

31 OCT 1924

Rpt. 13.

No. 28940

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 31 OCT 1924

Date of writing Report

10

When handed in at Local Office

30 OCT 1924

Port of

SUNDERLAND

No. in Survey held at SUNDERLAND

Reg. Book.

on the M/V "WESTMOOR"

Date, First Survey Oct 3 Last Survey Oct 20 1924

(Number of Visits.....)

Tons

Gross 4369

Net 2646

Built at

Sunderland

By whom built

Messrs W. & A. Duffell

Yard No. 584

When built

1924

Owners

Moor Line, Ltd

Port belonging to

London

Electric Light Installation fitted by

Messrs. Clarke, Chapman & Co. Ltd

Contract No.

When fitted, 1924

System of Distribution

Double wire

Pressure of supply for Lighting

110 volts, Heating

volts, Power

110

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 overload

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

yes

Are all terminals accessible and clearly marked

yes

are they so spaced or shielded that they cannot be accidentally earthed,

or short circuited

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 axis 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 after bulkhead

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, incombustible 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 connected to one pole

insulated from the slab with mica or micanite and the slab similarly insulated from its framework

yes

and is the

frame effectively earthed

yes

Are the following fittings as per Rule, viz.:— 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

switch & fuses in dynamo mains, single pole switch & double pole fuses in each outgoing circuit

Instruments on main switchboard

two

ammeters

two

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

coupled to earth through switches & fuses

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

yes

Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule

yes

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Insulation of Cables, state type of cables, single or twin single are the cables insulated and protected as per Tables III or IV of the Rules yes

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 3.76

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.007 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 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 cables in Engine Room
Armoured & braided through lead & caps & spaces. Lead covered cables in accommodation

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 VI 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 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 Positions, 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 -

-, are their connections made as per Rule -

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 fitted

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, are separate screens provided for the use of oil and electric side lights yes

are separate oil lanterns provided for the mast head lights and side lights 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 -

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 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 axis 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 -

-, if not of this type, state distance of the combustible material horizontally or vertically above the motors - and -

-, 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 as per Rule yes

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.	Amps.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN ...	1	12 1/2	110	113	360	Single Cylinder		
AUXILIARY ...	1	12 1/2	110	113	360	Steam Engines		
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.				
1	MAIN GENERATOR...	2	.11680	37	.064	113	40	Pure rubber	Lead covered
2	AUXILIARY GENERATOR	2	.11680	37	.064	113	20	"	"
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS								
3	ENGINE ROOM ...	2	.01046	7	.044	17.3	40	"	Lead Armoured
	BOILER ROOM ...								
4	Salvage tank	2	.0214	7	.064	23	230	"	Armoured & Braided
5	Engine room	2	.01046	7	.044	15.8	80	"	"
6	WIRELESS ...	2	.00701	7	.036	20	240	Pure rubber	Armoured & Braided
7	SEARCHLIGHT ...	2	.00152	1	.044	2.2	220	"	In iron pipes
8	MASTHEAD LIGHT...	2	.00152	1	.044	2.2	40	"	Lead covered
9	SIDE LIGHTS ...	2	.00152	1	.044	.5	12	"	"
10	COMPASS LIGHTS ...	2	.00152	1	.044	1	320	"	Armoured & Braided
11	STERN DECK LIGHTS	2	.00152	1	.044	3	50	"	Braided & Lead covered
	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 ...								
	WORKSHOP MOTOR ...								
	VENTILATING FANS ...								
12	Crane motor	1	.01046	7	.044	20	60	Pure rubber	Lead Armoured
13	Oil Purifier	1	.01046	7	.044	20	80	"	"
14	Oil Purifier	1	.01046	7	.044	20	80	"	"

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 Clarke, Chapman & Co., Ltd.

W. Woodcock

Director.

Electrical Engineers.

Date

Oct. 23rd 1924

COMPASSES.

Distance between electric generators or motors and standard compass 100 ft

Distance between electric generators or motors and steering compass 100 "

The nearest cables to the compasses are as follows:—

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

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

A cable carrying . Amperes . 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.

WILLIAM DOXFORD & SONS, Limited.

Hallecker

Manager

Builder's Signature.

Date

Oct 25th 1924

Is this installation a duplicate of a previous case Yes If so, state name of vessel "VINE MOOR"

General Remarks (State quality of workmanship, opinions as to class, &c. This installation has been fitted

in a satisfactory manner and in accordance with the Rules and on completion was tried under working conditions with satisfactory results.

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

TWD
31/10/24

Total Capacity of Generators 25 Kilowatts

The amount of Fee ... £ 20: : 24 Oct 1924

Travelling Expenses (if any): £ : : Deduct book.

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

1m.3.23.—Transfer.
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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