

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

8 JUN 1932

Date of working Report 31st May 1932 When handed in at Local Office 6-6-1932 Port of West Hartlepool
 No. in Survey held at West Hartlepool Date, First Survey 11-1-32 Last Survey 30-5-1932
 Reg. Book. on the Screw pilot cutter "B. O. DAVIES" (Number of Visits 65) Gross 172.53
 Built at West Hartlepool By whom built Wm Gray & Co. Ltd Yard No. 1058 When built 1932
 Engines made at West Hartlepool By whom made Central Marine Engine No. 1058 when made 1932
 Boilers made at ditto By whom made Engine Works Boiler No. 1058 when made 1932
 Registered Horse Power Owners Sea Pilot Cutters Co. Ltd. Port belonging to Middlesbrough
 Nom. Horse Power as per Rule 64 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which Vessel is intended For pilot services.

ENGINES, &c.—Description of Engines Triple expansion. Revs. per minute 119
 Dia. of Cylinders 11"-18 1/4"-30" Length of Stroke 22" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 5.92 Crank pin dia. 6" Crank webs Mid. length breadth 8 3/8" Thickness parallel to axis 3 3/4"
 as fitted 6" Mid. length thickness 3 3/4" Thickness around eye-hole 2 5/8"
 Intermediate Shafts, diameter as per Rule 5.63 Thrust shaft, diameter at collars as per Rule 5.91
 as fitted 5 3/4" as fitted 6"
 Tube Shafts, diameter as per Rule 6.26 Is the tube shaft fitted with a continuous liner yes
 as fitted 6 3/4" as fitted 6 3/4" Is the screw shaft fitted with a continuous liner yes
 Bronze Liners, thickness in way of bushes as per Rule .485 Thickness between bushes as per Rule .364
 as fitted 1/2" as fitted 3/8" 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 ✓
 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 ✓ Length of Bearing in Stern Bush next to and supporting propeller 2'-6"
 Propeller, dia. 7'-6" Pitch 9'-3" No. of Blades 4 Material Cast iron whether Moveable no Total Developed Surface 21 sq. feet
 Feed 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. 1 Diameter 2 Stroke 15" Can one be overhauled while the other is at work ✓
 Feed Pumps No. and size 2, 6" x 4" x 8" Pumps connected to the Main Bilge Line No. and size 1 main 2" x 15", 1 5 1/2", 5 1/2" x 15" (single)
 How driven Steam How driven Steam
 Bilge Pumps, No. and size 1, 5 1/2" x 5 1/2" x 15" (20 ton) 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 One of 2" dia.
 Holds, &c. In forward accommodation one of 2". In after accommodation one of 2" dia.
 Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 of 2 3/4" Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size 1 of 2 3/4" 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 yes Are they fitted with Valves or Cocks yes
 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
 That Pipes pass through the bunkers none How are they protected ✓
 That 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 1226 square feet.
 Forced Draft fitted no No. and Description of Boilers One single ended Working Pressure 184 lbs
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes
 IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? ✓
 PLANS. Are approved plans forwarded herewith for Shafting ✓ Main Boilers yes Auxiliary Boilers ✓ Donkey Boilers ✓
 (If not state date of approval)
 Superheaters ✓ General Pumping Arrangements yes Oil fuel Burning Piping Arrangements ✓

SPARE GEAR. State the articles supplied:— 2 connecting rod top end bolts & nuts. 2 bottom end
ditto 2 main bearing ditto. 1 set coupling ditto. 6 condenser
tubes & 20 ferrules. 1 set feed & bilge pump valves & seats.
6 piston studs & nuts. 3 boiler tubes 1 propeller.

The foregoing is a correct statement of the condition of the machinery, engine works,

(W. Gray & Co. Ltd.)

Wm Gray

Manufacturer.

MANAGING DIRECTOR C.E.B.D.



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Lloyd's Register
Foundation

002374-002384-0096

During progress of work in shops -- 1932 Jan 11. 19. 20. Feb. 1. 2. 3. 4. 5. 8. 9. 11. 12. 15. 16. 18. 19. 22. 23. 25. 26. 29. Mar. 1. 3. 4. 7. 8. 9. 10. 11.
 Dates of Survey while building During erection on board vessel -- 15. 16. 17. 21. 22. 23. 24. 30. 31. Apr. 1. 4. 11. 12. 13. 14. 15. 19. 20. 21. 22. 23. 25. 26. 27. 28. 29. 30. May 2. 4.
 Total No. of visits 65

Dates of Examination of principal parts—Cylinders 19. 1. 32—23. 3. 32 Slides 25. 2—4. 4. 32 Covers 1. 2—16. 2. 32
 Pistons 26. 2—1. 4. 32 Piston Rods 16. 2—10. 3. 32 Connecting rods 29. 1—7. 3. 32
 Crank shaft 32—30. 3. 32 Thrust shaft 11. 3—30. 3. 32 Intermediate shafts 15. 3—11. 4. 32
 Tube shaft ✓ Screw shaft 9. 3—11. 4. 32 Propeller 11. 4—22. 4. 32
 Stern tube 15. 3—22. 4. 32 Engine and boiler seatings 26. 4—30. 4. 32 Engines holding down bolts 30. 4. 32
 Completion of fitting sea connections 13. 4. 32
 Completion of pumping arrangements 22. 4. 32 Boilers fixed 4. 5. 32 Engines tried under steam 30. 5. 32
 Main boiler safety valves adjusted 27. 4. 32 Thickness of adjusting washers P. $\frac{23}{64}$ S. $\frac{23}{64}$
 Crank shaft material S.M. Ing. Steel Identification Mark 282DDW Thrust shaft material S.M. 9. Stl. Identification Mark 282DDW
 Intermediate shafts, material S.M. 9. Stl. Identification Marks 282DDW Tube shaft, material ✓ Identification Mark ✓
 Screw shaft, material Scrap Iron Identification Mark 6523 H Steam Pipes, material Weldless Steel Test pressure 600lbs. Date of Test 27. 4. 32
 Is an installation fitted for burning oil fuel no 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 ✓ If so, have the requirements of the Rules 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 machinery has been built and installed under Special Survey.
 The materials and workmanship are good and efficient. On completion it was tried under full steam at sea and found satisfactory.
 This vessel's machinery in our opinion is eligible to have the notation \boxplus L.M.C. 5. 32.

The amount of Entry Fee ... £ 2 : 0 :
 Special ... £ 16 : 0 :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : :
 When applied for, 7. 6. 19. 32
 When received, 13. 7. 19. 32

Committee's Minute TUE. 14 JUN 1932

Assigned + L.M.C. 5. 32

R.D. Shilston & ShWood.
 Engineer Surveyors to Lloyd's Register of Shipping.



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