

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office **MIDDLESBROUGH.** 27 OCT 1927

of writing Report **26. 10. 1927** When handed in at Local Office **26. 10. 1927** Port of **MIDDLESBROUGH.**

in Survey held at **MIDDLESBROUGH.** Date, First Survey **18. 3. 24** Last Survey **25. 10. 1927**
 (Number of Visits **48**)

Tons **Gross 2650. Net 1520.**

Sup on the T.w. se. **"PERIJA"** Yard No. **976.** When built **1927.**

lt at **Newcastle** By whom built **Palmer's S.B. Co.** Engine No. **2573** when made **1927**

ines made at **MIDDLESBROUGH** By whom made **Richardsons, Westgarth** Boiler No. **2573.** when made **1927.**

lers made at **MIDDLESBROUGH** By whom made **. do.**

istered Horse Power **212.** Owners **Gulf Refining Co.** Port belonging to **Newcastle.**

n. Horse Power as per Rule **212.** Is Refrigerating Machinery fitted for cargo purposes **No.** Is Electric Light fitted **Yes.**

de for which Vessel is intended **Carrying Petroleum in Bulk.**

GINES, &c.—Description of Engines **Triple Expansion Twin Screw.** Revs. per minute **130.**

of Cylinders **13 1/2. 23. 37.** Length of Stroke **27.** No. of Cylinders **6.** No. of Cranks **6.**

nk shaft, dia. of journals as per Rule **7.21.** Crank pin dia. **7 1/2.** Crank webs Mid. length breadth **14 1/8.** Thickness parallel to axis **4 3/4.**
 as fitted **7 1/2.** Mid. length thickness **4 3/4.** shrunk Thickness around eye-hole **3 7/16.**

ermediate Shafts, diameter as per Rule **6.84.** Thrust shaft, diameter at collars as per Rule **4.21.**
 as fitted **6.84.** as fitted **8 1/2.**

ic Shafts, diameter as per Rule **7.95.** Is the {tube & screw} shaft fitted with a continuous liner **Yes - both through stem tube & A bracket**
 as fitted **8 3/8.**

ize Liners, thickness in way of bushes as per Rule **1 1/32.** Thickness between bushes as per Rule **1 1/16.** Is the after end of the liner made watertight in the
 as fitted **1 1/16.** If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner **Yes.**

eller boss **Yes.** Is the space charged with a plastic material insoluble in water and non-corrosive **Yes.**

wo liners are fitted, is the shaft lapped or protected between the liners **Between stem tube and A bracket shaft coated with APEXIOR.** Is an approved Oil Gland or other appliance fitted at the after
 of the tube shaft **No.** Length of Bearing in Stern Bush next to and supporting propeller **2'-11"**

opeller, dia. **9'-0"** Pitch **9'-6"** No. of Blades **4.** Material **Bronze** whether Moveable **No.** Total Developed Surface **31.1** sq. feet

d Pumps worked from the Main Engines, No. **2.** Diameter **2 3/4"** Stroke **14"** Can one be overhauled while the other is at work **Yes.**

ic Pumps worked from the Main Engines, No. **2.** Diameter **2 3/4"** Stroke **14"** Can one be overhauled while the other is at work **Yes.**

d { No. and size **2 - 8x5x8 G.S. Duplex.** Pumps connected to the { No. and size **1 - 9x10x10 Ballast.**
 ps { How driven **Steam** Main Bilge Line { How driven

ast Pumps, No. and size **1 - 9x10x10.** Lubricating Oil Pumps, including Spare Pump, No. and size **2.**

wo independent means arranged for circulating water through the Oil Cooler **Yes.** Suctions, connected to both Main Bilge Pumps and Auxiliary
 Pumps;—In Engine and Boiler Room **2 - 2 3/4"; 2 - 2 1/2"**

olds, &c. **Yes.**

n Water Circulating Pump Direct Bilge Suctions, No. and size **2 - 5"** Independent Power Pump Direct Suctions to the Engine Room Bilges,
 and size **1 - 3 3/4"** Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes **Yes.**

he 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.**

ll Sea Connections fitted direct on the skin of the ship **Yes.** Are they fitted with Valves or Cocks **both.**

hey 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.**

hey 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.**

Pipes pass through the bunkers **none.** How are they protected **Yes.**

pipes pass through the deep tanks **Yes.** Have they been tested as per Rule **Yes.**

ll Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times **Yes.**

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
 tment to another **Yes.** Is the Shaft Tunnel watertight **none.** Is it fitted with a watertight door **Yes.** worked from **Yes.**

N BOILERS, &c.—(Letter for record **S.**) Total Heating Surface of Boilers **4055** sq. ft.

eced Draft fitted **No.** No. and Description of Boilers **2 (S.E. Marine 2SB)** Working Pressure **180 lbs.**

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

A DONKEY BOILER FITTED? **No.** If so, is a report now forwarded? **Yes.**

NS. Are approved plans forwarded herewith for Shafting Main Boilers **Yes.** Auxiliary Boilers **Yes.** Donkey Boilers **Yes.**
 (If not state date of approval)

aters **Yes.** General Pumping Arrangements **Yes.** Oil fuel Burning Piping Arrangements **Yes.**

RE GEAR. State the articles supplied:— **As per Rule + 2 propellers; 2 sets H.P., M.P., L.P. piston
 gs; 1 set H.P. piston valve rings; 1 piston rod; 1 valve spindle; 2 sets piston rod & valve
 ale packing; 1 bottom end bush complete; 1 top end bush complete; 1 ecc. diap; 1 feed
 p ram; 1 air pump rod; 1 set air pump valve; 40 condense tubes & 80 ferrules; 1 set feed
 a bilge pump valve seals; 2 bushes for pump guide bracket; 1 tail shaft; 1 impeller for
 atating pump; 1 piston rod & guide shoe for circulating pump; 2 sets piston rings and
 o and bottom end bushes for circulating pump.**

The foregoing is a correct description,
 For RICHARDSONS, WESTGARTH & Co. LIMITED

Richardsons
 MANAGING DIRECTOR. Manufacturer.



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1927. Mar 18.23. Apr 1.6.14.20.27. May. 5.16.19.24.28. Jun 1.8.16.21.24.28.30. Jul 4.6.8.9.16.23.27. Aug 2.10.22.26. Sep. 5.9.15.16.19.20.21.23.27.30. Oct 5.7.8.11.12.13.14.25

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - - -

Total No. of visits 48

Dates of Examination of principal parts—Cylinders 9.9.27 Slides 27.9.27 Covers 27.9.27
 Pistons 27.9.27 Piston Rods 9.9.27 Connecting rods 27.9.27
 Crank shaft 26.8.27 Thrust shaft 27.9.27 Intermediate shafts ✓
 Tube shaft ✓ Screw shaft 16.9.27 Propeller 16.9.27
 Stern tube 16.9.27 Engine and boiler seatings 5.10.27 Engines holding down bolts 12.10.27

Completion of fitting sea connections

Completion of pumping arrangements 12.10.27 Boilers fixed 5.10.27 Engines tried under steam 26.10.27

Main boiler safety valves adjusted 14.10.27 Thickness of adjusting washers Port 5 1/32 Stan. 5 1/16

Crank shaft material Steel Identification Mark LLOYDS NO 5416 D. 16.9.27 RDS Thrust shaft material Steel Identification Mark LLOYDS NO 5416 D. 27.9.27 RDS

Intermediate shafts, material ✓ Identification Mark ✓ Tube shaft, material ✓ Identification Mark ✓

Screw shaft, material Steel Identification Mark LLOYDS NO 5416 D. 16.9.27 RDS Steam Pipes, material Copper Test pressure 360lbs Date of Test 13.10.27

Is 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 'Monagas' and 'Aragua'

General Remarks (State quality of workmanship, opinions as to class, &c.)

This machinery is duplicate of that fitted to steamers 'Monagas' and 'Aragua' see Ind. Rpts Nos 13027 and 13056.

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 tried with satisfactory results under steam and is, in my opinion suitable for classification with record + L.M.C. 10.27 and notation "Fitted for oil fuel 10.27 F.P. above 150°F.

N.B. The A brackets of this vessel are fitted with Rubber bearings. See Sec. letter 8.9.27 and attached correspondence.

It is submitted that this vessel is eligible for THE RECORD. + LMC 10.27. CL. Fitted for oil fuel 10.27. FP above 150°F.

JWD 28/10/27 JPR

M. J. McA. Engineer Surveyor to Lloyd's Register of Shipping.

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

The amount of Entry Fee ... £ 4-0-0 When applied for,
 Special ... £ 53-0-0 26.10.1927
 Donkey Boiler Fee ... £ : : When received,
 Travelling Expenses (if any) £ : : 2.11.27

Committee's Minute TUES. 1 NOV 1927
 Assigned J. + L. McA 10.27 CL
 Fitted for Oil Fuel 10.27 F.P. above 150°F

