

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

7 JUN 1943

Date of writing Report. 11 MAY 1943 When handed in at Local Office. 11 MAY 1943 Port of NEWCASTLE-ON-TYNE

No. in Survey held at SOUTH SHIELDS Date, First Survey. 26/3/43 Last Survey. 23/4/43 19
Reg. Book. (Number of Visits. 9)

on the EMPIRE PERDITA Tons { Gross. 7028
Net. 4876

Built at SOUTH SHIELDS By whom built JOHN RADHEAD & SONS LTD Yard No. 533 When built 1943

Owners MINISTRY OF WAR TRANSPORT Port belonging to SOUTH SHIELDS

Electrical Installation fitted by CLARKE CHAPMAN & CO LTD GATESHEAD Contract No. 533 When fitted 1943

Is vessel fitted for carrying Petroleum in bulk No 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 Voltage of supply for Lighting 110

Heating — 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

NEGATIVE Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing — 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 STARBOARD

—, 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. IN STORE

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 INTEROILM., 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 DOUBLE POLE

QUICK BREAK KNIFE SWITCH AND FUSE

and for each outgoing circuit SINGLE POLE DOUBLE THROW SWITCH AND DOUBLE POLE FUSE

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule YES Instruments on main switchboard 2

ammeters 2 voltmeters — synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connection — Earth Testing, state means provided EARTH LAMPS CONNECTED TO "E" THROUGH SWITCH 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 —, 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 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 —, are the ends of all cables having a sectional area of 0.84

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

LEAD COVERED CABLES, ON WOOD GROUNDS, IN ACCOMMODATION.

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

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 —

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.....

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.....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..... 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

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 ...	2	16	110	136	580	STEAM ENGINE.		
EMERGENCY ...								
ROTARY TRANSFORMER								

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULA- TED WITH.	HOW PROTECTED.
		No. in Parallel For Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	2 x 15	1	34/042	136	152	20/26	V. I. R.	IN CONDUIT
" " EQUALISER								
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.

For Clarke, Chapman & Co., Ltd

W. Taylor Director

Electrical Engineers.

Date 10/5/43

COMPASSES.

Minimum distance between electric generators or motors and standard compass 34 FEET

Minimum distance between electric generators or motors and steering compass 26 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 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

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted

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 JOHN READHEAD & SONS LTD.

John Readhead

Builder's Signature.

Date 14.5.43

MANAGING DIRECTOR.

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

Plans. Are approved plans forwarded herewith If not, state date of approval 20/10/42.

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

General Remarks (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.) The electrical equipment of this vessel was installed under special survey, in accordance with the approved plans, and specification. The materials used are of good quality and the workmanship is good.

On completion, the equipment was operated under full load conditions, and the insulation resistance measured with satisfactory results.

The equipment, as installed, is, in my opinion, suitable for a classed vessel.

Noted
8/6/43

Total Capacity of Generators 30 Kilowatts.

The amount of Fee £ 28 : 2/6 :
(INCLUDING SPECIFICATION)
When applied for, 3 JUN 1943
Travelling Expenses (if any) £ : :
When received, 19

A. Dimensi
Surveyor to Lloyd's Register of Shipping.

FRI. 11 JUN 1943

Committee's Minute

Assigned

See J. E. M. M. M. M. M.



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