

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 12 MAR 1942

Date of writing Report. 6th FEBRUARY 42 When handed in at Local Office. 14: 2: 42 Port of GLASGOW.No. in Survey held at GRANGEMOUTH. Date, First Survey. 8: 1: 42 Last Survey. 10: 2: 19 42
Reg. Book. (Number of Visits. 5) 81336335 on the S.S. "EMPIRE CADET" Tons { Gross 768
Net 333
400

Built at GRANGEMOUTH By whom built GRANGEMOUTH DOCKYARD CO. LTD. Yard No. 436 When built 1941

Owners MINISTRY OF WAR TRANSPORT. Port belonging to GRANGEMOUTH.

Electrical Installation fitted by GRANGEMOUTH DOCKYARD CO. LTD. Contract No. — When fitted 1941

Is vessel fitted for carrying Petroleum in bulk. YES. 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 frequency. — 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 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 IN ENGINE ROOM.

—, 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. NEAR GENERATORS

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. 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. 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 SWITCH AND FUSES

and for each outgoing circuit. DOUBLE POLE CHANGEOVER SWITCH AND DOUBLE POLE FUSES

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule. YES 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. EARTH LAMPS.

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

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Amperes.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN ...	2	6½	110	59	500	STEAM ENGINE		
EMERGENCY ...								
ROTARY TRANSFORMER								

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel For Cable.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR AFTER. ...	6½	1	19/052	59	64	48	RUBBER	LEAD COVERED
" " EQUALISER ...								
" " FORWARD. ...	6½	1	19/052	59	64	90	"	" "
EMERGENCY GENERATOR ...								
ROTARY TRANSFORMER: MOTOR ...								
GENERATOR ...								

[illegible]

WIRELESS
NAVIGATION LIGHTS
LIGHTING AND HEATING
MACHINERY SPACE LIGHTING.	1	7/036	15	24 ✓	30	"	"	"	"
POOP DECK LIGHTING PORT	1	7/036	16	24 ✓	150	"	"	"	"
" " " STAR	1	7/036	17	24 ✓	180	"	"	"	"
MASTHEAD LIGHT.	1	3/036	0.5	10 ✓	900	"	L.C.A.+B.		
PUMP ROOM LIGHTING.	1	3/036	2	10 ✓	520	"	L.C.A.+B.		
POWER PLUG FORWARD	1	3/036	3	10 ✓	600	"	L.C.A.+B.		

[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. G. Cairns

Electrical Engineers.

Date

15 July 1942

COMPASSES.

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

100 feet

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

90 feet

The nearest cables to the compasses are as follows:—

A cable carrying 0.5 Ampères led into feet from standard compass led into feet from steering compass.

A cable carrying 8 Ampères 16 feet from standard compass 2 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 any course in the case of the

standard compass, and Nil degrees on any course in the case of the steering compass.

Builder's Signature.

Date

12 Dec 1942

M. G. Cairns

Is this installation a duplicate of a previous case.....

No

If so, state name of vessel.....

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 fitted on board under special survey tested under full working conditions and found satisfactory.

The material and workmanship are good. All the requirements of the approved plans and the M.O.S. Specification have been carried out.

Rob

14/7/42

Noted

JH

13/3/42

Total Capacity of Generators.....

13

Kilowatts.

The amount of Fee ...

£ 13 : - :
SPECIFICATION. £ 3 : 5 : 0

When applied for,

1.0. MAR. 1942.

Travelling Expenses (if any) £

: 16/3

When received.

.....19.....

Surveyor to Lloyd's Register of Shipping.

R. Storey

Committee's Minute

GLASGOW

10 MAR 1942

Assigned

SEE ACCOMPANYING MACHINERY REPORT.



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