

Rpt. 13.

No. 12375

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 13 AUG 1931

Date of writing Report 4 July 1931 When handed in at Local Office

Port of Amsterdam

No. in Survey held at Amsterdam Date, First Survey 20 May Last Survey 30 July 1931

Reg. Book.

(Number of Visits 10)

on the Twin Screw Motor Vessel "ANGELINA"

Tons { Gross 2086.47
Net 1020.11

Built at Amsterdam By whom built H. V. Nederl. Dok Maats. Yard No. 30 When built 1931

Owners Ned. Ind. Tank stoomboot M⁴. Port belonging to 's Gravenhage

Electric Light Installation fitted by GROENEVELD, VAN DER POLL & Co's Contract No. When fitted 1931

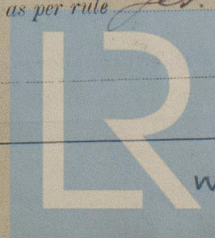
Is the Vessel fitted for carrying Petroleum in bulk Yes Electrotechnische Fabrik
per dok.System of Distribution *incandescent system*Pressure of supply for Lighting 110 volts, Heating ☒ volts, Power 110 volts.Direct or Alternating Current, Lighting *Direct current* Power *direct current*If alternating 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 *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 ☒ 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 Motor 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 *none* 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 Motor room*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 *none* 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 slabwith mica or micanite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework *none*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

Double pole handle switch and for every outgoing circuit double pole fuses and double pole latch 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*

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W1042-0048 1/2

Cables: Single, twin, concentric, or multicore *single 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 *3 1/2*

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*

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 cables with galvanised clips & brass screws. Lead covered cables with brass clips & brass screws & galv. light heling.*

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 *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 made*

Watertight Glands and Deck Tubes, are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands *watertight glands*

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 *✓*

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 *none*

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 *✓*

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected *in life of pump room they are separated from the interior by glass lighted glass bowls placed outside, how are the cables led outside of pump room*

where are the controlling switches situated *outside of the pump room*

Searchlight Lamps, No. of *✓*, whether fixed or portable *✓*, are their fittings as per Rule *✓*

Are 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 *✓*

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*

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 ...	...	12	110	109	390	Steam engine		
AUXILIARY ...	1	12	110	109	390	Steam engine	Crude oil	above 150°F.
EMERGENCY ...	...						
ROTARY TRANSFORMER	...							

GENERATOR, LIGHTING AND HEATING CONDUCTORS.

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.	Rule.			
MAIN GENERATOR ...	1	0.11680	37	0.064	109	130	30	rubber	shel armoured
EQUALISER CONNECTIONS ...	...							
AUXILIARY GENERATOR ...	1	0.11680	37	0.064	109	130	50		
EMERGENCY GENERATOR ...	...							
ROTARY TRANSFORMER MOTOR ...	...							
ENGINE ROOM ...	1	0.02214	7	0.064	43	46	10		
BOILER ROOM ...	...							
AUXILIARY SWITCHBOARDS ...	...							
Navigation lamp ...	1	0.01046	7	0.044	101	31	440		
1000 lamp ...	1	0.01462	7	0.052	13	37	220		
1000 lamp ...	1	0.01462	7	0.052	21	37	180		
1000 lamp ...	1	0.01462	7	0.052	61	37	390		
ACCOMMODATION ...	...							
WIRELESS ...	1	0.01046	7	0.044	201	31	140		
SEARCHLIGHT ...	...							
MASTHEAD LIGHT ...	1	0.00299	3	0.036	23	12	150		
SIDE LIGHTS ...	1	0.00299	3	0.036	43	12	55		
COMPASS LIGHTS ...	1	0.00299	3	0.036	23	12	50		
POOP LIGHTS ...	1	0.00299	3	0.036	23	12	150		
CARGO LIGHTS ...	1	0.00299	3	0.036	1.5	12	140		
ARC LAMPS ...	...							
HEATERS ...	...							

MOTOR CONDUCTORS.

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.	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 ...	2	1	0.02240	19	0.044	40	53	120	rubber	shel 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 ...	1	1	0.00701	7	0.036	12	24	120		
VENTILATING FANS ...	...								
Cal separator ...	1	1	0.00701	7	0.036	16	24	180		
Gunpowder Motor ...	1	1	0.00701	7	0.036	17	31	130		
Kalthe ...	1	1	0.00701	7	0.036	12	24	120		

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.

GROENEVELD, VAN DER POLL & Co's

Elektrotechnische Fabrik

DER DROC.

Electrical Engineers.

Date

COMPASSES.

Distance between electric generators or motors and standard compass 115 feet

Distance between electric generators or motors and steering compass 105 feet

The nearest cables to the compasses are as follows:—

A cable carrying 0.3 Ampères 10 feet from standard compass 3 feet from steering compass.

A cable carrying 0.3 Ampères 12 feet from standard compass 4 feet from steering compass.

A cable carrying 0.2 Ampères 15 feet from standard compass 1 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 course in the case of the standard compass, and degrees on course in the case of the steering compass.

Builder's Signature.

Date

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 installation has been built in accordance with the rules, workmanship good. Tested under full working condition found working satisfactory.

Total Capacity of Generators 24 Kilowatts.

The amount of Fee

£234

When applied for,

19

Travelling Expenses (if any) £

When received,

19

31/8/31

Burgdoffer
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 25 AUG 1931

Assigned *See Lx 17/8/31*

1m. 9.30.—Transfer.
(The Surveyors are requested not to write on or below the space for Committee's Minutes.)



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