

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

11 MAR 1929

Date of writing Report 5-3-1929 When handed in at Local Office 9-3-1929 Port of NEWCASTLE-ON-TYNE

No. in Survey held at Jarrow Date, First Survey 15 June 1927 Last Survey 25 Feb 1929  
 Reg. Book. 89333 on the S.S. BRITISH CHIVALRY (Number of Visits 68)  
 Built at Jarrow By whom built Palmers Co. Ltd. Yard No. 979 Tons { Gross 7118  
 Engines made at Jarrow By whom made Palmers Co. Ltd. Engine No. 979 Net 4260  
 Boilers made at Jarrow By whom made Palmers Co. Ltd. Boiler No. 979 When built 1929  
 Registered Horse Power 553 Owners British Tanker Co. Ltd. Port belonging to London  
 Nom. Horse Power as per Rule Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes  
 Trade for which Vessel is intended

ENGINES, &c.—Description of Engines QUADRUPLE EXPANSION Revs. per minute 73  
 Dia. of Cylinders 24, 35, 50½, 73 Length of Stroke 51 No. of Cylinders 4 No. of Cranks 4  
 Crank shaft, dia. of journals 14.32 as per Rule 14.625 Crank pin dia. 14.625 Crank webs Mid. length breadth 20.625 Thickness parallel to axis 9.75  
 Intermediate Shafts, diameter 13.61 as per Rule 13.875 Thrust shaft, diameter at collars 14.32 as per Rule 14.625  
 Tube Shafts, diameter 15.172 as per Rule 15.75 Is the tube shaft fitted with a continuous liner Yes  
 Screw Shaft, diameter 15.75 as per Rule 15.75 Is the screw shaft fitted with a continuous liner Yes  
 Bronze Liners, thickness in way of bushes 764 as per Rule 812 Thickness between bushes 573 as per Rule 75 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 Yes Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft No  
 Length of Bearing in Stern Bush next to and supporting propeller 5' 3"  
 Propeller, dia. 18' 9" Pitch 17' 3" No. of Blades 4 Material BRONZE whether Moveable YES Total Developed Surface 104 sq. feet  
 Feed Pumps worked from the Main Engines, No. 2 Diameter 5" Stroke 24" Can one be overhauled while the other is at work YES  
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 5" Stroke 24" Can one be overhauled while the other is at work YES  
 Feed Pumps { No. and size 2 @ 10½" x 8" x 22" Pumps connected to the { No. and size 1 @ 7" x 4½" x 8" / 1 @ 9" x 11" x 10"  
 How driven STEAM Main Bilge Line How driven STEAM  
 Ballast Pumps, No. and size 1 @ 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 Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 3 @ 3½", ONE DIRECT @ 9½", 1 @ 5"  
 In Holds, &c.

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 9½" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 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 sized 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 Yes  
 What pipes pass through the deep tanks Yes 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 Yes Is it fitted with a watertight door worked from

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 7656 Working Pressure 225 LBS.  
 Is Forced Draft fitted YES No. and Description of Boilers 3 S.E. CYLINDRICAL  
 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 Yes Donkey Boilers YES  
 (If not state date of approval) Superheaters Yes General Pumping Arrangements Yes Oil fuel Burning Piping Arrangements YES

SPARE GEAR. State the articles supplied:—One propeller shaft, one pair of crank pin bearings, one eccentric sheave and strap, one slide valve spindle, 24 junk ring bolts, one set of rings and springs for each size piston and piston valve, 6 pad pieces for thrust, one air pump rod, one set of air pump valves, 24 condenser tubes, one set of metallic packing for each size piston and slide rods, one set of piston rings, and one bucket for main feed pumps, 7 boiler tubes, 2 C.I. propeller blades, two bottom and two top end bolts and nuts, 4 main bearing bolts and nuts, one set of coupling bolts and nuts, 2 feed pump valves, one set of bilge pump valves and seats, a quantity of assorted bolts and nuts, sheet and bar iron, 12 gauge glasses, 2 doz. woodite rings, a quantity of spare parts for aux. pumps, 2 main and one aux. feed check valve and one safety valve spring for main and donkey boilers.

The foregoing is a correct description  
Palmers Shipbuilding & Iron Co., Ltd.  
N. Brown  
 Manager, Engine Works.

Manufacturer.



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Lloyd's Register

Foundation



During progress of work in shops - -

1927

1928

Dates of Survey while building

During erection on board vessel - - -

Total No. of visits

JUNE. 15. DEC. 6. 8.

FEB. 6. 8. 13. 16. 17. 23. 27. MAY. 8. JUNE. 1. 19. JULY. 5. 12. 24. 25. 30.

AUG. 14. 17. 22. 27. 30. 31. SEP. 6. 14. 20. OCT. 2. 4. 5. 10. 16. 18. 22. 24. 26. 29. 30. 31. NOV. 1. 2. 8.

13. 14. 15. 19. 21. 23. 27. 28. 29. 30. DEC. 5. 6. 7. 12. 13. 18. 19. 28.

JAN. 4. 11. 23. 29. FEB. 4. 18. 21. 25.

68.

Dates of Examination of principal parts—Cylinders

4/10/28

16/10/28

Slides

21/11/28

6/12/28

Covers

22/10/28

26/10/28

Pistons

1/11/28

8/11/28

Piston Rods

4/10/28

16/10/28

18/11/28

Connecting rods

25/7/28

15/10/28

Crank shaft

17/8/28

27/8/28

4/10/28

1/11/28

Thrust shaft

29/11/28

29/12/28

Intermediate shafts

19/6/28

Tube shaft

-

Screw shaft

19/6/28

18/10/28

13/11/28

Propeller

23/11/28

Stern tube

19/6/28

13/11/28

15/11/28

Engine and boiler seatings

13/12/28

Engines holding down bolts

15/2/28

Completion of fitting sea connections

13/12/28

Completion of pumping arrangements

19/2/28

Boilers fixed

19/2/28

Engines tried under steam

18/2/28

Main boiler safety valves adjusted

18/2/29

Thickness of adjusting washers

P.B. P.V.  $\frac{9}{32}$  S.V.  $\frac{3}{8}$  S.B. P.V.  $\frac{11}{32}$  S.V.  $\frac{23}{64}$  F.B. P.V.  $\frac{9}{32}$  S.V.  $\frac{1}{4}$

Crank shaft material

STEEL

Identification Mark

No 979, 8/11/28

Thrust shaft material

STEEL

Identification Mark

9203, 12/3/28 LK

Intermediate shafts, material

STEEL

Identification Marks

9204, 12/3/28

Tube shaft, material

-

Identification Mark

-

Screw shaft, material

STEEL

Identification Mark

9202 K, 12/3/28

Steam Pipes, material

STEEL

Test pressure

675 LBS

Date of Test

11/1/29, 4/2/28

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

YES

If so, state name of vessel

S.S. "BRITISH ARDOUR"

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been constructed under special survey, in accordance with the approved plans, the materials and workmanship are good, and the machinery was found satisfactory under working conditions. In my opinion this vessel is eligible for the record + L.M.C. 2 - 29.

It is submitted that this vessel is eligible for THE RECORD. — + L.M.C. 2.29. F.D. C.L.

Fitted for OIL FUEL. 2.29. F.P. above 150°F

YRM. 11. 3. 29.

Thomas Napier

Engineer Surveyor to Lloyd's Register of Shipping.

IN DUPLICATE NEWCASTLE-ON-TYNE.

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

The amount of Entry Fee

£ 6 : 0 :

When applied for,

Special

£ 102 : 13 :

When received,

Donkey Boiler Fee

£ 7 : 6 :

Travelling Expenses (if any)

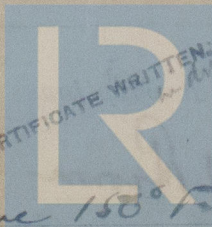
£ : :

Committee's Minute

Assigned

FRI. 15 MAR 1929

thine 2.29 J.A. CL  
Fitted for oil fuel 2.29 J.P. above 150°F



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