

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

30 OCT 1944

Date of writing Report.....19.....

When handed in at Local Office.....19.....

Port of NEWCASTLE-ON-TYNENo. in Survey held at WILLINGTON QUAY
Reg. Book.Date, First Survey (1944) Feb. 11Last Survey Oct. 9th19 44(Number of Visits 5.....)on the S.T. 'EMPIRE SUSAN'Tons { Gross 591.75
Net 65.98Built at WILLINGTON QUAYBy whom built CLELAND'S SUCCESSORS, LTD.Yard No. 71When built 1944Owners MINISTRY OF WAR TRANSPORTPort belonging to —Electrical Installation fitted by CAMPBELL & SHERWOOD LTDContract No. 71When fitted 1944Is vessel fitted for carrying Petroleum in bulk — Is vessel equipped with D.F. — E.S.D. — Gy.C. — Sub.Sig. —Have plans been submitted and approved YES System of Distribution TWO WIRE INSULATED Voltage of supply for Lighting 110Heating — Power 110 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 NO, are shunt field regulators provided YES Is the compound winding connected to the negative or positive pole NEGATIVEHave machines over 100 kw. been inspected by the Surveyors during manufacture and testing — Have certificates of test for machines under 100 kw. been supplied — and the results found as per rule — Are the lubricating arrangements and the construction of the generators as per rule YES Position of Generators ENGINE ROOM STBD. ON PLATFORM.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 STBD.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 FRONY 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 YESIs 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 DOUBLE POLE Q.B.SWITCHES AND DOUBLE POLE FUSES.and for each outgoing circuit DOUBLE POLE, DOUBLE THROW, Q.B. SWITCHES AND DOUBLE 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 the equaliser connection YES Earth Testing, state means provided EARTH LAMPS CONNECTED TO E THROUGH SWITCHES AND FUSESSwitches, Circuit Breakers and Fuses, are they as per Rule YES are the fuses of 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 —, 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 —, state maximum fall of pressure between bus bars and any point under maximum load 4.4 V., are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets YES Are paper insulated and varnished cambric insulated cables sealed at the ends 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	1	4	110	63.5	600	STEAM ENGINE		
	1	10	110	91.	550	- -		
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	10	1	19/052	91	104	18	YC.	L.C.+B.
" " EXHAUSTOR	7	1	19/052	63.5	104	14	YC.	L.C.+B.
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
GENERATOR								

[illegible][illegible][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 20-10-44

COMPASSES.

Minimum distance between electric generators or motors and standard compass 28 FEET.

Minimum distance between electric generators or motors and steering compass 20 FEET.

The nearest cables to the compasses are as follows:—

A cable carrying 1/4 Ampères 1/4 feet from standard compass 1/4 feet from steering compass.

A cable carrying 1/4 Ampères 1/4 feet from standard compass 1/4 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.

Builder's Signature.

Date 31.10.44

Is this installation a duplicate of a previous case. YES If so, state name of vessel EMPIRE JULIA.

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 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 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 was good, and the generators operated on load and Governor tests, with satisfactory results.

The equipment as installed, is, in my opinion, suitable for a Classed Vessel.

Yours

31.10.44

Total Capacity of Generators 17 Kilowatts.

The amount of Fee ... £ 16 : - :
SPECIFICATION 4 : - :
Travelling Expenses (if any) £ : :
When applied for, 25 OCT 1944
When received, 19

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

see minute on 26.10.44



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