

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 14<sup>th</sup> Dec: 1928 When handed in at Local Office 17<sup>th</sup> Dec: 1928 Port of Sunderland  
 No. in Survey held at Sunderland Date, First Survey Jan 3 24 Last Survey Dec 14 1928  
 Reg. Book. on the S. S. "ATHELSTANE" (Number of Visits 47)

Received at London Office 19 DEC 1928

Built at Goole By whom built Goole Shipbuilding & Repairing Co (1917) Ltd Yard No. 284 Tons <sup>Gross</sup> 1928  
 Engines made at Sunderland By whom made Maccoll & Pollock, Ltd Engine No. 304 when made 1928  
 Boilers made at Sunderland By whom made Maccoll & Pollock, Ltd Boiler No. 304 when made 1928  
 Registered Horse Power 166 Owners United Molasses Co. Ltd Port belonging to Liverpool  
 Nom. Horse Power as per Rule 166 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
 Trade for which Vessel is intended Carrying Molasses in Bulk.

**ENGINES, &c.**—Description of Engines Triple Expansion - Single Screw Revs. per minute 90  
 Dia. of Cylinders 16" - 27" - 44" Length of Stroke 30" No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals 8.379" Crank pin dia. 8 3/4" Crank webs Mid. length breadth shrunk Thickness parallel to axis 5 1/2"  
 as fitted 8 3/4" Mid. length thickness shrunk Thickness around eye-hole 3 15/16"  
 Intermediate Shafts, diameter as per Rule 7.98" Thrust shaft, diameter at collars as per Rule 8.379"  
 as fitted None fitted as fitted 8 3/4"  
 Tube Shafts, diameter as per Rule 8.938" Is the tube shaft filled with a continuous liner Yes  
 as fitted Screw Shaft, diameter 9 1/2" as fitted 8 3/4"  
 Bronze Liners, thickness in way of bushes as per Rule .568" Thickness between bushes as per Rule .427" Is the after end of the liner made watertight in the  
 as fitted 9/16" as fitted 1/2" 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 Yes Length of Bearing in Stern Bush next to and supporting propeller 3' 2"  
 Propeller, dia. 11' 6" Pitch 12' 3" No. of Blades 4 Material C.I. whether Moveable No Total Developed Surface 44 sq. feet  
 Feed Pumps worked from the Main Engines, No. 2 Diameter 2 3/4" Stroke 16" Can one be overhauled while the other is at work Yes  
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 2 1/2" Stroke 16" Can one be overhauled while the other is at work Yes  
 Feed Pumps { No. and size 1 - 7 1/2" x 5" x 6" Pumps connected to the { No. and size 1 - 6 1/2" x 8 1/2" x 8"  
 How driven Steam Main Bilge Line { How driven Steam  
 Ballast Pumps, No. and size 1 - 6 1/2" x 8 1/2" x 8" Lubricating Oil Pumps, including Spare Pump, No. and size 1 - 5 1/4" x 4 1/4" x 5" (For)  
 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 2 @ 2 1/4" Dia, 1 @ 2" Dia.  
 in Holds, &c. Cargo Hold 2 @ 2" Dia, Cofferdam 1 @ 2 1/2" Dia. (For Pump only)

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 4 1/2" Dia Independent Power Pump Direct Suctions to the Engine Room Bilges,  
 No. and size 1 @ 2 1/2" 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  
 That Pipes pass through the bunkers None How are they protected Yes  
 That 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 Machly Aft Is it fitted with a watertight door Yes worked from Yes

**MAIN BOILERS, &c.**—(Letter for record (S)) Total Heating Surface of Boilers 3265 sq. ft.  
 Forced Draft fitted No No. and Description of Boilers Two Single Ended Marine type Working Pressure 180 lbs sq. in.  
 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  
 (If not state date of approval) General Pumping Arrangements Yes (with Hull & Ship Report) Oil fuel Burning Piping Arrangements Yes

**SPARE GEAR.** State the articles supplied:— Cast Iron Propeller, 2 Main Bearing Bolts & Nuts, 2 Top End Bolts & Nuts, 2 Bottom End Bolts & Nuts, 1 Set of Coupling Bolts & Nuts, 44 Assorted Bolts & Nuts, 1 Set of Air Pump Valves, 1 Set of Circulating Pump Valves, 6 Junk Ring Studs, 6 Cylinder Cover Studs, 6 Condenser Tubes, 1 Cut of Iron of Various Sizes, 6 Boiler Tubes, 2 Safety Valve Springs.

The foregoing is a correct description, PER PRO MACCOLL & POLLOCK LTD.

*J. Pelling*

Manufacturer.



© 2020

Lloyd's Register Foundation

W432-0173

1924. Jan. 3. 11. 22. Feb. 1. 12. 19. Mar. 6. 19. 25. Apr. 3. 9. 24. May. 6. 20. July. 2. 16. Aug. 12. 20. 28. 1928. July. 5. 16. Aug. 9. 14. 29. Sep. 4. 13. 20. 28. Oct. 1. 5. 19. 29. Nov. 13. 14. 27. 30. Dec. 3. 6. 7. 10. 11. 12. 13. 14

During progress of work in shops - - -  
 During erection on board vessel - - -  
 Total No. of visits 47

Dates of Examination of principal parts—Cylinders 3 - 9 - 24. Slides 6 - 5 - 24. Covers 6 - 5 - 24.  
 Pistons 6 - 5 - 24. Piston Rods 1 - 2 - 24. Connecting rods 24 - 4 - 24.  
 Crank shaft 26 - 2 - 24. (Leith) Thrust shaft 13 - 9 - 28. Intermediate shafts None fitted.  
 Tube shaft ✓ Screw shaft 2 - 11 - 28. Propeller 13 - 11 - 28.  
 Stern tube 9 - 11 - 28. Engine and boiler seatings 30 - 11 - 28. Engines holding down bolts 12 - 12 - 28.  
 Completion of fitting sea connections 27 - 11 - 28. (HULL)  
 Completion of pumping arrangements 13 - 12 - 28. Boilers fixed 13 - 12 - 28. Engines tried under steam 13 - 12 - 28.  
 Main boiler safety valves adjusted 13 - 12 - 28. Thickness of adjusting washers S.P. 1/2"; S.S. 1/2"; P.S. 1/2"; P.P. 1/2".  
 Crank shaft material Ingot Steel Identification Mark A.T.T. 26-2-24. Thrust shaft material Ingot Steel Identification Mark A.T.G. 13-9-28.  
 Intermediate shafts, material ✓ Identification Marks ✓ Tube shaft, material ✓ Identification Mark ✓  
 Screw shaft, material Ingot Steel Identification Mark A.T.G. 2-11-28. Steam Pipes, material S.D. Copper. Test pressure 360 lbs. □ Date of Test 25-10-28.  
 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 built under Special Survey, and satisfactorily fitted in the vessel, and is eligible in my opinion for classification and the notation  $\oplus$  L.M.C. 12, 28.

It is submitted that this vessel is eligible for THE RECORD.

$\oplus$  L.M.C. 12.28. CL.

J.A. Griffith  
 31/12/28

The amount of Entry Fee ... £ 3 : : When applied for,  
 Special ... £ 41 : 10 : 18 DEC 1928  
 Donkey Boiler Fee ... £ . : : When received,  
 Travelling Expenses (if any) £ . : : 2-1-28

A. I. Griffith.  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute WED. 2 JAN 1929  
 Assigned + L.M.C. 12:28 C.L.

SUNDERLAND

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

CERTIFICATE WRITTEN



© 2020 Lloyd's Register Foundation