

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

Date of writing Report..... 22. 4. 44 When handed in at Local Office..... 24. 4. 44 Port of NEWCASTLE-ON-TYNE

No. in Survey held at HEBBURN-ON-TYNE Date, First Survey (1942) Aug 28 Last Survey 20th Apr 1944
Reg. Book. (Number of Visits.....)

on the M.V. "CONDESA" Tons { Gross 10367
Net.....

Built at HEBBURN-ON-TYNE By whom built HAWTHORN LESLIE & CO. LTD. Yard No. 655 When built 1944

Owners FURNESS HOULDER ARGENTINE LINES LTD. Port belonging to LONDON

Electrical Installation fitted by HAWTHORN LESLIE & CO. LTD. Contract No. 655 When fitted 1944

Is vessel fitted for carrying Petroleum in bulk..... Is vessel equipped with D.F. YES E.S.D. YES Gy.C. YES Sub.Sig.....

Have plans been submitted and approved YES System of Distribution TWO WIRE INSULATED Voltage of supply for Lighting 220

Heating..... Power 220 Direct or Alternating Current, Lighting D.C. Power D.C. If Alternating Current state periodicity..... Prime Movers,

has the governing been tested and found as per Rule when full load is suddenly thrown on and off YES Are turbine emergency governors fitted with a

trip switch as per Rule..... Generators, are they compound wound YES are they level compounded under working conditions YES,

if not compound wound state distance between generators..... and from switchboard..... Where more than one generator is fitted are they

arranged to run in parallel YES, are shunt field regulators provided YES Is the compound winding connected to the negative or positive pole

NEGATIVE Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing YES Have certificates of

test for machines under 100 kw. been supplied YES and the results found as per rule YES Are the lubricating arrangements and the construction

of the generators as per rule YES Position of Generators ENGINE ROOM, TWO PORT, TWO STARBOARD OF MAIN ENGINE, FORWARD

AND AFT. is the ventilation in way of generators satisfactory YES are they clear of inflammable material YES, if situated

near unprotected combustible material state distance from same horizontally..... and vertically..... are the generators protected from mechanical

injury and damage from water, steam and oil YES, are the bedplates and frames earthed YES and the prime movers and generators in metallic

contact YES Switchboards, where are main switchboards placed ENGINE ROOM, ON GALLERY AFT.

are they in accessible positions, free from inflammable gases and acid fumes YES, are they protected from mechanical injury and damage from water, steam

and oil YES, if situated near unprotected combustible material state distance from same horizontally..... and vertically....., what insulation

material is used for the panels SINDANYO, if of synthetic insulating material is it an Approved Type YES, if of

semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule..... Is the frame effectually earthed YES

Is the construction as per Rule YES, including accessibility of parts YES, absence of fuses on the back of the board YES, individual fuses

to pilot and earth lamps, voltmeters, etc., YES locking of screws and nuts YES, labelling of apparatus and fuses YES, fuses on the "dead"

side of switches YES Description of Main Switchgear for each generator and arrangement of equaliser switches 1400 T.R. CIRCUIT

BREAKER, 2 OVERLOADS 1400/2800, TIME LAG 10 SECS. M.V. & R.C. TRIPS & MAGNETIC BLOW-OUTS.

and for each outgoing circuit D.P. G.B. SWITCH & D.P. H.R.C. FUSES. COMPRESSORS :- 750 AMP. CONTACTOR

PANELS. SUB-BOARDS :- D.P. CIRCUIT BREAKERS WITH OVERLOAD & TIME LAGS.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule YES Instruments on main switchboard 4

ammeters 4 voltmeters..... synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connection YES Earth Testing, state means provided EARTH LAMPS CONNECTED TO "E" THROUGH SWITCHES AND FUSES.

Switches, Circuit Breakers and Fuses, are they as per Rule YES, are the fuses an approved type YES, are all fuses labelled as

per Rule YES If circuit breakers are provided for the generators, at what overload current did they open when tested 40%, are the reversed current

protection devices connected on the pole opposite to the equaliser connection YES, have they been tested under working conditions, and at what current

did they operate 10% Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule YES

Cables, are they insulated and protected as per the appropriate Tables of the Rules YES, if otherwise than as per Rule are they of an approved type.....

state maximum fall of pressure between bus bars and any point under maximum load < 13 V., are the ends of all cables having a sectional area of 0.64

square inch and above provided with soldering sockets YES Are paper insulated and varnished cambric insulated cables sealed at the ends YES

with insulating compound.....**YES** waterproof insulating tape.....**YES** Are all the cable runs in accessible positions, not exposed to drip or accumulation of water or oil, high temperatures or risk of mechanical damage.....**YES**....., are cables laid under machines or floorplates.....**-**....., if so, are they adequately protected.....**-**..... Are cables in machinery spaces, galleys, laundries, etc., lead covered.....**YES**..... or run in conduit.....**-**..... State how the cables are supported and protected.....**LEAD COVERED & ARMoured CABLES CLIPPED TO TRAY PLATES**.....

LEAD COVERED CABLES CLIPPED TO WOOD GROUNDS IN ACCOMMODATION.....

Are all lead sheaths, armouring and conduits effectually bonded and earthed.....**YES**..... Refrigerated chambers, are the cables and fittings as per Rule.....**YES**..... Are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands.....**YES**....., where unarmoured cables pass through beams, etc., are the holes effectively bushed.....**YES**..... and with what material.....**LEAD**..... Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule.....**YES**..... Emergency Supply, state position..... and method of control.....

Navigation Lamps, are they separately wired.....**YES**..... controlled by separate double pole switches.....**YES**..... and fuses.....**YES**..... Are the switches and fuses in a position accessible only to the officers on watch.....**YES**....., is an automatic indicator fitted.....**YES**..... Secondary Batteries, are they constructed and fitted as per Rule....., are they adequately ventilated..... what is the battery capacity in ampère hours.....

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof.....**YES**..... Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present.....**-**....., if so, how are they protected.....**-**.....

and where are the controlling switches fitted.....**-**....., are all fittings suitably ventilated.....**YES**.....

are all fittings and accessories constructed and installed as per Rule.....**YES**..... Searchlight Lamps, No. of....., whether fixed or portable....., are their fittings as per Rule..... Heating and Cooking, is the general construction as per Rule.....

are the frames effectually earthed....., are heaters in the accommodation of the convection type..... Motors, are all motors constructed and installed as per Rule.....**YES**..... and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water, steam and oil.....**YES**....., if situated near unprotected combustible material state minimum distance from same horizontally.....**-**..... and vertically.....**-**..... Are motors coupled to oil fuel transfer and unit pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compartment.....**YES**.....

Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing.....**YES**..... Have certificates of test for motors under 100 BHP intended for essential services been supplied and the results found as per Rule.....**YES**..... Control Gear and Resistances, are they constructed and fitted as per Rule.....**YES**.....

Lightning Conductors, where required are they fitted as per Rule.....**-**..... Ships carrying Oil having a Flash Point less than 150° F. Have all the special requirements of the Rules for such ships been complied with.....**-**....., are all fuses of the cartridge type.....**-**..... are they of an approved type.....**-**..... Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships.....**-**.....

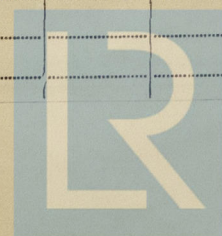
Are the cables lead covered as per Rule.....**YES**..... Spare Gear, if the vessel is for open sea service have spares been provided as per Rule.....**YES**....., are they suitably stored in dry situations.....**YES**..... Insulation Tests, has the insulation resistance of all circuits and apparatus been tested and found satisfactory.....**YES**.....

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 ...	4	300	220	1364	450	DIESEL		
EMERGENCY ...								
ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR ...	4 x 300	3	61/093	1364	1392	440/510 720/600	V.C.	L.C. & B.
" " EQUALISER ...		2	61/093		928		V.C.	L.C. & B.
EMERGENCY GENERATOR ...								
ROTARY TRANSFORMER: MOTOR ...								
" " GENERATOR ...								



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Lloyd's Register Foundation

AFT. HOLD LIGHTING	"	"	1	7/052	9	37	3/5	V.I.R.	L.C.A.&B.	
BRINE PUMP No. 3 CONTROL	1	8	1	19/044	34	87	90	V.C.	L.C.A.&B.	
MOTOR GENERATOR, D.G.	1	-	1	7/064	31	46	200	V.I.R.	L.C.A.&B.	
BRINE PUMP No. 5 CONTROL	1	8	1	19/044	34	87	90	V.C.	L.C.A.&B.	
BRINE PUMP No. 1 CONTROL	1	8	1	19/044	34	87	90	V.C.	L.C.A.&B.	
FAN MOTORS FROM No. 3 CONTROL	4	3	1	7/029	12	15	42/134	V.I.R.	L.C.A.&B.	
	4	2 1/4	1	7/029	9.7	15	180	V.I.R.	L.C.A.&B.	
	12	1 5/8	1	7/029	7.5	15	138/172	V.I.R.	L.C.A.&B.	CABLES INSTALLED FOR.
FUTURE FITTING	1	3	1	7/029	12	15	154	V.I.R.	L.C.A.&B.	1
" "	2	2 1/4	1	7/029	9.7	15	150	V.I.R.	L.C.A.&B.	2
" "	8	2	1	7/029	9	15	104/152	V.I.R.	L.C.A.&B.	7
FAN MOTORS FROM No. 1 CONTROL	1	3	1	7/029	12	15	108	V.I.R.	L.C.A.&B.	
	1	2	1	7/029	9	15	48	V.I.R.	L.C.A.&B.	
	2	1 5/8	1	7/029	7.5	15	174	V.I.R.	L.C.A.&B.	
	6	1 1/4	1	7/029	6	15	122/164	V.I.R.	L.C.A.&B.	
FUTURE FITTING	2	3	1	7/029	12	15	130/154	V.I.R.	L.C.A.&B.	-
" "	1	2 1/4	1	7/029	9.7	15	140	V.I.R.	L.C.A.&B.	1
" "	4	2	1	7/029	9	15	60/120	V.I.R.	L.C.A.&B.	1
" "	5	1 5/8	1	7/029	7.5	15	112/166	V.I.R.	L.C.A.&B.	3
" "	2	1 1/4	1	7/029	6	15	122/154	V.I.R.	L.C.A.&B.	-
FAN MOTORS FROM No. 5 CONTROL	2	3	1	7/029	12	15	84	V.I.R.	L.C.A.&B.	
	2	2 1/4	1	7/029	9.7	15	118	V.I.R.	L.C.A.&B.	
	2	2	1	7/029	9	15	92	V.I.R.	L.C.A.&B.	
	4	1 5/8	1	7/029	7.5	15	104/110	V.I.R.	L.C.A.&B.	
	2	1 1/4	1	7/029	6	15	120	V.I.R.	L.C.A.&B.	
FUTURE FITTING	3	3	1	7/029	12	15	62/198	V.I.R.	L.C.A.&B.	2
" "	1	2 1/4	1	7/029	9.7	15	100	V.I.R.	L.C.A.&B.	1
" "	3	2	1	7/029	9	15	46/78	V.I.R.	L.C.A.&B.	1
" "	1	1 5/8	1	7/029	7.5	15	92	V.I.R.	L.C.A.&B.	1
" "	1	1 1/4	1	7/029	6	15	210	V.I.R.	L.C.A.&B.	-

LUBRICATING OIL PUMP	3	12	1	19/044	48	81	100	V.I.R.	L.C.A.&B.	
OIL FUEL TRANSFER PUMP	2	5	1	7/044	21	31	183/189	V.I.R.	L.C.A.&B.	

0058 2/3

MAIN DISTRIBUTION CABLES.

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
	No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
AUX. SWITCHBOARDS AND SECTION BOARDS ...							
Nº 1 SUB-SWITCHBOARD	1	37/103	225	385	840	V.C.	L.C.A. & B.
Nº 3 "	1	37/103	314	385	390	V.C.	L.C.A. & B.
Nº 5 "	1	37/103	226	385	345	V.C.	L.C. & B.
OZONAIR PLANT SECTION BOARD	1	7/064	27	46	159	V.I.R.	L.C.A. & B.
OIL PURIFIERS " "	1	7/064	24	46	69	V.I.R.	L.C.A. & B.
" " " "	1	7/064	17.5	46	126	V.I.R.	L.C.A. & B.
ENGINE ROOM LIGHTING SECTION BOARD	1	19/052	49	64	90	V.I.R.	L.C. & A.
OFFICERS' ACCOMM. " "	1	19/083	88	118	210	V.I.R.	L.C. & A.
PASSENGERS' ACCOMM. " "	1	19/044	21	87	195	V.C.	L.C.A. & B.
CREW'S " " "	1	7/064	26	46	270	V.I.R.	L.C.A. & B.
AFT. HOLD LIGHTING " "	1	7/052	9	37	375	V.I.R.	L.C.A. & B.
FORO. " " " "	1	7/064	13.8	46	480	V.I.R.	L.C.A. & B.
THERMOTANK FAN MOTORS & AFT RADIATORS S.B.	1	19/064	56	83	210	V.I.R.	L.C. & A.

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS ...	1	7/064	25	46	330	V.I.R.	L.C.A. & B.
NAVIGATION LIGHTS ...	1	7/052	15	37	390	V.I.R.	L.C.A. & B.
LIGHTING AND HEATING ...	ALTERNATIVE SUPPLY FROM CAPTAIN'S BRIDGE DIS. FUSE BOARD.						
ENGINE ROOM LIGHTING DIS. FUSE BOARDS (4)	1	7/044	12/12	31	120/165	V.I.R.	L.C.A. & B.
CAPT'S. BRIDGE " " " "	1	7/052	6	37	180	V.I.R.	H.R. Hand Rubbed
BRIDGE DECK " " " " (2)	1	7/044	8.5/6.5	31	330/360	V.I.R.	L.C.A. & B.
GALLEY " " " " "	1	7/044	24	31	60	V.I.R.	L.C.A. & B.
BRIDGE DECK " " " " (2)	1	7/044	7/10	31	210/150	V.I.R.	H.R.
REFRIG. ENG. ROOM " " " "	1	7/052	12	37	240	V.I.R.	L.C.A. & B.
PASSENGERS' ACCOM. " " " " (2)	1	7/044	11/10	31	90/15	V.I.R.	H.R.
CREW'S ACCOM. " " " " "	1	7/044	9	31	30	V.I.R.	H.R.
" " " " " " "	1	7/036	7	24	120	V.I.R.	H.R.
AFT. HOLD " " " " (3)	1	7/029	5/4/3	15	15/15/90	V.I.R.	L.C.A. & B.
FORO. " " " " " (4)	1	7/036	5/5	24	225/225	V.I.R.	L.C.A. & B.
DISPENSARY " " " " "	1	7/064	18	46	450	V.I.R.	L.C.A. & B.
THERMOTANK FAN MOTORS & AFT RADIATORS D.B.	1	7/064	34	46	30	V.I.R.	L.C.A. & B.
" " " " " " "	1	7/052	22	37	500	V.I.R.	L.C.A. & B.

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
REFRIGERATING COMPRESSOR Nº 1.	1	185	2	37/103	690	770	432	V.C. L.C. & B.
" " " Nº 2	1	185	2	37/103	690	770	366	V.C. L.C. & B.
" " " Nº 3	1	185	2	37/103	690	770	290	V.C. L.C. & B.
BRINE PUMP Nº 1	1	3 1/2	1	7/052	15.5	37	300	V.I.R. L.C.A. & B.
" " " Nº 2 to 6	5	16	1	19/052	63	104	150/186	V.C. L.C.A. & B.
OZONAIR PLANT.	2	3 KWS.	1	7/044	13.5	31	60/60	V.I.R. L.C.A. & B.
CIRCULATING WATER PUMP Nº 1	1	24	1	19/064	96	135	372	V.C. L.C.A. & B.
" " " Nº 2	1	24	1	19/064	96	135	369	V.C. L.C.A. & B.
PISTON & JACKET COOLING PUMP	3	42	1	19/083	158	191	276/378	V.C. L.C.A. & B.
SALT WATER COOLING PUMP	3	31	1	19/064	118	135	282/330	V.C. L.C.A. & B.
LUBRICATING OIL PUMP	3	12	1	19/044	48	87	414/444	V.C. L.C.A. & B.
OIL FUEL TRANSFER PUMP.	2	5	1	7/044	21	31	183/189	V.I.R. L.C.A. & B.
OIL FUEL PURIFIERS	2	2	1	7/029	6.5	15	198	V.I.R. L.C.A. & B.
VAPOUR EXTRACTOR	2	2 1/2	1	7/029	11	15	66	V.I.R. L.C.A. & B.
LUB. OIL PURIFIER	1	2	1	7/029	6.5	15	126	V.I.R. L.C.A. & B.
TURNING MOTOR, PORT.	1	7 1/2	1	19/052	31	104	213	V.C. L.C.A. & B.
" " " STARBOARD.	1	7 1/2	1	19/052	31	104	246	V.C. L.C.A. & B.
WORKSHOP MOTOR	1	7 1/2	1	19/044	30	87	196	V.C. L.C.A. & B.
MOTOR GENERATOR D.G.	1	-	1	19/052	74	104	192	V.C. L.C.A. & B.
" " " "	1	-	1	7/064	33	46	170	V.I.R. L.C.A. & B.

The Electrical Equipment is installed in accordance with the approved plans and the requirements of the Rules.

All Insulated Conductors are guaranteed to have been tested at the maker's works as specified in the Rules.

The foregoing is a correct description.

FOR R. & W. HAWTHORN, LESLIE & CO. LIMITED.

Cliphurst

Electrical Engineers.

Date *21/4/44*

COMPASSES.

Minimum distance between ~~electric generators or~~ motors and standard compass *30 FEET*

Minimum distance between ~~electric generators or~~ motors and steering compass *22 FEET*

The nearest cables to the compasses are as follows:—

A cable carrying *-14* Ampères *INSIDE* feet from standard compass feet from steering compass.

A cable carrying *-14* Ampères *INSIDE* 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 *EVERY* course in the case of the

standard compass, and *NIL* degrees on *EVERY* course in the case of the steering compass.

FOR R. & W. HAWTHORN, LESLIE & CO. LIMITED.

Cliphurst

Builder's Signature.

Date *21/4/44*

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

Plans. Are approved plans forwarded herewith *-* If not, state date of approval *-*

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith *-*

General Remarks (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.) *The Electrical*

Equipment of this vessel has been installed in conformity with the Society's Rules and Regulations, and the arrangements are in accordance with, or equivalent to those shown on the Approved plans.

Materials used are of good quality and the workmanship is satisfactory.

On completion, the Insulation resistance of all circuits and equipment was good, and the Generators operated under normal working conditions and full load tests, with satisfactory results.

notes

Thru

35.44

Total Capacity of Generators *1200* Kilowatts.

The amount of Fee *£ 75:—*
SUNDERLAND A/c 60-00
BIRMINGHAM A/c 15-00
Travelling Expenses (if any) £

When applied for,
24 APR 1944
When received,
.....19.....

A. B. Diment

Surveyor to Lloyd's Register of Shipping.

THURS 4 MAY 1944

EMERGENCY GENERATOR *fe made up*

ROTARY TRANSFORMER: MOT *fe made up*

GENERAL



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