

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office WED FEB 14 1923

Date of writing Report 17th Dec. 1922 When handed in at Local Office 13th Feb. 1923 Port of Southampton

No. in Survey held at Cowes Date, First Survey 7th Dec 1922 Last Survey 14th Dec 1922
Reg. Book.

on the M.V. "British Spark"

Built at Cowes By whom built J.S. White & Co. Ltd. No. 1591 When built 1922

Owners British Petroleum Co. Ltd. Port belonging to Manchester

Electric Light Installation fitted by Messrs Selford, Grier & Mackay Ltd Contract No. When fitted 1922

System of Distribution Double-Wire Loop-in System

Pressure of supply for Lighting 100 volts, Heating 100 volts, Power — volts.

Direct or Alternating Current, Lighting Direct Current Power —

If alternating current system, state frequency of periods per second —

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off. yes

Generators, do they comply with the requirements regarding overload. yes, are they compound wound. yes

are they over compounded 5 per cent. yes, if not compound wound state distance between each generator —

Where more than one generator is fitted are they arranged to run in parallel. —, is an adjustable regulating resistance fitted in series with each shunt field. yes

Are all terminals accessible and clearly marked. yes, are they so spaced or shielded that they cannot be accidentally earthed, or short circuited. yes

Position of Generators Engine Room (Starboard Side)

is the ventilation in way of the generators satisfactory. yes, are they clear of all inflammable material. yes

if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generators — and —, are the generators protected from mechanical injury and damage from water, steam or oil. yes

are their axis of rotation fore and aft. yes

Earthing, are the bedplates and frames of the generating plant efficiently earthed. yes, are the prime movers and their respective generators in metallic contact. yes

Main Switch Boards, where placed Beside Dynamo

If the generators and main switchboard are not placed in the same compartment, is each generator provided with a fuse on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard. —

Switchboards, are they placed in accessible positions, free from inflammable gases and acid fumes. yes

are they protected from mechanical injury and damage from water, steam or oil. yes, if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards. — and —

are they constructed wholly of durable, incombustible non-absorbent materials. yes, is all insulation of high dielectric strength and of permanently high insulation resistance. yes

insulated from the slab with mica or micanite and the slab similarly insulated from its framework. yes, and is the frame effectively earthed. yes

Are the following fittings as per Rule, viz.: — spacing or shielding of live parts. yes, accessibility of all parts. yes, absence of fuses on back of board. yes, proportion of omnibus bars. yes

individual fuses to voltmeter, pilot or earth lamp. yes, connections of switches. yes

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches

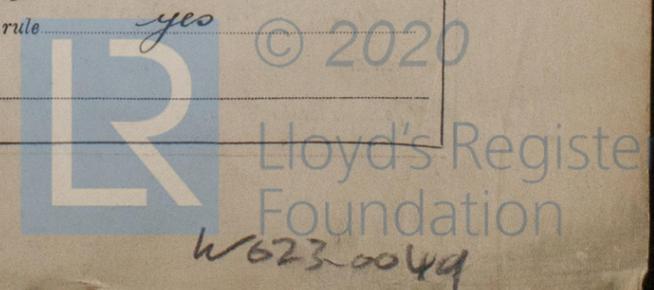
Main Switch for Dynamo 50 Ampere capacity D.P. Knife Pattern
Circuit Switches 10 Ampere capacity D.P. Lumblers Pattern

Instruments on main switchboard one ammeter, one voltmeter, — synchronising device for paralleling purposes.

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system. Earth Lamps

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules. yes

Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule. yes



Insulation of Cables, state type of cables, single or twin single are the cables insulated and protected as per Tables III or IV of the Rules yes

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 2 Volts

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.007 square inch and above provided with soldering sockets yes

Paper Insulated Cables. If cables are paper covered, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound _____

Cable Runs, are the cables fixed as far as possible in accessible positions not exposed to drip or accumulation of water or oil, or to high temperature from boilers, steam pipes, uptakes or other hot objects, or to avoidable risk of mechanical damage yes

Support and Protection of Cables, state how the cables are supported and protected Lead covered (single) in Galvanized Steel Tube from Aft to Fore on Bulwark Clipped to deck in Crews' space & E.R.

If cables are run in wood casings, are the casings and caps secured by screws _____, are the cap screws of brass _____, are the cables run in separate grooves _____ If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VI yes

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements _____ yes

Joints in Cables, state if any, and how made, insulated, and protected none

Watertight Glands and Deck Tubes, are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands yes

Bushes in Beams and Non-watertight Positions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed yes state the material of which the bushes are made Lead

Earthing Connections, state what earthing connections are fitted and their respective sectional areas _____

_____, are their connections made as per Rule _____

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule _____ yes

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven _____

Navigation Lamps, are these separately wired yes, controlled by separate switch and separate fuses yes

are the fuses double pole yes, are the switches and fuses grouped in a position accessible only to the officers on watch yes

has each navigation lamp an automatic indicator as per Rule yes, are separate screens provided for the use of oil and electric side lights _____

are separate oil lanterns provided for the mast head lights and side lights yes

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight yes

are any fittings placed in spaces in which goods are liable to be stacked in close proximity to them; if so, how are they protected no

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected Guard & glass permanently fixed to Bulkhead from outside space.

_____, how are the cables led _____

where are the controlling switches situated Beside switchboard.

Searchlight Lamps, No. of _____, whether fixed or portable _____, are their fittings as per Rule _____

Arc Lamps, other than searchlight lamps, No. of _____, are their live parts insulated from the frame or case _____, are their fittings as per Rule _____

Motors, are their working parts readily accessible _____, are the coils self-contained and readily removable for replacement _____

are the brushes, brush holders, terminals and lubricating arrangements as per Rule _____, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material _____

are they protected from mechanical injury and damage from water, steam or oil _____ are their axis of rotation fore and aft _____

if situated near unprotected woodwork or other combustible material, are the motors of the totally enclosed, pipe ventilated, forced draught, drip or flame proof type _____, if not of this type, state distance of the combustible material horizontally or vertically above the motors _____ and _____

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed as per Rule _____ yes

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule _____ yes

Ships carrying Oil having a Flash Point less than 150° F. Have the special requirements of the Rules been complied with regarding switches, joint boxes, section and distribution boards, protection of cables, method of distribution, lead of cables, lights and fittings yes

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office none

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY.	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Amps.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	1	2	100	20	1000	Petrol-Paraffin Engine		
AUXILIARY								
EMERGENCY								
ROTARY TRANSFORMER								

Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Amps.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR...	Two	.0225	7	.064	20	12		
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM	Two	.007	7	.036	1.8	12	V.I.R.	Lead covered
	BOILER ROOM								
	Navigation Forward	Two	.007	7	.036	6	60	V.I.R.	Lead covered
		Two	.007	7	.036	8.2	168	V.I.R.	Lead covered
	WIRELESS								
	SEARCHLIGHT								
	MASTHEAD LIGHT...	Two	.003	3	.036	.6	50	V.I.R.	Lead Covered
	SIDE LIGHTS (EACH)	Two	.003	3	.036	.6	30	V.I.R.	Lead Covered
	COMPASS LIGHTS								
	POOP LIGHTS								
	CARGO LIGHTS								
	ARC LAMPS								
	HEATERS	Two	.007	7	.036	7	16	V.I.R.	Lead Covered

Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Amps.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP								
	MAIN BILGE LINE PUMPS								
	GENERAL SERVICE PUMP								
	EMERGENCY BILGE PUMP								
	SANITARY PUMP								
	CIRC. SEA WATER PUMPS								
	CIRC. FRESH WATER PUMPS								
	AIR COMPRESSOR								
	FRESH WATER PUMP								
	ENGINE TURNING GEAR								
	ENGINE REVERSING GEAR								
	LUBRICATING OIL PUMPS								
	OIL FUEL TRANSFER PUMP								
	WINDLASS								
	WINCHES, FORWARD								
	WINCHES, AFT								
	STEERING GEAR								
	WORKSHOP MOTOR								
	VENTILATING FANS								

All Conductors are of annealed copper conforming to British Standard Specification No. 7.
 The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.
 The foregoing is a correct description.

THOMAS GRIER & MACKAY, Ltd.

Electrical Engineers.

Date 9 Feb 1923

COMPASSES.

Distance between electric generators or motors and standard compass 20 feet

Distance between electric generators or motors and steering compass 20 feet

The nearest cables to the compasses are as follows:—

A cable carrying 6 Ampères 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 degrees on course in the case of the standard compass, and degrees on course in the case of the steering compass.

For **J. SAMUEL WHITE & COMPANY, Ltd.**

Builder's Signature.

Date 12.2.23

[Handwritten Signature]

Managing Director.

Is this installation a duplicate of a previous case No If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)

This installation has been fitted in accordance with the requirements of the Rules. The materials and workmanship are good. The installation has been tried under full working conditions and found satisfactory. The vessel is in my opinion eligible for the notation "Elec. Light."

It is submitted that this vessel is eligible for THE RECORD. Elec. light.

[Handwritten Signature]
27/2/23

Total Capacity of Generators 2 Kilowatts

The amount of Fee ... £ 5 : 0 : 11 Jan 1923

Travelling Expenses (if any) £ ✓ : 29 Jan 1923

L. H. Young for J. G. Mackay
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Im. 22.—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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