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Rpt. 4.  
8 NOV 1943

No. 52200.

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 27.10.1943 When handed in at Local Office 27.10.1943 Port of HULL  
 No. in Survey held at HULL Date, First Survey 30.1.43 Last Survey 21.10.1943  
 Reg. Book "EARNER" J 2535 (Number of Visits 59)  
 on the STEAM TUG "EARNER" J 2535 Tons {Gross 597  
 Net 416  
 Built at SELBY By whom built Cochrane & Sons Ltd Yard No. 1270 When built 1943  
 Engines made at HULL By whom made Chas. D. Holmes & Co. Ltd Engine No. 1647 When made  
 Boilers made at WEST HARTLEPOOL By whom made Central Marine Eng. Works Boiler No. R 361 When made  
 Registered Horse Power Owners Admiralty Port belonging to  
 Nom. Horse Power as per Rule 222 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES  
 Trade for which vessel is intended Rescu tug

GINES, &c.—Description of Engines Triple Expansion. CONTRACT. Revs. per minute 122  
 Dia. of Cylinders 17" 28" 46" Length of Stroke 33" No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals as per Rule 9.46" as fitted 9 5/8" Crank pin dia. 9 5/8" Mid. length breadth — Thickness parallel to axis 6 1/8"  
 as fitted 9 5/8" Crank webs shrunk Thickness around eye-hole 4 5/16"  
 as per Rule 9.01" as fitted 9 1/4" Thrust shaft, diameter at collars as per Rule 9.46" as fitted 9 5/8"  
 Tube Shafts, diameter as per Rule — as fitted None Screw Shaft, diameter as per Rule 10" as fitted 10 1/4" Is the {tube screw} shaft fitted with a continuous liner {Yes.  
 as per Rule 6.01" as fitted 2 1/32" Thickness between bushes as per Rule 4.5" as fitted 1 7/32" 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  
 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  
 Propeller, dia. 11'-9" Pitch 12'-0" No. of Blades 4 Material C.I. whether Moveable No Total Developed Surface 52 sq. feet  
 Feed Pumps worked from the Main Engines, No. 2 Diameter 3" Stroke 18" Can one be overhauled while the other is at work Yes  
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 3" Stroke 18" Can one be overhauled while the other is at work Yes  
 Feed Pumps {No. and size One 7" x 5" x 6" Duplex Pumps connected to the {No. and size One 7" x 7" x 8" 3" steam Hand pump ME  
 How driven Independent Recan Main Bilge Line How driven Independent Recan Ejector 1/2 Offedam  
 Ballast Pumps, No. and size One 7" x 7" x 8" 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  
 Bilge Pumps:—In Engine and Boiler Room 2 @ 2 1/4" 3" Recan Ejector 4 @ 1 1/2" suction in gutterways  
 In Pump Room Offedam One @ 2" In Holds, &c. One @ 2" Dia in each of the following Fore Peak  
 Water ballast port and starboard After Peak  
 Main Water Circulating Pump Direct Bilge Suctions, No. and size 6" Independent Power Pump Direct Suctions to the Engine Room Bilges,  
 No. and size 3" Recan 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  
 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 pass through the bunkers None How are they protected —  
 What 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 — worked from —

MAIN BOILERS, &c.—(Letter for record S.) Total Heating Surface of Boilers 3550 ft.  
 Which Boilers are fitted with Forced Draft All Which Boilers are fitted with Superheaters None  
 No. and Description of Boilers One S.B. Working Pressure 210 lb./sq. in.  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes  
 IS A DONKEY BOILER FITTED? No 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 10-1-40. Main Boilers 20-10-39 Auxiliary Boilers None Donkey Boilers None  
 (If not state date of approval)  
 Superheaters — General Pumping Arrangements 13-5-40 Oil fuel Burning Piping Arrangements 26-4-40.

## SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes.  
 State the principal additional spare gear supplied  
 2 Top and bottom valves One Set Lockwood and Calise rings & springs OIL FUEL SPARE GEAR  
 2 Bottom valves for Pistons and piston valves. 2 Thermometers  
 2 Main bearings 12. Boiler tubes plain 6. Burner Rods  
 One Set Coupling bolts 4 do do Pray. 6 " Caps.  
 2 Safety Valve Springs One Piston rod 36 " Nipples  
 25 Condenser tubes One Valve rod 36 " Diaphragms  
 50. do ferrules One Main & One Aux. Check Valve 6 Fire brack. Raffles.  
 One Set Feed & Bilge pump Valves. 12. Gauge Glasses  
 One Set Air pump Valves.

The foregoing is a correct description.

FOR CHARLES D. HOLMES &amp; CO., LTD.

W.R. Evans

Manufacturer.



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FARNER

During progress of work in shops - - 1943. Jan. 30 Feb. 9.11. Apr. 2.9.16.30. May. 7.14.21. June 10/11/16.19.25. July 28. 16.19.20. 22.23.  
Aug. 6. 13. 21. 23. 24. Sept. 2. 3. 4. 20. 21. 25

Dates of Survey while building - - 1943 Jun 17. Jul 12, 27, Aug 6, 18, 24. Sep 9, 15, 16, 22, 24, 28, 30. Oct. 1, 4, 5, 6  
Oct 12, 13, 14, 15, 19, 20, 21.

Total No. of visits 59

Dates of Examination of principal parts - Cylinders 20/7/43. 22/7/43. Slides 7/7/43. Covers 20/7/43. 22/7/43.

Pistons 3/9/43. Piston Rods 2/8/43. Connecting rods 27/8/43.

Crank shaft 16-7-43. Thrust shaft 19/6/43. Intermediate shafts 2/9/43.

Tube shaft 17/9/43. Screw shaft 14/6/43. Propeller 17/9/43.

Stern tube 17/9/43. Engine and boiler seatings 18/8/43. Engines holding down bolts 16/9/43.

Completion of fitting sea connections 17/9/43.

Completion of pumping arrangements 5/10/43. Boilers fixed 15/9/43. Engines tried under steam 5/10/43.

Main boiler safety valves adjusted 5/10/43. Thickness of adjusting washers F 17/32. A 7/16.

Crank shaft material F.1. Steel. Identification Mark 586. CP. 3-6-43. Thrust shaft material F.1. Steel. Identification Mark 584. CP. 3/4/43. 1688.

Intermediate shafts, material 0°. Identification Marks 842, FW. 15.5-43. 5.3-43. Tube shaft, material NONE. Identification Mark 15. 19-6-43.

Screw shaft, material 0°. Identification Mark 8363. CP. 23-4-43. Steam Pipes, material Steel. Test pressure 630 lb. Date of Test 21-9-43.

Is an 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 the use of oil as fuel been complied with YES.

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. If so, state name of vessel Frisky. H.E. Rpt. 51413.

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

The Machinery of this Vessel has been constructed in accordance with the approved plans the Rules and the Specification, of tested material made by firms accredited by the Society.

The Workmanship and material are good.

The Machinery & Auxiliaries have been fitted on board and, when tried under steam at as near full power as practicable in the basin well found satisfactory in every respect.

Eligible to be classed in the Register Book \* LMC 10,43 CL.

T 3 cy. 17", 28", 46" - 33". 1 SB. 210 lb NHP 222

HS 3550 lb F.D.

Filters for oil fuel 10,43. F.P. above 150°F.

This vessel has proceeded to sea without the 5" portable pump engine which is stored on starboard side of boiler room casing on deck and intended for salvage purposes. W.S.S.

See also WH Rpt N° 18454.

The amount of Entry Fee ... £

Special CASE (P.M.) £ 35 : 16 4

Donkey Boiler Fee ... £ 59 : 10

Travelling Expenses (if any) £

Committee's Minute

Assigned

When applied for, NOV 1943

When received, 19

TUES. 23 NOV 1943

+ LMC 10,43 FD CL

ADMIRALTY

A/c rendered from 26. 11. 43

W. Shields

Engineer Surveyor to Lloyd's Register of Shipping.