

Rpt. 4.

No. 77693

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY

Received at London Office

WED. MAR. 26 1924

Date of writing Report

10

When handed in at Local Office

15/3/24

Port of

NEWCASTLE-ON-TYNE

No. in Survey held at
Reg. Book.

Newcastle

Date, First Survey

15 March 1923

Last Survey

14 March 1924

40037 on the

"MARSDEN"

(Number of Visits 48)

Tons { Gross 2875
Net 1695

Built at Newcastle

By whom built Wood Skinner & Co. Ltd.

Yard No. 232

When built 1924

Engines made at Newcastle

By whom made North Eastern Marine Eng. Co. Ltd.

Engine No. 2537

when made 1924

Boilers made at Newcastle

By whom made North Eastern Marine Eng. Co. Ltd.

Boiler No. 2537

when made 1924

Registered Horse Power

Owners (Burnett & Co. Mgrs)

Port belonging to Newcastle

Nom. Horse Power as per Rule 359

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines

Inverted Triple Expansion

Dia. of Cylinders 33"-38 1/2"-65" Length of Stroke 42" Revs. per minute No. of Cylinders 3 No. of Cranks 3
Dia. of Crank shaft journals as per rule 12.54" Dia. of Crank pin 12 3/4" Crank webs Mid. length breadth 20" Thickness parallel to axis 7 3/4"
as fitted 12 3/4" Mid. length thickness 7 3/4" shrunk Thickness around eye-hole 7 3/4"
Diameter of Thrust shaft under collars as per rule 12.54" Diameter of Tunnel shaft as per rule 11.95" Diameter of Screw shaft as per rule 13.24"
as fitted 12 3/4" as fitted 12 3/4" as fitted 13 3/4" Is the Screw shaft

fitted with a continuous liner the whole length of the stern tube Yes 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 joints burned 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 appliance fitted at the after end of the shaft to permit

of it being efficiently lubricated Length of Stern Bush 5'-0" Diameter of Propeller 16'-0"

Pitch of Propeller 17'-0" No. of Blades 4 State whether Moveable No Total Surface 78 sq. feet.

No. of Feed Pumps fitted to the Main Engines 2 Diameter of ditto 3 1/2" Stroke 21" Can one be overhauled while the other is at work Yes

No. of Bilge Pumps fitted to the Main Engines 2 Diameter of ditto 3 1/2" Stroke 21" Can one be overhauled while the other is at work Yes

Total number and size of power driven Feed and Bilge Auxiliary Pumps One Feed 7 1/2" x 5" x 6" Two Bilge Ballast 8" x 10" x 10"

No. and size of Pumps connected to the Main Bilge Line Two Bilge Ballast 8" x 10" x 10" Two Main Engine Bilge Rams 3 1/2" x 21"

No. and size of Ballast Pumps Two 8" x 10" x 10" No. and size of Lubricating Oil Pumps, including Spare Pump None

Are two independent means arranged for circulating water through the Oil Cooler No. and size of suctions connected to both Main Bilge Pumps and Auxiliary

Bilge Pumps;—In Engine and Boiler Room 2 off 3" dia. and in Holds, &c. 2-2 3/4" in No. 1 Hold.

2-2 3/4" in No. 3 Hold 2-3 1/2" in aft Hold One 3 1/2" Hold well One 2 1/4" Tunnel well

No. and size of Main Water Circulating Pump Bilge Suctions One 8" No. and size of Donkey Pump Direct Suctions

to the Engine Room Bilges Two 4" 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 connections with the sea direct on the skin of the ship Yes Are they 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 Discharge Pipes above or below the deep water line Both

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 are carried through the bunkers Two main Bilge Suction pipes How are they protected Both Cased

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 Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from 2nd platform

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

Total Heating Surface of Boilers 6120 sq. ft.

For ced Draft fitted No

No. and Description of Boilers 2 S.E. MULTIPLE CYL

Working Pressure 200 lbs.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes

IS A DONKEY BOILER FITTED? Yes

If so, is a report now forwarded? Mat. Rpt. No. 11637

PLANS. Are approved plans forwarded herewith for Shafting (If not state date of approval)

Main Boilers Yes

Auxiliary Boilers

Donkey Boilers Yes

General Pumping Arrangements

Oil fuel Burning Piping Arrangements

SPARE GEAR. State the articles supplied:— 1 Cast Iron propeller, 2 Bottoms End bolts nuts, 2 Top End bolts nuts, 2 main
bearing bolts nuts, 6 Coupling Bolts nuts, 4 Feed Pump valves, 4 Bilge Pump valves, Assorted plates, bars, bolts nuts,
8 Phosphor Bronze Springs for Feed & Bilge Pump valves, 16 Jange flanges, 1 set Air Pump valves, 1 set Feed
check valves (main & auxiliary) 12 Lock Ring Bolts, One Spring for H.P. piston, 1/2 set Feed Donkey valves
1 set Ballast Donkey valves, 100 Condenser grommets, 5 Condenser tubes

The foregoing is a correct description TD.

THE NORTH EASTERN MARINE ENGINEERING CO., LTD.

Manufacturer.

Secretary.

Secretary.



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Lloyd's Register

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1923
During progress of work in shops - -
16. 26. 28. 30. 31. 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.
1924
During erection on board vessel - -
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.
Total No. of visits 48.

Dates of Examination of principal parts - Cylinders 16. 8. 23 - 11. 12. 23 Slides 7. 5. 23
Covers 7. 5. 23 Pistons 3. 7. 23 Rods 7. 5. 23
Connecting rods 3. 7. 23 Crank shaft 28. 8. 23 Thrust shaft 21. 3. 23
Tunnel shafts 1. 5. 23 Screw shaft 18. 12. 23 Propeller 1. 11. 23
Stern tube 19. 4. 23 Engine and boiler seatings 30. 1. 24 Engines holding down bolts 18. 2. 24
Completion of pumping arrangements 14. 3. 1924 Boilers fixed 18. 2. 1924 Engines tried under steam 14. 3. 1924
Completion of fitting sea connections 30. 1. 24 Stern tube 30. 1. 24 Screw shaft and propeller 7. 2. 24
Main boiler safety valves adjusted 14. 3. 1924 Thickness of adjusting washers Pat. Bl. 1 1/2" 5/16" Sph. 1/4" Stan. Bl. 1 1/2" 5/16" Sph. 1/4"
Material of Crank shaft S. M. Steel Identification Mark on Do. 6553N 28. 8. 23
Material of Thrust shaft S. M. Steel Identification Mark on Do. 6553N 21. 3. 23
Material of Tunnel shafts S. M. Steel Identification Marks on Do. 6553N 1. 5. 23
Material of Screw shafts S. M. Steel Identification Marks on Do. 6553N 18. 12. 23
Material of Steam Pipes Superheated Headers S. D. Steel Test pressure 600 lbs. Date of Test 12. 2. 24 5. 3. 24
Is an installation fitted for burning oil fuel ho. Is the flash point of the oil to be used over 150°F. ✓
Have the requirements of the Rules for carrying and burning oil fuel been complied with ✓
Is this machinery duplicate of a previous case ho. If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c.)
The machinery of this vessel has been constructed under special survey. The materials and workmanship are sound and good. The main and auxiliary machinery have been tried under steam with satisfactory results and the safety valves of the main and Donkey Boilers have been adjusted under steam together with those of the Superheaters. In my opinion the vessel is eligible for notation in the Society's Register Book
+ L.M.C. 3. 24 C.L.

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 3. 24. CL.

28/3/24.

The amount of Entry Fee ... £ 5 : - :
Special ... £ 78 : 17 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 22 MAR 1924
When received, 29. 3. 24

Committee's Minute TUE 1 APR 1924
Assigned + LMC 3. 24 C.L.

R. Lee Anneson
Engineer Surveyor to Lloyd's Register of Shipping.