

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office **18 FEB 1943**

Date of writing Report 19 When handed in at Local Office 10 Port of Newcastle-on-Tyne

No. in Survey held at Wallsend Date, First Survey 9.7.42 Last Survey 12.2.1943
 Reg. Book. 89098 on the SS. "WEARFIELD" (Number of Visits 66)

Built at Sunderland By whom built Sir J. Laing & Sons Ltd Yard No. 746 When built 1943-2
 Engines made at Wallsend By whom made N.E. Marine & Co (1938) Ltd Engine No. 3039 When made 1943
 Boilers made at " By whom made " Boiler No. 3039 When made 1943
 Registered Horse Power " Owners Shunting & Sons Ltd Port belonging to Newcastle
 Nom. Horse Power as per Rule 674 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which Vessel is intended Carrying Petroleum in Bulk

ENGINES, &c.—Description of Engines Triple Expansion Revs. per minute 85

Dia. of Cylinders 27-44-76 Length of Stroke 51 No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 15.2 Crank pin dia. 16" Crank webs Mid. length breadth 2-3 1/2" MP 108 shrunk Thickness parallel to axis 9 1/2" & 10 1/2"
as fitted 15 1/2" Mid. length thickness 1 1/2" MP 108 Thickness around eye-hole 1 1/4" P 8"

Intermediate Shafts, diameter as per Rule 14.48 Thrust shaft, diameter at collars as per Rule 15.2
as fitted 14 3/4" as fitted 15 3/4"

Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule 16.0 Is the tube shaft fitted with a continuous liner yes
as fitted as fitted 16 1/4" screw

Bronze Liners, thickness in way of bushes as per Rule .79 Thickness between bushes as per Rule .59 Is the after end of the liner made watertight in the
as fitted 13/16" as fitted 13/16" 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 yes
 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 yes
 If two liners are fitted, is the shaft lapped or protected between the liners yes Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft no If so, state type yes Length of Bearing in Stern Bush next to and supporting propeller 5-5 1/4"

Propeller, dia. 18'-3" Pitch 14'-6" No. of Blades 4 Material Brass whether Moveable no Total Developed Surface 131 1/4 sq. feet

Feed Pumps worked from the Main Engines, No. 2 Diameter 5" Stroke 27" Can one be overhauled while the other is at work yes
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 5" Stroke 27" Can one be overhauled while the other is at work yes

Feed Pumps { No. and size 2 @ 12" x 9" x 24" Pumps connected to the { No. and size 1 @ 10" x 12" x 12" 2 @ 5" x 27"
 { How driven Steam Main Bilge Line { How driven Steam M. Exgs.

Ballast Pumps, No. and size 1 @ 10" x 12" x 12" Lubricating Oil Pumps, including Spare Pump, No. and size yes

Are two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 1 P+S 3 1/2" 1 aft 3 1/2" Eng Room 1 P+S 3 1/2" Boiler Room
 In Pump Room Main 4" P+S. For'd 1 @ 2 1/2" [In Hold, &c. 2 1/2" P+S] [1 P+S Eng R 3" 1 P+S Bl Room 2" oil Bilge to Transfer pump]

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 10" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 5" Are all the Bilge Suction Pipes in hold 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 below
 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 yes
 What pipes pass through the deep tanks none Have they been tested as per Rule yes
 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 yes

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 10020 sq. ft.

Is Forced Draft fitted yes No. and Description of Boilers 3 SB. Working Pressure 220

IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes

IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? yes

Is the donkey boiler intended to be used for domestic purposes only yes

PLANS. Are approved plans forwarded herewith for Shafting Standard Tankers 19.1.40 Main Boilers 17.2.41 Auxiliary Boilers yes Donkey Boilers yes
 (If not state date of approval)

Superheaters 16.5.42. General Pumping Arrangements 27.11.42. Oil fuel Burning Piping Arrangements 26.11.42.

SPARE GEAR.

Has the spare gear required by the Rules been supplied yes
 State the principal additional spare gear supplied

The foregoing is a correct description.

John Neill

Manufacturer.

DIRECTOR



NOTE.—The words which

1942. July 9. 10. 27. Aug. 11. 14. 21. Sept. 4. 15. 17. 18. 22. Oct. 1. 5. 13. 16. 20. 21. 22. 26. 27. 29. Nov. 4. 5. 6. 9. 10. 16. 26. 27. 28. 30. Dec. 1. 4. 11. 14. 15. 16. 17. 18. 21. 22. 23. 24. 28. 31. 1943. Jan. 5. 6. 7. 8. 11. 14. 15. 18. 19. 20. 21. 22. 23. 25. 26. 28. Feb. 1. 2. 8. 11. 12.

Dates of Survey while building
 During progress of work in shops --
 During erection on board vessel ---
 Total No. of visits 66.

Dates of Examination of principal parts—Cylinders 9. 11. 42 Slides 9. 11. 42 Covers 9. 11. 42
 Pistons 9. 11. 42 Piston Rods 9. 11. 42 Connecting rods 9. 11. 42
 Crank shaft 17-9-42 Thrust shaft 29. 10. 42. Intermediate shafts 23. 12. 42.
 Tube shaft ✓ Screw shaft 26. 11. 42 Propeller 17-12-42 (Spare 14. 12. 42)
 Stern tube 26-10-42 Engine and boiler seatings 15. 1. 43 Engines holding down bolts 15. 1. 43.
 Completion of fitting sea connections 6. 11. 42.

Completion of pumping arrangements 11. 2. 43 Boilers fixed 15. 1. 43 Engines tried under steam 1. 2. 11. 12 / 2 / 43.
 Main boiler safety valves adjusted 1. 2. 43. Thickness of adjusting washers P $\frac{3}{8}$ Spt $\frac{9}{32}$ C S $\frac{3}{8}$ Spt $\frac{7}{32}$ S $\frac{5}{8}$ Spt $\frac{1}{8}$
 Crank shaft material Steel Identification Mark 7778 7781 CP Roll 17. 9. 42 Thrust shaft material Steel Identification Mark 71271 HAI Roll 29. 10. 42
 Intermediate shafts, material Steel Identification Marks 7947 CP Roll 23. 12. 42 Tube shaft, material ✓ Identification Mark various 22. 12. 42
 Screw shaft, material Steel Identification Mark 7783 CP Roll 26. 11. 42 Steam Pipes, material Steel Test pressure 660 Date of Test 28. 1. 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 ✓ 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 NO
 Is this machinery duplicate of a previous case yes. If so, state name of vessel Except minor details Empire Collins

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been built & installed under Special Survey in accordance with the Requirements of the Rules & the Approved Plans. The materials & workmanship are good. The machinery proved satisfactory under working conditions at quay and is eligible in my opinion to have the Record + LMC 2. 43 Rht 35B (8pt) F.D. C.L. Fitted for oil fuel 2. 43 FP above 150°F.

The amount of Entry Fee ... £ 6 : 0 : 0 :
 Special ... £ 108 : 14 : 0 :
 Donkey Boiler Fee ... £ : : :
 Travelling Expenses (if any) £ : : :
 When applied for, 18 FEB 1943
 When received, 19

Robert J. Pitt
 Engineer Surveyor to Lloyd's Register of Shipping.

FRI. 26 FEB 1943

Committee's Minute
 Assigned *T. Lamb 2. 43*
J.D. Ch.
Fitted for oil fuel



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

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