

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

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Date of writing Report ² 29 March 1927 When handed in at Local Office ¹⁶ 29 March 1927 Port of WEST HARTLEPOOL

No. in Survey held at Hartlepool Date, First Survey 13th May 1926 Last Survey 22nd March 1927
Reg. Book. 8919H on the S. S. GYPSUM KING. (Number of Visits 98)

Built at Middlesbrough By whom built The Furness S. A. Co. Ltd. Yard No. 108 When built 1924
Engines made at Hartlepool By whom made Richardson Westgarth Engine No. 2656 when made 1924

Boilers made at Hartlepool By whom made Richardson Westgarth Boiler No. 2656 when made 1924

Registered Horse Power Owners Gypsum Packet Co. Ltd. Port belonging to Middlesbrough

Nom. Horse Power as per Rule 409 ✓ Is Refrigerating Machinery fitted for cargo purposes No ✓ Is Electric Light fitted Yes ✓
Trade for which Vessel is intended Ocean going ✓

ENGINES, &c.—Description of Engines Triple Expansion ✓ Revs. per minute 42 ✓
Dia. of Cylinders 24 $\frac{1}{2}$ " 41" 68" Length of Stroke 45" No. of Cylinders 3 ✓ No. of Cranks 3 ✓

Crank shaft, dia. of journals as per Rule 12.97" ✓ as fitted 13.25" ✓ Crank pin dia. 13.5" ✓ Crank webs Mid. length breadth 19 $\frac{5}{8}$ " ✓ Thickness parallel to axis 8" ✓
as fitted 13.25" ✓ Crank webs Mid. length thickness 8" ✓ Shrunk Thickness around eye-hole 5 $\frac{7}{8}$ " ✓

Intermediate Shafts, diameter as per Rule 12.36" ✓ as fitted 12.5" ✓ Thrust shaft, diameter at collars as per Rule 12.97" ✓ as fitted 14.5" ✓

Tube Shafts, diameter as per Rule 13.82" ✓ as fitted 14.25" ✓ Is the ^{tube} screw shaft fitted with a continuous liner Yes ✓

Bronze Liners, thickness in way of bushes as per Rule .72" as fitted .75" ✓ Thickness between bushes as per Rule .54 as fitted .625 ✓ 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 ✓ Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft No ✓

Length of Bearing in Stern Bush next to and supporting propeller 4" 9 $\frac{1}{4}$ " ✓
Propeller, dia. 16" 9" Pitch 16" 6" No. of Blades 4 ✓ Material Bronze whether Moveable Yes ✓ Total Developed Surface 92 sq. feet

Feed Pumps worked from the Main Engines, No. 2 ✓ Diameter 3" Stroke 27" Can one be overhauled while the other is at work Yes ✓
Bilge Pumps worked from the Main Engines, No. 2 ✓ Diameter 3 $\frac{3}{4}$ " Stroke 27" Can one be overhauled while the other is at work Yes ✓

Feed Pumps { No. and size 2 main 7" Lamont 8 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " x 8" Pumps connected to the { No. and size 2 main, 2 Lamont 10" x 11" x 10" + 1 Lamont 5" x 4 $\frac{1}{2}$ " x 6"
How driven Lamont Steam ✓ Main Bilge Line How driven 2 main engines. Lamont by steam ✓

Ballast Pumps, No. and size Two 10" x 11" 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 of 3". one 3 $\frac{1}{2}$ " main bilge pump only.

In Holds, &c. N^o 1 Hold 2 of 2 $\frac{1}{2}$ ". N^{os} 2 & 3 Holds 4 drains on each side 4" diam lifting valves through non return valves to D.B. tanks. Bunkers 2 of 2 $\frac{1}{2}$ ".

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 of 5 $\frac{1}{2}$ " dia Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 of 4 $\frac{1}{2}$ " ✓
Are all the Bilge Suction Pipes in holds not fitted with strum-boxes Steamers. See pumping plan ✓

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 Yes ✓

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 None ✓ How are they protected ✓
What pipes pass through the deep tanks ✓ Have they been tested as per Rule ✓

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 5412 ²⁵⁵ sq. ft.
Is Forced Draft fitted Yes ✓ No. and Description of Boilers 2 Single Ended ✓ Working Pressure 190 lbs per sq. in.

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 No ✓ Main Boilers Yes ✓ Auxiliary Boilers ✓ Donkey Boilers ✓
(If not state date of approval)

Superheaters ✓ General Pumping Arrangements Yes ✓ Oil fuel Burning Piping Arrangements ✓

SPARE GEAR. State the articles supplied:— 2 bolts & nuts for connecting rod top ends, 2 ditto for bottom ends, 2 ditto for main bearings, 1 set coupling bolts and nuts, 1 set of feed and bilge pump valves, assorted bolts & nuts, iron of various sizes, 1 spare bronze propeller blade, 2 safety valve springs, 50 plain boiler tubes, 1 set of coils for feed heater, 100 condenser tubes For each size of auxiliary pump 1 set of valves and seats, 1 set of peeling rings for buckets ✓

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

L. D. Westgarth

DIRECTOR AND GENERAL MANAGER. Manufacturer.



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NOTE.—The words which do not apply should be deleted.

