

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report

19

When handed in at Local Office

- 8 JULY 1937

Port of

Received at London Office

JUL - 9 1937

No. in Survey held at
Reg. Book.

SUNDERLAND.

Date, First Survey

18 Dec 36

Last Survey

1st July 1937

(Number of Visits

70)

on the

LOCH DON

Built at

Sunderland

By whom built

J. L. THOMPSON & Sons, Ltd.

Yard No. 580

Tons

Gross 5249

Net 2977

When built 1937

Engines made at

Sunderland

By whom made

N.E. Marine Eng. Co. Ltd.

Engine No. 2875

When made 1937

Boilers made at

Sunderland

By whom made

N.E. Marine Eng. Co. Ltd.

Boiler No. 2875

When made 1937

Registered Horse Power

Owners Macdonald & McIntyre, Ltd.

Port belonging to

Glasgow

Nom. Horse Power as per Rule

409

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

Trade for which Vessel is intended

General Cargo

ENGINES, &c.—Description of Engines

Triple Expansion, Reheat valves in H.P.

Revs. per minute

Dia. of Cylinders

23" 6.5" 38"

Length of Stroke

4.5"

No. of Cylinders

3

No. of Cranks

3

Crank shaft, dia. of journals

as per Rule

as fitted

1-1 1/2"

Crank pin dia.

1-1 1/2"

Crank webs

Mid. length breadth

Thick. parallel to axis

Intermediate Shafts, diameter

as per Rule

as fitted

1-0 3/4"

Thrust shaft, diameter at collars

as per Rule

as fitted

1-1 1/2"

Tube Shafts, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule

as fitted

Is the tube screw shaft fitted with a continuous liner

yes

Bronze Liners, thickness in way of bushes

as per Rule

as fitted

Thickness between bushes

as per Rule

as fitted

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

Propeller, dia.

18-4"

Pitch

18-9"

No. of Blades

4

Material

Hard Bronze

Whether Moveable

not

Total Developed Surface

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.

2

Diameter

4"

Stroke

24"

Can one be overhauled while the other is at work

Feed Pumps

No. and size

Two, 6" x 8 1/2" x 18"

Pumps connected to the

Main Bilge Line

No. and size

Two, one 9 1/2" x 12" x 21", one 10 1/2" x 14" x 24"

How driven

Steam

How driven

Steam

Ballast Pumps, No. and size

2, 10 1/2" x 14" x 24" & 9 1/2" x 12" x 21"

Lubricating Oil Pumps, including Spare Pump, No. and size

Are two independent means arranged for circulating water through the Oil Cooler

Bilge Pumps;—In Engine and Boiler Room

2 & 3 1/2" dia.

port

& 2 & 3 1/2" dia.

starboard

one at 1 1/2", two in

Pump Room

In Pump Room

—

In Holds, &c.

Fore hold, 2 & 3 1/2" dia.

Fore main, 2 & 3 1/2" dia.

After main, 2 & 3 1/2" dia.

After 2 & 3 1/2" dia.

and one 1/2" drain to tunnel well (self-closing cock).

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

one - 8" dia.

Independent Power Pump Direct Suctions to the Engine Room Bilges,

No. and size

one, 5" 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

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

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

Fore hold suction

How are they protected

Heavy timber sheathing

What pipes pass through the deep tanks

after hold bilge suction

Have they been tested as per Rule

yes

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

Fore hold

level in Eng. Room

level in Eng. Room

MAIN BOILERS, &c.—(Letter for record

S.)

Total Heating Surface of Boilers

5682 sq. ft.

Is Forced Draft fitted

yes

No. and Description of Boilers

Three multitubular

Working Pressure

220 lbs.

IS A REPORT ON MAIN BOILERS NOW FORWARDED?

yes

IS A DONKEY BOILER FITTED?

no

If so, is a report now forwarded?

—

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

—

PLANS. Are approved plans forwarded herewith for Shafting

14/9/36

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.

Has the spare gear required by the Rules been supplied

yes

State the principal additional spare gear supplied

one propeller

one set air pump valves

one screw shaft

one set pads for thrust block

6 Boiler tubes

10% total no. stud plugs for superheaters

6 Condenser tubes

5% " " studs & nuts

1 Safety valve spring

2% " " clamps

1 Bottom end bearing

one safety valve spring

1 Top end bearing

1 set H.P. piston rod packing

The foregoing is a correct description,
FOR THE NORTH EASTERN MARINE ENGINEERING CO. LD.A. L. Berry
MANAGER

Manufacturer.



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Lloyd's Register
Foundation

W1147-0066

Dates of Survey while building
 During progress of work in shops - - 36/ Dec. 18.30. 37/ Jan 4. 14. 19. 20. Feb. 3. 5. 8. 12. 15. 22. 23. 25. Mar. 1. 2. 3. 4. 8. 9. 12. 15. 17. 18. 23.
 During erection on board vessel - - - 24.31. Apr. 1. 2. 6. 7. 8. 12. 13. 14. 15. 16. 19. 21. 23. 26. 27. 28. 29. 30. May. 3. 4. 5. 6. 8. 10. 13. 14. 18. 21. 24. 25. 28.
 June 1. 3. 4. 8. 9. 10. 12. 15. 25. 28. July. 1.
 Total No. of visits 70

Dates of Examination of principal parts—Cylinders 27/4/37 Slides 21/5/37, Poppets 6/5/37 Covers 21/5/37
 Pistons 13/4/37 Piston Rods 5/5/37 Connecting rods 24/5/37
 Crank shaft 27/4/37 Thrust shaft 27/4/37 Intermediate shafts 18/5/37
 Tube shaft — Screw shaft 18/5/37 Propeller 18/5/37
 Stern tube 14/5/37 Engine and boiler seatings 30/4/37 Engines holding down bolts 15/6/37
 Completion of fitting sea connections 10/5/37
 Completion of pumping arrangements 25/6/37 Boilers fixed 15/6/37 Engines tried under steam 15/6/37
 Main boiler safety valves adjusted 15/6/37 Thickness of adjusting washers PORT 3/8" Pat. 7/16" Starboard 1/4" Superheated.
 Crank shaft material steel Identification Mark 6772 Thrust shaft material steel Identification Mark 6772
 Intermediate shafts, material steel Identification Marks 6772 Tube shaft, material — Identification Mark —
 Screw shaft, material steel Identification Mark 6772 Steam Pipes, material steel Test pressure 66 lbs Date of Test 21.5.37
 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 yes If so, state name of vessel LOKH DEE.
 General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery of this vessel has been constructed under
 Special Survey in accordance with the approved plans, the
 Secretary's letters and the requirements of the Rules.
 Workmanship and materials are good.
 The machinery has been efficiently installed on board and tried
 under working conditions and found satisfactory and is
 eligible, in my opinion, for

Notation + L. M. C. 7.37.

The amount of Entry Fee ... £ 5 : : When applied for,
 Special ... £ 86 : 7 : 5 July 1937
 Donkey Boiler Fee £ : : When received,
 Travelling Expenses (if any) £ : : 12.7.37 15/7

Committee's Minute TUE 13 JUL 1937

Assigned + Linc 7.37 Spt F& CL



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