesel Engines	Fuel Oil	
AUXILIARY	1	50	220	227	500	Single Cylinder Steam Engine	-	
EMERGENCY	-	-	-	-	-	-	-	
ROTARY TRANSFORMER	-	-	-	-	-	-	-	

GENERATOR, LIGHTING AND HEATING CONDUCTORS.

DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT.		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	1	.5	61	.103"	295	332	120	Rubber	Hard Rubber
EQUALISER CONNECTIONS	1	.15	37	.072"	147.5	152	60	"	"
AUXILIARY GENERATOR	1	.3	37	.103"	227	240	120	"	"
EMERGENCY GENERATOR	-	-	-	-	-	-	-	-	-
ROTARY TRANSFORMER	-	-	-	-	-	-	-	-	-
MOTOR	-	-	-	-	-	-	-	-	-
ENGINE ROOM	-	-	-	-	-	-	-	-	-
BOILER ROOM	-	-	-	-	-	-	-	-	-
AUXILIARY SWITCHBOARDS	-	-	-	-	-	-	-	-	-
ACCOMMODATION	-	-	-	-	-	-	-	-	-
WIRELESS	1	.01	7	.044"	20	31	80	Rubber	Hard Rubber
SEARCHLIGHT	-	-	-	-	-	-	-	-	-
MASTHEAD LIGHT	1	.002	3	.029"	2	7.8	900	Rubber	Hard Rubber
SIDE LIGHTS	1	.002	3	.029"	2	7.8	90	"	"
COMPASS LIGHTS	1	.002	3	.029"	0.8	7.8	20	"	"
POOP LIGHTS	-	-	-	-	-	-	-	-	-
CARGO LIGHTS	1	.0048	10	.0076"	.9	10.0	154	Rubber	C.T.S.
ARC LAMPS	-	-	-	-	-	-	-	-	-
HEATERS	1	.002	3	.029"	5	7.8	48	Rubber	Hard Rubber

MOTOR CONDUCTORS.

DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT.		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	1	1	.1	19	.083"	104	118	200	Rubber	Hard Rubber
MAIN BILGE LINE PUMPS	1	1	.0145	7	.052"	36	37	120	"	"
FUEL OIL SERVICE PUMP	3	1	.002	3	.029"	4	7.8	80	"	"
EMERGENCY BILGE PUMP	-	-	-	-	-	-	-	-	-	-
SANITARY PUMP	-	-	-	-	-	-	-	-	-	-
CIRC. SEA WATER PUMPS	2	1	.06	19	.064"	78	83	160	"	"
CIRC. SEA WATER PUMPS	1	1	.0045	7	.029"	14	18.2	80	"	"
AIR COMPRESSOR	-	-	-	-	-	-	-	-	-	-
FRESH WATER PUMP	-	-	-	-	-	-	-	-	-	-
ENGINE TURNING GEAR	2	1	.0145	7	.052"	32	37	60	"	"
ENGINE REVERSING GEAR	-	-	-	-	-	-	-	-	-	-
LUBRICATING OIL PUMPS	2	1	.1	19	.083"	108	118	42	"	"
OIL FUEL TRANSFER PUMP	1	1	.0045	7	.029"	16	18.2	90	"	"
WINDLASS	-	-	-	-	-	-	-	-	-	-
WINCHES, FORWARD	-	-	-	-	-	-	-	-	-	-
WINCHES, AFT	-	-	-	-	-	-	-	-	-	-
STEERING GEAR	-	-	-	-	-	-	-	-	-	-
(a) MOTOR GENERATOR	-	-	-	-	-	-	-	-	-	-
(b) MAIN MOTOR	2	1	.1	19	.083"	91	118	440	"	"
WORKSHOP MOTOR	2	1	.003	3	.036"	8	12	30	"	"
VENTILATING FANS	2	1	.0045	7	.029"	12	18.2	60	"	"
"	2	1	.0045	7	.029"	12	18.2	200	"	"
PURIFIED F.O. PUMP	1	1	.002	3	.029"	6	7.8	96	"	"
LUB. OIL PURIFIER	1	1	.0045	7	.029"	8	18.2	112	"	"
FUEL OIL PURIFIER	2	1	.0045	7	.029"	8	18.2	110	"	"
BRINE PUMPS	2	1	.0045	7	.029"	14	18.2	24	"	"
CO2 MOTOR	1	1	.1	19	.083"	106	118	22	"	"

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The foregoing is a correct description



Date 14/11/30

*Distance between electric generators or motors and steering compass*..... 28 " " " " " 120 " " "

A cable carrying 16 Amperes 24 feet from standard compass 16 feet from steering compass.

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.




Date. 14-11-30.

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

This installation has been fitted under special survey. The materials and workmanship are sound and good. It has been tried under working conditions with satisfactory results. In my opinion the vessel is eligible for notation "Electric light"

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



Travelling Expenses (if any) £	:	:	18 13 3
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FRI. 28 NOV 1938

*Assigned.*

Elec ad

Rice Ames

*Surveyor to Lloyd's Register of Shipping.*