

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office - 7 SEP. 1927  
**MIDDLESBROUGH.**  
 Date, First Survey 18.3.27 Last Survey 24.8.1927  
 (Number of Visits 34)  
 in Survey held at **MIDDLESBROUGH.**  
 By whom built **Palmer S.B. Co.**  
 Yard No. **974.** When built **1927.**  
 By whom made **Richardsons, Westgarth & Co.**  
 Engine No. **2571** when made **1927.**  
 By whom made **Richardsons, Westgarth & Co.**  
 Boiler No. **2571** when made **1927.**  
 Owners **Gulf Refining Co.**  
 Port belonging to **Newcastle**  
 Is Refrigerating Machinery fitted for cargo purposes **No.**  
 Is Electric Light fitted **Yes.**  
 Is the Vessel intended for trade for which Vessel is intended **Yes.**

**Engines, &c.**—Description of Engines **Twin Triple Expansion**  
 No. of Cylinders **13½** Length of Stroke **27"** No. of Cranks **6.** Revs. per minute **131**  
 Crank shaft, dia. of journals **7.21"** Crank pin dia. **7.21"** Mid. length breadth **14½"** Thickness parallel to axis **4¾"**  
 Intermediate Shafts, diameter **6.87"** Crank webs **4¾"** Mid. length thickness **4¾"** Thickness around eye-hole **3¾"**  
 Tube Shafts, diameter **7.21"** Thrust shaft, diameter at collars **8½"**  
 Is the tube shaft fitted with a continuous liner **Yes in both**  
 Bronze Liners, thickness in way of bushes **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**  
 Length of Bearing in Stern Bush next to and supporting propeller **2'-11"**  
 Propeller, dia. **9'-0"** Pitch **9'-6"** No. of Blades **4.** Material **Bronze** whether Moveable **No.** Total Developed Surface **31.1** sq. feet  
 Feed Pumps worked from the Main Engines, No. **2.** Diameter **2¾"** Stroke **14"** Can one be overhauled while the other is at work **Yes.**  
 Bilge Pumps worked from the Main Engines, No. **2.** Diameter **2¾"** Stroke **14"** Can one be overhauled while the other is at work **Yes.**  
 Feed Pumps No. and size **2-8" x 3" 8" G.S. Duplex.** Pumps connected to the Main Bilge Line **Yes**  
 Ballast Pumps, No. and size **1-9" x 10" x 10"** Lubricating Oil Pumps, including Spare Pump, No. and size **Yes**  
 Are two independent means arranged for circulating water through the Oil Cooler **Yes**  
 Bilge Pumps: In Engine and Boiler Room **2-2¾"** In Holds, &c. **2-2½"**  
 Suctions, connected to both Main Bilge Pumps and Auxiliary **Yes**

**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** **1-3¾"**  
 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 fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates **Yes**  
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel **Yes**  
 What Pipes pass through the bunkers **None**  
 What pipes pass through the deep tanks **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 **Yes**

**MAIN BOILERS, &c.**—(Letter for record **S.**) Total Heating Surface of Boilers **4055** sq. ft.  
 Is Forced Draft fitted **No.** No. and Description of Boilers **2-S.E. Marine** 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? **No.**

**PLANS.** Are approved plans forwarded herewith for Shafting **Yes** Main Boilers **Yes** Auxiliary Boilers **No** Donkey Boilers **No**  
 (If not state date of approval)  
 Superheaters **Yes** General Pumping Arrangements **Yes** Oil fuel Burning Piping Arrangements **Yes**

**SPARE GEAR.** State the articles supplied:— **As per Rules + 2 Propellers, 1 set H.P. piston valve rings, 1 piston rod, 1 valve spindle, 2 sets piston rod and valve spindle packing, 1 bottom end bush complete, 1 top end bush complete, 1 eccentric strap, 1 feed pump ram, 1 air pump rod, 1 set air pump valve, 40 condenser tubes, 80 ferrules, 1 set feed & bilge pump valve seats, 2 bushes for pump guide bracket, 1 tail shaft, 1 Impeller for Circulating pump, 1 piston and rod and guide shoe for circulating pump, 2 sets piston rings and 2 top and bottom end bushes for circulating pump.**

The foregoing is a correct description,  
 FOR RICHARDSONS, WESTGARTH & CO. LIMITED.

*W. Guthrie*  
 GENERAL MANAGER.  
 (HARTLEPOOL WORKS.)

Manufacturer.



© 2020  
 Lloyd's Register  
 Foundation

W1151 - 0058



