

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

20 JUL 1926

NEWCASTLE-ON-TYNE

Date of writing Report 13th July 1926 When handed in at Local Office 15th July 1926 Port of

No. in Survey held at Jarrow Date, First Survey 23rd October Last Survey 7th July 1926
Reg. Book. 38250 on the S.S. BRITISH INVENTOR (Number of Visits 54)

Built at Jarrow By whom built Palmer S. & J. Co. Ltd Yard No. 959 Tons { Gross 7200
Net 4300 When built 1926

Engines made at Jarrow By whom made Palmer S. & J. Co. Ltd Engine No. 959 when made 1926

Boilers made at Jarrow By whom made Palmer S. & J. Co. Ltd Boiler No. 959 when made 1926

Registered Horse Power Owners British Tanker Co. Ltd Port belonging to London

Nom. Horse Power as per Rule 567 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which Vessel is intended

ENGINES, &c.—Description of Engines TRIPLE EXPANSION

Dia. of Cylinders 28, 46, 76 Length of Stroke 51 No. of Cylinders 3 No. of Cranks 3 Revs. per minute 73
Crank shaft, dia. of journals as per Rule 14.5 as fitted 14.75 Crank pin dia. 14 3/4 Mid. length breadth 2 4 5/8 Thickness parallel to axis 10
Intermediate Shafts, diameter as per Rule 13.8 as fitted 14 Thrust shaft, diameter at collars as per Rule 14.49 as fitted 14 1/2 Thickness around eye-hole 6 1/16 AND 6 5/8

Tube Shafts, diameter as per Rule 15.38 as fitted 15 5/8 Is the screw shaft fitted with a continuous liner YES

Bronze Liners, thickness in way of bushes as per Rule 77 as fitted 13 Thickness between bushes as per Rule 57.75 as fitted 13 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 YES

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 YES

If two liners are fitted, is the shaft lapped or protected between the liners NO Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft NO

Propeller, dia. 19.0 Pitch 17.0 No. of Blades 4 Material BRONZE whether Moveable YES Total Developed Surface 104 5/8 sq. feet

Feed Pumps worked from the Main Engines, No. NONE Diameter 5 Stroke 27 Can one be overhauled while the other is at work YES

Bilge Pumps worked from the Main Engines, No. 2 Diameter 5 Stroke 27 Can one be overhauled while the other is at work YES

Feed Pumps { No. and size 2 @ 9 1/2 x 7 x 21 Pumps connected to the { No. and size Ballast pumps 9 x 10 x 10 Main Bilge Line { How driven STEAM Main Bilge Line { How driven STEAM

Ballast Pumps, No. and size ONE @ 9 x 10 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 1/2, 1 @ 5 In Holds, &c. FOREHOLD - 2 @ 2 1/2, COFFERDAM - 1 @ 4 = FORWARD PUMPS

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 9 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size ONE @ 5

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 are carried through the bunkers NONE How are they protected —

What pipes pass through the deep tanks — Have they been tested as per Rule YES

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 NONE Is it fitted with a watertight door — worked from —

MAIN BOILERS, &c.—(Letter for record 358) Total Heating Surface of Boilers 8317 5/8

Is Forced Draft fitted YES No. and Description of Boilers THREE (S.E. MULTI.) Working Pressure 180 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 YES Main Boilers YES Auxiliary Boilers — Donkey Boilers YES

Superheaters — General Pumping Arrangements YES Oil fuel Burning Piping Arrangements YES

SPARE GEAR. State the articles supplied:— 2 Connecting rod top end bolts and nuts, 2 connecting rod bottom end bolts and nuts, 2 main bearing bolts and nuts, 1 set of coupling bolts, 2 C.I. propeller blades, 1 propeller shaft, 1 eccentric strap, 1 set of bilge pump valves, 1 set of check valves, 12 springs for L.P. piston, 1 bottom end bush, 1/2 set of feed pump valves, 1/2 set of ballast pump valves, 12 condenser tubes, 12 boiler tubes, 12 condenser tubes, 6 cylinder cover studs, 12 piston bolts, a quantity of assorted bolts, nuts, sheet and bar iron, and sheet and bar yellow metal.

The foregoing is a correct description,
Palmer Shipbuilding & Iron Co., Ltd
W. Brown Manufacturer.
Manager, Engine Works



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Lloyd's Register Foundation

W346-0030

1925 1926
 Oct. 23. 29. Jan. 6. 11. 18. 22. 28. Feb. 8. 9. 19. 22. Mar. 1. 10. 16. 17. 24. 26. 29. Apr. 7.
 8. 12. 13. 15. 16. 20. 21. 23. 27. 28. 30. May 3. 4. 5. 6. 7. 11. 12. 14. 17. 27. 28. 31. June 2. 4. 7. 9. 10.
 11. 15. 17. 18. 22. 30. July 7.
 Total No. of visits 54.

Dates of Examination of principal parts—Cylinders 12.4.26 Slides 12.4.26 Covers 12.4.26
 Pistons 12.4.26 Piston Rods 8.2.26 Connecting rods 8.2.26
 Crank shaft 26.4.26, 15.4.26 Thrust shaft 12.4.26 Intermediate shafts 12.4.26
 Tube shaft — Screw shaft 26.3.26, 12.4.26 Propeller 12.4.26
 Stern tube 12.4.26 Engine and boiler seatings 21.4.26 Engines holding down bolts 31.5.26
 Completion of pumping arrangements 19-7-26 Boilers fixed 9-6-26 Engines tried under steam 29-6-26
 Main boiler safety valves adjusted 29-6-26 Thickness of adjusting washers F.B. SV $\frac{3}{8}$ " P.V. $\frac{1}{8}$ ", P.B. SV $\frac{9}{32}$ " P.V. $\frac{13}{32}$ ", S.B. SV $\frac{7}{32}$ " P.V. $\frac{13}{32}$ "
 Crank shaft material STEEL Identification Mark H.T. 471, 9/12, H. 25 Thrust shaft material STEEL Identification Mark 405, R.L. 9/12, H. 25
 Intermediate shafts, material STEEL Identification Marks H.T. 470, 9/12, H. 25 Tube shaft, material — Identification Mark —
 Screw shaft, material STEEL Identification Mark H.T. 449, 9/12, H. 25 Steam Pipes, material STEEL Test pressure 600 LBS. Date of Test 7.6.26, 9.6.26
 Is an installation fitted for burning oil fuel YES Is the flash point of the oil to be used over 150°F. YES
 Have the requirements of the Rules for carrying and burning oil fuel been complied with YES
 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 machinery of this vessel has been constructed under Special Survey. The materials and workmanship are sound and good. It has been efficiently installed on board the vessel and tried out under steam. In my opinion this vessel is now eligible to have notation of + L.M.C. 7.26 and C.L.

It is submitted that
 this vessel is eligible for
 THE RECORD. + L.M.C. 7.26. F.D. CL.
 Fitted for oil fuel 7.26. F.P. above 150°F.

Handwritten signature and date:
 20/7/26

Thomas Napier
 Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 103 : 7 :
 Special ... £ 6 : 0 :
 Donkey Boiler Fee ... £ 7 : 6 :
 Travelling Expenses (if any) £ : :
 When applied for, 10 JUL 1926
 When received, 28.7.1926

Committee's Minute

FRI. 23 JUL 1926 CERTIFICATE WRITTEN

Assigned

+ L.M.C. 7.26 F.D. CL
 Fitted for Oil fuel 7.26 F.P. above 150°F



NEWCASTLE-ON-TYNE

The Surveyors are requested not to write on or below the space for Committee's Minute.