

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 12th Jan 1938 When handed in at Local Office

Received at London Office

No. in Survey held at Hamburg
Reg. Book.

Date, First Survey 2nd Dec 1937

Last Survey 4th Jan 1938

on the Hest Single Tenders

"NORVIK."

(Number of Visits 10)

Tons { Gross 9855
Net 8987

Built at Hamburg

By whom built

Deutsche Werft A.G.

Yard No. 194

When built 1934.

Owners Johan Rasmussen & Co.

Landesford

Port belonging to

Panama R.P.

Electric Light Installation fitted by

Allgemeine Elektrizitäts-Gesellschaft

Contract No.

When fitted 1938

Is the Vessel fitted for carrying Petroleum in bulk

yes.

System of Distribution two-wire two-conductor system

Pressure of supply for Lighting 110 volts, Heating 110 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 temperature rise 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

Have certificates of test results for machines under 100 kw. been submitted and approved Certificates attached Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing

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 port side of engine room floor, 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

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 Port side of engine room floor

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

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

is the non-hygroscopic insulating material of an approved type

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

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches

For each generator a double-pole linked switch and a fuse on each pole.

For each outgoing circuit a double-pole change-over switch and a fuse on each pole.

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

Are cupboards or compartments containing switchboards composed of fire-resisting material or lined with approved material yes

Instruments on main switchboard 2 ammeters 2

voltmeters synchronising device for paralleling purposes. For compound machines is the ammeter connected on the opposite pole to equaliser connection

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

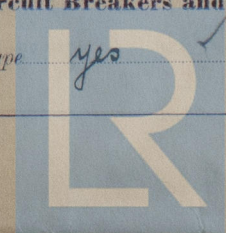
voltmeter with Ohm scale

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

have the reversed



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	22	115	191	400	One cyl. steam engine	-	-	
Emergency	1	22	115	191	550	4 cyl. 450-5A Diesel eng.	Diesel oil	above 150°F	
EMERGENCY ...									
ROTARY TRANSFORMER									

GENERATOR, LIGHTING AND HEATING CONDUCTORS.										
DESCRIPTION.	No. per Pole.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.) Feet. meters	Insulated with	HOW PROTECTED.
		Total Nominal Area per Pole Sq. ins.	No.	Diameter.	In Circuit.	Rule.				
MAIN GENERATOR No. 1 & 2	1	150	61	1.27	191	205.6	14 - 15			
Emergency CONNECTIONS	1	95	37	1.81	100	151.6	36			
AUXILIARY GENERATOR ...										
EMERGENCY GENERATOR ...										
ROTARY TRANSFORMER MOTOR GENERATOR ...										
ENGINE ROOM ...	1	1.5	1	1.38	6	9.4	~ 40			
BOILER ROOM ...	1	7.0	37	1.55	80	123.7	210			
Distribution SWITCHBOARDS No. 2	1	7.0	37	1.55	80	123.7	22			
Distribution " " No. 1	1	2.5	1	1.78	15	15.5	88			
NAVIGATION " " No. 3	1	2.5	1	1.78	15	15.5	218			
Distribution " " No. 4	1	10	19	0.82	26	38.1	60			
" " " " No. 6	1	10	19	0.82	26	38.1	80			
Accommodation " " No. 6	1	20	37	1.55	~ 110	123.7	36			
" " " " No. 7	1	25	19	1.30	50	63.2	74			
Heating plate 3 1/2 W	1	10	19	0.82	27.2	38.1	18			
" " " " 1 1/2 1/2 W	1	2.5	1	1.78	10.9	15.5	30			
Fresh water heaters in Tanky and Captain's bathroom	1	2.5	1	1.78	10.9/36	15.5	18/30			
WIRELESS	1	50	19	1.83	~ 80	98.3	230			
SEARCHLIGHT										
MASTHEAD LIGHT FORE & AFT	1	1.5	1	1.38	0.37	9.4	116/120			
SIDE LIGHTS	1	1.5	1	1.38	0.37	9.4	36			
COMPASS LIGHTS	1	1.5	1	1.38	0.14	9.4	12			
POOP LIGHTS	1	1.5	1	1.38	0.37	9.4	260			
CARGO LIGHTS on both masts	1	2.5	1	1.78	4.6	15.5	93/126			
ARC LAMPS										
HEATERS (portable)	1	2.5	1	1.78	10.9/137	15.5	36/24			

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 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	1	1	10	19	0.82	25.6	38.1	27		
CIRC. SEA WATER PUMPS	1	1	2.5	1	1.78	5.6	15.5	24		
FRESH WATER PUMPS for bridge deck	1	1	4	19	0.82	17.6	22.1	72		
AIR COMPRESSOR	1	1	35	19	1.53	83	84.7	60		
FRESH WATER PUMP	1	1	4	19	0.82	17.6	22.1	72		
ENGINE TURNING GEAR	1	1	35	19	1.					

4491-0032
2/19

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.

ALLGEMEINE ELEKTRICITÄTS-GESELLSCHAFT
Electrical Engineers ABTEILUNG SCHIFFBAU

COMPASSES.

Distance between electric ~~generators~~ or motors and standard compass about 12 metres

Distance between electric ~~generators~~ or motors and steering compass about 10 metres

The nearest cables to the compasses are as follows:—

A cable carrying 0.2 Ampères close to ~~foot from~~ standard compass close to ~~foot 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 nil degrees on — course in the case of the standard compass, and nil degrees on — course in the case of the steering compass.

DEUTSCHE WERFT
AKTIENGESELLSCHAFT

Builder's Signature. Date 19. 1. 38.

Is this installation a duplicate of a previous case yes If so, state name of vessel NORLYS, Hamburg Rep. No. 22061.-8.10.36
REGULUS " No. 22091.-7.11.36.

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

this Electric Installation are of good quality. As the conductors used are of the German Standard the Society's Rules regarding to conductors have been applied generally.

The installation has been fitted under Special Survey in accordance with the approved plan, the Secretary's letter and otherwise in compliance with the requirements of the Rules and is eligible in my opinion to be classed in the Society's Register Book.

Total Capacity of Generators 44 Kilowatts.

The amount of Fee ... RM 520.-

When applied for,

22.7.1938

When received,

4.2.1938

Travelling Expenses (if any) £

Committee's Minute

TUE. 1 FEB 1938

Assigned

See other I.C. report

Friedrich H. Röhrs
Surveyor to Lloyd's Register of Shipping.



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Foundation