

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 19 When handed in at Local Office 1 FEB. 1928 19 Port of Sunderland

No. in Survey held at Sunderland Date, First Survey Apr. 27 Last Survey Jan 26 1928
 Reg. Book. 40032 on the S. S. "BRIGHTON" (Number of Visits 254)

Built at Sunderland By whom built Short Bros Ltd Yard No. 428 Tons Gross 5359 Net 3237 When built 1928

Engines made at Sunderland By whom made John Dickinson & Sons Ltd Engine No. 886 when made 1928

Boilers made at Sunderland By whom made John Dickinson & Sons Ltd Boiler No. 886 when made 1928

Registered Horse Power Owners R. Chapman & Son. Port belonging to Newcastle.

Nom. Horse Power as per Rule 380 ✓ Is Refrigerating Machinery fitted for cargo purposes No ✓ Is Electric Light fitted Yes ✓

Trade for which Vessel is intended General cargo ✓

ENGINES, &c.—Description of Engines Triple Expansion - Single Screw ✓ Revs. per minute 65 ✓

Dia. of Cylinders 22 1/2" - 39" - 68" ✓ Length of Stroke 48" ✓ No. of Cylinders 3 ✓ No. of Cranks 3 ✓

Crank shaft, dia. of journals as per Rule 13.314" ✓ as fitted 13 3/4" ✓ Crank pin dia. 13 3/4" ✓ Crank webs Mid. length breadth 26 3/8" ✓ Thickness parallel to axis 8 5/8" ✓ shrunk Mid. length thickness 8 5/8" ✓ Thickness around eye-hole 6 1/8" ✓

Intermediate Shafts, diameter as per Rule 12.68" ✓ as fitted 13 1/4" ✓ Thrust shaft, diameter at collars as per Rule 13.314" ✓ as fitted 13 3/4" ✓

Tube Shafts, diameter as per Rule ✓ as fitted ✓ Screw Shaft, diameter as per Rule 14.12" ✓ as fitted 14 3/4" ✓ Is the tube screw shaft fitted with a continuous liner? Yes ✓

Bronze Liners, thickness in way of bushes as per Rule .73" ✓ as fitted 25/32" ✓ Thickness between bushes as per Rule .548" ✓ as fitted 3/4" ✓ Is the after end of the liner made watertight in the propeller boss? Yes ✓ If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner? ✓ If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive? ✓ If two liners are fitted, is the shaft lapped or protected between the liners? ✓ Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft? ✓

Propeller, dia. 17' 4" ✓ Pitch 16' 4" ✓ No. of Blades 4 ✓ Material Bronze whether Movable No ✓ Total Developed Surface 100 ✓ sq. feet

Feed Pumps worked from the Main Engines, No. Two ✓ Diameter 4" ✓ Stroke 24" ✓ Can one be overhauled while the other is at work? Yes ✓

Bilge Pumps worked from the Main Engines, No. Two ✓ Diameter 4 1/2" ✓ Stroke 24" ✓ Can one be overhauled while the other is at work? Yes ✓

Feed Pumps { No. and size Two Weirs 7" x 9 1/2" x 21" ✓ Pumps connected to the Main Bilge Line { No. and size One Ballast 9" x 11" x 10" ✓ How driven Steam ✓ How driven Steam ✓

Ballast Pumps, No. and size One - 9" x 11" x 10" ✓ Lubricating Oil Pumps, including Spare Pump, No. and size ✓

Are two independent means arranged for circulating water through the Oil Cooler? ✓ Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 3 @ 3" Dia. ✓

In Holds, &c. No 1 Hold 2 @ 3" Dia, No 2 Hold 2 @ 3" Dia, No 3 Hold 2 @ 2 1/2" Dia, No 4 Hold 2 @ 2 1/2" Dia, No 5 Hold 2 @ 3" Dia, No 6 Hold 2 @ 3" Dia, Tunnel Well 1 @ 2 1/4" Dia.

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 8" Dia ✓ Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 5" Dia. ✓ Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes? Yes ✓

Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges? Yes ✓

Are all Sea Connections fitted direct on the skin of the ship? Yes ✓ Are they fitted with Valves or Cocks? Both ✓

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates? Yes ✓ Are the Overboard Discharges above or below the deep water line? Above ✓

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel? Yes ✓ Are the Blow Off Cocks fitted with a spigot and brass covering plate? Yes ✓

What Pipes pass through the bunkers? None ✓ How are they protected? ✓

What pipes pass through the deep tanks? None ✓ Have they been tested as per Rule? ✓

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times? Yes ✓

Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another? Yes ✓ Is the Shaft Tunnel watertight? Yes ✓ Is it fitted with a watertight door? Yes ✓ worked from Top platform ✓

MAIN BOILERS, &c.—(Letter for record (S)) Total Heating Surface of Boilers 5760 sq. ft. ✓

Is Forced Draft fitted? No ✓ No. and Description of Boilers Two Single ended Marine type Working Pressure 220 lbs. ✓

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes ✓

IS A DONKEY BOILER FITTED? Yes ✓ If so, is a report now forwarded? Yes ✓

PLANS. Are approved plans forwarded herewith for Shafting Main Boilers? Yes ✓ Auxiliary Boilers? ✓ Donkey Boilers? Yes ✓ (If not state date of approval)

Superheaters? Yes ✓ General Pumping Arrangements? Yes (with Ship Report) Oil fuel Burning Piping Arrangements? ✓

SPARE GEAR. State the articles supplied:—C.I. Propeller, Propeller Shaft, 6 Coupling Bolts & Nuts, 2 Main Bearing Bolts & Nuts, 2 Top End Bolts & Nuts, 2 Bottom End Bolts & Nuts, 2 Feed Pump Valves, 2 Bilge Pump Valves & Seats, 100 Assorted Bolts & Nuts, 12 Gauge Glasses, 100 Condenser Formulas, 1 Cut of bar iron, 1 Cut of Stud Plate, 2 Feed Check Valves, 6 Cylinder Cover Studs, 6 Tank Ring Bolts & Nuts, 6 Condenser Tubes, 4 Ballast Donkey Valves, 2 Feed Donkey Valves, 6 Boiler Tubes, 1 Filter Basket, 24 Filter Cartridges, 4 left, 4 right & 4 centre baffle plates. ✓

The foregoing is a correct description,
 for
 John Dickinson & Sons, Limited.

John Dickinson
 Director.

Manufacturer.



W459-0149

1927. Apr. 27 May. 2. 11. 20. June. 8. 15. 17. July. 2. 7. 20. 26. 27. Sep. 27. Oct. 7. 11. 14. 18. 28. Nov. 2.
 22. Dec. 7. 8. 12. 15. 21. 29. 30. 1928. Jan. 4. 5. 6. 7. 9. 10. 11. 12. 13. 17. 19. 20. 21. 22. 24. 25. 26. 30.

Dates of Survey while building
 During progress of work in shops - -
 During erection on board vessel - - -
 Total No. of visits **1544**

Dates of Examination of principal parts—Cylinders **4-1-28** Slides **12-12-27** Covers **12-1-28**
 Pistons **26-7-27** Piston Rods **27-9-27** Connecting rods **27-9-27**
 Crank shaft **15-12-27** Thrust shaft **9-1-28** Intermediate shafts **9-1-28**
 Tube shaft ✓ Screw shaft **Working 5-1-28. Spare 12-1-28.** Propellers **9-1-28**
 Stern tube **29-12-27.** Engine and boiler seatings **7-1-28** Engines holding down bolts **21-1-28.**
 Completion of fitting sea connections **21-12-27.**
 Completion of pumping arrangements **22-1-28** Boilers fixed **24-1-28** Engines tried under steam **22-1-28**
 Main boiler safety valves adjusted **26-1-28** Thickness of adjusting washers S.F. $\frac{1}{32}$; S.A. $\frac{1}{32}$; S. Superheater $\frac{3}{32}$; P.F. $\frac{1}{32}$; P.A. $\frac{1}{32}$; P. Superheater $\frac{3}{32}$
 Crank shaft material **Ingot Steel** Identification Mark **LLOYD'S N° 167 A.T.G. 15-12-27.** Thrust shaft material **Ingot Steel** Identification Mark **A.T.G. 9-1-28.**
 Intermediate shafts, material **Ingot Steel** Identification Marks **LLOYD N° 167 A.T.G. 9-1-28** Tube shaft, material **Hot Rolled** Identification Mark ✓
 Screw shaft, material **Ingot Steel** Identification Marks **Working LLOYD'S N° 167 A.T.G. 5-1-28** Steam Pipes, material **Solid Drawn Steel** Test pressure **660 lbs** Date of Test **20-1-28.**
 Is an installation fitted for burning oil fuel **No.** Is the flash point of the oil to be used over 150° F. ✓
 Have the requirements of the Rules for carrying and burning oil fuel been complied with ✓
 Is this machinery 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.
*The Machinery has been constructed under Special Survey, and satisfactorily fitted in the vessel, and is eligible in my opinion for classification and the notation **⊕ L.M.C. 1, 28.***

It is submitted that this vessel is eligible for THE RECORD. ⊕ L.M.C. 1. 28. CL

AWD
6/2/28

A. T. Griffith.
 Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ **5** : : When applied for,
 Special ... £ **82** : : **1 FEB. 1928**
 Donkey Boiler Fee ... £ **7** : **18** : : When received,
 Travelling Expenses (if any) £ **2** : **2** : : **4 2 28**

Committee's Minute **FRI. 10 FEB 1928**
 Assigned **⊕ Rmc 1. 28 CL**

CERTIFICATE WRITTEN



Certificate to be sent to **SUNDERLAND.**
 The Surveyors are requested not to write on or below the space for Committee's Minute.