

Rpt. 13.

No. 95774

# REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office... 1 DEC 1930

Date of writing Report 26<sup>th</sup> Nov<sup>r</sup> 1930 when handed in at Local Office... Port of LONDON

No. in Survey held at FAVERSHAM. Date, First Survey 1<sup>st</sup> Aug 1930 Last Survey 12<sup>th</sup> Nov<sup>r</sup> 1930.  
Reg. Book. (Number of Visits... 2...)

on the S.S. ITACA III Tons { Gross 106.86  
Net 62.76

Built at FAVERSHAM. By whom built JAMES POLLOCK SONS & CO. LD. Yard No. 1386 When built 1930.

Owners ITACA COMPANIA ARGENTINA PARA LA ELABORACION DE PRODUCTOS PETROLIFEROS SOCIEDAD ANONIMA Port belonging to BUENOS AIRES.

Electric Light Installation fitted by TELFORD GRIER & MACKAY LTD. Contract No. When fitted 1930

Is the Vessel fitted for carrying Petroleum in bulk YES (IN TANKS)

System of Distribution TWO WIRE, DIRECT CURRENT.

Pressure of supply for Lighting 110 volts, Heating ✓ volts, Power 110 volts.

Direct or Alternating Current, Lighting DIRECT. 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 rating 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 ONE GENERATOR, is an adjustable regulating resistance fitted in series with shunt field YES.

Are all terminals accessible, clearly marked, and furnished with sockets YES., are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched YES Are the lubricating arrangements of the generators as per Rule YES

Position of Generator ON STARTING PLATFORM IN ENGINE ROOM.

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 NO WOODWORK. and ✓, are the generators protected from mechanical injury and damage from water, steam or oil YES.

are their axes of rotation fore and aft THWAFTSHIPS.

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 BOLTED TO COMMON BEDPLATE

Main Switch Boards, where placed IN PROXIMITY TO GENERATOR, ON STARTING PLATFORM

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 NO WOODWORK and

are they constructed wholly of durable, non-ignitable non-absorbent materials YES., is all insulation of high dielectric strength and of permanently high insulation resistance YES, if semi-insulating material is used, are all conducting parts insulated from the slab

with mica or micanite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework ✓

and is the frame effectively earthed YES, BOLTED TO STRUCTURE Are the fittings as per Rule regarding:— 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 DOUBLE POLE

SWITCH. DOUBLE POLE FUSES FOR GENERATOR DOUBLE POLE SWITCHES

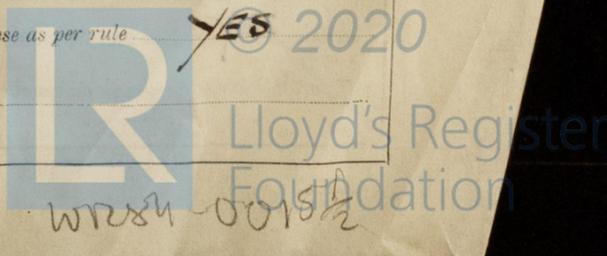
(LINKED) AND DOUBLE POLE FUSES FOR CIRCUITS.

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 LAMPS

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

Joint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule YES



**Cables:** Single, twin, concentric, or multicore SINGLE are the cables insulated and protected as per Tables IV or V of the Rules YES.

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

**Cable Sockets and other connections,** are the ends of all cables having a sectional area of 0.04 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 CABLES ARE CLIPPED UP DIRECTLY TO DECK AND ARE PROTECTED BY STEEL ARMOURING

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 VIII YES.

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

**Joints in Cables,** state if any, and how made, insulated, and protected NO JOINTS

**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 Partitions,** 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 MACHINE AND SWITCHBOARD ARE CONNECTED IMMEDIATELY TO STRUCTURAL WORK OF VESSEL.

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 NONE.

**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

**Secondary Batteries,** are they constructed and fitted as per Rule NONE

**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 NONE SUCH.

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected NONE, how are the cables led

where are the controlling switches situated

**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 YES, are the coils self-contained and readily removable for replacement YES, are the brushes, brush holders, terminals and lubricating arrangements as per Rule YES, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material YES, are they protected from mechanical injury and damage from water, steam or oil YES are their axes of rotation fore and aft NO, 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 TOTALLY ENCLOSED, 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 and fitted as per Rule YES

**Lightning Conductors,** where lightning conductors are required, are these fitted as per Rule ✓

**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 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	1	10	110	91.5	575	OIL ENGINE	FUEL OIL	ABOVE 150° F.
AUXILIARY								
EMERGENCY								
ROTARY TRANSFORMER								

GENERATOR, LIGHTING AND HEATING CONDUCTORS.

DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT, AMPERES.		Approximate Length (Lead and Return) Feet.	Insulated with	HOW PROTECTED.
	No. per Pole.	Total Effective Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
MAIN GENERATOR	1	.10090	19	.083	91.5	1000	12	V.I.R.	STEEL CONDUIT.
EQUALISER CONNECTIONS						AMP/10"			
AUXILIARY GENERATOR									
EMERGENCY GENERATOR									
ROTARY TRANSFORMER MOTOR GENERATOR									
ENGINE ROOM	1	.00194	3	.029	2	"	28	V.I.R.	LEAD COVERED & ARMURED.
BOILER ROOM									
AUXILIARY SWITCHBOARDS									
ACCOMMODATION	1	.00194	3	.029	3	"	50	V.I.R.	LEAD COVERED & ARMURED.
WIRELESS	✓								
SEARCHLIGHT	✓								
MASTHEAD LIGHT	1	.00194	3	.029	.58	"	100	V.I.R.	ditto
SIDE LIGHTS	1	.00194	3	.029	.58	"	40	V.I.R.	ditto
COMPASS LIGHTS	1	.00194	3	.029	.20	"	18	V.I.R.	LEAD COVERED
POOP LIGHTS	✓								
CARGO LIGHTS	✓								
ARC LAMPS	✓								
HEATERS	✓								

MOTOR CONDUCTORS.

DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT, AMPERES.		Approximate Length (Lead and Return) Feet.	Insulated with	HOW PROTECTED.
		No. Per Pole.	Total Effective Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
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—										
(a) MOTOR GENERATOR										
(b) MAIN MOTOR										
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.

Telford Grimley & Co. Electrical Engineers.

Electrical Engineers.

Date 14/11/30

COMPASSES.

Distance between electric generators or motors and standard compass 12 FEET.

Distance between electric generators or motors and steering compass ✓

The nearest cables to the compasses are as follows:—

A cable carrying 91 Ampères 12 feet from standard compass ✓ feet from steering compass.

A cable carrying 2 Ampères 7 feet from standard compass ✓ feet from steering compass.

A cable carrying 20 Ampères INSIDE 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 course in the case of the standard compass, and NIL degrees on course in the case of the steering compass.

James Pollock Souse Co. Ltd. Builder's Signature.

Date

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.)

The materials and workmanship are good. This electric lighting installation has been fitted under Special Survey in accordance with the requirements of the Rules and is in our opinion suitable for a classed vessel.

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

elec. light

J.A.

5/12/30.

Total Capacity of Generator 10 Kilowatts.

The amount of Fee £ 10 : 0 : 2 DEC 1930

Travelling Expenses (if any) £ : : 13/12/30

Arthur Palmer & Anderson Surveyors to Lloyd's Register of Shipping.

TUE. 17 FEB 1931

Committee's Minute TUE. 9 DEC 1930

Assigned

1m. 9. 30. - Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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