

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 27 SEP 1930

Date of writing Report 19th Sept. 1930. When handed in at Local Office 25/9/30 Port of Antwerp.

No. in Survey held at Antwerp. Date, First Survey 14th July 30. Last Survey 17th Sept. 1930.
Reg. Book. on the s/s "Sonja". (Number of Visits 10)

Built at Hoboken, Belgium. By whom built Antwerp Eng. Co. Ltd. Yard No. 114 When built 1930.
Owners S.S. Co. "Dania". Port belonging to Esbjerg.

Electric Light Installation fitted by Campbell & Asherwood Contract No. When fitted 1930.

Is the Vessel fitted for carrying Petroleum in bulk No.

System of Distribution Double wired
Pressure of supply for Lighting 110 volts, Heating none volts, Power none volts.

Direct or Alternating Current, Lighting direct Power none

If alternating current system, state frequency of periods per second none

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 no, is an adjustable regulating resistance fitted in series with each shunt field no

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 1-7.5 Kw on platform 1-1.5 Kw in steering recess, are they clear of all inflammable material yes

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 beside main generator

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

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 yes

individual fuses to voltmeter, pilot or earth lamp yes, connections of switches yes

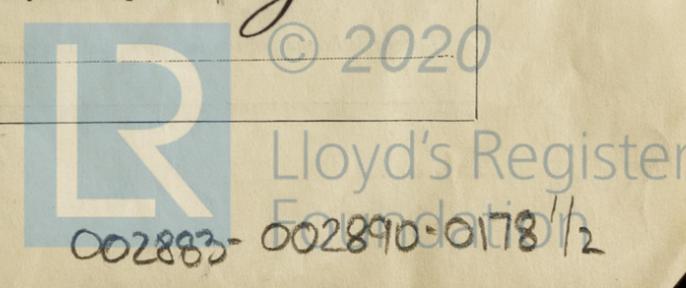
Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches. generators not being arranged to run in parallel no equalizing gear is fitted main change-over switches & circuit switches

Instruments on main switchboard 2 ammeters 2 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, 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 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 used

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 armoured securely clipped up

If cables are run in wood casings, are the casings and caps secured by screws none, 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 fitted

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 bakelite

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 change-over switch in steering recess driven by internal combustion engine (paraffin engine)

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 fitted

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 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 none

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

Arc 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 none fitted

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	1	7.5	110	68	600	Enclosed Steam Engine		
AUXILIARY	1	1.5	110	14	1200	Enclosed paraffin Engine	Paraffin	
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	0.06	19	.064	68	83	28	Rubber	Lead covered & armoured
EQUALISER CONNECTIONS									
AUXILIARY GENERATOR	1	0.01046	7	.044	14	31	42	"	"
EMERGENCY GENERATOR									
ROTARY TRANSFORMER MOTOR GENERATOR									
ENGINE ROOM	1	0.00299	3	.036	4	12	380	"	"
BOILER ROOM	1	0.00299	3	.036	3	12	180	"	"
AUXILIARY SWITCHBOARDS									
ACCOMMODATION	1	0.00299	3	.036	7	12	390	"	Lead covered
WIRELESS	1	0.01046	7	.044	20	31	30		Lead covered & armoured
SEARCHLIGHT	1	0.00299	3	.036	2	12	425		Lead covered & armoured
MASTHEAD LIGHT	1	0.00299	3	.036	2	12	60		Lead covered & armoured
SIDE LIGHTS									
COMPASS LIGHTS									
POOP LIGHTS									
CARGO LIGHTS	1	0.00299	3	.036	2.5	12	280		
ARC LAMPS									
HEATEES									

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										

none

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.

**POUR ÉTABLISSEMENTS BELGES
 CAMPBELL & ISHERWOOD**

Société Anonyme

Howard W. Bugg

Electrical Engineers.

Date

Un Administrateur

COMPASSES.

Distance between electric generators or motors and standard compass 68'

Distance between electric generators or motors and steering compass 61'

The nearest cables to the compasses are as follows:—

A cable carrying .25 Ampères 6' feet from standard compass 3' feet from steering compass.

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 _____

The maximum deviation due to electric currents was found to be negligable degrees on _____ course in the case of the standard compass, and negligable degrees on _____ course in the case of the steering compass.

THE ANTWERP ENGINEERING COMPANY

Shipbuilding Dept.

W. J. J. J.

Builder's Signature.

Date 24th Sept 1930.

Is this installation a duplicate of a previous case No. If so, state name of vessel _____

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

The workmanship & materials are good.

The installation has been fitted on board under special Survey, & when tried under full working conditions was found satisfactory.

The record of "Electric Light" may in my opinion be made in the Register Book in the case of this vessel.

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

J. J. J.
30/9/30

Total Capacity of Generators 9 Kilowatts.

The amount of Fee	<u>Francs 2362.50</u>	When applied for,	<u>16/9</u> 19 <u>30</u>
Travelling Expenses (if any) £	:	When received,	<u>17/9</u> 19 <u>30</u>

H. L. Pilditch
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 3 OCT 1930

Assigned Elec. Light

Im. 1228.—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)



© 2020

Lloyd's Register Foundation