

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office. 15 SEP 1942

Date of writing Report 18-8-42 When handed in at Local Office 19 Port of Middlesbrough

No. in Survey held at Hull-on-Tees Date, First Survey 27-5-42 Last Survey 8-8-1942
Reg. Book.

73302 on the S/S "EMPIRE LYTTON" Tons Gross Net

Built at Hull-on-Tees By whom built Furness Shipbuilding Co. Yard No. 343 When built 1942

Owners The Ministry of War Transport Port belonging to Middlesbrough

Electrical Installation fitted by Furness Shipbuilding Co. Ltd Contract No. 343 When fitted 1942

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

Have plans been submitted and approved Yes System of Distribution 4-wire insulated Voltage of supply for Lighting 110

Heating Power 110 Direct or Alternating Current Lighting Yes Power 4-wire insulated 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 Yes 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 short field regulators provided Yes Is the compound winding connected to the negative or positive pole

Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing Yes 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 on raised platform etc of

main engine 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 on raised platform adjacent to main

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 "Sulamys" 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 a double-pole

double-throw quick-break knife switch and double-pole cartridge type

fuse

and for each outgoing circuit a double-pole double-throw quick-break knife switch and double

pole cartridge type fuse

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 E. lamps connected to E. board two of four

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 less than 4-4V 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	2	25	110	227	685	Single Cylinder Vertical Steam Engine		
EMERGENCY ...								
ROTARY TRANSFORMER								

GENERATOR CABLES.

MAIN DISTRIBUTION CABLES.

LIGHTING AND HEATING, ETC., CABLES.MOTOR CABLES

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.							
2 1/2 Motor Vaux from	1	4.75	1	7/044	32	42	132	V.S.	L.C. A.R.B.
kind " " "	1	3.5	1	7/044	20	42	268	"	L.C. G.B.

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.

FURNESS SHIPBUILDING CO. LIMITED

Electrical Engineers.

Date

COMPASSES.

Minimum distance between electric generators or motors and standard compass 280'

Minimum distance between electric generators or motors and steering compass 276'

The nearest cables to the compasses are as follows:—

A cable carrying 144 Ampères 7 feet from standard compass on the feet from steering compass.

A cable carrying 144 Ampères on the feet from standard compass 7 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 400

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted 400

The maximum deviation due to electric currents was found to be 7 1/2 degrees on 100-100 course in the case of the

standard compass, and 7 1/2 degrees on 100-100 course in the case of the steering compass.

Builder's Signature

Date

4/9/42

Is this installation a duplicate of a previous case 400

If so, state name of vessel

3/3 "Euphrates"

Plans. Are approved plans forwarded herewith No.

If not, state date of approval

D. 20-9-41. S. 26-9-41

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith 700

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 the Ministry of Shipping specification and amendments thereto. The materials used are of good quality and design and the workmanship is good. On completion the equipment was operated under load with satisfactory results and the insulation resistance of each circuit was measured and found good. This equipment is in my opinion suitable for a classed vessel.

Noted
17/9/42

Total Capacity of Generators (2x75) 50 Kilowatts.

The amount of Fee ... £27. 10. 0
Specification 6. 17. 6
Travelling Expenses (if any) £ : :
When received, 19...

When applied for, 37. 8. 22 227 246 400
11. 9. 1942
S. D. Grand
Surveyor to Lloyd's Register of Shipping.

TUE. 22 SEP 1942

Committee's Minute

Assigned

See Indb. 28. 17323



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