

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

25 MAY 1928

NEWCASTLE-ON-TYNE

Date of writing Report 21-5-1928 When handed in at Local Office 24-5-1928 Port of

No. in Survey held at Reg. Book.

Jarrow  
S. S. CARONI

Date, First Survey 30 Dec 1927 Last Survey 16 May 1928

(Number of Visits 38)

40341 Sup. on the

Tons { Gross 3163.81  
Net 1671

Built at Hebburn

By whom built Palmers Co. Ltd

Yard No. 983

When built 1928

Engines made at Jarrow

By whom made Palmers Co. Ltd

Engine No. 983

when made 1928

Boilers made at Jarrow

By whom made Palmers Co. Ltd

Boiler No. 983

when made 1928

Registered Horse Power

Owners Venezuela Gulf Oil Co. (Inc)

Port belonging to Maracaibo

Nom. Horse Power as per Rule 248

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted YES

Trade for which Vessel is intended

**ENGINES, &c.**—Description of Engines **TWIN SCREW, INVERTED TRIPLE EXPANSION** ✓ Revs. per minute 128 ✓

Dia. of Cylinders 14½, 24, 39½ ✓ Length of Stroke 27" No. of Cylinders 6 No. of Cranks 6 ✓

Crank shaft, dia. of journals as per Rule 7.56" ✓ Crank pin dia. 4¾" ✓ Crank webs Mid. length breadth 10¾" ✓ Thickness parallel to axis 4¾" 4.7" ✓

Intermediate Shafts, diameter as per Rule 7.2" ✓ Thrust shaft, diameter at collars as per Rule 7.56" ✓ as fitted 8" ✓

Tube Shafts, diameter as per Rule 8.31" ✓ as fitted 8.875" ✓ Is the tube screw shaft fitted with a continuous liner YES ✓

Bronze Liners, thickness in way of bushes as per Rule .549" ✓ as fitted .562" ✓ Thickness between bushes as per Rule .412" ✓ as fitted .562" ✓ 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 ✓

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 ✓

If two liners are fitted, is the shaft lapped or protected between the liners ✓ Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft YES ✓

Propeller, dia. 9' 3" ✓ Pitch 9' 7½" ✓ No. of Blades 4 ✓ Material BRONZE ✓ whether Moveable No ✓ Total Developed Surface 33 sq. feet ✓

Feed Pumps worked from the Main Engines, No. 2 ✓ Diameter 3" ✓ Stroke 15" ✓ Can one be overhauled while the other is at work YES ✓

Bilge Pumps worked from the Main Engines, No. 2 ✓ Diameter 3" ✓ Stroke 15" ✓ Can one be overhauled while the other is at work YES ✓

Feed Pumps { No. and size Two @ 7" x 5" x 8" ✓ How driven STEAM ✓ Pumps connected to the Main Bilge Line { No. and size ONE @ 9" x 10" x 10" ✓ 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 @ 2¾", 1 @ 4" ✓

In Holds, &c. ✓

**Main Water Circulating Pump Direct Bilge Suctions, No. and size 2 @ 5" ✓ Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 4" ✓**

Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes ✓

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 ✓ 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 S ✓) Total Heating Surface of Boilers 4808 ✓

Is Forced Draft fitted No ✓ No. and Description of Boilers Two S.E. MULTITUBULAR ✓ 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? ✓

**PLANS.** Are approved plans forwarded herewith for Shafting - Main Boilers No Auxiliary Boilers ✓ Donkey Boilers } In London office

(If not state date of approval)

Superheaters ✓ General Pumping Arrangements No Oil fuel Burning Piping Arrangements No

**SPARE GEAR.** State the articles supplied:— Two propeller shafts, 2 C.I. propellers, 2 sets of piston rings for H.P., I.P. and L.P. cylinders, one packing ring for each end of H.P. piston valve, 1 piston rod with nut, 1 valve spindle with nuts, 2 sets of metallic packing blocks and springs for piston rods, 2 sets of metallic packing blocks and springs for slide rods, 1 bottom end bearing, 2 bottom end bolts and nuts, 1 top end bearing, 4 top end bolts and nuts, 2 eccentric straps, 1 feed pump plunger, 1 air pump rod, 1 set of air, feed, and bilge pump valves, 2 main bearing bolts and nuts, 1 set of coupling bolts, 40 condenser tubes and 80 ferrules, 1 main and auxiliary feed check valve, 1 safety valve spring, 18 piston studs and nuts, 8 cylinder cover studs and nuts, 8 holding down bolts, 15 boiler tubes, 24 gauge glasses, 1 impeller shaft for circulating pump, 1 piston rod and shoe, 1 suction and delivery valves, 1 set of piston rings for each auxiliary pump, a quantity of assorted bolts and nuts, and sheet and bar iron. ✓

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

Manufacturer.



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During progress of work in shops -- } 1927 DEC. 30. 1928 JAN. 5. 9. 18. 20. FEB. 13. 14. 16. 27. 29. MAR. 1. 2. 9. 15. 16. 21. 27. 30.  
 Dates of Survey while building } During erection on board vessel --- }  
 APL. 4. 10. 11. 13. 16. 18. 20. 24. 25. 26. 27. MAY. 1. 3. 4. 8. 9. 10. 14. 15. 16.  
 Total No. of visits 38.

Dates of Examination of principal parts—Cylinders 9/3/28, 21/3/28, 4/4/28 Slides 4/5/28 Covers 4/5/28  
 Pistons 25/4/28 Piston Rods 25/4/28 Connecting rods 25/4/28, 16/2/28  
 Crank shaft 13/4/28, 24/4/28 Thrust shaft 18/4/28, Intermediate shafts ✓  
 Tube shaft / Screw shaft 18/4/28, Propeller 1/5/28  
 Stern tube 26/4/28, 1/5/28 Engine and boiler seatings 1/5/28 Engines holding down bolts 9/5/28  
 Completion of pumping arrangements 10/5/28, Boilers fixed 9/5/28 Engines tried under steam 15/5/28  
 Main boiler safety valves adjusted 15/5/28 Thickness of adjusting washers P.B. P.V.  $\frac{9}{32}$  S.V.  $\frac{5}{16}$  S.B. P.V.  $\frac{11}{32}$  P.V.  $\frac{11}{32}$   
 Crank shaft material STEEL Identification Mark 983, 13/3/28, 27. Thrust shaft material STEEL Identification Mark 8020 J.P. 28. 2. 28  
 Intermediate shafts, material ✓ Identification Marks ✓ Tube shaft, material ✓ Identification Mark ✓  
 Screw shaft, material STEEL Identification Mark 8048 J.P. 4/4/28 Steam Pipes, material Copper ✓ Test pressure 360 LBS. Date of Test 9/5/28, 10/5/28  
 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  $\frac{9}{5}$  CATATUMBO,  $\frac{9}{5}$  APURE

**General Remarks** (State quality of workmanship, opinions as to class, &c. *The machinery of this vessel has been built under special survey, the materials and workmanship are good. Eligible in my opinion to have records of +L.M.C. 5. 28. C.L. O.G. Fitted for oil fuel 5. 28, F.P. above 150°F.*

It is submitted that  
 this vessel is eligible for  
**THE RECORD. + LMC 5. 28. CL.**  
 Fitted for oil fuel 5. 28. F.P. above 150°F.

*Handwritten signature and date:*  
 29/5/28.

The amount of Entry Fee ... £ 4 : 0 :  
 Special ... £ 62 : 0 :  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ : :  
 When applied for, 24 MAY 1928  
 When received, 26.6.28

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

Committee's Minute WED. 30 MAY 1928  
 Assigned + LMC 5. 28 CL  
 Fitted for oil fuel 5. 28, F.P. above 150°F



NEWCASTLE-ON-TYNE

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