

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 20 NOV 1930

Date of writing Report

19

When handed in at Local Office

18/11

10

Port of

Antwerp

No. in Survey held at

Hoboken

Date, First Survey

22/8/30

Last Survey

31-10-

1930

Reg. Book.

(Number of Visits) 7

on the

Steel Twin S. Turbine S. "Prince Charles"

Tons

Gross

Net

Built at

Hoboken

By whom built

Chant. Nav. John. Cockfield

Hull No. 643

When built

1930.11

Owners

Belgian Government

Port belonging to

Ostend

Electric Light Installation fitted by

Electro Havale et Industrielle

Contract No.

When fitted 1930

Is the Vessel fitted for carrying Petroleum in bulk

no

System of Distribution

Compound wound direct current.

Pressure of supply for Lighting

115

volts, Heating

—

volts, Power

115

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

On special platform at entrance of Engine 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

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

On after part of generator platform.

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, 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 60x8 mm

, individual fuses to voltmeter, pilot or earth lamp

lamp

, connections of switches

Yes

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

For each generator

one double pole circuit breaker - Maximum and minimum arranged with a secondary one pole switch on the equalising bar as per instructions

Instruments on main switchboard

six

ammeters

three

voltmeters

three

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

six test earthing

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



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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 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 sheet flating with clips with brass screws and galvanised deck pipes

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 —

Joints in Cables, state if any, and how made, insulated, and protected —

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 state the material of which the bushes are made fibre and 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 —

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 —

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 watertight fittings protected with brass guards

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected gas tight fittings with brass guards

with galvanised clips and brass screws —, how are the cables led —

where are the controlling switches situated outside of these spaces

Searchlight Lamps, No. of 2, whether fixed or portable fixed, are their fittings as per Rule yes

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 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 — and —

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

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 ...	<u>2</u>	<u>80</u>	<u>115</u>	<u>695</u>	<u>2000</u>	<u>Steam turbo</u>	<u>—</u>	<u>—</u>
AUXILIARY ...	<u>1</u>	<u>20</u>	<u>115</u>	<u>173</u>	<u>2200</u>	<u>Generators</u>	<u>—</u>	<u>—</u>
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.			
2 MAIN GENERATORS...	<u>2</u>	<u>480</u>	<u>61</u>	<u>0886</u>	<u>695</u>	<u>860</u>	<u>1450</u>	<u>paper</u>	<u>Lead steel covered</u>
EQUALISER CONNECTIONS									
AUXILIARY GENERATOR...	<u>1</u>	<u>70</u>	<u>19</u>	<u>0854</u>	<u>173</u>	<u>200</u>	<u>45-</u>	<u>paper</u>	<u>Lead steel covered</u>
EMERGENCY GENERATOR									
ROTARY TRANSFORMER MOTOR GENERATOR...									
ENGINE ROOM...									
BOILER ROOM...	<u>1</u>	<u>10</u>	<u>7</u>	<u>052</u>	<u>30</u>	<u>87</u>	<u>180</u>	<u>rubber</u>	<u>Lead steel covered</u>
AUXILIARY SWITCHBOARDS									
accommodation Deck B. 1	<u>35</u>	<u>19</u>	<u>064</u>	<u>70</u>	<u>83</u>	<u>72</u>		<u>Rubber</u>	<u>Lead steel covered</u>
" " Deck 1	<u>50</u>	<u>19</u>	<u>072</u>	<u>95</u>	<u>97</u>	<u>300</u>			
" " Deck 1	<u>10</u>	<u>7</u>	<u>052</u>	<u>30</u>	<u>37</u>	<u>135</u>			
ACCOMMODATION " C. 1	<u>35</u>	<u>19</u>	<u>064</u>	<u>50</u>	<u>83</u>	<u>330</u>			
" " officers 1	<u>10</u>	<u>7</u>	<u>052</u>	<u>18</u>	<u>37</u>	<u>450</u>			
" " Deck B. 1	<u>6</u>	<u>7</u>	<u>044</u>	<u>17</u>	<u>31</u>	<u>300</u>			
Loudspeakers	<u>1</u>	<u>2</u>	<u>3</u>	<u>036</u>	<u>8.5</u>	<u>12</u>	<u>45</u>		
Searchlight No. 1	<u>1</u>	<u>16</u>	<u>7</u>	<u>064</u>	<u>25</u>	<u>46</u>	<u>135</u>		
WIRELESS	<u>1</u>	<u>4</u>	<u>7</u>	<u>036</u>	<u>8.7</u>	<u>24</u>	<u>294</u>		
SEARCHLIGHT No. 2	<u>1</u>	<u>16</u>	<u>7</u>	<u>064</u>	<u>25</u>	<u>46</u>	<u>420</u>		
MASTHEAD LIGHT	<u>1</u>	<u>1.25</u>	<u>3</u>	<u>029</u>	<u>0.5</u>	<u>7.8</u>	<u>210</u>		
SIDE LIGHTS	<u>1</u>	<u>1.25</u>	<u>3</u>	<u>029</u>	<u>0.5</u>	<u>7.8</u>	<u>45</u>		
COMPASS LIGHTS	<u>1</u>	<u>1.25</u>	<u>3</u>	<u>029</u>	<u>0.3</u>	<u>7.8</u>	<u>48</u>		
POOP LIGHTS	<u>1</u>	<u>2</u>	<u>3</u>	<u>036</u>	<u>0.5</u>	<u>12</u>	<u>480</u>		
CARGO LIGHTS									
ARC LAMPS									
HEATERS									

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										
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 1.	<u>1</u>	<u>1</u>	<u>95</u>	<u>19</u>	<u>100</u>	<u>218</u>	<u>246</u>	<u>180</u>	<u>paper</u>	<u>Lead steel covered</u>
" 2	<u>1</u>	<u>1</u>	<u>95</u>	<u>19</u>	<u>100</u>	<u>218</u>	<u>246</u>	<u>180</u>		
" 3	<u>1</u>	<u>1</u>	<u>95</u>	<u>19</u>	<u>100</u>	<u>218</u>	<u>246</u>	<u>246</u>		
" 4	<u>1</u>	<u>1</u>	<u>95</u>	<u>19</u>	<u>100</u>	<u>218</u>	<u>246</u>	<u>246</u>		
Thermotank 1	<u>1</u>	<u>1</u>	<u>4</u>	<u>7</u>	<u>036</u>	<u>22.5</u>	<u>24</u>	<u>184</u>	<u>rubber</u>	
" 2	<u>1</u>	<u>1</u>	<u>4</u>	<u>7</u>	<u>036</u>	<u>22.5</u>	<u>24</u>	<u>233</u>		
" 3	<u>1</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>036</u>	<u>11.2</u>	<u>12</u>	<u>126</u>		
" 4	<u>1</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>036</u>	<u>11.2</u>	<u>12</u>	<u>263</u>		
" 5	<u>1</u>	<u>1</u>	<u>10</u>	<u>7</u>	<u>052</u>	<u>18</u>	<u>37</u>	<u>507</u>		
" 6	<u>1</u>	<u>1</u>	<u>10</u>	<u>7</u>	<u>052</u>	<u>18</u>	<u>37</u>	<u>507</u>		

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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.

A. Kelly

Electrical Engineers.

Date 13-11-30

COMPASSES.

Distance between electric generators or motors and standard compass

75 feet

Distance between electric generators or motors and steering compass

75 feet

The nearest cables to the compasses are as follows:—

A cable carrying 3 Ampères 15 feet from standard compass 9 feet from steering compass. Navigation
A cable carrying 4 Ampères 15 feet from standard compass 9 feet from steering compass. accommodation
A cable carrying 4 Ampères 15 feet from standard compass 9 feet from steering compass. Companion Telegraph

Have the compasses been adjusted with and without the electric installation at work at full power Yes with and without

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. See attached

Compass adjustment report.



Builder's Signature.

Date 17-11-1930

Is this installation a duplicate of a previous case

Yes

If so, state name of vessel

14 Pine, Astrid, Pine, etc.

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

This installation has been fitted and tried under my supervision the materials and workmanship are good and eligible in my opinion to be recorded "Electric light and Wireless" in the Register Book.

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

AS
17/11/30.

Total Capacity of Generators Kilowatts.

The amount of Fee ...

£93.19-

When applied for,

12/11/30

When received,

5-12-30

Travelling Expenses (if any) £

J. L. Rabary
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

1m, 1233.—Transfer.
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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