

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office APR 15 1937

Date of writing Report

10

When handed in at Local Office

14/4/37

Port of

NEWCASTLE-ON-TYNE

No. in Survey held at

Wallsend

Date, First Survey

8 Sept 36

Last Survey

12 April 1937

Reg. Book.

on the M. MULUBINBA

(Number of Visits 42)

Built at

Latham

By whom built

H. Robb. Ltd.

Yard No. 234

Tons { Gross

Net

When built

1937

Engines made at

Wallsend

By whom made

North Eastern Marine Eng Co Ltd

Engine No. 2865

When made

1937

Boilers made at

Rexford

By whom made

Babcock & Wilcox. Ltd.

Boiler No. 6/1310

When made

1937

Registered Horse Power

Owners Newcastle & Hunter River Steam Ship Co. Ltd.

Port belonging to Newcastle

Nom. Horse Power as per Rule

265

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

Trade for which Vessel is intended

Australian Coast.

ENGINES, &c.—Description of Engines

Triple Expansion

Revs. per minute 105

Dia. of Cylinders

16 1/2 x 28 1/2 x 48

Length of Stroke

33"

No. of Cylinders

3

No. of Cranks

3

Crank shaft, dia. of journals

as per Rule 18 1/2

Crank pin dia.

10"

Crank webs

Mid. length breadth 17

Mid. length thickness 6 1/4"

Thickness parallel to axis 6 1/4"

Thickness around eye-hole Pin 5" Journal 5 3/8"

Intermediate Shafts, diameter

as per Rule 9 1/2

as fitted 9 1/2"

Thrust shaft, diameter at collars

as per Rule 9 1/2

as fitted 10"

Tube Shafts, diameter

as per Rule —

Screw Shaft, diameter

as per Rule 10 1/4

as fitted 10 1/2"

Is the { tube } shaft fitted with a continuous liner {

Yes

Bronze Liners, thickness in way of bushes

as per Rule 32

as fitted 20 3/8"

Thickness between bushes

as per Rule 14 1/2

as fitted 18 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 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 its full length

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. 11-0

Pitch Various 11-0

No. of Blades

4

Material Bronze

whether Moveable

No

Total Developed Surface

50

sq. feet

Feed Pumps worked from the Main Engines, No. 2

Diameter

3"

Stroke

16 1/2"

Can one be overhauled while the other is at work

Yes

Bilge Pumps worked from the Main Engines, No. 2

Diameter

3"

Stroke

16 1/2"

Can one be overhauled while the other is at work

Yes

Feed Pumps { No. and size

Three 6 x 8 1/2 x 18"

Pumps connected to the

Main Bilge Line

No. and size

One 9 x 8 x 18"

How driven

Steam

Ballast Pumps, No. and size

One 9 x 8 x 18"

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

1 @ 3"

Boiler Room 2 @ 3"

1 - Bunker 1 @ 2"

In Pump Room

In Holds, &c.

No 1. 3 @ 2 1/2"

No 2. 3 @ 2 1/2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size

1 @ 8"

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

Yes

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates

Yes

Are they fitted with Valves or Cocks

Both

Are the Overboard Discharges above or below the deep water line

Both

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

machinery

Is it fitted with a watertight door

—

worked from

—

MAIN BOILERS, &c.—(Letter for record

Total Heating Surface of Boilers

X 4200 #

Is Forced Draft fitted

Yes

No. and Description of Boilers

Two water tube

Working Pressure

235 lbs

IS A REPORT ON MAIN BOILERS NOW FORWARDED?

Yes (Sls 58199)

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

Yes

Is the donkey boiler intended to be used for domestic purposes only

Yes

PLANS.

Are approved plans forwarded herewith for Shafting

27-7-36

Main Boilers 10-31/8/1936

Auxiliary Boilers

Donkey Boilers

(If not state date of approval)

Superheaters

—

General Pumping Arrangements

26-11-36

Oil fuel Burning Piping Arrangements

—

SPARE GEAR.

Has the spare gear required by the Rules been supplied

Yes

State the principal additional spare gear supplied

Screw shaft: 1 Cyl iron propeller: 1 eccentric strap: 50 condenser tubes: 1 set of rings for HP Piston

1 set of springs for MP & L Piston rings: 1 set of pads for Thrust block: 1 circulating pump impeller & shaft: 1 set of top end braces

1 set of bottom end braces: Spare parts for Auxiliary feed pumps: Ballast donkey Pump: Fan engines: automatic stokers

1 set of Safety Valve springs: 1 set of Dead Check Valves: Spare boiler tubes: Spare parts for main engine HP & IP poppet

Valves & pins.

The foregoing is a correct description,

for THE NORTH EASTERN MARINE ENGINEERING CO LTD

John Neill

Manufacturer.



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Lloyd's Register Foundation

011235-011243-0259

1936
Sept. 8. Oct. 8. 22, 23. Nov. 3. 9. 11. 13. 16. 17. 18. 19. 25. Dec. 1. 2. 3. 4. 8. 18. 22. 23. 29. 1937 Jan. 4. 6.
During progress of work in shops - - 11. 13. 15. 18. 19. 20. Mar. 10. 16. 19. 23. 24. 31. Apr. 5. 6. 8. 9. 12.
Dates of Survey while building
During erection on board vessel - - -
Total No. of visits 42.

Dates of Examination of principal parts—Cylinders 17-11-36 Slides 3-12-36 Covers 17-11-36
Pistons 19-11-36 Piston Rods 19-11-36 Connecting rods 19-11-36
Crank shaft 13-11-36 Thrust shaft 8-9-36 Intermediate shafts 8-9-36
Tube shaft — Screw shaft 1-12-36 Propeller 22-12-36
Stern tube 25-11-36 Engine and boiler seatings 31-12-36 Engines holding down bolts 19-3-37
Completion of fitting sea connections 27-1-37
Completion of pumping arrangements 8-4-37 Boilers fixed 24-3-37 Engines tried under steam 9-4-37
Main boiler safety valves adjusted 9-4-37 Thickness of adjusting washers PORT BOILER. PORT 7/16" STARBOARD 7/16" S. HEAT 7/16"
Crank shaft material Stal Identification Mark 13-11-36 J.E.S. Thrust shaft material Stal Identification Mark 8-36
Intermediate shafts, material Stal Identification Marks 5-9-36 LLOYDS No 2865 H.C.F. Tube shaft, material — Identification Mark —
Screw shaft, material Stal Identification Mark 1-12-36 J.E.S. Steam Pipes, material S.D. Stal Test pressure 705-lbs Date of Test 1-4-37
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 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 ✓
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 machinery of this vessel has been built under Special Survey, in accordance with the approved plans and the Rules. The materials and workmanship are sound and good. They have been fitted in the vessel in an efficient manner, tried under working conditions and found satisfactory and are eligible in my opinion to be classed with record of L.M.C. 4-37. C.L. Water Tube Boilers: F.D. and the notation 2 WT (Spt).

The amount of Entry Fee ... £ 4 : 0 : 0 When applied for, 14 APR 1937
Special ... £ 38 : 5 : 0
Donkey Boiler Fee ... £ : : :
Travelling Expenses (if any) £ : : : 16.4.37 1914

Committee's Minute TUE 25 MAY 1937
Assigned + Lmb H. 37
Spt. 32.1 C. 4