

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 17/7 1945 When handed in at Local Office 18/7 1945 Port of WEST HARTLEPOOL 19 JUL 1945
 No. in Survey held at WEST HARTLEPOOL Date, First Survey 18/10/44 Last Survey 7/7 1945
 Reg. Book 1 (Number of Visits 49)
 on the STEEL SCREW STEAMER "EMPIRE ALDGADE" Tons { Gross 3484.87
 Net 2186.88
 Built at WEST HARTLEPOOL By whom built WM GRAY & CO LTD Yard No. 1180 When built 1945
 Engines made at WEST HARTLEPOOL By whom made CENTRAL MARINE ENG WORKS Engine No. 1180 When made 1945
 Boilers made at WEST HARTLEPOOL By whom made CENTRAL MARINE ENG WORKS Boiler No. 1180 When made 1945
 Registered Horse Power 281 Owners MINISTRY OF WAR TRANSPORT Port belonging to WEST HARTLEPOOL
 Nom. Horse Power as per Rule 281 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 85
 Dia. of Cylinders 20x31x55 Length of Stroke 39" No. of Cylinders 5 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 11.0" as fitted 11 1/4" Crank pin dia. 11 1/4" Mid. length breadth 16" Thickness parallel to axis 6 7/8"
 Crank webs as per Rule 11.0" as fitted 11 1/4" Mid. length thickness 6 7/8" shrunk Thickness around eye-hole 4 7/8"
 Intermediate Shafts, diameter as per Rule 11.0" as fitted 11 1/4" Thrust shaft, diameter at collars as per Rule 11.0" as fitted 11 1/4"
 Main Shafts, diameter as per Rule 11.74" as fitted 12 1/4" Is the { tube } shaft fitted with a continuous liner { yes }
 { screw }
 Liner Liners, thickness in way of bushes as per Rule .651" as fitted 1/16" Thickness between bushes as per Rule .492" as fitted 17/32" Is the after end of the liner made watertight in the
 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 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
 If so, state type — Length of Bearing in Stern Bush next to and supporting propeller 4'-3 3/8"
 Propeller, dia. 15'-3" Pitch 14'-6" No. of Blades 4 Material Cast Steel whether Moveable NO Total Developed Surface 70 sq. feet
 Main Pumps worked from the Main Engines, No. — Diameter — Stroke — Can one be overhauled while the other is at work —
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 4 1/4" Stroke 26" Can one be overhauled while the other is at work yes
 How driven INDEPENDENT STEAM Pumps connected to the Main Bilge Line { No. and size 2 @ 8x6x15" DUPLEX } { No. and size 2 @ 4x4x26" } { No. and size 1 @ 10x11x10" DUPLEX }
 How driven MAIN ENGINE INDEPENDENT STEAM
 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 3 @ 3" 1 @ 4"
 Pump Room — In Holds, &c. Nº 1 HOLD 2 @ 3" Nº 2 HOLD 2 @ 3 1/2" CROSSBONKER 2 @ 2"

Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 6" Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size 1 @ 4" 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 NO 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 —
 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 NO Is it fitted with a watertight door — worked from —

IN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 4147 sq
 Which Boilers are fitted with Forced Draft Both Which Boilers are fitted with Superheaters Both
 No. and Description of Boilers 2 Single ended multitubular Working Pressure 200 lbs
 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 domestic purposes only —

PLANS. Are approved plans forwarded herewith for Shafting 16/21/9/43 Main Boilers 16/9/43 Auxiliary Boilers — Donkey Boilers —
 (If not state date of approval)
 Superheaters — General Pumping Arrangements — Oil fuel Burning Piping Arrangements —

SPARE GEAR.

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

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

(SIGNED BY THE MANAGER)

J.H. Seaman
 GENERAL MANAGER

Manufacturer.



© 2020

Lloyd's Register
 Foundation

005167-005173-0079

1865

Dates of Survey while building
 During progress of work in shops - - - { 1944. Oct 16. Nov 16. 18. 1945. January 10. 12. March 19. 22. 23. 28. 30. April 4. 5. 6. 9. 10. 11. 13. 18. 19. 23. 25. 26. 27. 30. May 2. 4. 7. 10. 11. 14. 17. 22. 24. 28. 30. June 16. 18. 20. 25. 27. 30. July 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. August 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. September 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. October 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. November 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. December 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31.

During erection on board vessel - - - { 1945. April 5. May 24. June 8. 27. July 3. 4. 6. 7.

Total No. of visits 49

Dates of Examination of principal parts—Cylinders 18-11-44 - 11-5-45. Slides 11-5-45. Covers 11-5-45
 Pistons 11-5-45. Piston Rods 11-5-45. Connecting rods 11-5-45.
 Crank shaft 9-4-45 - 27-4-45. Thrust shaft 22-3-45 - 27-4-45. Intermediate shafts -
 Tube shaft - Screw shaft 19-3-45 - 25-4-45. Propeller 25-4-45.
 Stern tube 25-4-45. Engine and boiler seatings 10-5-45. Engines holding down bolts 8-6-45.
 Completion of fitting sea connections 5-4-45.
 Completion of pumping arrangements 4-7-45. Boilers fixed 8-6-45. Engines tried under steam 8-7-45.
 Main boiler safety valves adjusted 3-7-45. Thickness of adjusting washers 2 1/2", 3 1/2", 3 3/4", 3 1/2", 3 3/4".
 Crank shaft material Engot Steel Identification Mark MH385CP. Thrust shaft material Engot Steel Identification Mark MH371C.
 Intermediate shafts, material - Identification Marks - Tube shaft, material - Identification Mark -
 Screw shaft, material Engot Steel Identification Mark MH372CP. Steam Pipes, material SD Steel. Test pressure 600 lbs. Date of Test 10-5-45.
 Is an installation fitted for burning oil fuel Yes. Is the flash point of the oil to be used over 150° F. -
 Have the requirements of the Rules for the use of oil as fuel been complied with -
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo Yes. 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 S.S. EMPIRE CAICOS RPT No. 18650.

General Remarks (State quality of workmanship, opinions as to class, &c. See main and auxiliary machinery and boilers of this vessel have been constructed under special survey - and in accordance with the approved plans and specification.
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 of this vessel be classed in the Register Book of LMC 7-45 2SB (SK) FD CL.

The amount of Entry Fee	£ 4 : 0 :	When applied for,
Special	£ 67 : 3 :	18/7/1945
SUPERVISION		
Donkey Boiler Fee	£ 16 : 16 :	When received,
Travelling Expenses (if any)	£ :	19

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

Committee's Minute FRI. 24 AUG 1945
 Assigned + LMC 7.45 Sp.
F.D. C.L. machy aft.



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