

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office - 4 DEC 1924

Date of writing Report 10 When handed in at Local Office 1/12/10 Port of **NEWCASTLE-ON-TYNE.**

No. in Survey held at **Newcastle** Date, First Survey 21<sup>st</sup> July 1924 Last Survey 1<sup>st</sup> Dec. 1924  
 Reg. Book. 90947 on the **Steel S. "TACITO"** (Number of Visits 30...)

Built at **Newcastle** By whom built **Northumberland S.S. Co. Ltd.** Yard No. **264** When built **1924**

Engines made at **Newcastle** By whom made **Walsend Slipway & Eng. Co. Ltd.** Engine No. **841** when made **1924**

Boilers made at **Newcastle** By whom made **Walsend Slipway & Eng. Co. Ltd.** Boiler No. **841** when made **1924**

Registered Horse Power Owners **Bio. Gen. de combustibles** Port belonging to **Buenos Ayres**

Nom. Horse Power as per Rule **626** Is Refrigerating Machinery fitted for cargo purposes **no** Is Electric Light fitted **Yes**

**ENGINES, &c.**—Description of Engines **Inverted Triple Expansion**

Dia. of Cylinders **27.45-75"** Length of Stroke **54"** Revs. per minute **3** No. of Cylinders **3** No. of Cranks **3**

Dia. of Crank shaft journals as per rule **14.47"** as fitted **15"** Dia. of Crank pin **15"** Crank webs Mid. length breadth **2 1/4"** Thickness parallel to axis **10"**

Diameter of Thrust shaft under collars as per rule **14.47"** as fitted **15"** Diameter of INTER. Tunnel shaft as per rule **13.75"** as fitted **15"** Diameter of Screw shaft as per rule **15.35"** as fitted **16 1/4"** Is the Screw shaft fitted with a continuous liner the whole length of the stern tube **Yes** 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 joints burned **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 appliance fitted at the after end of the shaft to permit of it being efficiently lubricated **no** Length of Stern Bush **69 1/2"** Diameter of Propeller **19'0"**

Pitch of Propeller **17'0"** No. of Blades **4** State whether Moveable **yes** Total Surface **115** square feet.

No. of Feed Pumps fitted to the Main Engines **2** Diameter of ditto **5"** Stroke **26"** Can one be overhauled while the other is at work **Yes**

No. of Bilge Pumps fitted to the Main Engines **2** Diameter of ditto **5"** Stroke **26"** Can one be overhauled while the other is at work **Yes**

Total number and size of power driven Feed and Bilge Auxiliary Pumps **2 MAIN FEED 10 1/2" x 2" WATER 1 AUX. FEED 5 1/2" x 8" BALLAST 10" x 10" x 10" GENERAL SERVICE 7" x 8"**

No. and size of Pumps connected to the Main Bilge Line **2 Main Engine Rams, Ballast & General Service**

No. and size of Ballast Pumps **One 10" x 10" x 10"** No. and size of Lubricating Oil Pumps, including Spare Pump **none**

Are two independent means arranged for circulating water through the Oil Cooler **Yes** No. and size of suction connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room **3-3 1/2" Copperdam + 3"** and in Holds, &c. **none**

The Upper Peak (2-2 1/2") Fore Hold (2-3") Fore Deep (2-4") Fore Copperdam (2-4") + after Copperdam (2-4") and each Summit Tank (1-4") can be pumped out by the Forward Ballast + the Oil Service Pumps.

No. and size of Main Water Circulating Pump Bilge Suctions **One 10"** No. and size of Donkey Pump Direct Suctions to the Engine Room Bilges **One 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 connections with the sea direct on the skin of the ship **Yes** Are they 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 Discharge Pipes above or below the deep water line **Both**

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 **oil Copperdam Suctions** How are they protected **not protected**

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 Screw Shaft Tunnel watertight **no** Is it fitted with a watertight door **worked from**

**MAIN BOILERS, &c.**—(Letter for record **5**) Total Heating Surface of Boilers **9672 sq ft**

Is Forced Draft fitted **Yes** No. and Description of Boilers **Three Single-Ended Cyl. Mult. Working Pressure 180 lbs.**

**IS A REPORT ON MAIN BOILERS NOW FORWARDED?** **Yes**

**IS A DONKEY BOILER FITTED?** **no** 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**

General Pumping Arrangements **Oil fuel Burning Piping Arrangements**

**SPARE GEAR.** State the articles supplied:— **2 Main Bearing Bolts + nuts - 2 Top + 2 Bottom End Bolts + nuts - One set Coupling Bolts + nuts + nuts - set of Belts + colls, set of suction + discharge pump valves for one pump - Cast Iron propeller boss with studs + nuts - 2 Cast Iron propeller blades - one Sail Shaft - set of Bottom End bearings - set of Top End bearings - set Rambottom rings for H.P. piston - set Lockwood + Christie Rings for each M.L. + H.P. pistons - Rings for steam + water pistons of Ballast - G.S. + Aux. Feed Pumps + set of suction + delivery valve beds for each of these pumps, 12 Main + 12 Aux. Condenser Tubes - set oil fuel set suction strainer bags - set of discharge strainer bags for each strainer - 12 Burners - 36 nozzles - 36 diaphragms - 1 Heating Tube for lighting up.**

**Set of Bilge Pump valves for main Engine**

The foregoing is a correct description

Manufacturer.



12 ft.  
 2 ft.  
 14  
 20  
 4 5. 14.  
 3. 34. 100.  
 24. 26.  
 30

1924  
 July 21. 29. 30 Aug. 1. 6. 11. 13. 18. 22. 26. 28. 29. Sept. 4. 8. 11. 12. 18. 26. Oct. 1. 3. 6. 7. 13. 14. 16. 20. 24. 30. 31  
 Nov. 7. 10. 12. 14. 18. 21. Dec. 1.  
 Dates of Survey while building: During progress of work in shops ---  
 During erection on board vessel ---  
 Total No. of visits 30.

Dates of Examination of principal parts - Cylinders 26. 9. 24  
 Covers 26. 9. 24 Slides 1. 8. 24  
 Connecting rods 18. 9. 24 Pistons 6. 8. 24 Rods 26. 8. 24  
 Inlet Thrust shaft 8. 9. 24 Crank shaft 6. 8. 24 Thrust shaft 22. 8. 24  
 Stern tube 28. 8. 24 Screw shaft 8. 9. 24 Propeller 14. 10. 24  
 Engine and boiler seatings 30. 10. 24  
 Completion of pumping arrangements 21. 11. 24 Engines holding down bolts 7. 11. 24  
 Boilers fixed 7. 11. 24 Engines tried under steam 21. 11. 24  
 Completion of fitting sea connections 16. 10. 24 Stern tube 16. 10. 24 Screw shaft and propeller 16. 10. 24  
 Main boiler safety valves adjusted 21. 11. 24 Thickness of adjusting washers For P. BOILER A 3/16" P 1/4" C 3/8" PORT BOILER 3/16" STAR BOILER 5/16"  
 Material of Crank shaft S. M. Ingot Steel Identification Mark on Do. 2705-2714-5184  
 Material of Thrust shaft S. M. Ingot Steel Identification Mark on Do. 2782  
 Material of Inlet Thrust shaft S. M. Ingot Steel Identification Marks on Do. 5183  
 Material of Screw shafts S. M. Ingot Steel Identification Marks on Do. 2719  
 Material of Steam Pipes S. M. Ingot Steel Test pressure 540 lbs. Date of Test 11989  
 Is an installation fitted for burning oil fuel Yes Is the flash point of the oil to be used over 150°F. 13. 24 9. 30. 24 10. 11. 24  
 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 & good. It has been efficiently installed on board and tried out under steam at a mooring trial. An oil-fuel-burning plant on the Walkend-Howard system has been installed to approved plans & the oil suction and discharge lines have been tested in accordance with the Rules. The Rule requirements as to controls, fire-extinguishing etc of Section 35 have been complied with.  
 In my opinion, the vessel is now eligible for notation + L.M.C. 12. 24 C.L.  
 Fitted for oil fuel 12. 24 F.P. above 150°F

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 12. 24. F.D. CL.  
 Fitted for oil fuel 12. 24. F.P. above 150°F.

*[Signature]*  
 4/12/24

*[Signature]*  
 R. Lee Ansell  
 Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 6 : -  
 Special ... £ 106 : 6  
 Donkey Boiler Fee ... £ :  
 Travelling Expenses (if any) £ :  
 When applied for, DEC 1924  
 When received, 19

Committee's Minute FRI. 5 DEC 1924  
 Assigned + L.M.C. 12. 24 F.D. CL.  
 Fitted for oil fuel 12. 24  
 F.P. above 150°F



NEWCASTLE-ON-TYNE.

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