

# REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL) 31 DEC 1929

Received at London Office

Date of writing Report

19

When handed in at Local Office

28-12-1929 Port of Rouen

No. in Survey held at

Le Havre

Date, First Survey 5 Nov

Last Survey 12 Dec

1929

Reg. Book,

(Number of Visits... 7)

on the Tm s.c. Motor Tanker

Murya

Tons

Gross 800 3.87

Net 450.76

Built at Le Havre

By whom built M<sup>rs</sup> Warrms & Co Ateliers et  
Chantiers de la Seine Maritime

Yard No. 53

When built 1929

Owners Anglo-Saxon Petroleum Co (London)

Port belonging to

Managers Petroleum Maatschappij Laborona (The Hague)

Electric Light Installation fitted by

Contract No. 53

When fitted 1929

Is the Vessel fitted for carrying Petroleum in bulk

Ateliers et Chantiers de la Seine Maritime

## System of Distribution

Two wire

Lauher.

## 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

L

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

L

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

Motor compartment 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

No Wood at proximity

and L

, 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

They are fitted on the same bed plate

## Main Switch Boards, where placed

Motor compartment: starboard side (near the generators)

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

L

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

No Wood

and L

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

mable

, is all insulation of high dielectric strength and of

permanently high insulation resistance

L

, 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

mica

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

none

, proportion of omnibus

bars

good

, individual fuses to voltmeter, pilot or earth lamp

yes

, connections of switches

yes good

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches

a three pole circuit breaker with overload and reversed current trips, for each generator (fitted in such away to operate as a double pole circuit breaker and single pole interlocked equalizer switch) a double pole switch and fuse for each outgoing circuit

Instruments on main switchboard

two

ammeters

two

voltmeters

no

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 for each pole, plus earth testing device with volt ohmmeter and special switch

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

all distribution

boards and junction boxes fitted in gas and water tight cases



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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 5 V.

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 No paper insulated cables

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 secured by metal clips with rounded edges. Cables running under gangways fitted in watertight conduits

If cables are run in wood casings, are the casings and caps secured by screws No wood casing are the cap screws of brass L, are the cables run in separate grooves L. 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 In steel base

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 L state the material of which the bushes are made L

Earthing Connections, state what earthing connections are fitted and their respective sectional areas no earthing connections

are their connections made as per Rule

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule motor space lighting arranged in side sections

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 and double wiring for side lights, 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 L

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 L

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected two light in main pump room - one in after pump room - one in foreward pump room. All gastight type

no cables led in this space

where are the controlling switches situated on a locked switch board situated in chart room

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

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

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 except motor shaft

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 L

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

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 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. yes

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office yes. Vapo safety hand torches

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	14	110	127	140	Steam engine			
AUXILIARY ...	1	14	110	127	140	Kromhout motor	Oil Diesel oil	over 150	
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 ...	2	1800	37	0.79	127	152	80		
EQUALISER CONNECTIONS ...	1	1000	37	0.59			67		
AUXILIARY GENERATOR...	2	1800	37	0.79	127	152	54		
EMERGENCY GENERATOR ...									
ROTARY TRANSFORMER { MOTOR GENERATOR...									
ENGINE ROOM...	2	0520	19	0.59	56	70	65		
BOILER ROOM...									
AUXILIARY SWITCHBOARDS									
Portable connections W	2	0330	19	0.47	16	50	18		
ACCOMODATION after...	2	0520	19	0.59	50	70	820		
Forward	2	0167	7	0.55	9	37	780		
Midship	2	0743	19	0.71	47	87	590		
WIRELESS	2	0167	7	0.55	32	37	390		
Navigation lights	2	0069	7	0.35	4	24	590		
SEARCHLIGHT	2	0015	1	0.43	6	6.1	460		
MASTHEAD LIGHT	2	0015	1	0.43	6	6.1	320		
SIDE LIGHTS	2	0015	1	0.43	6	6.1	100		
COMPASS LIGHTS	2	0015	1	0.43	6	6.1	100		
POOP LIGHTS	2	0015	1	0.43	6	6.1	760		
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...	2	1	0743	19	0.71	96	97	200		
ENGINE REVERSING GEAR ...	2	1	0069	7	0.35	12	18.2	160		
LUBRICATING OIL PUMPS ...										
OIL FUEL TRANSFER PUMP...										
WINDLASS ...										
WINCHES, FORWARD ...										
WINCHES, AFT ...										
STEERING GEAR—										
(a) MOTOR GENERATOR...										
(b) MAIN MOTOR ...										
WORKSHOP MOTOR ...	2	1	0330	19	0.47	47	53	200		
VENTILATING FANS ...	2	1	0069	7	0.35	12	18.2	230		
Oil separator	1	1	0069	7	0.35	12	18.2	110		
Boasting air compressor	1	1	0027	1	0.59	4	7.8	60		



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.

Electrical Engineers.

Date

#### COMPASSES.

Distance between electric generators or motors and standard compass 200'

Distance between electric generators or motors and steering compass 200' to midship compass 46' to stern compass

The nearest cables to the compasses are as follows:—

A cable carrying 1 Ampères inside feet from standard compass inside feet from steering compass. for lighting purpose

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

P. P. W. O. B. & C.  
Le Sous-Directeur

Builder's Signature.

Date

Is this installation a duplicate of a previous case yes If so, state name of vessel Megara

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

The workmanship is good, the material used is of good quality.  
This installation has been tried and the result found satisfactory.  
This installation merit in my opinion the favourable consideration of the Committee for to be classed.

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

Elec Light

23/1/30

31/1/30

Total Capacity of Generators 28 Kilowatts.

The amount of Fee ... 2664 -

When applied for,

22-12-29

When received,

23-1-30

Travelling Expenses (if any) & Machinery report

Committee's Minute

TUE 7 JAN 1930

Assigned

Surveyor to Lloyd's Register of Shipping.



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