

Rpt. 13.

No. 109566

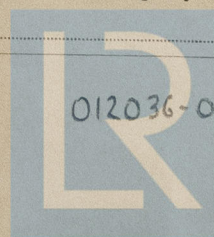
REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

5-JUL 1952

Date of writing Report JUNE 6th 1952. When handed in at Local Office 1 JUL 1952 Received at London OfficeNo. in Survey held at HEBBURN - ON-TYNE Date, First Survey MARCH 27th 1952 Last Survey JUNE 10th 1952
Reg. Book. (No. of Visits 15)36127 on the M.V. 'CLUTHA RIVER' Tons { Gross 12323.30
Net 7197.43Built at HEBBURN-ON-TYNE By whom built R & W. HAWTHORN LESLIE Yard No. 711 When built 1952Owners BRITISH EMPIRE STEAM NAV. CO. LTD. [Houlder Bros.] Port belonging to LONDON. BRITISHInstallation fitted by R. & W. HAWTHORN LESLIE When fitted 1952Is vessel equipped for carrying Petroleum in bulk YES Is vessel equipped with D.F. YES E.S.D. YES Gy.C. No. DECCA MARINE RADAR TYPE 152B FITTERPlans, have they been submitted and approved YES System of Distribution TWO WIRE Voltage of Lighting 110vHeating 110v Power 110v D.C. or A.C., Lighting DC Power DC If A.C. state frequency —Prime Movers, has the governing been found as per Rule when full load is thrown on and off YES Are turbine emergency governors fittedwith a trip switch — Generators, are they compound wound YES, and level compounded under working conditions YES,if not compound wound state distance between generators — and from switchboard — Are the generators arranged to runin parallel YES, are shunt field regulators provided YES Is the compound winding connected to the negative or positive poleNEGATIVE Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing — Have certificates oftest for machines under 100 kw. been supplied YES and the results found as per Rule YESPosition of Generators IN ENGINE ROOMis the ventilation in way of generators satisfactory YES are they clear of inflammable material and protected from mechanical injury anddamage from water, steam and oil YES Switchboards, where are main switchboards placed NEAR GENERATORSare they in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water,steam and oil YES, what insulation is used for the panels SINDANYO, if of synthetic insulatingmaterial is it an Approved Type YES, if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom asper Rule — Is the construction as per Rule, including locking of screws and nuts YES Description of Main Switchgearfor each generator and arrangement of equaliser switches T.P. CIRCUIT BREAKER WITH TWO OVERLOADS,REVERSE CURRENT & 110 VOLT TRIPS.and the switch and fuse gear (or circuit breakers) for each outgoing circuit D.P. SWITCH AND FUSES OR D.P. CIRCUITBREAKER WITH TWO OVERLOAD TRIPS.Are compartments containing switchboards composed of fire-resisting material or lined as per Rule YES Instruments on main switchboard 3ammeters 3 voltmeters — synchronising devices. For compound machines in parallel are the ammeters and reversed currentprotection devices connected on the pole opposite to the equaliser connection YES Earth Testing, state means provided —EARTH LAMPSSwitches, Circuit Breakers and Fuses, are they as per Rule YES, are the fuses an Approved Type YESmake of fuses SIEMENS are all fuses labelled YES If circuit breakers are provided for the generators, at whatoverload do they operate TESTED AT 100% F.L. SET AT 150% F.L., and at what current do the reversed current protective devices operate 15% F.L.Joint Boxes, Section Boards and Distribution Boards, is the construction as per Rule YESCables, are they insulated and protected as per Rule 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 LESS THAN 6%, are the ends of all cables having a sectionalarea of 0.01 square inch and above provided with soldering sockets YES Are all paper insulated and varnished cambric insulatedcables sealed at the ends 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 any cables laid under machines or floorplates YES, if so, are theyadequately protected YES Are cables in machinery spaces, galleys, laundries, etc., lead covered YES or run in conduit —or of the "HR" type — State how the cables are supported or protected CLIPPED TO STEEL TRAYS, WOODWORK OR METALWORK & PROTECTED BY PIPES ORPLATING AS NECESSARY.Are all lead sheaths, armouring and conduits effectually bonded and earthed YES Are all cables passing through decks and watertightbulkheads provided with deck tubes or watertight glands YES, where unarmoured cables pass through beams, etc., are the holeseffectively bushed YES Refrigerated chambers, are the cables and fittings as per Rule —Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule YES Emergency Supply, state position—

Shipping.



© 2021

012036-012041-0096 1/2

Lloyd's Register
Foundation

Navigation Lamps, are they separately wired YES controlled by separate double pole switches 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 Is an alternative supply provided YES

Secondary Batteries, are they constructed and fitted as per Rule —, are they adequately ventilated —

state battery capacity in ampere hours —

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

Are any fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present YES

if so, how are they protected FLAMEPROOF

and where are the controlling switches fitted MIDSHIP SWITCHBOARD COMPARTMENT Are all fittings suitably ventilated YES

Searchlight Lamps, No. of WIRING ONLY whether fixed or portable —, are they of the carbon arc or of the filament type —

Heating and Cooking, is the general construction as per Rule YES, are the frames effectually earthed YES, are heaters in the accommodation of the convection type — Motors, are all motors constructed and installed as per Rule and placed in well-ventilated compartments in which inflammable gases cannot accumulate and protected from damage from water, steam and oil YES

Are motors coupled to oil fuel transfer and pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compartment — 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 sea 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 YES, are all fuses of an Approved Cartridge Type YES, make of fuse SIEMENS Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships YES Are the cables lead covered as per Rule YES

E.S.D., if fitted state make KELVIN HUGHES location of transmitter FRAMES 51-52 and receiver FRAMES 51-52

Spare Gear, if the vessel is for open sea service have spares been provided as per Rule and 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	MAKER.	RATED AT			Revs. per Min.	TYPE.	MAKER.
			Kilowatts per Generator.	Volts.	Ampères.			
MAIN	2	W.H. ALLEN	75	110	680	500	STEAM ENGINE	W.H. ALLEN.
	1	W.H. ALLEN	75	110	680	500	DIESEL ENGINE	NATIONAL GAS & OIL ENGINE CO. LTD
EMERGENCY ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
		No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	75	1	91/103	680	792	132	VC	LC 4 B
" " EQUALISER		1	61/103	—	572	132	VC	LC 4 B
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

MAIN DISTRIBUTION CABLES (to Section Boards, Distribution Fuse Boards, etc.).

DESCRIPTION.								
ENGINE ROOM MOTORS	S.B. 18	1	19/064	72	143	60	VC	LC 4 B
ENGINE ROOM LIGHTING	S.B. 17	1	19/064	72	143	60	VC	LC 4 B
ENGINEERS WORKSHOP	S.B. 16	1	19/064	62	143	150	VC	LC 4 B
FUEL OIL MOTORS	S.B. 14	1	19/064	59	143	60	VC	LC 4 B
DOM. FRIDGE CONTROL PANEL	S.B. 8	1	19/064	60	143	399	VC	LC 4 B
ENGINE ROOM & BOILER ROOM FANS	S.B. 11	1	19/064	60	143	240	VC	LC 4 B
SALOON PANTRY	S.B. 12	1	19/064	92.7	143	210	VC	LC 4 B
POOP DECK PORT		1	19/064	57.5	143	300	VC	LC 4 B
GALLEY SWITCHBOARD	S.B. 7	1	19/064	376	408	300	VC	LC 4 B
POOP DECK STARBOARD	S.B. 6	1	19/064	96	143	190	VC	LC 4 B
UPPER DECK STARBOARD		1	19/064	61.5	143	150	VC	LC 4 B
MIDSHIPS SWITCHBOARD		1	37/103	128	408	600	VC	LC 4 B
LAUNDRY	S.B. 22	1	19/052	54	110	300	VC	LC 4 B

LIGHTING, HEATING, WIRELESS, NAVIGATION LIGHTS, ETC., CABLES.

DESCRIPTION.		No. in Parallel per Pole.	CONDUCTORS.	MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
				Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	Rule.			
ENGINE ROOM LIGHTING	D.B.17A From S.B.17.	1	7/052	20	37	210	VRI	LC A4B
ENGINE ROOM LIGHTING	D.B.17B " S.B.17	1	7/052	20	37	150	VRI	LC A4B
ENGINE ROOM LIGHTING	D.B.17C " S.B.17.	1	7/052	16	37	210	VRI	LC A4B
ENGINE ROOM LIGHTING	D.B.17D " S.B.17.	1	7/052	16	37	150	VRI	LC A4B
BOAT DECK AFT. LIGHTING	D.B.7A " S.B.7	1	7/064	28	80	190	VC	LC
POOP DECK PORT LIGHTING.	D.B.7B " S.B.7.	1	7/052	18	37	190	VRI	LC
POOP DECK STARBD LIGHTING	D.B.7C " S.B.7	1	7/052	16	37	90	VRI	LC
POOP DECK STARBD LIGHTING	D.B.7D " S.B.7.	1	7/052	23	37	90	VRI	LC
POOP DECK PORT LIGHTING	D.B.7E " S.B.7	1	7/052	13	37	150	VRI	LC A4B
UPPER DECK STARBD LIGHTING	D.B.6A " S.B.6	1	7/052	18.5	37	45	VRI	LC
UPPER DECK STARBD LIGHTING	D.B.6B " S.B.6	1	7/052	15	37	190	VRI	LC
UPPER DECK PORT LIGHTING	D.B.6C " S.B.6.	1	7/064	28	80	190	VC	LC
WIRELESS	From MAIN SW. B	1	19/083	25	202	720	VC	LC A4B / LC
BATTERY CHARGING BOARD	From MID. SW. B	1	7/036	6.5	24	120	VRI	LC
CHARTROOM LIGHTING	D.B.5B " " " "	1	7/052	17.5	37	120	VRI	LC
NAVIGATION INDICATOR	" " " "	1	3/036	2	10	135	VRI	LC
WHEELHOUSE LIGHTING	D.B.5A " " " "	1	7/052	27	37	135	VRI	LC
SUEZ CANAL PROJECTOR	" " " "	1	19/064	28	143	780	VC	LC A4B / LC
FORECASTLE LIGHTING	D.B.5G " " " "	1	7/052	6	37	420	VRI	LC A4B.
UPPER BRIDGE DECK LIGHTING	D.B.5C " " " "	1	7/052	19	37	105	VRI	LC
BRIDGE DECK PORT LIGHTING	D.B.5D " " " "	1	7/052	23	37	60	VRI	LC
BRIDGE DECK STARBD LIGHTING	D.B.5E " " " "	1	7/052	16	37	90	VRI	LC
BRIDGE DECK C.L. LIGHTING	D.B.5F " " " "	1	7/052	24	37	60	VRI	LC
RADAR	" " " "	1	7/052	10	37	120	VRI	LC
SHORE CONNECTIONS.	From MAIN SW. B.	1	37/072	250	260	150	VC	LC4B
D.G. SUPPLY.	" " " "	1	19/064	103	143	50	VC	LC

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.							
SALT WATER PUMP From S.B. 18	2	2	1	7/052	18.5	37	210	VR1	LC 4 B
FRESH WATER PUMP " S.B. 18	2	2	1	7/052	18.5	37	210	VR1	LC 4 B
FUEL OIL PURIFIER " Main Sw. B	2	4	1	7/064	33.4	80	240	VC	LC 4 B
LUB. OIL PURIFIER " Main Sw. B	1	4	1	7/064	33.4	80	240	VC	LC 4 B
WORKSHOP DRILL " S.B. 16	1	2	1	7/044	19	31	60	VR1	LC 4 B
WORKSHOP GRINDER " S.B. 16	1	3	1	7/052	26	37	60	VR1	LC 4 B
WORKSHOP LATHE " S.B. 16	1	2	1	7/044	18	31	60	VR1	LC 4 B
FUEL VALVE COOLING PUMP " S.B. 14	2	2.5	1	7/044	22.2	31	210	VR1	LC 4 B
FUEL PRIMING PUMP " S.B. 14	1	1.5	1	7/044	15	31	210	VR1	LC 4 B
GENERAL SERVICE PUMP " Main Sw. B	1	24	1	37/072	194	260	270	VC	LC 4 B
TURBINE MOTOR " Main Sw. B	1	22	1	19/083	172	202	199	VC	LC 4 B
DOM. FRIDGE PUMP " Fridge C.P.	1	1.5	1	7/044	14.3	31	150	VR1	LC 4 B
DOM. FRIDGE FAN " " "	1	1/8	1	3/029	2	5	70	VR1	LC 4 B
DOM. FRIDGE COMPRESSOR " " "	1	1/5	1	7/064	42	80	50	VC	LC 4 B
STEERING MOTOR " Main Sw. B	2	30	1	37/072	223	260	480	VC	LC 4 B
ENGINE ROOM SUPPLY FAN " S.B. 8	2	62	1	19/052	51	110	190	VC	LC 4 B
BOILER ROOM SUPPLY FAN " S.B. 8	1	6.2	1	19/052	51	110	120	VC	LC 4 B
Accom. AIR HEAT UNIT " S.B. 12	2	2.6	1	7/052	17.6	37	150	VR1	LC 4 B
Accom. SUPPLY FAN " S.B. 12	1	1.26	1	7/036	11.8	24	120	VR1	LC
Accom. EXHAUST FAN " S.B. 12	1	0.27	1	3/036	3.5	10	135	VR1	LC
GALLEY EXHAUST FAN " GALLEY S.B.	1	0.54	1	7/029	6	15	75	VR1	LC
Accom. SUPPLY FAN " Mid. Sw. B	1	0.55	1	7/029	6	15	120	VR1	LC
Accom. AIR HEAT UNIT " " " "	1	2.6	1	7/052	17.6	37	105	VR1	LC
COLD CUPBOARD " GALLEY S.B.	1	0.5	1	7/029	5.7	15	75	VR1	LC
COLD CUPBOARD " S.B. 11	1	0.5	1	7/029	5.7	15	45	VR1	LC
WASHING MACHINE " S.B. 22	1	1.0	1	7/029	10	15	60	VR1	LC
LYED EXTRACTOR " S.B. 22	1	1.5	1	7/036	15	24	72	VR1	LC
IRONING MACHINE " S.B. 22	1	1.0	1	7/029	10	15	90	VR1	LC
DRYING ROOM FAN " S.B. 22	1	0.7	1	7/029	8	15	60	VR1	LC
CHEMICAL INJECTOR " D.B. 17B	1	0.3	1	3/029	4	5	50	VR1	LC 4 B.

009622 © 2021

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 H. & W. HAWTHORN, LESLIE & CO. LIMITED

Chapman

Electrical Contractors.

Date 17/6/52

COMPASSES.

Have the compasses been adjusted under working conditions.

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

Chapman

Builder's Signature.

Date 17/6/52

Have the foregoing descriptions and schedules been verified and found correct. YES

Is this installation a duplicate of a previous case. No If so, state name of vessel.

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

Certificates. Are certificates of test for motors engaged on essential sea services and generators forwarded herewith. YES. SEE LIST ATTACHED

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 fitted on board under special survey, been under working conditions. Generators, Circuit breakers and insulation tests carried out and all found to be satisfactory.

The materials and workmanship are good.

The equipment as installed is suitable in my opinion for a class ship.

Im.11.45-Transfer. (MAIN AND PRINTED IN ENGLAND.)
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

Total Capacity of Generators 225 Kilowatts.

The amount of Fee ... £ 75 : 15 : When applied for,

- 4 JUL 1952

When received,

19

Travelling Expenses (if any) £

W. Norris

Surveyor to Lloyd's Register of Shipping.

FRI. 1 AUG 1952

Committee's Minute

Assigned

Su F.E. mch. 4pt.



© 2021

Lloyd's Register
Foundation