

Rpt. 13.

No. 95876

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

FEB -2 1938

Date of writing Report

19

When handed in at Local Office

27/1/38

Port of NEWCASTLE-ON-TYNE

No. in Survey held at

Newcastle on Tyne

Date, First Survey

7 Jan

Last Survey

26/1/

1938

Reg. Book. Supp.

(Number of Visits...)

87411 on the S. S. Beasted

Tons

Gross

Net

605

Built at Burntisland

By whom built Burntisland S.B. Co Ltd

Yard No. 217

When built 1938

Owners Hudson Steamship Co Ltd

Port belonging to London

Electric Light Installation fitted by Burntisland S.B. Co Ltd

Contract No. 217. When fitted 1938

Is the Vessel fitted for carrying Petroleum in bulk no

System of Distribution

Double wire

Pressure of supply for Lighting

110

volts. Heating

volts. Power

volts.

Direct or Alternating Current, Lighting

Direct

Power

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

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 yes Have certificates of test results for machines under 100 kw. been submitted and

approved yes (1 in 10) 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 Engine room starboard side, 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 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 baseplates 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 Engine room starboard side.

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 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

is it of an approved type yes, if semi-insulating material is used, are all conducting parts insulated from the slab with mica or micaite or other

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

D.P. S + D.P. fuses on dynamo mains. S.P.S + D.P. fuses on each outgoing circuits

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 Instruments on main switchboard 1 ammeters 1

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

5 lamps coupled to 5 through switches & fuses Switches, Circuit Breakers and Fusible Cut-outs, have the reversed

do these comply with the requirements of the Rules yes are the fusible cutouts of an approved type yes

Generator Test Certificate

22-38

013260-013267-0139

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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 twin 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

3.6 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

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

Support and Protection of Cables, state how the cables are supported and protected Engine room, stokehold call main cables
LCA B clipped up. LC cable in acc + crew spaces.

If cables are run in wood casings, are the casings and caps secured by screws

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

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

Bushes in Beams and Non-watertight Partitions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed

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

Navigation Lamps, are these separately wired

has each navigation lamp an automatic indicator as per Rule

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

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

where are the controlling switches situated

are all fittings suitably ventilated

Heating and Cooking Appliances, are they constructed and fitted as per Rule

Searchlight Lamps, No. of

Are Lamps, other than searchlight lamps, No. of

Motors, are their working parts readily accessible

are the brushes, brush holders, terminals and lubricating arrangements as per Rule

material, are the motors of the totally enclosed, pipe ventilated, forced draught, drip or flame proof type

have machines of over 100 BHP been inspected by the Surveyors during manufacture and testing

field and motor speed regulators, starters and controllers constructed and fitted as per Rule

are required, are these fitted as per Rule

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

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

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampères.	Rev. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	1	5	110	45.5	430	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 Nominal Area per Pole Sq. Ins.	No.	Diameter.	Circuit.	Rate.			
MAIN GENERATOR	1	.0225	7	.064	45.5	46	24	V.I.R.	LCA+B.
EQUALISER CONNECTIONS									
AUXILIARY GENERATOR									
EMERGENCY GENERATOR									
ROTARY TRANSFORMER									
ENGINE ROOM									
BOILER ROOM	1	.0045	7	.029	7.1	18.2	10	50	LCA+B.
AUXILIARY SWITCHBOARDS									
ACCOMMODATION	1	.036	3	.036	8.1	12.0	104	50	LCA+B.
Saloon crew	1	.007	7	.036	11.38	24	320	50	LCA+B.
hangar	1	.0045	7	.029	4.6	18.2	380	50	LCA+B.
WIRELESS									
SEARCHLIGHT									
MASTHEAD LIGHT	1	.002	3	.029	.4	7.8	240	50	LCA+B
SIDE LIGHTS	1	.002	3	.029	.4	7.8	40	50	L.C.
COMPASS LIGHTS	1	.002	3	.029	.25	7.8	26	50	L.C.
STEERING LIGHTS	1	.002	3	.029	.4	7.8	368	50	LCA+B (Twin)
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.	Rate.			
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										

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.

FOR THE BURNTISLAND SHIPBUILDING COMPANY LTD.

J. W. Clark

DIRECTOR

Electrical Engineers.

Date *21st January, 1938.*

COMPASSES.

Distance between electric generators or motors and standard compass *136 feet.*

Distance between electric generators or motors and steering compass —

The nearest cables to the compasses are as follows:—

A cable carrying *25* Ampères *on the* ~~feet from~~ standard compass 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* *To be filled in after adjustment of compass*

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 degrees on course in the case of the standard

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

FOR THE BURNTISLAND SHIPBUILDING COMPANY LTD.

J. W. Clark

DIRECTOR

Builder's Signature.

Date *21st January, 1938.*

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, etc. *The above instⁿ has been fitted out under special survey. The materials used & workmanship are good. The insulation resistance is good. The dynamo, governor, main board, fuses, cables & fitted wires ex^d tested under working conditions & found satisfactory.*

Noted.

Redl
2-2-38.

Total Capacity of Generators *5* Kilowatts.

The amount of Fee ... £ *5 : 0*

When applied for,

11 FEB 1938

When received,

4/2 1938

AMR 5/2.

W. T. Badger

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI 4 FEB 1938

Assigned *See Ltn 19487*



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