

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

15 APR 1942

10 APR 1942

Date of writing Report 4-4-42 When handed in at Local Office HULL Port of HULL  
 No. in Survey held at 5 Date, First Survey 19.8.41 Last Survey 2.4.1942  
 Reg. Book. HULL (Number of Visits 47)  
 on the S.TUG ADHERENT. Tons { Gross 601 Net 5  
 Built at SELBY. By whom built Cochrane & Co. Ltd Yard No. 1238. When built 1942-4  
 Engines made at HULL. By whom made Chas. D. Holmes. Ltd Engine No. 1597. When made do  
 Boilers made at HULL. By whom made Chas. D. Holmes. Ltd Boiler No. 1597. When made do  
 Registered Horse Power 222 Owners The Admiralty Port belonging to ✓  
 Nom. Horse Power as per Rule 222 Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted Ys  
 Trade for which Vessel is intended Hoisting

**ENGINES, &c.**—Description of Engines Triple Expansion. 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 7/8" Crank pin dia. 9 5/8" Crank webs Mid. length breadth ✓ Thickness parallel to axis 6 1/2"  
 Intermediate Shafts, diameter as per Rule 9.01. as fitted 9 1/4" Thrust shaft, diameter at collars as per Rule 9.46. as fitted 9 7/8"  
 Tube Shafts, diameter as per Rule ✓ as fitted ✓ Screw Shaft, diameter as per Rule 9.99. as fitted 10 1/4" Is the tube shaft fitted with a continuous liner Ys  
 Bronze Liners, thickness in way of bushes as per Rule 601. as fitted 2 1/32" Thickness between bushes as per Rule 45. as fitted 17/32" Is the after end of the liner made watertight in the propeller boss Ys  
 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 shaft No. If so, state type ✓  
 Propeller, dia. 11'-9" Pitch 12'-0" No. of Blades 4 Material C.I. whether Moveable No. Length of Bearing in Stern Bush next to and supporting propeller 4 1/2" 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 Ys  
 Bilge Pumps worked from the Main Engines, No. 2. Diameter 3" Stroke 18" Can one be overhauled while the other is at work Ys  
 Feed Pumps { No. and size One 7" x 5" x 6" Duplex Pumps connected to the { No. and size 2 @ 3" x 18" 2 One 7" x 7" x 8" 3 Hand pump  
 { How driven Independent Steam Main Bilge Line { How driven Main Eng. Ind. Steam Ejector to Cofferdam  
 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 Steam Ejector and 4 @ 1 1/2" Suctions in gutterways.  
 In Pump Room Cofferdam one @ 2" In Holds, &c. one each of the following @ 2" Dia Fore Peak.  
 (Water Ballast port attached to Apr. 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" Reg. Ejector Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Ys  
 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 Ys  
 Are all Sea Connections fitted direct on the skin of the ship Ys Are they fitted with Valves or Cocks Ys  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Ys Are the Overboard Discharges above or below the deep water line None  
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Ys Are the Blow Off Cocks fitted with a spigot and brass covering plate Ys  
 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 ✓  
 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 Ys Is the Shaft Tunnel watertight NONE Is it fitted with a watertight door ✓ worked from ✓

**MAIN BOILERS, &c.**—(Letter for record 5) Total Heating Surface of Boilers 3550  $\text{sq. ft.}$   
 Is Forced Draft fitted Ys No. and Description of Boilers One S.B. Working Pressure 210 lb. sq. in.  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Ys  
 IS A DONKEY BOILER FITTED? No. If so, is a report now forwarded? ✓  
 Is the donkey boiler intended to be used for domestic purposes only ✓  
**PLANS.** Are approved plans forwarded herewith for Shafting 10.1.40 Main Boilers 20.10.39 Auxiliary Boilers ✓ Donkey Boilers ✓  
 (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 Ys  
 State the principal additional spare gear supplied  

2 Top and bottom nuts	1 Set Lockwood Carbide rings & springs for Piston & Piston Valve.	<b>OIL FUEL SPARE GEAR.</b>
2 Main Bearing do	12 Boiler tubes, plain	2 Thermometers
1 Set Coupling nuts	4 " " stay	6 Burner bodies
2 Safety Valve springs	1 Piston Rod	6 " Caps
25 Condenser tubes	1 Valve Rod	36 " Woyles.
50 " " terminals	1 Main Check Valve	36 " diaphragms.
1 Set Feed & Bilge pump valves	1 Air. do.	6 Fire brick guards
1 Set Air pump valves.		12 Gauge glasses.

The foregoing is a correct description.  
 FOR CHARLES D. HOLMES & CO., LTD.

*W.R. Evans*

Manufacturer.



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W322-0146

NOTE.—The words which do not apply should be deleted.

ADHERENT.

Dates of Survey while building  
 During progress of work in shops -- 1941. Aug. 19. 27. 29. Sept. 2. Nov. 21. Dec. 1. 5. 10. 12. 15. 19. 23. 29. 30.  
 During erection on board vessel --- 1942. Jan. 8. 13. 15. 20. 21. 26. 28. Feb. 2. 3. 4. 6. 9. 12. 16. 18. 19. 20. 23. 24. 26.  
 Mar. 2. 5. 6. 7. 12. 16. 18. 19. 23. 26. 28. Apr. 1. 2.  
 Total No. of visits 47.

Dates of Examination of principal parts—Cylinders 12/2/41 19/2/41 Slides 12/2/41 10/12/41.  
 Pistons 2/11/41 5/12/41 7/12/41. Piston Rods 2/11/41 5/12/41. Connecting rods 19/12/41.  
 Crank shaft 19-12-41 Thrust shaft 15/12/41. Intermediate shafts 29/12/41.  
 Tube shaft None. Screw shaft 19-8-41. Propeller 19. 8. 41

Stern tube 2. 9. 41. Engine and boiler seatings 2. 9. 41. Engines holding down bolts 26. 8. 42.  
 Completion of fitting sea connections 2. 9. 41.  
 Completion of pumping arrangements 18. 3. 42. Boilers fixed 26. 2. 42. Engines tried under steam 18. 3. 42.  
 Main boiler safety valves adjusted 18. 3. 42. Thickness of adjusting washers 3/8" to 1/2".  
 Crank shaft material M.S. Identification Mark 6083. Journal 6084. AEG. 16/9/41. Piston 315 LT. 24/12/41. Thrust shaft material M.S. Identification Mark 6085. AEG. 16-9-41.  
 Intermediate shafts, material M.S. Identification Marks 6086. AEG. 19-9-41. Tube shaft, material None. Identification Mark ---  
 Screw shaft, material M.S. Identification Mark 5260. AEG. 29/5/41. Steam Pipes, material Steel Test pressure 630 lb Date of Test 2/3/42

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 Yes  
 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 ADEPT

General Remarks (State quality of workmanship, opinions as to class, &c.)  
 The Machinery of this vessel has been fitted on board under Special Survey in accordance with the approved plans, the Rules & the Specification.  
 The Workmanship & materials are good & when tried under steam it was found satisfactory in every respect.  
 It is eligible, in our opinion, to have the record of 123 L.M.C. 42. C.L. & the notations of T. 3 Cy. 17° 28' 46". 210 lbs 222 NHP. 1. SB. 3 Cf.  
 MS 3530. F.D

The amount of Entry Fee ... £	Special ... £ 120 : 0	Donkey Boiler Fee ... £	Travelling Expenses (if any) £

*[Signature]*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
 Assigned 14. 4. 42  
 Fitted for oil fuel 4. 4. 42  
 22, C.L.



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