

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

6 APR 1927

Date of writing Report 31 - 3 - 1927 When handed in at Local Office 5 - 4 - 1927 Port of

NEWCASTLE-ON-TYNE.

No. in Survey held at Jarrow Date, First Survey 5 Dec 1919 Last Survey 25 March 1927
Reg. Book. (Number of Visits 98)

89357 Sup. on the S.S. HEDGEHOPE

Tons } Gross 4500
Net 2850

Built at Hebburn By whom built Palmers S. & J. Co. Ltd. Yard No. 922 When built 1927

Engines made at Jarrow By whom made Palmers S. & J. Co. Ltd. Engine No. 922 when made 1927

Boilers made at Jarrow By whom made " " Boiler No. 922 when made 1927

Registered Horse Power Owners Medomsley Steam Shipping Co. Ltd. Port belonging to Newcastle

Nom. Horse Power as per Rule 450 451 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted YES

Trade for which Vessel is intended

ENGINES, &c.—Description of Engines **TRIPLE EXPANSION** Revs. per minute 74

Dia. of Cylinders 26" - 43" - 71" Length of Stroke 48" No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 13.53" as fitted 13.75" Crank pin dia. 13.75" Crank webs Mid. length breadth 2.1 1/4" Thickness parallel to axis 9 3/8"
Mid. length thickness 9 3/8" shrunk Thickness around eye-hole 5 3/4" at shaft
5 1/2" at crank pin

Intermediate Shafts, diameter as per Rule 12.88" as fitted 13 1/8" Thrust shaft, diameter at collars as per Rule 13.53" as fitted 13.75"

Tube Shafts, diameter as per Rule - as fitted - Screw Shaft, diameter as per Rule 14.38" as fitted 14.75" Is the tube shaft fitted with a continuous liner YES

Bronze Liners, thickness in way of bushes as per Rule .739" as fitted .75" Thickness between bushes as per Rule .56" as fitted .11" 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 No Length of Bearing in Stern Bush next to and supporting propeller 5' 0"

Propeller, dia. 18' 0" Pitch 16' 6" No. of Blades 4 Material BRONZE whether Movable No Total Developed Surface 90 sq. feet

Feed Pumps worked from the Main Engines, No. 2 Diameter 4 1/2" Stroke 24" Can one be overhauled while the other is at work YES

Bilge Pumps worked from the Main Engines, No. 2 Diameter 4 1/2" Stroke 24" Can one be overhauled while the other is at work YES

Feed Pumps { No. and size TWO WEIRS 9 1/2" x 7 x 21" Pumps connected to the { No. and size 1 BALLAST PUMP 8' x 10' x 10" DUPLEX
How driven STEAM Main Bilge Line { How driven STEAM

Ballast Pumps, No. and size 1 @ 8' x 10' x 10" DUPLEX Lubricating Oil Pumps, including Spare Pump, No. and size NONE

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 4 @ 3"

In Holds, &c. No. 1 HOLD = 2 @ 3", Nos. 2 & 3 HOLDS = 2 @ 3 1/4", No. 4 HOLD = 2 @ 2 3/4", No. 5 HOLD = 2 @ 3", TUNNEL WELL = 1 @ 3"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 8" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 4 1/2" 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

What Pipes are carried through the bunkers FORWARD BILGE PIPES How are they protected BY WOOD CEILING

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 YES Is it fitted with a watertight door YES worked from UPPER DECK

MAIN BOILERS, &c.—(Letter for record (5) Total Heating Surface of Boilers 6372 358

Is Forced Draft fitted YES No. and Description of Boilers 3 SINGLE ENDED CYLINDRICAL 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 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:— One solid propeller (C.I.) one tail shaft. 2 bottom and 2 top end bolts, and nuts, 2 main bearing bolts and nuts, one set of coupling bolts, one set of bilge and feed pump valves and seat, one set H.P. piston rings, 2 main and auxiliary check valves, 2 safety valves springs, 6 condenser tubes, and 12 ferrules, a quantity of assorted bolts and nuts, bar and sheet iron of various sizes.

The foregoing is a correct description,
Palmers Shipbuilding & Iron Co., Ltd.
N. Brown
Manager, Engines

Manufacturer.



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NOTE.—The words which do not apply should be deleted. If not, state whether, and when, one will be sent?

1919 Dec. 5, 11. 1920 Jan. 9. Feb. 12. Mar. 23. Apr. 30. May 5, 6, 17, 26. June 10. July 7, 15, 14, 20, 23, 26, 28. Aug. 6, 24, 26. Sept. 10, 11, 16, 23, 30. Oct. 4, 19, 21, 26, 27. Nov. 1, 5, 9, 12, 15, 16, 18, 22, 24, 29. Dec. 1, 3, 9, 14, 15, 17, 22, 23, 28, 30. 1921 Jan. 7, 14, 17, 24, 31. Feb. 8, 11, 17, 28. Mar. 12. Apr. 15. June 7. Aug. 17. 1926 Nov. 18, 19, 22, 23, 29. Dec. 1, 9, 14, 15, 16, 20, 22, 29. 1927 Jan. 5, 11, 12, 20, 28. Feb. 4, 8, 10, 15, 17, 24, 25, 28. Mar. 3, 4, 7, 14, 17, 20, 24, 25.

Dates of Survey while building } During erection on board vessel - - -
 Total No. of visits **98.**

Dates of Examination of principal parts—Cylinders 10/1/26, 14/12/26 Slides 9/12/26 Covers 14/12/26
 Pistons 8/2/27 Piston Rods 11/3/27 Connecting rods 5/1/27
 Crank shaft 19/11/26, 9/12/26 Thrust shaft 15/2/27 Intermediate shafts 28/2/27, 10/11/26, 28/3/27
 Tube shaft - Screw shaft 8/3/27 Propeller 8/2/27, 24/2/27
 Stern tube 14/12/26, 18/1/27, 29/1/27 Engine and boiler seatings 14/3/27 Engines holding down bolts 20/3/27
 Completion of pumping arrangements 22/3/27 Boilers fixed 20/3/27 Engines tried under steam 24/3/27
 Main boiler safety valves adjusted 24/3/27 Thickness of adjusting washers P.B.-P.V. $\frac{3}{8}$ " S.V. $\frac{3}{8}$ " C.B.-P.V. $\frac{7}{16}$ " S.V. $\frac{1}{2}$ " S.B.-P.V. $\frac{3}{8}$ " S.V. $\frac{5}{16}$ "

Crank shaft material STEEL Identification Mark 4990. N.W.C. Thrust shaft material STEEL Identification Mark 4990. X1160. A.17
 Intermediate shafts, material STEEL Identification Marks L.R. 4990 Tube shaft, material - Identification Mark -
 Screw shaft, material STEEL Identification Mark 4990. N. X1161 Steam Pipes, material STEEL Test pressure 540 LBS. Date of Test 17/2/27, 24/3/27

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 machinery of this vessel was built under Special Survey. The materials and workmanship are good. Machinery tested under working conditions and found satisfactory. Eligible in my opinion to have record of +L.M.C. 3-27, and T.S. e.c. 3-27

It is submitted that this vessel is eligible for THE RECORD. + LMC 3. 27. FD. CL.

J.W.D.
 7/4/27

The amount of Entry Fee ... £ 5 : 0
 Special ... £ 92 : 10
 Donkey Boiler Fee ... £ :
 Travelling Expenses (if any) £ :

When applied for, - 5. APR 1927
 When received, 29. 4. 27

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

Committee's Minute FRI. 8 APR 1927.
 Assigned + LMC 3. 27. FD. CL.

NEWCASTLE-ON-TYNE

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

If not, state whether, and when, one will be sent? YES