

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.

24 SEP 1942

Date of writing Report.....19..... When handed in at Local Office.....16/9/1942..... Port of Newcastle on TyneNo. in Survey held at Walker Date, First Survey 29-7-42 Last Survey 9-9-1942
Reg. Book. (Number of Visits.....5.....)86264 on the EMPIRE REYNOLDS Tons {Gross 8138
Net 4634Built at Walker By whom built Richardson Ltd Yard No. 1712 When built 1942Owners Ministry of War Transport Port belonging to BritishElectrical Installation fitted by Cumtall & Sakerwood & Co Ltd Contract No. 1 When fitted 1942Is vessel fitted for carrying Petroleum in bulk Yes Is vessel equipped with D.F. Yes E.S.D. No Gy.C. No Sub.Sig. NoHave plans been submitted and approved Yes System of Distribution two wire Voltage of supply for Lighting 110Heating..... Power Yes Direct or Alternating Current, Lighting direct Power direct 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..... 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,

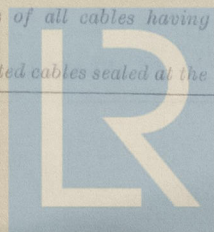
if not compound wound state distance between generators..... and from switchboard..... Where more than one generator is fitted are they

arranged to run in parallel No, 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 Yes Are the lubricating arrangements and the constructionof the generators as per rule Yes Position of Generators Engine room on platform aft of main engineis 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 metalliccontact Yes Switchboards, where are main switchboards placed Aft and near to 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..... and vertically..... what insulationmaterial is used for the panels 'Pyndani' if of synthetic insulating material is it an Approved Type Yes if ofsemi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule..... 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 Circuit breakerswith 1/2 coil and Rv current trip and double pole fuses, double polequick break double throw knife switches.and for each outgoing circuit Double pole quick break double throw knife switches anddouble pole fuses.Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard 2ammeters 2 voltmeters..... synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to theequaliser connection..... Earth Testing, state means provided Lamps connected to earth via fuses & switchesSwitches, Circuit Breakers and Fuses, are they as per Rule Yes are the fuses an approved type Yes are all fuses labelled asper Rule Yes If circuit breakers are provided for the generators, at what overload current did they open when tested 280A are the reversed current

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

did they operate..... Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule YesCables, 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 Some 'Pyrotec' cable for telephone bells etc.state maximum fall of pressure between bus bars and any point under maximum load 3' are the ends of all cables having a sectional area of 0.04square inch and above provided with soldering sockets Yes Are paper insulated and varnished cambric insulated cables sealed at the ends YesLloyd's Register
Foundation

005187-005193-0116 1/2

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	N ^o 1	1	25	110	227	600	Steam engine	
	N ^o 2	1	25	110	227	600	" "	
EMERGENCY								
ROTARY TRANSFORMER								

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 N ^o /	25	1	37'063	227	295	52'	V.C.	L.C.H.B
" " EQUALISER N ^o 2	25	1	37'083	227	295	52'	V.C.	L.C.H.B
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULA- TED 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 ...							
Auxiliary switchboard midships	1	37/083	133	295✓	750'	VC	L.C.A.+B
" supply moored	1	7/064	15	46	905	V.I.B	" "
" navigation	1	7/036	1.5	24	66	"	L.C.+B
Lighting off accommodation	1	7/064	40	46	272	"	L.C.A.+B
Shore connection	1	37/083		295✓	60'	VC	" "

WIRELESS	1	7/064	15	46	900'	VIR	LC+13
NAVIGATION LIGHTS	1	7/039	15	15	960'	"	"
LIGHTING AND HEATING							
Cargo lights midships	1	7/036	7	24	26'	"	LC+13
" " aft	1	7/039	3	15	315'	"	LC+13
Engine room lighting (Starboard)	1	7/064	30	46	21	"	"
" " (Port)	1	7/064	40	46	36	"	"
Centre Coast "	1	7/064	23	31	31'	"	"
Officers cabin midships	1	7/036	18	26	96'	"	LC+13
Painting & saloon (Starboard)	1	7/039	12	15	42	"	"
" " (Port)	1	7/039	10	15	26'	"	"

[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.

CAMPBELL & ISHERWOOD, LTD.

Electrical Engineers.

Date 24 Sept 1942

COMPASSES.

Minimum distance between electric generators or motors and standard compass 12'-0"

Minimum distance between electric generators or motors and steering compass 17'-0"

The nearest cables to the compasses are as follows:—

A cable carrying 24 Ampères inside feet from standard compass — feet from steering compass.

A cable carrying 14 Ampères — feet from standard compass inside 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.

SWANBY & WILKINSON, LTD.

Builder's Signature.

Date 24/9/42

Thos. Morrison

Is this installation a duplicate of a previous case Yes If so, state name of vessel EMPIRE GARRICK

Plans. Are approved plans forwarded herewith No If not, state date of approval 28/11/41

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

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 special
survey in accordance with the approved plans and with
the specification. 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
operation of the circuit breakers protective devices was checked
and adjusted and the insulation resistance of all circuits
and apparatus was measured and found good. This equipment
is in my opinion suitable for a classed vessel.

Noted
L.L.
24/9/42

Total Capacity of Generators 50 Kilowatts.

Sed. etc

The amount of Fee £ 34: 4 When applied for, 22 SEP 1942

Travelling Expenses (if any) £ : : When received, 19

R.E. Cornwell

Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 29 SEP 1942

Assigned See Nwc. JE 100727



© 2020

Lloyd's Register
Foundation