

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

24 FEB 7

Received at London Office

Date of writing Report 22-2-1937 When handed in at Local Office

Port of Rotterdam

No. in Survey held at Schiedam

Date, First Survey 1-12-36

Last Survey 11-2-1937

(Number of Visits 10)

Reg. Book.

on the motor tanker "EULIMA"

Tons { Gross  
Net

Built at Schiedam

By whom built

Wilton Tyenwood Yard No. 659

When built 26-37

Owners

Anglo Saxon Petroleum Co.

Port belonging to

London.

Electric Light Installation fitted by

N.T. Electriciteits Maatschappij Contract No.

When fitted 26-37

Is the Vessel fitted for carrying Petroleum in bulk

Yes

System of Distribution

Two wire

Pressure of supply for Lighting

110.

volts, Heating

volts, Power

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

Generators, do they comply with the requirements regarding temperature rise

are they over compounded 5 per cent.

Where more than one generator is fitted are they arranged to run in parallel

series with each shunt field

approved

Are all terminals accessible, clearly marked, and furnished with sockets

short circuited, or touched

Position of Generators

in way of the generators satisfactory

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

are the generators protected from mechanical injury and damage from water, steam or oil

Earthing, are the bedplates and frames of the generating plant efficiently earthed

in metallic contact

Main Switch Boards, where placed

in engine room starboard side.

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

injury and damage from water, steam or oil

horizontally from or vertically above the switchboards

materials

is it of an approved type

non-hygroscopic insulating material, and the slab similarly insulated from its framework

type

omnibus bars

"off" position

switches

one generator has a double pole switch and fuses. the other a double pole two way switch and fuses.

Are turbine driven generators fitted with emergency trip switch as per rule

fire-resisting material or lined with approved material

voltage meters

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system

Pilots lamps.

do these comply with the requirements of the Rules

are the fusible cutouts of an approved type

Switches, Circuit Breakers and Fusible Cut-outs, have the reversed



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Foundation



current protection devices been tested under working conditions. ☒ **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, V, X or XI of the Rules *Yes* ☒ If the cables are insulated otherwise than as per Rule, are they of an approved type ☒ **Fall of Pressure,** state maximum between bus bars and any point of the installation under maximum load *2 Volts* ☒ **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 ☒ or waterproof insulating tape ☒ **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 in machinery spaces, galleys, lavatories, bathrooms and lavatories lead covered or run in conduit *Yes* ☒ **Support and Protection of Cables,** state how the cables are supported and protected *in engine room on steel plate and on deck in galvanised iron tubes.* ☒ If cables are run in wood casings, are the casings and caps secured by screws ☒ 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,** are the cables and fittings in accordance with the special requirements ☒ **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 *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 *no* ☒ are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected ☒ how are the cables led ☒ where are the controlling switches situated ☒ are all fittings suitably ventilated ☒ are all switches and lampholders constructed wholly of non-ignitable, non-absorbent materials ☒ **Heating and Cooking Appliances,** are they constructed and fitted as per Rule ☒ are air heaters constructed and fitted as per Rule ☒ **Searchlight Lamps, No. of** ☒ whether fixed or portable ☒ are their fittings as per Rule ☒ **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 ☒ if not of this type, state distance of the combustible material horizontally or vertically above the motors ☒ and ☒ have machines of over 100 BHP been inspected by the Surveyors during manufacture and testing *none* ☒ **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 ☒ **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 type approved by the Home Office ☒ **Spare Gear,** if the vessel is for open sea service have spares been supplied as per Rule *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	1	16	110	145	390	Steam engine		
AUXILIARY	1	16	110	145	390	diesel	diesel oil	above 150°
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 Nominal Area per Pole Sq. Ins.	No.	Diameter.	Circuit.	Rule.			
MAIN GENERATOR	1	95	27	1.03	145	152	26	Rubber lead, armoured	
EQUALISER CONNECTIONS									
AUXILIARY GENERATOR	1	95	27	1.03	145	152	12		
EMERGENCY GENERATOR									
ROTARY TRANSFORMER									
ENGINE ROOM	1	10	7	1.32	35	37	40		
BOILER ROOM	1	10	7	1.32	35	37	40		
AUXILIARY SWITCHBOARDS									
Navigation	1	16	7	1.32	35	37	170		
Workshop	1	35	19	1.62	80	83	70		
Foreshop	1	16	7	1.62	8	46	300		
Midship	1	16	7	1.62	32	46	154		
After ship	1	16	7	1.62	25	46	56		
ACCOMMODATION									
WIRELESS	1	16	7	1.62			212		
SEARCHLIGHT	1	35	19	1.62			330		
MASTHEAD LIGHT	1	14	3	0.74	0.5		110		
SIDE LIGHTS	1	14	3	0.74	0.5		25		
COMPASS LIGHTS	1	14	3	0.74	0.5		10		
POOP LIGHTS	1	14	3	0.74	0.5		150		
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 Nominal 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	1	1	70	27	1.62	104	130	45		
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	1	4	7	0.91	16	24	40		



All Conductors are of annealed copper conforming to British Standard Specification No. 7 (or International Electro-technical Commission Publication No. 28).

The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.

The foregoing is a correct description.

N. V. Rotterdamsche Electriciteits Mij.  
W. H. CROON & CO.

Electrical Engineers.

Date 22 Feb. '37

#### COMPASSES.

Distance between electric generators or motors and standard compass 300 feet.

Distance between electric generators or motors and steering compass 200 feet.

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 nihil degrees on every course in the case of the standard compass, and nihil degrees on every course in the case of the steering compass.

WILTON-FIJENOORD.  
(N.V. WILTON SMachinefabriek en Scheepswaerf  
(WILTON'S Engineering & Shipway Co.)  
Maatschappij voor Scheeps- en Werktuigbouw  
"FIJENOORD" N.V.)

Builder's Signature.

Date.

Is this installation a duplicate of a previous case Yes If so, state name of vessel Elusa, Eulda etc.

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

fitted in accordance with the approved plan, Society's Rules and Secretary's letters. Material tested as required and workmanship good. The whole has been examined under full working condition and found in order and merits in my opinion the approval of the Committee.

Noted

25.2.37

mm

Total Capacity of Generators 32 Kilowatts.

The amount of Fee ... £ 246.00 When applied for, 23.2.1937

Travelling Expenses (if any) £

When received.

15.3.37 15/3

CH Bounce  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI 26 FEB 1937

Assigned Su other F. E. report