

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

20 JUN 4

Received at London Office

Date of writing Report 7-6-1934 When handed in at Local Office 18-6-1934 Port of GLASGOW.

No. in Survey held at GLASGOW AND PORT GLASGOW Date, First Survey 8-3-34 Last Survey 8-6-1934
Reg. Book. (Number of Visits.....)

40162 on the S.S. JAMAICA PRODUCER.

Tons { Gross
Net

Built at PORT GLASGOW. By whom built LITHGOWS LTD Yard No. 868 When built 1934

Owners JAMAICA BANANA PRODUCERS S.S. CO. LD. Port belonging to KINGSTON.

Electric Light Installation fitted by CAMPBELL AND ISHERWOOD LTD. Contract No. 868 When fitted 1934

Is the Vessel fitted for carrying Petroleum in bulk No.

System of Distribution

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

Direct or Alternating Current, Lighting Direct. Power Direct.

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 No., is an adjustable regulating resistance fitted in series with each 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.

Position of Generators

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 axes 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

Engine Room adjacent to generators.

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, non-ignitable non-absorbent materials Yes, is all insulation of high dielectric strength and of permanently high insulation resistance Yes.

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

and is the frame effectively earthed Yes. 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

Generators:— D.P. Circuit Breakers. Circuit Switches:—
3-Way Selector. D.P. Fuses.

Instruments on main switchboard 3. ammeters 3. voltmeters — 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

3 Sets Earth 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 1%
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 none
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 clipped direct to steel trays; Hard Rubber clipped direct or in tubing as required.
If cables are run in wood casings, are the casings and caps secured by screws yes, are the cap screws of brass yes, are the cables run in separate grooves yes. 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 yes
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 Fibre
Earthing Connections, state what earthing connections are fitted and their respective sectional areas —
are their connections made as per Rule yes
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 yes
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, 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 yes, 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 yes, 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 —
If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office —

| 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 | 3 | 90 | 110 | 820 | 470 | Steam Compound Engines | | | |
| 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 | 2 | 0.812 | 61 | 0.093 | 820 | 834 | 30/35 | Cambric | Lead Covered |
| EQUALISER CONNECTIONS | — | — | — | — | — | — | — | — | — |
| AUXILIARY GENERATOR | — | — | — | — | — | — | — | — | — |
| EMERGENCY GENERATOR | — | — | — | — | — | — | — | — | — |
| ROTARY TRANSFORMER } MOTOR GENERATOR | — | — | — | — | — | — | — | — | — |
| ENGINE ROOM | 1 | 0.007 | 7 | 0.036 | 18 | 24 | 10 | Cambric | Lead covered |
| BOILER ROOM | 1 | 0.007 | 7 | 0.036 | 18 | 24 | 30 | Cambric | Lead covered |
| AUXILIARY SWITCHBOARDS | | | | | | | | | |
| Forward Holds | 1 | 0.01 | 7 | 0.044 | 20 | 31 | 390 | H.R. | H.R. |
| After Holds | 1 | 0.01 | 7 | 0.044 | 27 | 31 | 280 | H.R. | H.R. |
| Navigation | 1 | 0.004 | 7 | 0.029 | 10 | 18.2 | 350 | H.R. | H.R. |
| ACCOMMODATION | | | | | | | | | |
| Midship | 1 | 0.04 | 19 | 0.052 | 56 | 64 | 240 | Hard Rubber | Hard Rubber |
| Engineers | 1 | 0.022 | 7 | 0.064 | 40 | 46 | 100 | H.R. | H.R. |
| Forecastle | 1 | 0.022 | 7 | 0.064 | 30 | 46 | 590 | H.R. | H.R. |
| WIRELESS | 1 | 0.022 | 7 | 0.064 | 30 | 46 | 330 | H.R. | H.R. |
| SEARCHLIGHT | — | — | — | — | — | — | — | — | — |
| MASTHEAD LIGHT | 1 | 0.003 | 3 | 0.036 | 1 | 12 | 300 | H.R. | H.R. |
| SIDE LIGHTS | 1 | 0.003 | 3 | 0.036 | 1 | 12 | 70 | H.R. | H.R. |
| COMPASS LIGHTS | 1 | 0.003 | 3 | 0.036 | 1 | 12 | 20 | H.R. | H.R. |
| POOP LIGHTS | 1 | 0.0045 | 7 | 0.029 | 12 | 18.2 | 400 | H.R. | H.R. |
| CARGO LIGHTS | 1 | 0.06 | 19 | 0.064 | 70 | 83 | 100 | H.R. | H.R. |
| ARC LAMPS | — | — | — | — | — | — | — | — | — |
| HEATERS | 1 | 0.10 | 19 | 0.083 | 80 | 118 | 240 | H.R. | H.R. |
| " | 1 | 0.10 | 19 | 0.083 | 107 | 118 | 100 | H.R. | H.R. |

| 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 | 1 | 1 | 0.04 | 19 | 0.052 | 55 | 94 | 200 | Cambric | Lead Covered |
| { 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 | | | | | | | | | | |
| Cooler Sub-Board | 2 | 1 | 4.06 | 61 | 0.093 | 380 | 417 | 400 | Cambric | H.R. |
| " | 2 | 2 | 4.06 | 61 | 0.093 | 380 | 417 | 380 | Cambric | H.R. |
| " | 3 | 2 | 4.06 | 61 | 0.093 | 380 | 417 | 280 | Cambric | H.R. |
| " | 4 | 2 | 4.06 | 61 | 0.093 | 380 | 417 | 300 | Cambric | H.R. |

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.

CAMPBELL & SHERRWOOD, LTD.

Electrical Engineers.

Date 9-6-34.

COMPASSES.

Distance between electric generators or motors and standard compass

160 feet.

Distance between electric generators or motors and steering compass

160 -

The nearest cables to the compasses are as follows:—

A cable carrying 30 Ampères 14 feet from standard compass 14 feet from steering compass.

A cable carrying 380 Ampères 36 feet from standard compass 30 feet from steering compass.

A cable carrying 380 Ampères 36 feet from standard compass 30 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.

LITHGOWS LIMITED,

John McFulloch Secretary

Builder's Signature.

Date 12/6/34.

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 on board under special survey, tested under full working condition and found satisfactory. The materials and workmanship were found to be good and sound.

16/6/34

Noted R.Y.

21/6/34.

Total Capacity of Generators 270 Kilowatts.

The amount of Fee ... £ 38 : 5

When applied for,

Travelling Expenses (if any) £ 1 : 1

When received,

15/6/34

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW 19 JUN 1934

Assigned

Glec Light.