

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

23 DEC 1931

Received at London Office

Date of writing Report 11/1 SEPT. 1931 When handed in at Local Office 19. 12. 1931 Port of GLASGOW.No. in Survey held at GLASGOW. Date, First Survey 1. 7. 31 Last Survey 24. 11. 1931.
Reg. Book. (Number of Visits 23)39726 on the T.S.S. "CARTHAGE" Tons { Gross 14 304
NetBuilt at GLASGOW By whom built A. STEPHEN & SONS LTD Yard No. 535 When built 1931Owners PENINSULAR & ORIENT STEAM NAV. CO. Port belonging to LONDON.Electric Light Installation fitted by A. STEPHEN & SONS LTD Contract No. 535 When fitted 1931Is the Vessel fitted for carrying Petroleum in bulk No.System of Distribution Two wirePressure of supply for Lighting 220 volts, Heating 220 volts, Power 220 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 YesGenerators, do they comply with the requirements regarding rating Yes, are they compound wound Yesare they over compounded 5 per cent. Yes, if not compound wound state distance between each generatorWhere more than one generator is fitted are they arranged to run in parallel Yes, is an adjustable regulating resistance fitted in series with each shunt field YesAre 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 YesPosition of Generators On Dynamo Platform forward end of Engine Room.is the ventilation in way of the generators satisfactory Yes, are they clear of all inflammable material Yesif situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generators Nil and Nil, are the generators protected from mechanical injury and damage from water, steam or oil Yesare their axes of rotation fore and aft YesEarthing, are the bedplates and frames of the generating plant efficiently earthed Yes are the prime movers andtheir respective generators in metallic contact Yes, direct coupled on one bed plate.Main Switch Boards, where placed on Switch board platform at forward end of Engine Room, above Dynamos

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 Yesare 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 Slate, is all insulation of high dielectric strength and ofpermanently 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 Yesand is the frame effectively earthed Yes. Are the fittings as per Rule regarding:— spacing or shielding of live partsYes, accessibility of all parts Yes, absence of fuses on back of board Yes, proportion of omnibusbars Yes, individual fuses to voltmeter, pilot or earth lamp Yes, connections of switches YesMain Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches 3-2000 Amp. D.P. Breakers fitted with 1/2 release & 1/2 lags each pole, & reverse on NEG^{VE} pole. Equalizer pole non-automatic which makes before and breaks after POS^{VE} & NEG^{VE} poles (one breaker for each Dynamo). All circuits 200 amps and over have D.P. Breakers. The Breakers supplying Aux. Switchboards, shunt trips worked in conjunction with 3 way switches & special 1/2 relays on main Generator Breakers. All circuits under 200 amp have D.P. switch & fusesInstruments on main switchboard 3 ammeters 1 voltmeters 1 voltmeter 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 Testing Lamps.(positive to earth and negative to earth) with fuses & switches.Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules YesJoint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule Yes

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

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	1	1	0.0739	19	.072	114/128	157.0	74	PAPER	L.C.A.&B.
MAIN BILGE LINE PUMPS	1	1	0.0759	19	.072	114/128	157.0	76	"	"
2 WATER EXTRACTION PUMPS EACH	1	1	0.0600	19	.064	76.5/95	135.0	180	"	"
EMERGENCY BILGE PUMP	1	1	0.0759	19	.072	95/130	157.0	390	"	"
2 SANITARY PUMPS EACH	1	1	0.0739	19	.072	114/128	157.0	92	"	"
FRESH WATER PUMPS EACH	1	1	0.0070	Y	.036	17/21	24.0	150	V.I.R.	"
EMERGENCY FRESH WATER PUMP	1	1	0.0105	Y	.044	17/21	31.0	248	"	"
2 AIR COMPRESSORS EACH	1	1	0.2465	37	.093	318.5/19	343.0	86	PAPER	"
DISTILLED WATER PUMP	1	1	0.0070	Y	.036	17/21	24.0	120	V.I.R.	"
2 ENGINE TURNING GEAR EACH	1	1	0.0146	Y	.052	32	57.0	132	PAPER	"
AUX. EXTRACT PUMPS EACH	1	1	0.0105	Y	.044	24.4/18.5	31.0	120	V.I.R.	"
2 LUBRICATING OIL PUMPS EACH	1	1	0.0030	3	.036	8	12.0	76	"	"
2 CAPSTANS EACH	1	1	0.1478	37	.072	230	246.0	106	PAPER	"
2 WINDLASS MOTORS EACH	1	1	0.3024	37	.103	375	385.0	112	"	LEAD COVERED
2 WINCHES, FORWARD STONE	1	1	0.1009	19	.083	184	191.0	180	"	"
20-3 TON WINCHES EACH	1	1	0.0600	19	.064	120	135.0	156	"	"
10-BOAT WINCHES EACH	1	1	0.0146	Y	.052	48	57.0	208	"	"
CIRCULATING PUMP	1	1	0.0105	Y	.044	25/15.1	31.0	46	"	L.C.A.&B.
2 STEERING GEAR-MOTORS EACH	1	1	0.1168	37	.064	153	210.0	736	"	LEAD COVERED
3-BRINE CIRC. PUMPS EACH	1	1	0.0146	Y	.052	36/25.1	57.0	90	"	L.C.A.&B.
1-BRINE CIRC. PUMP	1	1	0.0146	Y	.052	41.25/25	57.0	86	"	"
WORKSHOP MOTOR	1	1	0.0070	Y	.036	16.4	24.0	58	V.I.R.	"
VENTILATING FANS	(9)	1	0.0396	19	.052	76.3	104.0	284	PAPER	LEAD COVERED
FO FANS FUSE BOX "MSI"	(2)	1	0.0146	Y	.052	42	57.0	146	"	L.C.A.&B.
" " " " "MS6"	(2)	1	0.1478	37	.072	212	246.0	200	"	"
" " " " "MS7"	(2)	1	0.1478	37	.072	212	246.0	200	"	"
BOILER ROOM VENT. FANS FUSE BOX "MS4"	(4)	1	0.0396	19	.062	90	104.0	376	"	"
ENGINE ROOM VENT. FANS FUSE BOX "MS5"	(4)	1	0.1478	37	.072	222	246.0	312	"	"
SICK ROOM PHOTO FANS FUSE BOX "FSI"	(4)	1	0.0221	Y	.064	59	75.0	98	"	"

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.

ALEXANDER STEPHEN & SONS, LIMITED,

J. M. Quarrie

Electrical Engineers.

Date 30. 11. 31

Asst. Secretary.

COMPASSES.

Distance between electric generators or motors and standard compass 122 feet.

Distance between electric generators or motors and steering compass 120 "

The nearest cables to the compasses are as follows:—

A cable carrying .55 Ampères 10 feet from standard compass 14 feet from steering compass.

A cable carrying 4.0 Ampères 10 feet from standard compass 5 feet from steering compass.

A cable carrying .2 Ampères 10 feet from standard compass 5 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 no degrees on any course in the case of the standard compass, and no degrees on any course in the case of the steering compass.

FOR ALEXANDER STEPHEN & SONS, LIMITED,

J. M. Quarrie

Builder's Signature.

Date 30-11-31

Asst. Secretary.

Is this installation a duplicate of a previous case YES If so, state name of vessel "CORFU"

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

This installation has been fitted on board under special survey, tested under full working condition and found satisfactory. The electrical spare gear for the refrigerating machinery has been checked and found in order. The materials & workmanship are good and sound.

A. G.
19/12/31.

Elec. Light

25/8/32

Total Capacity of Generators 1100 Kilowatts.

The amount of Fee ... £ 59 : 0 : 0 3. 12. 1931.

Travelling Expenses (if any) £ : : When received, 8. 12. 1931.

W. Haffner
Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 22 DEC 1931

Assigned

Elec. Light



© 2020

Lloyd's Register
Foundation