

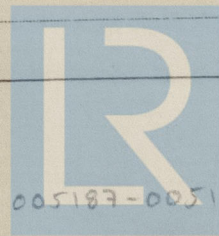
# REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 26 SEP 1935

Date of writing Report 21 September 1935 When handed in at Local Office 19 Port of Copenhagen  
 No. in Survey held at Nalborg Date, First Survey 14. August Last Survey 11. September 1935  
 Reg. Book. 39855 on the Steel Single Screw Steamer RAGNA GORTHON Tons { Gross 1848.06  
 Net 1551.82  
 Built at Nalborg By whom built A/S Nalborg Maskin Yard No. 53 When built 1925  
 Owners John Gorthon Port belonging to Helsingborg  
 Electric Light Installation fitted by H. Molich, Nalborg Contract No. ✓ When fitted 1925  
 Is the Vessel fitted for carrying Petroleum in bulk No

System of Distribution Two conductor insulated 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 ye  
 Generators, do they comply with the requirements regarding rating ye, are they compound wound ye  
 are they over compounded 5 per cent. 0 per cent, 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 yes  
 Are all terminals accessible, clearly marked, and furnished with sockets ye, are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched ye  
 Are the lubricating arrangements of the generators as per Rule ye  
 Position of Generators In the engine room  
 is the ventilation in way of the generators satisfactory ye, are they clear of all inflammable material ye  
 if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generators Not situated and near wood, are the generators protected from mechanical injury and damage from water, steam or oil ye  
 are their axes of rotation fore and aft ye  
 Earthing, are the bedplates and frames of the generating plant efficiently earthed ye, are the prime movers and their respective generators in metallic contact ye  
 Main Switch Boards, where placed In the engine 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 ye  
 are they protected from mechanical injury and damage from water, steam or oil ye, if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards Not situated near wood  
 are they constructed wholly of durable, non-ignitable non-absorbent materials ye, is all insulation of high dielectric strength and of permanently high insulation resistance ye, 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 ye  
 and is the frame effectively earthed ye. Are the fittings as per Rule regarding: — spacing or shielding of live parts ye, accessibility of all parts ye, absence of fuses on back of board ye, proportion of omnibus bars ye, individual fuses to voltmeter, pilot or earth lamp ye, connections of switches ye  
 Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches For the generator  
A double pole switch and a fuse in each pole.  
For each outgoing circuit: A double pole switch and a fuse in each pole  
 Instruments on main switchboard 1 ammeters 1 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 Two earth lamps  
 Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules ye  
 Joint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule ye



© 2020

Lloyd's Register  
Foundation

005187-005193 F0398 1/2



Cables: Single, twin, concentric, or multicore *single core* are the cables insulated and protected as per Tables IV, V, XI or XIII of the Rules. *Table IV*

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load *30 lbs*

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 *ye*

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 *ye*

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 *ye*

Support and Protection of Cables, state how the cables are supported and protected *The cables are supported by screw clips in known deck spaces and where necessary protected by sheet iron plating. Steel wire armour cable used*

If cables are run in wood casings, are the casings and caps secured by screws *ye*, are the cap screws of brass *ye*, are the cables run in separate grooves *ye*. If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VIII *ye*

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements *ye*

Joints in Cables, state if any, and how made, insulated, and protected *No joints in cables*

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

Bushes in Beams and Non-watertight Partitions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed *ye*. state the material of which the bushes are made *lead*

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

, are their connections made as per Rule *ye*

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule *ye*

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

Navigation Lamps, are these separately wired *ye*, controlled by separate switch and separate fuses *ye*, are the fuses double pole *ye*

are the switches and fuses grouped in a position accessible only to the officers on watch *ye*

has each navigation lamp an automatic indicator as per Rule *ye*

Secondary Batteries, are they constructed and fitted as per Rule *ye*

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight *ye*

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 *ye*

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected *ye*

, how are the cables led *ye*

where are the controlling switches situated *ye*

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

Arc Lamps, other than searchlight lamps, No. of *ye*, are their live parts insulated from the frame or case *ye*, are their fittings as per Rule *ye*

Motors, are their working parts readily accessible *ye*, are the coils self-contained and readily removable for replacement *ye*

are the brushes, brush holders, terminals and lubricating arrangements as per Rule *ye*, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material *ye*

are they protected from mechanical injury and damage from water, steam or oil *ye* are their axes of rotation fore and aft *ye*

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 *ye*

, if not of this type, state distance of the combustible material horizontally or vertically above the motors *ye* and *ye*

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed and fitted as per Rule *ye*

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule *ye*

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 *ye*

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office *ye*

## 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	10	110	91	500	Vertical steam engine	✓	✓
AUXILIARY								
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 Effective Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.				
MAIN GENERATOR	1	50	19	1.85	91	98	✓	7	Vulcanized rubber	Lead covered - steel wire armoured.
EQUALISER CONNECTIONS										
AUXILIARY GENERATOR										
EMERGENCY GENERATOR										
ROTARY TRANSFORMER										
ENGINE ROOM	1	1.5	1	1.38	0.5	10	✓	12	"	"
BOILER ROOM	1	1.5	1	1.38	0.5	10	✓	12	"	"
AUXILIARY SWITCHBOARDS										
ENGINE & BOILER ROOM	1	6	7	1.05	6	29	✓	2	"	"
ACCOMMODATION AFT	1	6	7	1.05	10	29	✓	90	"	"
" MIDSHIP	1	6	7	1.05	10	29	✓	20	"	"
" CAPTAIN	1	10	7	1.35	20	38	✓	40	"	"
WIRELESS	1	4	7	0.85	10	22	✓	60	"	"
SEARCHLIGHT	1	1.5	1	1.38	0.5	10	✓	60-60	"	"
MASTHEAD LIGHT	1	1.5	1	1.38	0.5	10	✓	16-16	"	"
SIDE LIGHTS	1	1.5	1	1.38	0.2	10	✓	10	"	"
COMPASS LIGHTS	1	1.5	1	1.38	0.5	10	✓	100	"	"
POOP LIGHTS	1	10	7	1.35	4	38	✓	60	"	"
CARGO LIGHTS FORECAST.	1	6	7	1.05	4	29	✓	50	"	"
ARC LAMPS AFT	1	6	7	1.05	4	29	✓	50	"	"
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... ..										
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 ... ..	4	1	1.5	1	1.38	2.4	10	14	Vulcanized rubber	Lead covered - steel wire armoured.
	3	1	1.5	1	1.38	2.4	10	14		



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.

*J. Møller*

Electrical Engineers.

Date

*September 1935*

#### COMPASSES.

Distance between electric generators ~~or motors~~ and standard compass *30 meters*

Distance between electric generators ~~or motors~~ and steering compass *30 meters*

The nearest cables to the compasses are as follows:—

A cable carrying *6* Amperes *4* feet from standard compass *6* feet from steering compass.

A cable carrying *0.2* Amperes *6* feet from standard compass *and in* feet from steering compass.

A cable carrying Amperes 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 *9* degrees on *all* course in the case of the standard

compass, and *0* degrees on *all* course in the case of the steering compass.

AKTIESELSKABET  
AALBORG MASKIN- OG SKIBSBYGGER

Builder's Signature.

Date

*September 1935*

Is this installation a duplicate of a previous case *yes*

If so, state name of vessel

*1/2 Ton Gorkham, York No 50  
by Messrs Aalborg Maskin- og  
Skibsbysger*

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

*The electric installation as above described has been fitted  
in accordance with the Rules, the approved plan and the  
Secretary's letter E dated 2 July 1935.*

*The material and the workmanship are of good description.  
The electric installation has been tested under full power working  
conditions and found to work satisfactory.*

*Wid  
LH  
11/10/35*

Total Capacity of Generators *10* Kilowatts.

The amount of Fee ...

*£ 224.00*

When applied for,  
*25.9.1935*

Travelling Expenses (if any) £

When received,  
*19.12.35*

*Chiff*

Surveyor to Lloyd's Register of Shipping.

FRI. 4 OCT 1935

Committee's Minute

FRI. 25 OCT 1935

WED. 29 JAN 1936

Assigned

*see J.E. Machy Rpt*



© 2020

Lloyd's Register  
Foundation