

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

DEC 14 1939

Date of writing Report 11/12/1939 When made in at Local Office 11/12/1939 Port of WEST HARTLEPOOL  
 No. in Survey held at WEST HARTLEPOOL Date, First Survey 20/4/39 Last Survey 8/12/1939  
 Reg. Book. (Number of Visits 120)  
 on the S.S. ELMDENE Tons } Gross 4853.20  
 Net 2875.07  
 Built at West Hartlepool By whom built Wm Gray & Co. Ltd Yard No. 1095 When built 1939  
 Engines made at West Hartlepool By whom made Central Marine Eng Works Engine No. 1095 When made 1939  
 Boilers made at West Hartlepool By whom made Central Marine Eng Works Boiler No. 1095 When made 1939  
 Registered Horse Power Owners Elmdene Shipping Co. Ltd Port belonging to LONDON  
 Nom. Horse Power as per Rule 397 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
 Trade for which Vessel is intended Ocean going

**ENGINES, &c.**—Description of Engines Inverted triple expansion Revs. per minute 67  
 dia. of Cylinders 23 1/2 (65) 36 1/2 Length of Stroke 48 No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals as per Rule 13.12 Crank pin dia. 13 1/2 Crank webs Mid. length breadth 19 1/2 Thickness parallel to axis 8 3/8  
 as fitted 13 1/2 Mid. length thickness 8 3/8 shrunk Thickness around eye-hole 6  
 Intermediate Shafts, diameter as per Rule 12.49 Thrust shaft, diameter at collars as per Rule 13.12  
 as fitted 12 3/4 as fitted 13 1/2  
 Tube Shafts, diameter as per Rule 14.04 Is the tube shaft fitted with a continuous liner Yes  
 as fitted 14 1/2 as fitted 14 1/2 Is the screw shaft fitted with a continuous liner Yes  
 Bronze Liners, thickness in way of bushes as per Rule .728 Thickness between bushes as per Rule .548 Is the after end of the liner made watertight in the  
 as fitted .4 as fitted .9  
 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 liner  
 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 —  
 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 —  
 aft No If so, state type — Length of Bearing in Stern Bush next to and supporting propeller 4-11  
 Propeller, dia. 18-6 Pitch 17-0 No. of Blades 4 Material Brass whether Moveable No Total Developed Surface 110 sq. feet  
 Suction Pumps worked from the Main Engines, No. 2 Diameter 3 1/2 Stroke 28 Can one be overhauled while the other is at work Yes  
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 4 Stroke 28 Can one be overhauled while the other is at work Yes  
 Feed Pumps { No. and size 2-9 1/2 x 7 x 18 SIMPLEX Pumps connected to the { No. and size 1-9 x 10 1/2 x 10 & 1-6 x 7 x 8  
 How driven Independent Steam Main Bilge Line How driven Independent Steam  
 Ballast Pumps, No. and size 1-9 x 10 1/2 x 10 Lubricating Oil Pumps, including Spare Pump, No. and size —  
 Are two independent means arranged for circulating water through the Oil Cooler — Suctions, connected to both Main Bilge Pumps and Auxiliary  
 Bilge Pumps;—In Engine and Boiler Room 4 @ 3 In Holds, &c. M<sup>1</sup>, 2 @ 3" M<sup>2</sup>, 2 @ 3 1/2" Deep tanks 2 @ 2 1/2"  
 Pump Room 1 @ 3" 2 @ 3" M<sup>4</sup>, 2 @ 3" TUNNEL WELL 2 1/2"  
 Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 5" Independent Power Pump Direct Suctions to the Engine Room Bilges,  
 No. and size 1 @ 5" 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 MAIN 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  
 How are they protected —  
 How are they protected —  
 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 upper decks

**MAIN BOILERS, &c.**—(Letter for record S) Total Heating Surface of Boilers 5530 Working Pressure 200 lbs  
 Forced Draft fitted Yes No. and Description of Boilers 2 Single ended  
**IS A REPORT ON MAIN BOILERS NOW FORWARDED?** Yes  
**IS A DONKEY BOILER FITTED?** No If so, is a report now forwarded? —  
 the donkey boiler intended to be used for domestic purposes only —  
**PLANS.** Are approved plans forwarded herewith for Shafting Yes Main Boilers Yes Auxiliary Boilers — Donkey Boilers —  
 (If not state date of approval)  
 Superheaters Yes General Pumping Arrangements — Oil fuel Burning Piping Arrangements Yes

### SPARE GEAR.

Is the spare gear required by the Rules been supplied Yes  
 State the principal additional spare gear supplied 1 Propeller shaft, 1 Piston valve chest for  
 service pump, 1 Siler cartridge

The foregoing is a correct description.  
FOR THE CENTRAL MARINE ENGINE WORKS,

(W. Gray & Co. Ltd.)

Manufacturer.

GENERAL MANAGER,



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Lloyd's Register  
Foundation

W1144

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1939. Apr. 20. 24. May 1. 4. 10. 11. 12. 15. 19. 22. 25. 26. 30. 31. June 1. 2. 5. 7. 9. 12. 13. 14. 15. 1939. July 3. 4. 5. 6. 7. 10. 12. 13. 14. 17. 18. 19. 20. 21. 27. 31. Aug. 1. 2. 3. 4. 14. 15. 16. 17. 18. 21. 23. 28. 29. 30. Sept. 4. 5. 6. 7. 14. 15. 18. 19. 26. 27. 28. Oct. 4. 6. 9. 10. 13. 16. 17. 19. 20. Nov. 2. 6. 7. 8. 9. 10. 13. 14. 17. 19. 20. 22. 24. 27. Dec. 4.

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - - -

Total No. of visits 120

Dates of Examination of principal parts—Cylinders 12. 20. 29. 6. 39. 37. 13. 21. 7. 39 Slides 13. 7. 39. Covers 13. 7. 39

Pistons 2. 8. 39 Piston Rods 31. 5. 39. 5. 7. 25. 6. 39 Connecting rods 31. 5. 39. 5. 7. 12. 23. 6. 39

Crank shaft 26. 31. 5. 39. 7. 14. 20. 6. 39. 3. 7. 39 Thrust shaft 12. 6. 39. 3. 7. 39 Intermediate shafts 17. 6. 39. 8. 8. 39. 19. 9. 39

Tube shaft Screw shaft 16. 25. 8. 39 Propeller 18. 7. 39

Stern tube 6. 9. 39 Engine and boiler seatings 18. 8. 39 Engines holding down bolts 9. 11. 39

Completion of fitting sea connections 17. 10. 39

Completion of pumping arrangements 6. 12. 39 Boilers fixed 30. 10. 39 Engines tried under steam 6. 12. 39

Main boiler safety valves adjusted 6. 12. 39 Thickness of adjusting washers  $\frac{3}{8}$ "  $\frac{1}{2}$ "  $\frac{5}{16}$ "  $\frac{11}{16}$ "  $\frac{3}{4}$ "  $\frac{1}{2}$ "  $\frac{5}{16}$ "  $\frac{3}{16}$ " SUP.  $\frac{3}{16}$ "

Crank shaft material Steel Identification Mark 1350 AEG Thrust shaft material Steel Identification Mark 1402 AEG

Intermediate shafts, material Steel Identification Mark 1406 T. 8. 9. 10. 11. AEG Tube shaft, material Identification Mark

Screw shaft, material Steel Identification Mark 1403 AEG Steam Pipes, material SD Steel Test pressure 600 lbs. Date of Test 5. 9. 39

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 No If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. This vessel's Engines and Boilers have been constructed under Special Survey and in accordance with the approved plans. The materials and workmanship have been found good. Upon completion they were examined under full working conditions and found satisfactory. It is recommended that the machinery be classed in the Register Book with notations  $\frac{1}{2}$  L.M.C. 12. 39 F.D. C.L. 250 (SH) fitted for oil fuel 12. 39 F.P. above 150°F.

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

The amount of Entry Fee ...	£ 5 : 0 :	When applied for,
Special ...	£ 84 : 11 :	19
Donkey Boiler Fee ...	£ : :	When received,
Travelling Expenses (if any) £	: :	13/11/40

Arthur W. Oxford  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 29 DEC 1939  
Assigned Lamb 12. 39 Sp. 20. 39 Cl. 3rd for 12. 39 Sp. above 150°F



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