

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 17 AUG 1946

Date of writing Report 19 When handed in at Local Office 14 AUG 1946 Port of HULL.  
 No. in Survey held at HULL. Date, First Survey 28. 3. 46. Last Survey 15. 7. 1946  
 Reg. Book (Number of Visits 51.)  
 on the Steam Tug "SIMONIA".  
 Built at Selby By whom built Cochrane & Sons Ltd. Yard No. 1308. When built 1946.  
 Engines made at Hull By whom made Amos & Smith Ltd. Engine No. 772. When made -do-  
 Boilers made at Hull By whom made Amos & Smith Ltd. Boiler No. 772. When made -do-  
 Registered Horse Power Owners Ministry of War Transport Port belonging to London  
 Nom. Horse Power as per Rule 132 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
 Trade for which vessel is intended Towing services.

ENGINES, &c.—Description of Engines Triple expansion.  
 Dia. of Cylinders 15", -25" -42" Length of Stroke 27" No. of Cylinders 3 Revs. per minute 122  
 Crank shaft, dia. of journals as per Rule 8.05" as fitted 8 1/2" Crank pin dia. 8 1/2" Mid. length breadth 15 1/2" No. of Cranks 3 Thickness parallel to axis 5 1/2"  
 Intermediate Shafts, diameter as per Rule 7.665" as fitted 8" Thrust shaft, diameter at collars as per Rule 8.05" as fitted 8 1/2" Thickness around eye-hole 3 1/2"  
 Tube Shafts, diameter as per Rule none as fitted none Screw Shaft, diameter as per Rule 8.865" as fitted 9 1/2" Is the tube screw shaft fitted with a continuous liner No  
 Bronze Liners, thickness in way of bushes as per Rule - as fitted - Thickness between bushes as per Rule - as fitted - Is the after end of the liner made watertight in the propeller boss - 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 Yes If so, state type Newark Length of Bearing in Stern Bush next to and supporting propeller 3' 2 1/2"  
 Propeller, dia. 10' 0" Pitch 11' 9" No. of Blades 4 Material C.I. whether Movable Solid Total Developed Surface 38 sq. feet  
 Feed Pumps worked from the Main Engines, No. 2 Diameter 2 1/2" Stroke 15" Can one be overhauled while the other is at work Yes  
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 2 1/2" Stroke 15" Can one be overhauled while the other is at work Yes  
 Feed Pumps No. and size One 6" x 4 1/2" x 6" Pumps connected to the Main Bilge Line No. and size One Duplex 7 1/2" x 5" x 6" How driven Independent steam  
 Ballast Pumps, No. and size none 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 both to Main Bilge Pumps and Auxiliary  
 Bilge Pumps: In Engine and Boiler Room 2 @ 2 1/2" D. 2 @ 3" D. Boiler room 2 @ 2 1/2" D.  
 In Pump Room none In Holds, &c. One @ 2" dia. in each of the following:-  
 Fore peak tank, fore hold, aft hold, aft peak tank.  
 Main Water Circulating Pump Direct Bilge Suctions, No. and size one @ 5" D. Independent Power Pump Direct Suctions to the Engine and/or Boiler Room Bilges,  
 No. and size Two @ 3" included above 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 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 2390 sq. ft.  
 Which Boilers are fitted with Forced Draft none Which Boilers are fitted with Superheaters none  
 No. and Description of Boilers One S.B. Working Pressure 200 lbs/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 other than domestic purposes -  
 PLANS. Are approved plans forwarded herewith for Shafting 28.7.41 Main Boilers 3.7.41. Auxiliary Boilers none Donkey Boilers none  
 (If not state date of approval) none  
 Superheaters General Pumping Arrangements 3.9.41. Oil fuel Burning Piping Arrangements 8.5.42.

## SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes  
 State the principal additional spare gear supplied see attached list.

The foregoing is a correct description.

For AMOS &amp; SMITH LTD.

A. S. Steadman  
 DIRECTOR

Manufacturer.



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012734-012743-0025



Steam Tug "SIMONIA".

1945. Mar. 28. June 12. Aug. 20. Sept. 18, 25. Oct. 15, 17, 25, 31. Nov. 5, 13, 14, 15, 16, 19, 28.  
Dec. 4, 7, 17, 18. 1946. Jan. 2, 9, 18, 21, 30. Feb. 19. Mar. 5.  
1945. June 22. Sept. 27. 1946. Feb. 24. Mar. 6, 28. Apr. 10, 13, 23, 24, 26, 30. May 2, 8.  
June 5, 12, 15, 18, 24, 26, 28. July 3, 10, 11, 15.  
Total No. of visits 51.

Dates of Examination of principal parts—Cylinders 16.11.45. Slides 23.11.45. Covers 16.11.45.  
Pistons 2.1.46. Piston Rods 2.1.46. Connecting rods 2.1.46.  
Crank shaft 15.10.45. Thrust shaft 2.3.45. Intermediate shafts 12.6.45.  
Tube shaft - Screw shaft 28.8.45. Propeller 22.6.45.  
Stern tube 22.6.45. Engine and boiler seatings 24.2.46. Engines holding down bolts 24.4.46.  
Completion of fitting sea connections 22.6.45.  
Completion of pumping arrangements 3.7.46. Boilers fixed 24.2.46. Engines tried under steam 3.7.46. & 10.7.46.  
Main boiler safety valves adjusted 3.7.46. Thickness of adjusting washers P. 3/8" S. 13/32"  
Crank shaft material F.I. steel Identification Mark LR 4525 C.P. Thrust shaft material F.I. steel Identification Mark LR 4364 CP  
Intermediate shafts, material -do- Identification Marks LR 4365 CP Tube shaft, material -do- Identification Mark -do-  
Screw shaft, material -do- Identification Mark LR 4363 CP Steam Pipes, material steel Test pressure 600lbs Date of Test 24.6.46.  
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 Yes If so, state name of vessel "EMPIRE BARBARA".

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 materials are good.

The machinery and auxiliaries have been fitted on board and when tried under steam at full power in the River Humber were found satisfactory in every respect.

This machinery is eligible to be classed in the Register Book:-

+LMC 7,46, OG, Y 3cyl., 15", 25", 42" - 27" MN132 1 S.B. 200lbs, 3 cf. H.S. 2390

Fitted for oil fuel 6,46 F.P. above 150°F.

Fee based on NHP 132.

The amount of Entry Fee ... £ 3 - - : When applied for,  
Special +LMC £ 33 - - :  
25% Specification £ 8 5 - :  
Donkey Boiler Fee ... £ : : :  
Travelling Expenses (if any) £ : : :  
When received, 10.

Engineer Surveyor to Lloyd's Register of Shipping.

Date

FRI. 6 SEP 1946

Committee's Minute

+ L.M.C. 7.46 Fitted for oil fuel 7.46 F.P. above 150°F.  
O.G.

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