

RETAIN

Rpt. 13.

No. 32840

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

APR 10 1940

- 9 APR 1940

Date of writing Report 14 April 40, When handed in at Local Office.....1940 Port of SummerslandNo. in Survey held at Summersland Date, First Survey 13th Dec. Last Survey 14 April, 1940
Reg. Book. Supp. (Number of Visits.....)38561 on the S.S. "CONFIELD" Tons {Gross... 4956
Net... 2800Built at Summersland By whom built J. L. Simpson & Sons Ltd Yard No. 597 When built 1940Owners Confined S.S. Co. Ltd Port belonging to RenwickElectrical Installation fitted by The Summersland Engineering Co. Ltd Contract No. 597 When fitted 1940Is vessel fitted for carrying Petroleum in bulk no Is vessel equipped with D.F. no E.S.D. no Gy.C. no Sub.Sig. noHave plans been submitted and approved yes System of Distribution single wire Voltage of supply for Lighting 110Heating no Power 110 Direct or Alternating Current, Lighting yes Power yes If Alternating Current state frequency no Prime Movers,has the governing been tested and found efficient when the whole load is suddenly thrown on and off yes Are turbine emergency governors fitted with atrip switch as per Rule no Generators, are they compound wound yes, are they level compounded under working conditions yesif not compound wound state distance between generators no and from switchboard no Where more than one generator is fitted are theyarranged to run in parallel no, are shunt field regulators provided yes Is the compound winding connected to the negative or positive polePositive Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing no Have certificates oftest for machines under 100 kw. been supplied yes and the results found as per rule yes Are the lubricating arrangements and the constructionof the generators as per rule yes Position of Generators engine room starboard side aftmain side, is the ventilation in way of generators satisfactory yes are they clear of inflammable material yes, if situatednear unprotected combustible material state distance from same horizontally no and vertically no, are the generators protected from mechanicalinjury and damage from water, steam and oil yes, are the bedplates and frames earthed yes and the prime movers and generators in metalliccontact yes Switchboards, where are main switchboards placed engine room starboard sideon aft bulkhead near generatorsare they in accessible positions, free from inflammable gases and acid fumes yes, are they protected from mechanical injury and damage from water, steamand oil yes, if situated near unprotected combustible material state distance from same horizontally no and vertically no, what insulationmaterial is used for the panels slate, if of synthetic insulating material is it an Approved Type no, if ofsemi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule yes Is the frame effectually earthed yesIs the construction as per Rule yes, including accessibility of parts yes, absence of fuses on the back of the board yes, individual fusesto 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 double poleknife switches and double pole fusesand for each outgoing circuit single pole knife switches and double polefusesAre compartments containing switchboards composed of fire-resisting material or lined as per Rule yes Instruments on main switchboard oneammeters one voltmeters no synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to theequaliser connection no Earth Testing, state means provided 2 lamps connected to E. through two fuses

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under working conditions, Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule 40.....

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

of water or oil, high temperatures or risk of mechanical damage.....Yes....., are cables laid under machines or floorplates.....Yes....., if so, are they adequately

supported and protected V.I.R. cables run in heavy gump covered pipe in Townsend;

Grows on wood grounds in abundance.

Are all lead sheaths, armouring and conduits effectually bonded and earthed.....Yes..... Refrigerated chambers, are the cables and fittings as per Rule.....

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 or Pine Alternative Lighting, are

the groups of lights in the engine and boiler rooms arranged as per Rule 70 Emergency Supply, state position

and method of control

..... Navigation Lamps, are they separately wired Yes controlled by separate

Single double pole switches *Y* and fuses *O.P. Y*. Are the switches and fuses in a position accessible only to the officers on watch *Y*, is an

automatic indicator fitted yes. Secondary Batteries, are they constructed and fitted as per Rule 10, are they adequately ventilated yes.

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof 2/10. Are fittings

installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present. no, 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 7/2 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 70 and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water,

steam and oil 40 if situated near unprotected combustible material state minimum distance from same horizontally 40 and vertically 40

Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing. Have certificates of test for motors under

100 BHP intended for essential services been supplied and the results found as per Rule. Control Gear and Resistances, are they constructed and

fitted as per Rule. Y 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. If portable lamps for use in dangerous spaces are supplied, are they of a self-contained battery-fed flameproof

type _____ Spare Gear, if the vessel is for open sea service have spares been provided as per Rule _____, are they suitably stored in dry

situations..... Insulation Tests, has the insulation resistance of all circuits and apparatus been megger tested and found satisfactory.....

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 ...	One	15	110	136.5	550	Single cylinder steam engine		
EMERGENCY ...								
ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel For Fole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.	(feet plus return feet).		
MAIN GENERATOR	15	1	19/072	136.5	157	26	4c	L.C.B.
" " EQUALISER								
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

MAIN DISTRIBUTION CABLES.

AUX. SWITCHBOARDS AND SECTION BOARDS ...		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Assem. Tlg. H.B. feed:-		1	19/0.52	39.3	64	150	V.I.R.	In galv. pipe																																																																																													
Supply:- Assem. Tlg. P.B.		1	7/0.44	16.7	31	168	V.I.R.	In galv. pipe																																																																																													
Assem. Tlg. P.B.		1	7/0.44	9.2	31	278	V.I.R.	In galv. pipe																																																																																													
Supply:- Assem. Tlg. P.B.		1	7/0.44	13.4	31	30	V.I.R.	L.C.																																																																																													
Cargo Tlg. H.B. feed:-		1	19/0.52	24.2	64	150	V.I.R.	In galv. pipe																																																																																													
Supply:- Cargo Tlg. P.B.		1	7/0.44	6+10	31	168	V.I.R.	In galv. pipe																																																																																													
Tramway P.B.		1	7/0.44	8.2	31	148	V.I.R.	In galv. pipe																																																																																													

LIGHTING AND HEATING, ETC., CABLES.

[illegible]

MOTOR CABLES.

[illegible]

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.

M^{rs} Sunderland Forge & Eng Co Ltd.
A. S. Curry

Electrical Engineers.

Date *3 - 4 - 1940*

COMPASSES.

Minimum distance between electric generators or motors and standard compass *118 feet*

Minimum distance between electric generators or motors and steering compass *112 feet*

The nearest cables to the compasses are as follows:—

A cable carrying *1 1/4* Ampères *on the* feet from standard compass *7* feet from steering compass.

A cable carrying *1 1/4* Ampères *7* feet from standard compass *on the* 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.

JOSEPH D. C. Roush Builder's Signature.

Date *5/4/40.*

Managing Director.

Is this installation a duplicate of a previous case *Yes*

If so, state name of vessel *S.S. "Royal Emblem"*

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 under strict supervision. The materials used are of good quality and the workmanship is good. On completion the equipment was run under working conditions with satisfactory results, the governing, regulation, and compensating of the operating set were tested, the insulation resistance of all circuits was measured and the space gear was examined. This equipment is in my opinion, suitable for a classed vessel.*

Noted
L.H.
11/4/40.

Total Capacity of Generators *15* Kilowatts.

The amount of Fee ... £ *15* : - : When applied for, *8 APR 1940*

Travelling Expenses (if any) £ : : When received, *13.4.40*

Gantson

Surveyor to Lloyd's Register of Shipping.

FRI 12 APR 1940

Committee's Minute

Assigned

See Old. J.E. 32840



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2m, 10, 38.—Transfer. (MADE IN ENGLAND.)
(The Surveyors are requested not to write on or below the space for Committee's Minute.)