

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 27 APR 1949

Date of writing Report 12<sup>th</sup> APRIL 1949 When handed in at Local Office 20<sup>th</sup> APRIL 1949 Port of GREENOCK.

No. in Survey held at GREENOCK.

Date, First Survey 29<sup>th</sup> DECEMBER 1947. Last Survey 28<sup>th</sup> MARCH 1949.

Reg. Book

(Number of Visits. 88.)

91446 on the STEEL SC. "COULGARVE"

Tons { Gross 2946.49  
Net 1612.80

Built at PORT GLASGOW. By whom built LITHGOWS, LTD.

Yard No. 1049. When built 1949.

Engines made at GREENOCK.

By whom made RANKIN &amp; BLACKMORE, LTD. Engine No. 523. When made 1949.

Boilers made at GREENOCK.

By whom made RANKIN &amp; BLACKMORE, LTD. Boiler No. 523. When made 1949.

Registered Horse Power

Owners DORNOCH SHIPPING CO. LTD. (LAMBERT BROS. LTD. MGRS.) Port belonging to GLASGOW.

Nom. Horse Power as per Rule

326 427 = MN

Is Refrigerating Machinery fitted for cargo purposes No.

Is Electric Light fitted YES.

Trade for which vessel is intended INTERNATIONAL.

ENGINES, &amp;c.—Description of Engines DOUBLE COMPOUND RECIPROCATING ENGINE - FREDRIKSTAD TYPE.

Revs. per minute 97.

Dia. of Cylinders 2 HP @ 425 mm = 16 3/4"

Length of Stroke 330 mm = 13 1/8"

No. of Cylinders 4

No. of Cranks 4

Crank shaft, dia. of journals

as per Rule APPROVED

as fitted 315 mm

Crank pin dia. 318 mm

Crank webs

Mid. length breadth 518 mm

Mid. length thickness 198 mm

Thickness parallel to axis 198 mm

Thickness around eye-hole 146 mm

Intermediate Shafts, diameter

as per Rule APPROVED WITH CUT OFF HPC/L NOT LATER

as fitted 11 1/2"

Thrust shaft, diameter at collars

as per Rule APPROVED

as fitted 315 mm

Tube Shafts, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule APPROVED

as fitted 13 1/4"

Is the

tube

screw

shaft fitted with a continuous liner

YES.

Bronze Liners, thickness in way of bushes

as per Rule 22/32"

as fitted 3/4"

Thickness between bushes

as per Rule 32/64"

as fitted 3/4"

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

at No. If so, state type

Length of Bearing in Stern Bush next to and supporting propeller 4'-5" - 53"

Propeller, dia. 15'-6"

Pitch 14'-0"

No. of Blades 4

Material MANG. BRONZE whether Moveable No.

Total Developed Surface 80 sq. feet

Feed Pumps worked from the Main Engines, No. NONE.

Diameter

Stroke

Can one be overhauled while the other is at work

Bilge Pumps worked from the Main Engines, No. NONE.

Diameter

Stroke

Can one be overhauled while the other is at work

Feed Pumps No. and size 2 @ 6" x 3 1/2" x 18" &amp; 1 @ 8" x 6" x 18"

Pumps connected to the

No. and size 1 DUPLEX 9" x 11" x 12" - 1 DUPLEX 6" x 6" x 6" - 1 SIMPLEX 7" x 8" x 15"

How driven INDEPENDENT STEAM - INDEPENDENT STEAM

Main Bilge Line

How driven INDEPENDENT STEAM - INDEPENDENT STEAM - INDEPENDENT STEAM.

Ballast Pumps, No. and size 1 DUPLEX @ 9" x 11" x 12"

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 3 @ 3" DIA. (E.R. BILGES) 3 @ 2 1/2" DIA. (OILY BILGES) &amp; 1 @ 2 1/2" (TUNNEL WELL). FW COFFDM 1 @ 2" DIA. AT CD 1 @ 2" DIA.

In Pump Room NONE

In Holds, &amp;c. No. 1 HOLD 2 @ 3" DIA. No. 2 HOLD 2 @ 3" DIA. CROSS BUNKER 2 @ 2 1/2" DIA. -

No. 4 HOLD 2 @ 3" DIA. - No. 5 HOLD 2 @ 3" DIA.

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 8" DIA.

Independent Power Pump Direct Suctions to the Engine Room Bilges,

No. and size 1 @ 4 1/2" DIA.

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 OR ON FABRICATED STEEL BOXES. Are they fitted with Valves or Cocks YES - 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 ALL ABOVE - EXCEPT MAIN DISCHARGE 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

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 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 DECK.

MAIN BOILERS, &amp;c.—(Letter for record (S))

Total Heating Surface of Boilers 4912 sq. ft. + 2240 sq. ft. = 7152 Total

Which Boilers are fitted with Forced Draft BOTH (P &amp; S).

Which Boilers are fitted with Superheaters BOTH (P &amp; S).

No. and Description of Boilers 2 SINGLE ENDED MULTITUBULAR CYLINDRICAL.

Working Pressure 220 lbs. sq. in.

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 YES APD 16.6.48

Main Boilers YES APD 8.3.48

Auxiliary Boilers

Donkey Boilers

(If not state date of approval)

Superheaters MANCHESTER CERT. C.6757 &amp; 8 General Pumping Arrangements YES APD 6.8.48

Oil fuel Burning Piping Arrangements YES APD 18.8.48.

SPARE GEAR.

Is the spare gear required by the Rules been supplied YES.

Is the principal additional spare gear supplied PLEASE REFER TO LIST ATTACHED HERETO.

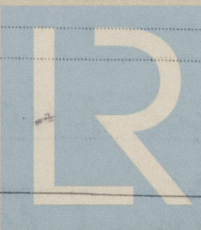
The foregoing is a correct description.

RANKIN &amp; BLACKMORE, LTD.

James Rankin

MANAGING DIRECTOR.

Manufacturer.



© 2020

Lloyd's Register Foundation



During progress of work in shops - - (1944) DEC. 29 (1948) JAN. 15 FEB. 9. 13. 20. MAR. 22. 24. 26. 28. 30. APR. 13. MAY 11. 21. JUNE 17. 26. 30. JULY 20. 23. 26. 28. AUG. 2. 18. 24. 31. SEPT. 1. 9. 10. 14. 16. 17. 20. 23. 25. 29. OCT. 14. 11. 12. 14. 18. 19. 20. 22. 25. 26. 27. NOV. 4. 9. 10. 18. 24. DEC. 1. 2. 8. 10. 13. 14. 23. 24. 28. (1949) JAN. 4. 11. 12. 14. 23. FEB. 2. 3. 8. 10. 14. 15. 16. 18. 21. 24. 26. 28. MAR. 1. 2. 4. 9. 11. 12. 16. 18. 21. 22. 23. 24. 25. 28. Total No. of visits 88.

Dates of Examination of principal parts - Cylinders 26.6.48 & 30.6.48. Slides 10.9.48. Covers 20/30.6.48. Pistons 10.9.48. Piston Rods 11.10.48. Connecting rods 11.10.48. Crank shaft 29.9.48. Thrust shaft 23.12.48. Intermediate shafts 2.12.48. Tube shaft. Screw shaft (S) 18.11.48 (W) 1.12.48. Propeller 18.11.48. Stern tube 14.12.48 & 14.10.48. Engine and boiler seatings 14.12.48. Engines holding down bolts 7.3.49. Completion of fitting sea connections 14.12.48. Completion of pumping arrangements 20/28.3.49. Boilers fixed 24.2.49. Engines tried under steam 23/28.3.49 SEA TRIALS. Main boiler safety valves adjusted 21.3.49. Thickness of adjusting washers PB PV = 11/32. SV = 11/32. SB PV = 23/64. SV = 3/8. LR. 17313. 27.10.48. HAI. 23.12.48. OJT. Crank shaft material OPEN HEARTH INGOT STEEL. Identification Mark 29.9.48. OJT. Thrust shaft material O.H.I. STEEL Identification Mark 23.12.48. OJT. Intermediate shafts, material O.H.I. STEEL. Identification Marks LR. 17313. 2.12.48. OJT. Tube shaft, material. Identification Mark 11.1.49 - 26.2.49. Screw shaft, material O.H.I. STEEL Identification Mark (S) 18.11.48. OJT (W) 1.12.48. OJT. Steam Pipes, material H.F. SEAMLESS STEEL Test pressure 660 lbs. Date of Test 9.11.12/3.49. 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 No. 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. The Engines & Boilers herein described have been built under Special Survey in accordance with the Rules & the Approved Plans, & have been securely & efficiently installed in the vessel, tested under full working conditions on sea trials & found satisfactory. The materials as far as could be determined are sound & free from visible defects & the workmanship is good. The Machinery, boilers & screw shaft are eligible in my opinion to be classed in the Register Book with records & notation \* L.M.C. 3.49. 2 SB(SPT) F.D. 220 lbs. CL. Fitted for Oil Fuel 3.49. F.P. above 150° F.

MN = 427  
The amount of Entry Fee ... £ 153. 2. 0.  
Special ... £ : :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :  
When applied for, 22nd APR 1949  
When received, 19.

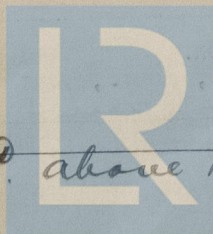
Frechmann

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 26 APR 1949

Assigned 1- LMC 3.49

Fitted for oil fuel 3.49 F.P. above 150° F.



© 2020

Lloyd's Register Foundation