

Rpt. 13.

No. 10190

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

16 APR 1929

Date of writing Report 14.2.1929 When handed in at Local Office 19 Port of Rotterdam

No. in Survey held at Capelle W Yssel Date, First Survey 17 Jan Last Survey 14 Feb 1929

Reg. Book. on the Steer. Screw Steamer, FARMSUM (Number of Visits 4) Tons { Gross 5369.99 Net 5009.11

NWC. DATES 14/3/29-8.4.29
No. of VISITS - 6

Built at Capelle W Yssel By whom built A. Vuyk & Zoon Yard No. 565 When built 1928

Owners Stoomvaart Mij. "Oostzee" Port belonging to Amsterdam

Electric Light Installation fitted by N. A. Hoos & Co. Elect. Mij. Rotterdam Contract No. When fitted 1928/1929

Is the Vessel fitted for carrying Petroleum in bulk No

RETAIN

System of Distribution double wire system

Pressure of supply for Lighting 110 volts, Heating — volts, Power 110 volts.

Direct or Alternating Current, Lighting direct current Power direct current

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 —

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 —, is an adjustable regulating resistance fitted in series with each shunt field —

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 In 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 in Engine room near steam dynamo

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 —

and is the frame effectively earthed — 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 None, connections of switches Yes

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches, double pole quick linked knife change over switch and a double pole fuse, for each outgoing circuit a double pole quick linked knife switch and double pole fuse.

Instruments on main switchboard One ammeters One 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 by pilot 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 twin 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 4 volt.

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 in staterooms are lead covered, all the others are lead covered and armoured, and supported by brass clips
 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 no joints, only in engine room, where they are protected by brass joint 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 Yes

Earthing Connections, state what earthing connections are fitted and their respective sectional areas Yes
 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

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven Yes

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 No
 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 and 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 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

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	14	110	152	4/5	steam		
AUXILIARY								
EMERGENCY								
ROTARY TRANSFORMER								

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.	Rate.			
MAIN GENERATOR	1	0.1418	37	0.42	12.8	15.2	30	rubber	lead covered & armoured
EQUALISER CONNECTIONS									
AUXILIARY GENERATOR									
EMERGENCY GENERATOR									
ROTARY TRANSFORMER MOTOR GENERATOR									
ENGINE ROOM									
BOILER ROOM	2	0.0095	7	0.042	20		290		
AUXILIARY SWITCHBOARDS	4	0.0095	7	0.042	20		640		
WIRELESS	1	0.0155	7	0.0525	24		420		
SEARCHLIGHT									
MASTHEAD LIGHT	1	0.00232	1	0.056	1		600		
SIDE LIGHTS	1	0.00232	1	0.056	1		100		
COMPASS LIGHTS	1	0.00232	1	0.056	1		40		
POOP LIGHTS	1	0.00232	1	0.056	1		260		
CARGO LIGHTS	1	0.00232	1	0.056	10		600		
ARC LAMPS									
HEATERS									

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.	Rate.			
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 2HP	1	1	0.0155	7	0.0525	13	440	V.I.R	Lead cov. & arm.	
VENTILATING FANS										
Refrigerating Compressor 3HP	1	1	0.0155	7	0.0525	20	410	V.I.R	50	

RETAIN

RETAIN

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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.

N.V. W. N. HOOS & Co's
ELECTRICITEITS MAATSCHAPPIJ
W. N. Hoos
DIRECTEUR

Electrical Engineers.

Date Feb 18th 1929

COMPASSES.

Distance between electric generators or motors and standard compass

Distance between electric generators or motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying 1 Ampères 30 feet from standard compass 14 feet from steering compass.

A cable carrying 8 Ampères 20 feet from standard compass 18 feet from steering compass.

A cable carrying 20 Ampères 25 feet from standard compass 25 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.

W. N. Hoos

Builder's Signature.

Date Feb 18th 1929

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, etc. *This installation has been fitted in accordance with the Society's Rules, material and workmanship is good and I am of opinion that some merits the Committee approval when satisfactory completed*

The vessel has been towed to Euro Castle when the machinery will be fitted and the electric light installation completed. The electrical installation has been tested and found satisfactory. The workshop motor will be fitted later WTB.

Total Capacity of Generators *17* Kilowatts.

The amount of Fee ... *£ 192.* : { When applied for, *20/2 19.29*
Travelling Expenses (if any) £ : : { When received, *20/2 19.29*

Electric light WTB 24/4/29.

J. J. Schoon W.T. Badger
Surveyor to Lloyd's Register of Shipping.

Committee's Minute
Assigned *Electric light*

Im. 12.28.—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)