

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 7 OCT 1929

Date of writing Report 2. 10. 1929 When handed in at Local Office 2. 10. 1929 Port of MIDDLESBROUGH

No. in Survey held at STOCKTON Date, First Survey 16 April Last Survey 1. 10. 1929  
 Reg. Book. 768 Sup. on the sc "PORTFIELD" (Number of Visits 17) Tons } Gross 4425  
 Net 2661

Built at Thornaby on Tees By whom built Craig Taylor & Co Ltd Yard No. 225 When built 1929

Engines made at Stockton By whom made Blair & Co (1926) Ltd Engine No. 1983 when made 1929

Boilers made at do. By whom made do. Boiler No. 1983 when made 1929

Registered Horse Power Owners Portfield S.S. Co Ltd Port belonging to Cardiff.

Nom. Horse Power as per Rule 373 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 Revs. per minute 65

Dia. of Cylinders 24 1/2" . 41" . 67" Length of Stroke 45" No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 12.73/ as fitted 13 1/2" Crank pin dia. 14" Crank webs Mid. length breadth 22 1/4" Thickness parallel to axis 9" shrunken  
 as per Rule 12.73/ as fitted 13" Mid. length thickness 9" Thickness around eye-hole 6 1/2"

Intermediate Shafts, diameter as per Rule 12.13/ as fitted 13" Thrust shaft, diameter at collars as per Rule 12.73/ as fitted 14"

Tube Shafts, diameter as per Rule 13.53/ as fitted 15" Is the shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes as per Rule 23/32" as fitted 3/4" Thickness between bushes as per Rule 17/32" as fitted 9/16" 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'-2" ✓

Propeller, dia. 16'-10 1/2" Pitch 16'-9" No. of Blades 4 Material C.S. whether Moveable no Total Developed Surface 94 sq. feet

Feed Pumps worked from the Main Engines, No. 2 Diameter 3 3/4" Stroke 33" Can one be overhauled while the other is at work Yes

Bilge Pumps worked from the Main Engines, No. 2 Diameter 4 3/4" Stroke 33" Can one be overhauled while the other is at work Yes

Feed Pumps No. and size 1-7' x 5' x 8' Lamont Duplex Pumps connected to the Main Bilge Line No. and size 1-10' x 11' x 10' Lamont Duplex Ballast How driven Steam How driven Steam

Ballast Pumps, No. and size 1-10' x 11' x 10' Lamont Duplex 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" 1-3" Tunnel well In Holds, &c. No. 1: 2-3"; No. 2: 2-3 1/2"; No. 3: 2-3"; No. 4: 3-3" To Dry Tank 3-3 1/2" ✓

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1-6 3/4" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-4 1/2" 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 Forward Bilge Suctions How are they protected wood ceiling

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 Yes Is it fitted with a watertight door Yes worked from E.R. Top Platform

MAIN BOILERS, &c.—(Letter for record 5) Total Heating Surface of Boilers 6382 sq. ft.

Is Forced Draft fitted no No. and Description of Boilers 2 S.B. 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 11.4.29 Main Boilers 26.4.29 Auxiliary Boilers Donkey Boilers 21.3.29 (If not state date of approval)

Superheaters if not given ✓ General Pumping Arrangements 10.4.29 Oil fuel Burning Piping Arrangements ✓

SPARE GEAR. State the articles supplied:— As per Rules + 1 propeller, 10ct air pump valves, 10ct Ballast pump valves, 2 main and 2 donkey check valve lids, 2 safety valve springs, 3 piston balls & nuts, 3 condenser tubes, 25 condenser ferrule, 6 boiler tubes, quantity flange & cover studs and nuts, firebars, pump flange & rings.

Length.	Water Capacity
Feet.	Tons.
21.25	150
22.00	165
✓	✓
✓	✓
✓	✓

08 July 4. 10. 13. 17. 20. 22

Total No. of Visits 50

The foregoing is a correct description,  
 For BLAIR & CO. (1926) LIMITED.  
 H. Chambers SECRETARY

Manufacturer.



W498-0200

W490 00050

1929. Apr. 16. 22. 24. 29. May 3. 8. 14. 17. 22. 26. 29. June 4. 7. 10. 14. 19. 27. July 5. 11. 15. 18. 23. 26. 31. Aug. 2.  
 During progress of work in shops - - -  
 Dates of Survey while building During erection on board vessel - - -  
 1929. Aug. 9. 16. 26. 27. Sept. 6. 11. 12. 18. 26. 27. Oct. 1.  
 Total No. of visits 37

Dates of Examination of principal parts - Cylinders 15. 7. 29 Slides 26. 7. 29 Covers 16. 7. 29  
 Pistons 8. 7. 29 Piston Rods 8. 7. 29 Connecting rods 8. 7. 29  
 Crank shaft 19. 6. 29 Thrust shaft 8. 7. 29 Intermediate shafts 9. 7. 29  
 Tube shaft ✓ Screw shaft 7. 8. 29 Propeller 26. 8. 29  
 Stern tube 26. 7. 29 Engine and boiler seatings 2. 8. 29 Engines holding down bolts 18. 9. 29  
 Completion of fitting sea connections 2. 8. 29  
 Completion of pumping arrangements 27. 9. 29 Boilers fixed 18. 9. 29 Engines tried under steam 1. 10. 29  
 Main boiler safety valves adjusted 18. 9. 29 Thickness of adjusting washers Port  $\frac{7}{32}$  p.  $\frac{1}{4}$  s. Star  $\frac{9}{32}$  p.  $\frac{5}{16}$  s.  
 Crank shaft material Steel Identification Mark LLOYDS No. 17435 19. 6. 29 P.T.B. Thrust shaft material Steel Identification Mark LLOYDS No. 18488 8. 7. 29 P.T.B.  
 Intermediate shafts, material Steel Identification Marks LLOYDS No. 592 M 9. 7. 29 P.T.B. Tube shaft, material ✓ Identification Mark ✓  
 Screw shaft, material Iron Identification Mark LLOYDS No. 619 7. 8. 29 S.W. Steam Pipes, material Steel ✓ Test pressure 540 lbs. Date of Test 2. 7. 29  
 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. This machinery has been built under special survey in accordance with the Rules and Approved Plans, securely fitted aboard and tested with satisfactory results under steam and is, in my opinion, suitable for classification with record + L.M.C. 10. 29.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 10. 29. CL.

22A.  
 8/10/29  
 CERTIFICATE WRITTEN.

The amount of Entry Fee	£ 5-0-0	When applied for,
Special	£ 80-19-0	5 Oct. 1929
Donkey Boiler Fee	£ :	When received,
Travelling Expenses (if any)	£ :	10-10-29

M. Man.  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
 Assigned + L.M.C. 10. 29 CL  
 FRI. 11 OCT 1929

