

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

3 SEP 1942

Date of writing Report

19

When handed in at Local Office

2-9-1942 Port of

Newcastle-on-Tyne.

No. in Survey held at  
Reg. Book.

Date, First Survey 13-1-42. Last Survey 26.8.1942

(Number of Visits 34.)

73464 on the

SS. EMPIRE. THACKERAY.

Built at Sunderland

By whom built Sir J. Laing &amp; Sons Ltd

Yard No. 744

Tons } Gross  
Net

When built 1942.

Engines made at Wallsend

By whom made N.E. Marine &amp; Co (1938) Ltd

Engine No. 3025

When made 1942

Boilers made at

By whom made

Boiler No. 3025

When made 1942.

Registered Horse Power

Owners Ministry of War Transport

Port belonging to Sunderland.

Nom. Horse Power as per Rule

275

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted yes

Trade for which Vessel is intended

Ocean going.

## ENGINES, &amp;c.—Description of Engines

Triple Expansion

Revs. per minute 72

Dia. of Cylinders 20.31.55

Length of Stroke 39

No. of Cylinders 3

No. of Cranks 3

Crank shaft, dia. of journals

as per Rule 10.99

Crank pin dia. 11 1/2

Crank webs

Mid. length breadth 19.28

shrunk

Thickness parallel to axis 7

Intermediate Shafts, diameter

as per Rule 10.47

as fitted 10 3/4

Thrust shaft, diameter at collars

as per Rule 10.99

as fitted 11 1/4

Tube Shafts, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule 11.78

as fitted 12 1/4

Is the

tube

shaft fitted with a continuous liner

yes

Bronze Liners, thickness in way of bushes

as per Rule .656

as fitted .687

Thickness between bushes

as per Rule .492

as fitted .531

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

yes

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

yes

If two liners are fitted, is the shaft lapped or protected between the liners

yes

Is an approved Oil Gland or other appliance fitted at the after end of the tube

yes

shaft

no

If so, state type

Length of Bearing in Stern Bush next to and supporting propeller 4.3 3/8

Propeller, dia. 15.9

Pitch 14.0

No. of Blades 4

Material C.I.

whether Moveable

no

Total Developed Surface

101.6

sq. feet

Feed Pumps worked from the Main Engines, No. 2

Diameter 3 1/4

Stroke 22

Can one be overhauled while the other is at work

yes

Bilge Pumps worked from the Main Engines, No. 2

Diameter 3 1/4

Stroke 22

Can one be overhauled while the other is at work

yes

Feed Pumps

No. and size 12 1/2 x 11 1/2

How driven Steam

Main Bilge Line

Pumps connected to the

No. and size 12 1/2 x 11 1/2

How driven Steam

Main Bilge Line

12 1/2 x 11 1/2

22 3/4 x 22

Main Bilge Line

12 1/2 x 11 1/2

22 3/4 x 22

Main Bilge Line

12 1/2 x 11 1/2

22 3/4 x 22

Main Bilge Line

Ballast Pumps, No. and size

12 1/2 x 11 1/2

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

12 1/2 x 11 1/2

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

yes

Bilge Pumps;—In Engine and Boiler Room

2 Port &amp; 1 Starb

3" in Eng Room

1 Port &amp; 1 Starb

3" in Eng Room

1 Port &amp; 1 Starb

3" in Eng Room

1 Port &amp; 1 Starb

3" in Eng Room

1 Port &amp; 1 Starb

3" in Eng Room

1 Port &amp; 1 Starb

3" in Eng Room

1 Port &amp; 1 Starb

3" in Eng Room

In Pump Room

yes

In Holds, &amp;c.

1 Port &amp; 1 Starb

3" in Eng Room

1 Port &amp; 1 Starb

3" in Eng Room

1 Port &amp; 1 Starb

3" in Eng Room

1 Port &amp; 1 Starb

3" in Eng Room

1 Port &amp; 1 Starb

3" in Eng Room

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

12 1/2 x 11 1/2

No. and size

12 1/2 x 11 1/2

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

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

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

yes

How are they protected

yes

What pipes pass through the deep tanks

yes

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

no

worked from

yes

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

Total Heating Surface of Boilers

4006.5

Is Forced Draft fitted

yes

No. and Description of Boilers

2SB.

Working Pressure 200.

IS A REPORT ON MAIN BOILERS NOW FORWARDED?

yes

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 20.3.41

Main Boilers 15.10.41

Auxiliary Boilers

Donkey Boilers

yes

yes

yes

yes

yes

yes

(If not state date of approval)

Superheaters

yes

General Pumping Arrangements

30.1.42.

Oil fuel Burning Piping Arrangements

yes

## SPARE GEAR.

Has the spare gear required by the Rules been supplied

yes

State the principal additional spare gear supplied

The foregoing is a correct description.

THE NORTH EASTERN MARINE ENGINEERING CO. (1938) LTD.

John Neill

DIRECTOR

Manufacturer.



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Lloyd's Register  
Foundation

010722-010733-0170



1942. Jan. 13. 16. Feb. 2. 4. 11. 17. 18. 23. 24. Mar. 2. 23. 25. April. 7. 8. 9. 10. 17. 20. 21.  
 During progress of work in shops -- 28. May. 4. 12. 21. 28. June. 1. 17. 19. Aug. 4. 6. 10. 12. 13. 26.  
 Dates of Survey while building During erection on board vessel ---  
 Total No. of visits 34

Dates of Examination of principal parts—Cylinders 17.2.42. Slides 25.3.42 Covers 17.2.42  
 Pistons 25.3.42 Piston Rods 25.3.42 Connecting rods 25.3.42  
 Crank shaft 11.2.42. Thrust shaft 11.2.42. Intermediate shafts 9.4.42 9.6.42  
 Tube shaft ✓ Screw shaft 2.3.42 Propeller 23.2.42  
 Stern tube 1.6.42 & 25.6.42 Engine and boiler seatings 6.8.42 Engines holding down bolts 6.8.42  
 Completion of fitting sea connections 30.6.42  
 Completion of pumping arrangements 26.8.42 Boilers fixed 6.8.42 Engines tried under steam 12.13.726/8/42  
 Main boiler safety valves adjusted 12.8.42. Thickness of adjusting washers P. P. 3/8" S 7/16" S 7/8" S 13/32"  
 Crank shaft material Steel Identification Mark 6547.8.9250 AEG. 11.2.42 Thrust shaft material Steel Identification Mark 6592 AEG. 11.2.42  
 Intermediate shafts, material Steel Identification Marks 6594.5.67718 AEG. 9/4/42 9/6/42 Tube shaft, material ✓ Identification Mark 28.4.42  
 Screw shaft, material Steel Identification Mark 5589. ERB. 2.3.42 Steam Pipes, material Steel Test pressure 600 Date of Test 17.6.42  
 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 ✓ 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 ✓ *Amphipr. Division*  
 Is this machinery duplicate of a previous case yes If so, state name of vessel Grangemouth 437. Nuv. Rpt 99950

General Remarks (State quality of workmanship, opinions as to class, &c. This machinery has been made under Special Survey in accordance with the approved Plans, the Requirements of the Rules & the Specification. The materials & workmanship are good & the Machinery proved satisfactory under working conditions at Luey.

The machinery is eligible in my opinion to have the Record time 8.42. 2 SB FD. CL.

NEWCASTLE-ON-TYNE.

The amount of Entry Fee ... £ 4 : 0 : 0 When applied for, 2 SEP 1942  
 Special 25% ... £ 82 : 16 : 0  
 Donkey Boiler Fee ... £ : : When received, 19...  
 Travelling Expenses (if any) £ : : 19...

Committee's Minute FRL 18 SEP 1942  
 Assigned and See Mtd. J.E. 33477

R. C. Clough  
 Engineer Surveyor to Lloyd's Register of Shipping.