

Rpt. 13.

No. 23510

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 25 FEB 1935

Date of writing Report 6-2 1935 When handed in at Local Office 19 Port of ROTTERDAM

No. in Survey held at ROTTERDAM Date, First Survey 4-12-34 Last Survey 9-2-1934
Reg. Book. (Number of Visits... 10)

on the MV "SUNETTA" Tons { Gross 7924
Net 4464

Built at ROTTERDAM By whom built R'DAMSCHE DROOGDOK M.V. Yard No. 186 When built 1934-35

Owners PETROLEUM M.V. "LA CORONA" Port belonging to S GRAVENHAGE

Electric Light Installation fitted by N.V. ELECTROTECHN. BUREAU A. DE HOOF Contract No. When fitted 1934-35

Is the Vessel fitted for carrying Petroleum in bulk YES

System of Distribution TWO WIRE ✓
Pressure of supply for Lighting 110 ✓ volts, Heating _____, 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 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 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 IN MOTORROOM
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 MOTORROOM

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 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

FOR EACH DYNAMO: ONE MAIN DOUBLE POLE CIRCUIT BREAKER AND DOUBLE POLE FUSES.

FOR EACH OUTGOING CIRCUIT: A DOUBLE POLE CHANGE OVER SWITCH AND DOUBLE POLE FUSES.

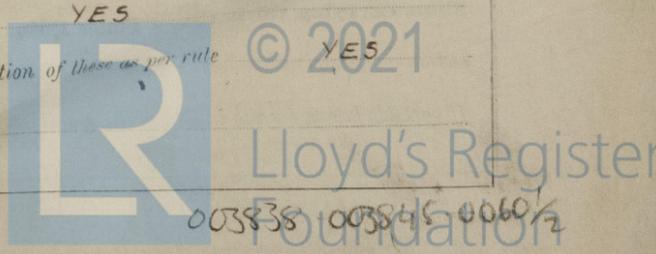
Instruments on main switchboard 2 ammeters 2 voltmeters _____ synchronising device for paralleling purposes.

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 AND 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 2 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 SUPPORTED BY METAL CLIPS AND PROTECTED BY TUBES AND ARMOURING

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 YES

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 LEAD

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 FITTED IN GAS TIGHT BOXES, are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected FITTED IN GAS TIGHT TUBES, how are the cables led IN CHARTROOM where are the controlling switches situated IN CHARTROOM

Searchlight Lamps, No. of 1, whether fixed or portable PORTABLE, 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

Control Gear and Resistances, are the generator field and motor speed regulators, slavers 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	16	110	145	STEAM ENGINE			
AUXILIARY	1	16	110	145	DIESEL MOTOR			
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. In.	No.	Diameter.	In Circuit.	Rule.			
MAIN GENERATOR	1	95	19	2.53	145	152	50	RUBBER	LEAD COVERED AND ARMOURED
EQUALISER CONNECTIONS									
AUXILIARY GENERATOR	1	95	19	2.53	145	152	50	"	"
EMERGENCY GENERATOR									
ROTARY TRANSFORMER MOTOR									
ENGINE ROOM	1	1.5	1	1.39	3	7.7	75	"	"
BOILER ROOM									
AUXILIARY SWITCHBOARDS									
MOTOR ROOM	1	10	7	1.35	37	3.8	50	"	"
CARGO LIGHTS	1	10	7	1.35	12	3.8	480	"	"
NAVIGATION	1	10	7	1.35	6	3.8	490	"	"
FORECASTLE	1	16	7	1.71	13	4.8	720	"	"
AFT	1	16	7	1.71	36	4.8	70	"	"
ACCOMMODATION	1	1.5	1	1.39	1.5	7.7	90	"	LEAD COVERED
SALOON	1	16	7	1.71	30	4.8	480	"	LEAD COVERED AND ARMOURED
WIRELESS	1	16	7	1.71	15	4.8	480	"	"
SEARCHLIGHT	1	35	19	1.53		7.8	850	"	"
MASTHEAD LIGHT	1	1.5	1	1.39	1.5	7.7	360	"	"
SIDE LIGHTS	1	1.5	1	1.39	0.5	7.7	90	"	"
COMPASS LIGHTS	1	1.5	1	1.39	0.2	7.7	60	"	"
POOP LIGHTS	1	1.5	1	1.39	0.5	7.7	620	"	"
CARGO LIGHTS	1	1.5	1	1.39	2	7.7	80	"	"
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. In.	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	1	1	35	19	1.53	80	7.8	90	RUBBER	LEAD COVERED AND ARMOURED
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										
SEPARATOR	1	1	4	7	0.86	16	21	90	"	"
DRILL	1	1	4	7	0.86	16	21	72	"	"
LATHE	1	1	2.5	1	1.79	12	15	86	"	"
GRINDING MACHINE	1	1	6	7	1.05	24	28	30	"	"
TRIMPUMP	1	1	6	7	1.05	24	28	110	"	"
AUX. SWITCHBOARD WORKSHOP	1	1	3.5	19	1.53	65	7.8	165	"	"

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. ELECTROTECHN. BUREAU A. DE HOOP Electrical Engineers. Date 6-2-35

COMPASSES.

Distance between electric generators or motors and standard compass 30.6
 Distance between electric generators or motors and steering compass 30.0
 The nearest cables to the compasses are as follows:—
 A cable carrying 0.2 Ampères 2 feet from standard compass 2 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 Yes
 The maximum deviation due to electric currents was found to be 0 degrees on every course in the case of the standard compass, and 4 degrees on every course in the case of the steering compass.

ROTTERDAMSCHER BROUWERIJEN
 Directie

A. Knappe Builder's Signature. Date

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

General Remarks (State quality of workmanship, opinions as to class, &c. This installation has been fitted in accordance with the Society's Rules, approved plans and Secretary's letters, material tested as required and workmanship good, it was found in a good working condition when tried and merits in my opinion the Committee's approval.

Wid
 J. H.
 26/2/35
 [Signature]

Total Capacity of Generators 32 Kilowatts.

The amount of Fee ... f 246 : When applied for, 23.2.1935
 Travelling Expenses (if any) £ - : When received, 18.3.35

J. J. Schoo
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute Fri. 8 MAR 1935

Assigned See minute on Rot. 76. Rpl.

1m. 11. 20. - Transfer. (The Surgeons are requested not to write on or betwee the space for Committee's Minute.)

