

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

24 AUG 1948

Received at London Office 27 AUG 1948

Date of writing Report 19 When handed in at Local Office 19 Port of HULL.

No. in Survey held at HULL. Date, First Survey 5.3.45. Last Survey 5.7.1946.
 Reg. Book (Number of Visits 50.)

on the Steam Tug "NEREIDIA". Tons: Gross 275, Net -

Built at Selby By whom built Cochrane & Sons Ltd. Yard No. 1307 When built 1946

Engines made at Hull By whom made Amos & Smith Ltd. Engine No. 771 When made -do-

Boilers made at Hull By whom made Amos & Smith Ltd. Boiler No. 771 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 contract Revs. per minute 122

Dia. of Cylinders 15"-25"-42" Length of Stroke 27" No. of Cylinders 3 No. of Cranks 3

as per Rule 8.05" Crank pin dia. 8 1/2" Mid. length breadth 15 1/2" Thickness parallel to axis 5 1/2"

Crank shaft, dia. of journals as fitted 8 1/2" Crank webs Mid. length thickness 5 1/2" shrunk Thickness around eye-hole 3 3/8"

Intermediate Shafts, diameter as per Rule 7.665" Thrust shaft, diameter at collars as per Rule 8.05"

as fitted 8" as fitted 8 1/2"

Tube Shafts, diameter as per Rule - Screw Shaft, diameter as per Rule 8.865"

as fitted none 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 - Thickness between bushes as per Rule - 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 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" dia. 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 SB. 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)

Superheaters none 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 & SMITH LTD.

A. L. Kewley
 DIRECTOR

Manufacturer.



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 Foundation

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Steam Tug "NEREIDIA".

Dates of Survey while building

During progress of work in shops -- 1945. Mar 5. 21. June 12. July 26. Aug 20. Sept 18. 25. 28. Oct 1. 4. 17. 25. 31. Nov. 5. 7. 23. 30. Dec. 7. 17.

1946. Jan. 2. 9. 18. 21. 30. Feb. 19. Apr. 27.

During erection on board vessel --- 1945. June 7. 18. Oct 4. 23. Dec. 4. 28. 1946. Jan 15. Feb. 4. 20. Mar. 6. 20. 25. Apr. 13. 23. 24. 26. May 8.

June 5. 12. 14. 15. 19. 20. July 5.

Total No. of visits 50.

Dates of Examination of principal parts—Cylinders 17.12.45. Slides 17.12.45. Covers 17.12.45.

Pistons 7.12.45. Piston Rods 7.12.45. Connecting rods 7.12.45.

Crank shaft 28.9.45. Thrust shaft 5.3.45. Intermediate shafts 12.6.45.

Tube shaft - Screw shaft 24.1.45. Propeller 18.6.45.

Stern tube 18.6.45. Engine and boiler seatings 4.10.45. Engines holding down bolts 24.4.46.

Completion of fitting sea connections 18.6.45.

Completion of pumping arrangements 5.6.46. Boilers fixed 20.2.46. Engines tried under steam 5.6.46.

Main boiler safety valves adjusted 5.6.46. Thickness of adjusting washers P.11/32" S. 5/16"

Crank shaft material FI Steel Identification Mark LR 4354/5/6 CP Thrust shaft material FI steel Identification Mark LR 4352 CP

Intermediate shafts, material -do- Identification Marks LR 4353 CP Tube shaft, material - Identification Mark -

Identification mark LR 4351 CP Material Steel Identification Mark -

Screw shaft, material 24.1.45. Identification Mark Steel Steam Pipes, material Steel Test pressure 600lbs Date of Test 27.4.46.

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 6,46,OG,T3 cyl. 15", 25", 42" - 27" MW 1321SB 200lbs, 3cf. H.S. 2390 sq.ft.
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, 54 AUG 1946
Special +LMC	£ 33	-	
25% Specification Donkey Boiler Fee	£ 8	5	
Travelling Expenses (if any)	£	:	When received, 10

W. L. Shields
Engineer Surveyor to Lloyd's Register of Shipping.

Date 8 SEP 1946

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

