

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

9 JUL 1942

Received at London Office 13 JUL 1942

Date of writing Report... 22.6.1942... When handed in at Local Office... 1942... Port of... Hull

No. in Survey held at... Hull... Date, First Survey... 18.4.42... Last Survey... 20.6.1942... (Number of Visits... 12...)

Reg. Book.

on the single screw steam tug "EMPIRE SPRITE" Tons { Gross 329 Net Nil

Built at... Hull By whom built... Henry Swan Ltd. Yard No. 422 When built... 1942

Owners... The Ministry of War Transport Port belonging to... ✓

Electrical Installation fitted by... Wm Broadway and Son Contract No. ✓ 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... Yes System of Distribution... Parallel Constant Pressure 2 wire Voltage of supply for Lighting... 110

Heating... ✓ Power... ✓ Direct or Alternating Current, Lighting... D.C. Power... ✓ 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 side

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... Adjoining generators in engine room

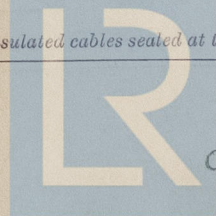
are they in accessible positions, free from inflammable gases and acid fumes... Yes, are they protected from mechanical injury and damage from water, steam and oil... Yes, if situated near unprotected combustible material state distance from same horizontally... ✓ and vertically... ✓ what insulation material is used for the panels... Sindango, 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... D.P. switches and fuses with D.P. change over switch to either generator

and for each outgoing circuit... D.P. change over switches and D.P. fuses

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

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... 2 1/2 Volts 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... ✓



© 2021

Lloyd's Register Foundation

013102-013114-01771/2

"EMPIRE SPRITE

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. No, if so, how are they protected. ✓

and where are the controlling switches fitted. ✓, are all fittings suitably ventilated. Yes

are all fittings and accessories constructed and installed as per Rule. Yes Searchlight Lamps, No. of None, 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. ✓ and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water, steam and oil. ✓, 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. ✓ Control Gear and Resistances, are they constructed and fitted as per Rule. ✓ 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 and found satisfactory. 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	4 ✓ (each)	110	36.5 Each	500	Steam engine (each)	✓	✓
EMERGENCY ...								
ROTARY TRANSFORMER								

GENERATOR TABLE.								
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.	Rate.			
MAIN GENERATOR	4	6mm	7/064	36.5	46	26	V.I.R.	L.C. & sand.
" " EQUALISER								
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR ...								
" " GENERATOR ...								

[illegible][illegible][illegible]

"EMPIRE SPRITE"

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.

WM BROADY & SONS LTD
ENGINEERS
HULL

Electrical Engineers.

Date 23rd June 1942

COMPASSES.

Minimum distance between electric generators or motors and standard compass 60 ft

Minimum distance between electric generators or motors and steering compass "

The nearest cables to the compasses are as follows:—

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

A cable carrying Ampères feet from standard compass 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 1/2 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.

Is this installation a duplicate of a previous case Yes If so, state name of vessel "EMPIRE RACE"

Plans. Are approved plans forwarded herewith No If not, state date of approval 26.6.41

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.)

This installation has been fitted on board in accordance with the approved plans, the Specification and the Society's Rules. The workmanship and materials are good and when tried under working conditions and tested as required by the Rules the installation was found satisfactory in every respect.

Held

Plus

15.7.42

Total Capacity of Generators 8 Kilowatts.

The amount of Fee £ 8 : 0 : 00 JUL 1942

25% for Specialist 2 : 0 : 00

Travelling Expenses (if any) £ : : When received.

19

W. S. Shields

Surveyor to Lloyd's Register of Shipping.

FRI 17 JUL 1942

Committee's Minute

Assigned

See Hul. 2E 51671