

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

-4 MAR 1930

Date of writing Report

19

When handed in at Local Office

- 3 MAR. 1930

Port of Sunderland

No. in Survey held at

Sunderland

Date, First Survey 28 Aug '29 Last Survey 1 March 1930

Reg. Book.

on the

55 "ESSEX MANOR."

Number of Visits 53

Tons

Gross

5001

Net

3100

When built 1930

Built at Sunderland By whom built

Messrs W. Roxford & Sons.

Yard No. 601

Engines made at Sunderland

By whom made Messrs The N.E.M. Eng'g Co. Ltd.

Engine No. 2717

when made 1930

Boilers made at Sunderland

By whom made Messrs The N.E.M. Eng'g Co. Ltd.

Boiler No. 2710

when made 1930

Registered Horse Power

Owners Melbourn & Swinson

Port belonging to

London

Nom. Horse Power as per Rule

441

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 Compound.

Revs. per minute 68

Dia. of Cylinders 26" x 43" x 71"

Length of Stroke 48"

No. of Cylinders 3

No. of Cranks 3

Crank shaft, dia. of journals as per Rule 13.536"

Crank pin dia. 13 3/4"

Crank webs

Mid. length breadth

shrunk

Thickness parallel to axis 8 1/2"

Intermediate Shafts, diameter as per Rule 12.892"

as fitted 13 1/2"

Thrust shaft, diameter at collars as per Rule 13.536"

as fitted 13 3/4"

Tube Shafts, diameter as per Rule

Screw Shaft, diameter as per Rule 14.392"

as fitted 14 3/4"

Is the screw shaft fitted with a continuous liner

Yes

Bronze Liners, thickness in way of bushes as per Rule 3/4"

as fitted 3/4"

Thickness between bushes as per Rule 5535"

as fitted 1/16"

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

Length of Bearing in Stern Bush next to and supporting propeller

4-11"

Propeller, dia. 18-0"

Pitch 18-0"

No. of Blades 4

Material C. I.

whether Movable No.

Total Developed Surface 100 sq. feet

Feed Pumps worked from the Main Engines, No. 2

Diameter 4"

Stroke 26"

Can one be overhauled while the other is at work

Yes

Bilge Pumps worked from the Main Engines, No. 2

Diameter 4"

Stroke 26"

Can one be overhauled while the other is at work

Yes

Feed Pumps

No. and size Two 6" x 4" x 6"

Pumps connected to the

No. and size One 12" x 14" x 12"

How driven

Steam

How driven

Steam

Ballast Pumps, No. and size

One 12" x 14" x 12"

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

4 - 3 inch dia

In Holds, &c.

Fore peak 1-3"

No 1 Hold 2-3"

No 2 Hold 2-3 1/2"

No 3 Hold 2-3"

Hold Well 1-3 1/2"

One 3"- Tunnel Well.

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

One 9"

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

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

Main 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

Yes

What pipes pass through the deep tanks

None

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

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

Total Heating Surface of Boilers

7665 sq

Is Forced Draft fitted

No

No. and Description of Boilers

3 S.E. Marine Type

Working Pressure 180 lbs/sq

IS A REPORT ON MAIN BOILERS NOW FORWARDED?

Yes

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

Yes

PLANS. Are approved plans forwarded herewith for Shafting

Yes

Main Boilers

Yes

Auxiliary Boilers

Yes

Donkey Boilers

Yes

(If not state date of approval)

Superheaters

Yes

General Pumping Arrangements

Yes

Oil fuel Burning Piping Arrangements

Yes

SPARE GEAR. State the articles supplied:—

One C.I. Propeller.

2. each of Bottom Ends, Top End, and

Main Bearing Bolts and Nuts

6 Coupling Bolts and Nuts.

2. Fuel pump Valves.

2. Bilge pump Valves.

2. Cut. of Iron plate.

1 cut of Iron bars.

as mounted.

2 Safety Valve springs.

1 Set Air pump Valves.

120 bolts and nuts

1 Set Fuel Oxy. Valves.

2 Main & 2 Auxly Check Valve Cds.

1 Set Ballast pump Valves.

The foregoing is a correct description,
FOR THE NORTH EASTERN MARINE ENGINEERING CO. LTD

John Neill

GENERAL MANAGER

Manufacturer.



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Lloyd's Register

Foundation

W541-0293

Rpt. 6
Date of
No. in
Reg. Book
Master
Engines
Boilers
Nominal
MULT
Manufa
Total H
No. and
Tested b
Area of
Area of
In case
Smallest
Smallest
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1929. Aug. 28. Sep. 20. Oct. 2. 4. 7. 10. 11. 12. 22. 23. 24. 30. 31. Nov. 4. 5. 7. 11. 14. 15. 18. 20. 25. 26. 28
29. Dec. 2. 3. 4. 5. 6. 9. 10. 11. 13. 16. 17. 19. 23. 27. 30. 1930. Jan. 3. 6. 12. 17. 20. 21. 22. 23. 28. 30. Feb. 3. 6.
Mch. 1.
Dates of Survey while building { During progress of work in shops - -
During erection on board vessel - - -
Total No. of visits 53

Dates of Examination of principal parts—Cylinders L.P. 23.10.29. HP 8 MP. 31.10.29. Slides M.P. 8 L.P. 28.11.29. HP 23.12.29. Covers M.P. 23.12.29. HP. 8 L.P. 13.12.29.
Pistons 16.12.29. Piston Rods 30.10.29. Connecting rods 4.11.29.
Crank shaft 25.11.29. Thrust shaft 15.11.29. Intermediate shafts 16.12.29.
Tube shaft ✓ Screw shaft 28.11.29. Propeller W. 23.12.29. S. 20.11.29.
Stern tube 2.12.29. Engine and boiler seatings 17.1.30. Engines holding down bolts 28.1.30.
Completion of fitting sea connections 16.12.29.
Completion of pumping arrangements 6.2.30 Boilers fixed 22.1.30 Engines tried under steam. 6.2.30
Main boiler safety valves adjusted 6.2.30 Thickness of adjusting washers Port. S. 15/32" Centre S. 17/32" Starboard S. 15/32"
Crank shaft material S.M. Steel Identification Mark 3133 M.C. Thrust shaft material S.M. Steel Identification Mark 3133 AC
Intermediate shafts, material S.M. Steel Identification Marks 3133. M.C. Tube shaft, material ✓ Identification Mark ✓
Screw shaft, material S.M. Steel Identification Mark 3133. M.C. Steam Pipes, material Steel ✓ Test pressure 540 lbs. Date of Test 3.2.30
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 carrying and burning oil fuel 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 Engines and Boilers of this Vessel have been built under Special Survey and the Materials and workmanship are good. On completion the machinery was tried under a full head of steam with satisfactory results.
The Machinery of this Vessel as now seen, is in a good and efficient condition, and eligible in my opinion to have the Notation + L.M.C. 3.30. marked in red in the Society's Register Book.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 3.30 CL.

6/3/30.
Vij

The amount of Entry Fee ... £ 5 : 0 :
Special ... £ 91 : 3 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 3 MAR. 1930
When received, 12/3/30

Matthew Caldwell.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 14 MAR 1930

Assigned + L.M.C. 3.30 CL.

CERTIFICATE WRITTEN



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SUNDERLAND
Certificate to be sent to
The Surveyors are requested not to write on or below the space for Committee's Minute.