

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report \_\_\_\_\_ When handed in at Local Office 24 AUG. 1936 Port of NEWCASTLE-ON-TYNE Received at London Office 25 AUG. 1936

No. in Survey held at Sunderland Date, First Survey 10 July Last Survey Aug 21 1936  
Reg. Book. Suff. (Number of Visits 7)

40097 on the S.S. "St. Margaret"

Built at Sunderland By whom built J. L. Thompson Yard No. 574 When built 1936  
Tons { Gross 4312  
Net 2604

Owners St. Quentin Shipping Co Ltd Port belonging to Lewport

Electric Light Installation fitted by Messrs Sunderland Forge & Eng Co Ltd Contract No. 574 When fitted 1936

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 110 volts.

Direct or Alternating Current. Lighting Direct Power 110 volts.

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 \_\_\_\_\_, 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 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 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 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 micanite 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 trains. SP switch + DP fuses on each outgoing circuit

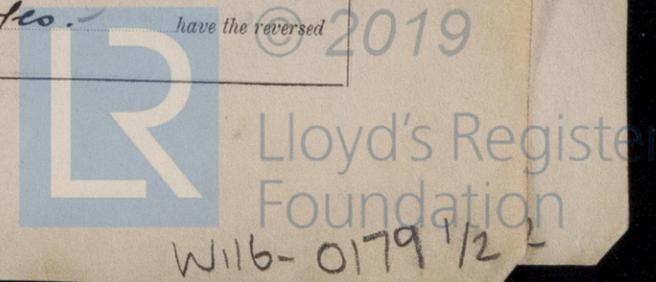
Are turbine driven generators fitted with emergency trip switch as per rule \_\_\_\_\_ Are cupboards or compartments containing switchboards composed of fire-resisting material or lined with approved material \_\_\_\_\_

Instruments on main switchboard \_\_\_\_\_ ammeters \_\_\_\_\_ 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 E. lamps coupled to earth through switches & fuses.

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 \_\_\_\_\_



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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	12.0	110			
AUXILIARY ...								
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 Nominal Area per Pole Sq. Ins.	No.	Diameter.	Circuit.	Rule.			
EQUALISER CONNECTIONS									
AUXILIARY GENERATOR...									
EMERGENCY GENERATOR									
ROTARY TRANSFORMER } MOTOR									
TRANSFORMER } GENERATOR...									
ENGINE ROOM... }									
BOILER ROOM... }	1	.0045	7	.029	8.64	18.2	30	V.I.R.	LCA+B.
AUXILIARY SWITCHBOARDS									
ACCOMMODATION <i>midships</i>	1	.04	19	.052	48.4	64	186	50	50
" <i>aft</i>	1	.007	7	.036	20.4	24	120	50	50
WIRELESS ...	1	.0225	7	.064	5.0	46	198	50	50
SEARCHLIGHT ...									
MASTHEAD LIGHT ...	1	.003	1	.064	.4	12.9	230	50	50
SIDE LIGHTS ...	1	.0015	1	.044	.4	16.1	45	50	L.C.
COMPASS LIGHTS ...	1	.0015	1	.044	.25	6.1	35	50	L.C.
<i>Stair</i> <i>Door</i> <i>W.</i> CARGO LIGHTS ...	1	.003	1	.064	.4	12.9	340	50	LCA+B.
ARC LAMPS ...	1	.003	1	.064	2.75	12.9	160	50	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 Nominal Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
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 ...										
<i>Oil pumps</i>	2	1	.0045	7	.029	18.0	18.2	30	V.I.R.	LCA+B.
<i>Lathe motor</i>	1	1	.007	7	.036	225	24.0	30	V.I.R.	50.
<i>Barometers</i>	—	1	.002	3	.029	2.0	17.9	168	50	50



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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.

*M<sup>esse</sup> Sunderland Forge & Eng. Works  
H. Gurney.*

Electrical Engineers.

Date 18-8-1936

COMPASSES.

Distance between electric generators or motors and standard compass 260 feet.

Distance between electric generators or motors and steering compass 248 feet.

The nearest cables to the compasses are as follows:—

A cable carrying - 25 Ampères 12 feet from standard compass on the feet from steering compass.

A cable carrying - 25 Ampères on the feet from standard compass 12 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 all course in the case of the standard compass, and nil degrees on all course in the case of the steering compass.

JOSEPH L. THOMPSON & SONS, LIMITED,

*R. C. Thompson*

Builder's Signature.

Date

*Helena*

Is this installation a duplicate of a previous case Yes. If so, state name of vessel St. Helena.

General Remarks (State quality of workmanship, opinions as to class, &c. The above inst<sup>n</sup> has been fitted

out under special survey. The materials used & workmanship are good. The insulation resistance tested & found good. On completion the dynamo, governor, main board, fuses, cables & fittings were examined and tested under working conditions & found satisfactory. The vessel is eligible in my opinion for notation. E. S. D.

Noted

Yours

28.8.36

Total Capacity of Generators 12 Kilowatts.

The amount of Fee ... £ 12 : - : 21 AUG 1936

(Inc. 2%)

Travelling Expenses (if any) £ : : 29.8.36

*W. T. Badger*

Surveyor to Lloyd's Register of Shipping.

FRI. 28 AUG 1936

Committee's Minute

Assigned

*See Sld J.C. 31892*

2m.534.—Transfer.  
The Surveyors are requested not to write on or below the space for Committee's Minute.



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