

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

22 MAY 1942

Received at London Office.....

Date of writing Report. 15th May 42 When handed in at Local Office. 21 MAY 1942 Port of Sunderland

No. in Survey held at Sunderland Date, First Survey 20th Mar. Last Survey 11th May, 1942
Reg. Book. Supp. (Number of Vols.)

36453 on the S.S. "EMPIRE KEATS"

Tons { Gross 7035
Net 4949

Built at Sunderland By whom built Short Bros, Ltd. Yard No. 470 When built 1942

Owners Ministry of War Transport Port belonging to Sunderland

Electrical Installation fitted by Campbell & Rhewood, Ltd. Contract No. 470 When fitted 1942

Is vessel fitted for carrying Petroleum in bulk. No Is vessel equipped with D.F. No E.S.D. No Gy.C. No Sub.Sig. No

Have plans been submitted and approved. No System of Distribution Two wire mixed Voltage of supply for Lighting 110

Heating. Power 110 Direct or Alternating Current, Lighting No Power No 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 No Are turbine emergency governors fitted with a

trip switch as per Rule Generators, are they compound wound No are they level compounded under working conditions No

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 No 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 No and the results found as per rule No Are the lubricating arrangements and the construction

of the generators as per rule No Position of Generators Engine room starboard side

is the ventilation in way of generators satisfactory No are they clear of inflammable material No 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 No are the bedplates and frames earthed No and the prime movers and generators in metallic

contact No Switchboards, where are main switchboards placed Engine room starboard side

on aft bulkhead

are they in accessible positions, free from inflammable gases and acid fumes No are they protected from mechanical injury and damage from water, steam

and oil No if situated near unprotected combustible material state distance from same horizontally. and vertically. what insulation

material is used for the panels "Economy Linoleum" if of synthetic insulating material is it an Approved Type No if of

semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule. Is the frame effectually earthed No

Is the construction as per Rule No including accessibility of parts No absence of fuses on the back of the board No individual fuses

to pilot and earth lamps, voltmeters, etc. No locking of screws and nuts No labelling of apparatus and fuses No fuses on the "dead"

side of switches No Description of Main Switchgear for each generator and arrangement of equaliser switches Double pole

circuit breaker with overload and time lag on each pole

and for each outgoing circuit Double pole double throw quick break knife

switch and double pole fuse.

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

ammeters Two 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. Elamp coupled to E through two fuses

Switches, Circuit Breakers and Fuses, are they as per Rule No are the fuses an approved type No are all fuses labelled as

per Rule No If circuit breakers are provided for the generators, at what overload current did they open when tested 160A at 190A are the reversed current

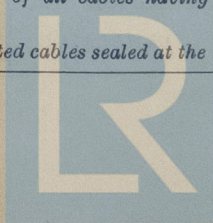
protection devices connected on the pole opposite to the equaliser connection. have they been tested under working conditions, and at what current

did they operate. Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule No

Cables, are they insulated and protected as per the appropriate Tables of the Rules No 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 44.44 are the ends of all cables having a sectional area of 0.04

square inch and above provided with soldering sockets No Are paper insulated and varnished cambric insulated cables sealed at the ends No

Lloyd's Register
Foundation

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	2	15	110	136.5	600	Single cylinder steam engine		
EMERGENCY ...								
ROTARY TRANSFORMER								

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EMERGENCY ...								
ROTARY TRANSFORMER								

GENERATOR CABLES.

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.	Gauge.			
MAIN GENERATORS	2 x 15	1	19/083	136.5	19/	364.	V.C.	L.C.B.
" " EQUALISER								
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
GENERATOR								

MAIN DISTRIBUTION CABLES.

[illegible]

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS	NAVIGATION LIGHTS	LIGHTING AND HEATING	Saloon	Capt's	2nd. Comp.	E.S.O. Room	Engin's app. Comp.	app. Engin.	Engin Room
1	1		1	1	1	1	1	1	1
7/0.264	7/0.244		7/0.244	7/0.36	7/0.26	7/0.26	7/0.264	7/0.264	7/0.244
15	6		8	3	9	6	17	10	18
46	31		31	24	24	24	46	46	31
360	360		12	50	90	300	100	300	20
V.I.R.	do.		V.I.R.	do.	do.	do.	do.	do.	do.
In main + L.C.B.	do.		L.C.B.	do.	do.	In main	do.	do.	do.

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.

Thos Meads

Electrical Engineers.

Date *16th May 1942*

COMPASSES.

Minimum distance between electric generators or motors and standard compass *132 feet*

Minimum distance between electric generators or motors and steering compass *128 feet*

The nearest cables to the compasses are as follows:—

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

A cable carrying *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 *his* degrees on *Every* course in the case of the standard compass, and *his* degrees on *Every* course in the case of the steering compass.

FOR SHORROTT BROTHERS LIMITED.

Norman Blakeney

Builder's Signature.

Date *21 May 1942*

Is this installation a duplicate of a previous case *Yes* If so, state name of vessel *"Empire Newton"*

Plans. Are approved plans forwarded herewith *Yes* If not, state date of approval *13. 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 and 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 protective devices of the circuit breakers were operated and adjusted and the insulation resistance of all circuits was measured and found good. This equipment is in my opinion suitable for a closed vessel.

Noted
26/5/42

Total Capacity of Generators *30* Kilowatts.

The amount of Fee ... *£ 28 : 2/6* : When applied for, *1.9.42 and 19.4.42*
(*incl. Spurge*)
Travelling Expenses (if any) £ : : When received, *.....19.....*

S. Harrison

Surveyor to Lloyd's Register of Shipping.

TUE 2 JUN 1942

Committee's Minute

Assigned *See Atd. JE 33398*



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