

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

RETAIN

Date of writing Report 14-7-42 5. When handed in at Local Office 19 12. Port of HULL. Received at London Office 17 JAN 1943

No. in Survey held at Reg. Book. on the H.M.C. ~~MACKEREL~~ NOW CORNCRANE. Date, First Survey. Last Survey 12 1942. (Number of Visits 51.)

Built at SELBY. By whom built Cochrane & Sons, Ltd. Yard No. 1246. Tons Gross 389. Net 133. When built 1942.

Engines made at HULL. By whom made Amos & Smith. Engine No. 708. When made.

Boilers made at HULL. By whom made Amos & Smith. Boiler No. 708. When made.

Registered Horse Power. Owners THE ADMIRALTY. Port belonging to J.

Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.

Vessel for which Vessel is intended for Government Service.

GINES, &c.—Description of Engines Triple Expansion. Revs. per minute 115.

No. of Cylinders 3. Length of Stroke 27". No. of Cranks 3.

Crank shaft, dia. of journals as per Rule 7.65". Crank pin dia. 8". Crank webs Mid. length breadth. Thickness parallel to axis 5".

Intermediate Shafts, diameter as per Rule 7.3". Thrust shaft, diameter at collars as per Rule 7.65".

Propeller Shafts, diameter as per Rule 8.15". Is the shaft fitted with a continuous liner Yes.

Shaft Liners, thickness in way of bushes as per Rule 9/16". Thickness between bushes as per Rule 19/32". 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 One length.

Is 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.

Are 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.

Propeller, dia. 10-3". Pitch 10-9". No. of Blades 4. Material C.I. Length of Bearing in Stern Bush next to and supporting propeller 35 9/16".

Can one be overhauled while the other is at work One at a time.

Number of Main Engines, No. ONE. Diameter 3". Stroke 15".

Number of Auxiliary Engines, No. ONE. Diameter 3". Stroke 15".

Can one be overhauled while the other is at work One Only.

How driven Independent Steam. Pumps connected to the Main Bilge Line. No. and size 6" x 4 1/4" x 6" Duplex. 3 Ejectors, M.E. Steam pump.

How driven Independent Steam.

Lubricating Oil Pumps, including Spare Pump, No. and size None.

Are two independent means arranged for circulating water through the Oil Cooler None.

Suctions, connected to both Main Bilge Pumps and Auxiliary Pumps;—In Engine and Boiler Room 2 @ 2" Dia. and One Ejector (see below).

In Holds, &c. One @ 2" Dia. in each of the following:—

Ballast Space. A501C Room. After Ballast Space Magazine. Magazine Ld. Spirit Room.

Water Circulating Pump Direct Bilge Suctions, No. and size One 6".

Independent Power Pump Direct Suctions to the Engine Room Bilges, and size One 3" Steam Ejector.

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 Yes and Bilge Ejector with Strum.

Are they fixed sufficiently high on the ship's side to be seen without lifting the stowhold 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.

Do any Pipes pass through the bunkers None.

How are they protected.

Do any pipes pass through the deep tanks None.

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.

MAIN BOILERS, &c.—(Letter for record 5.) Total Heating Surface of Boilers 1873 sq. ft.

Which Boilers are fitted with Forced Draft Yes. All.

Which Boilers are fitted with Superheaters None.

Working Pressure 210 lb. 10'.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? —

IS A DONKEY BOILER FITTED? None.

If so, is a report now forwarded? —

Can the donkey boiler be used for domestic purposes only.

PLANS. Are approved plans forwarded herewith for Shafting 13-8-41 Main Boilers 13-8-41 Auxiliary Boilers None Donkey Boilers None.

Superheaters None.

General Pumping Arrangements 16-6-41.

Oil fuel Burning Piping Arrangements None.

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes.

State the principal additional spare gear supplied See Attached List.

RETAIN

The foregoing is a correct description. For AMOS & SMITH LTD.

A.C. Sturdy
DIRECTOR

Manufacturer.

W376-0226



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"CORNCRAKE"

Dates of Survey while building

During progress of work in shops -- 1942 Jan. 7. 23. 31. Feb. 5. 24. Mar. 4. 6. 16. 20. 30. Apr. 16. 24. 28. May. 4. 4. 8. 16. 20. 29. June 3. 4. 11. 16. 23. 24. 29.

During erection on board vessel --- July 1. 3. 7. 8. 10. 13. 14. 15. 23. Aug 5. 10. 13. 14. 25. Sept 3. 12. 13. 14. 16. 21. 23. Nov. 9. Dec. 3. 9. 1942

Total No. of visits 52.

Dates of Examination of principal parts—Cylinders 24/4/42 28/4/42 4/5/42 Slides 16/5/42 Covers 24/4/42 28/4/42 4/5/42

Pistons 7/4/42 Piston Rods 7/4/42 Connecting rods 7/4/42

Crank shaft 14/4/42 Thrust shaft 5/2/42 Intermediate shafts 5/2/42

Tube shaft — Screw shaft 23-1-42 Propeller 23/1/42

Stern tube 24/2/42 Engine and boiler seatings 4/6/42 Engines holding down bolts 1/7/42

Completion of fitting sea connections 6/3/42

Completion of pumping arrangements 12/9/42 Boilers fixed 1/7/42 Engines tried under steam 12/9/42

Main boiler safety valves adjusted 12/9/42 Thickness of adjusting washers Both 3/8

Crank shaft material M.S. Identification Mark 439.W.K 13-1-42. Thrust shaft material M.S. 708. 390. 13 5/2/42.

Intermediate shafts, material M.S. Identification Mark 290. 8. 5/2/42. (481-482.W.K 13-1-42) Identification Mark

Screw shaft, material M.S. Identification Mark 293-LT. Tube shaft, material NONE. Identification Mark

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 the use of oil as fuel been complied with ✓

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo No If so, have the requirements of the Rules been complied with ✓

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with ✓

Is this machinery duplicate of a previous case. Yes. If so, state name of vessel H.M.T. GRAYLING.

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

The Machinery of the Vessel has been constructed under Special Survey in accordance with approved Plans, the Rules, Specifications and Admiralty Requirements of good materials and workmanship.

The Machinery has been fitted aboard under Special Survey and when tried under working conditions was found satisfactory in every respect.

It is eligible, in our opinion, to have the records of L.M.C 242 C.L. and the Notation of T. 3cy. 13 1/2, 24, 39" - 27" 210 lbs/sq. ft.

M.P. 125. G.S. 50. H.S. 1873. F.D.

The amount of Entry Fee ... £ : : When applied for, 8. 1. 1943.

Special ... £ 62 : - : When received,

Donkey Boiler Fee ... £ : : 19

Travelling Expenses (if any) £ : : 19

J. P. ... W.S. Shields
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute 22 JAN 1943

Assigned Edm. B. 12-42

22, CL,



Rpt. 5

Date of ...

No. in Reg. Book.

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Tensile stren

Pitch of stays

Front plate

Thickness

Pitch of stays

Main stays :

Diameter { At b

Over

Screw stays :

Diameter { At tu

Over

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