

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 17<sup>th</sup> NOV 1939 When handed in at Local Office 19 Port of GRONINGEN.

No. in Survey held at MARTENSHOEK Date, First Survey 3<sup>rd</sup> OCTOBER Last Survey 14<sup>th</sup> NOV 1939  
(Number of Visits 1)

Reg. Book: on the MOTORSHIP "EMINENT" Tons { Gross 499.73  
Net 328.95

Built at MARTENSHOEK By whom built BODEWES SCHEEPWERF- YARD No. 309 When built 1939

Owners W. WERKMAN. Port belonging to GRONINGEN.

Electric Light Installation fitted by HERMAN G. EEKELS. Contract No. When fitted 1939

Is the Vessel fitted for carrying Petroleum in bulk NO

System of Distribution TWO WIRE SYSTEM volts, Power 110 volts.

Pressure of supply for Lighting 24 volts, Heating 110 volts, Power D.C.

Direct or Alternating Current, Lighting D.C. Power D.C.

If alternating current system, state frequency of periods per second 50

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 temperature rise YES, are they compound wound POWER YES, LIGHTING NO

are they over compounded 5 per cent. YES, if not compound wound state distance between each generator 4 METRES

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

approved NO Have certificates of test results for machines under 100 kw. been submitted and approved NO Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing 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 ENGINE ROOM if situated near unprotected in way of the generators satisfactory YES are they clear of all inflammable material YES

woodwork or other combustible material, state distance of same horizontally from or vertically above the generators YES and YES

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 FITTED IN E ROOM TO FORWARD BULKHEAD

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 YES

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 YES and YES, 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

is it of an approved type 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 NOT USED

is the non-hygroscopic insulating material of an approved type 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, temperature rise of omnibus bars YES

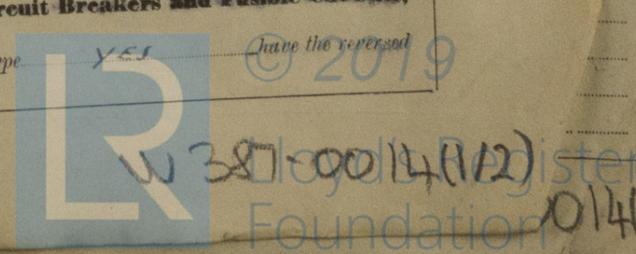
individual fuses to voltmeter, pilot or earth lamp YES, are moving parts of switches alive in the "off" position NO are all screws and nuts securing connections effectively locked YES are any fuses fitted on the live side of switches NO

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches DOUBLE POLE SWITCH FOR POWER AND DOUBLE POLE CHANGE OVER SWITCH FOR LIGHTING.

Are turbine driven generators fitted with emergency trip switch as per rule YES Are cupboards or compartments containing switchboards composed of fire-resisting material or lined with approved material YES

Instruments on main switchboard POWER 1 ammeters 1 + 1 voltmeters 1 synchronising device for paralleling purposes. For compound machines is the ammeter connected on the opposite pole to equaliser connection YES

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system 2 EARTH LAMPS ON POWER PANEL AND 2 ON LIGHTING PANEL Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules YES are the fusible cutouts of an approved type YES



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current protection devices been tested under working conditions YES are all fuses labelled as per rule 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 ALL TYPES are the cables insulated and protected as per Tables IV, V, X, XI, XII or XIII of the Rules YES

If the cables are insulated otherwise than as per Rule, are they of an approved type YES **Fall of Pressure,** state maximum between bus bars and

any point of the installation under maximum load 5% **Cable Sockets,** are the ends of all cables having a sectional

area of 0.04 square inch and above provided with soldering sockets YES **Paper Insulated and Varnished Cambric Insulated Cables,**

If conductors are paper or varnished cambric insulated, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with

insulating compound YES or waterproof insulating tape 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 are cables laid under machines or floorplates FROM POWER DECK if so, are they adequately protected YES

Are cables in machinery spaces, galleys, laundries, bathrooms and lavatories lead covered or run in conduit LEAD COVERED & BRAIDED

**Support and Protection of Cables,** state how the cables are supported and protected BY CLIPS ON HT PLATES, LABLES ARMOURED

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,** 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 ALL ARMOURED 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

are they ventilated 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 YES

how are the cables led YES

where are the controlling switches situated YES

are all fittings suitably ventilated YES, are all switches and lampholders constructed wholly of non-ignitable, non-absorbent materials YES

**Heating and Cooking Appliances,** are they constructed and fitted as per Rule YES, are air heaters constructed and fitted as per Rule YES

**Searchlight Lamps, No. of** ONE whether fixed or portable PORTABLE, 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

have machines of over 100 BHP been inspected by the Surveyors during manufacture and testing YES have certificates for all motors for

essential services been supplied and approved 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 are all fuses of the fitted cartridge type YES are they of an approved type YES

If portable lamps for use in dangerous spaces are supplied, are they of a self-contained, battery-fed flameproof type approved for use in dangerous spaces YES

**Spare Gear,** if the vessel is for open sea service have spares been supplied as per Rule YES are they suitably stored in dry situations 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.
POWER MAIN ...	1	24	110	218	600	AUX. DIESEL ENGINE	DIESEL OIL	ABOVE 150° F.
LIGHTING AUXILIARY ...	1	1	24	42	1100	MAIN ENGINE (BELT DRIVEN)	DO.	DO.
EMERGENCY ...								
LIGHTING ROTARY TRANSFORMER ...	1	1	24	42	1100	ELECTR. MOTOR		

**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 Nominal Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
MAIN GENERATOR ...	2	50 x 70	19/19	1.83	209	224	2 x 13.20	RUBBER	LEAD & BRAIDED
EQUALISER CONNECTIONS ...									
LIGHTING AUXILIARY GENERATOR ...	1	10	4	1.41	42	49	23	DO.	DO.
EMERGENCY GENERATOR ...									
ROTARY TRANSFORMER MOTOR ...	1	6	4	1.05	24	29	14	DO.	DO.
ENGINE ROOM ...	2 x 1	2 1/2	4	.68	4	15 1/2	2 x 23	DO.	DO.
BOILER ROOM ...									
AUXILIARY SWITCHBOARDS ...	1	2 1/2	4	.68	4 1/2	15 1/2	18	DO.	DO.
NAVIGATION BATTERY ...	1	10	4	1.41	25	49	11	DO.	DO.
ACCOMMODATION ...	1	4	4	.85	15	22 1/2	18	DO.	DO.
WIRELESS ...									
SEARCHLIGHT ...	1	2 1/2	4	.68	1 1/2	15 1/2	22	DO.	DO.
MASTHEAD LIGHT ...	2 x 1	1 1/2	1	1.39	1 1/2	9 1/2	20 / 18	DO.	DO.
SIDE LIGHTS ...	2 x 1	1 1/2	1	1.39	1 1/2	9 1/2	18 / 18	DO.	DO.
COMPASS LIGHTS ...	1	1 1/2	1	1.39	1 1/2	9 1/2	19	DO.	DO.
POOP LIGHTS ...	1	1 1/2	1	1.39	1 1/2	9 1/2	24	DO.	DO.
CARGO LIGHTS ...	1	2 1/2	4	.68	3	15 1/2	88	DO.	DO.
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 Nominal Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
BALLAST PUMP ...	1	1	10	4	1.41	46	49	19 1/2	RUBBER	LEAD & BRAIDED
MAIN BILGE LINE PUMPS ...	1	1	6	4	1.05	24	29	15	DO.	DO.
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 ...	1	1	50	19	1.83	98	99	81	DO.	DO.
WINCHES, FORWARD ...	1	1	50	12	1.83	98	99	BY CHANGE OVER SWITCH		
WINCHES, AFT ...	1	1	50	19	1.83	98	99	2 1/2	RUBBER	DO.
STEERING GEAR—										
(a) MOTOR GENERATOR ...										
(b) MAIN MOTOR ...										
WORKSHOP MOTOR ...										
VENTILATING FANS ...										

