

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report **2 NOV 1943** When handed in at Local Office **2 NOV 1943** Received at London Office **3 NOV 1943**  
 Port of **NEWCASTLE-ON-TYNE**  
 No. in Survey held at **Wallaseid.** Date, First Survey **4<sup>th</sup> June, 1942** Last Survey **22<sup>nd</sup> Sept. 1943**  
 Reg. Book **37280** on the **SS EMPIRE CAMP** Tons (Gross **7017** Net **4758**)  
 Built at **Sunderland** By whom built **Short Bros. Ltd.** Yard No. **477** When built **1943**  
 Engines made at **Wallaseid** By whom made **N.E. Marine Eng Co (1938) Ltd** Engine No. **3050** When made **1943**  
 Boilers made at **"** By whom made **"** Boiler No. **3041** When made **1943**  
 Registered Horse Power **"** Owners **Ministry of War Transport** Port belonging to **Sunderland**  
 Nom. Horse Power as per Rule **542** Is Refrigerating Machinery fitted for cargo purposes **yes** Is Electric Light fitted **yes**  
 Trade for which vessel is intended **beach going**

**ENGINES, &c.—Description of Engines** **Triple Expansion** Revs. per minute **76**  
 Dia. of Cylinders **24 1/2 · 39 · 70** Length of Stroke **48** No. of Cylinders **3** No. of Cranks **3**  
 Crank shaft, dia. of journals as per Rule **13.98** as fitted **14 1/4"** Crank pin dia. **14 3/4"** Mid. length breadth **22"** Thickness parallel to axis **9"**  
 Crank webs Mid. length thickness **9"** shrunk Thickness around eye-hole **6 1/8"**  
 Intermediate Shafts, diameter as per Rule **13.32** as fitted **13 9/8"** Thrust shaft, diameter at collars as per Rule **13.98** as fitted **14 1/4"**  
 Tube Shafts, diameter as per Rule **"** as fitted **"** Screw Shaft, diameter as per Rule **14.84** as fitted **15 1/4"** Is the **no** screw shaft fitted with a continuous liner **yes**  
 Bronze Liners, thickness in way of bushes as per Rule **.753** as fitted **.81** Thickness between bushes as per Rule **.565** as fitted **.65** 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**  
 at **no** If so, state type **"** Length of Bearing in Stern Bush next to and supporting propeller **5-1"**  
 Propeller, dia. **17-10 1/2** Pitch **15.6** No. of Blades **4** Material **CI** whether Moveable **no** Total Developed Surface **114 3/4** sq. feet  
 Feed Pumps worked from the Main Engines, No. **2** Diameter **4"** Stroke **27"** Can one be overhauled while the other is at work **yes**  
 Bilge Pumps worked from the Main Engines, No. **2** Diameter **4"** Stroke **27"** Can one be overhauled while the other is at work **yes**  
 Feed Pumps { No. and size **2 @ 8 x 10 1/2 x 22** **1 @ 9 1/2 x 7 x 21** Pumps connected to the { No. and size **1 @ 10 1/2 x 13 x 24** **1 @ 9 1/2 x 7 x 21** **2 @ 4 x 27**  
 How driven **Steam** Main Bilge Line How driven **Steam** **M. Eng**  
 Ballast Pumps, No. and size **1 @ 10 1/2 x 13 x 24** Lubricating Oil Pumps, including Spare Pump, No. and size **1**  
 Are two independent means arranged for circulating water through the Oil Cooler **yes** Suctions, connected to both Main Bilge Pumps and Auxiliary  
 Bilge Pumps:—In Engine and Boiler Room **2 @ 3" in Eng Room** **2 @ 3" in Boiler Room**  
 In Pump Room **2-3" N° 5** **2-3" N° 6** In Holds, &c. **2-3" N° 1** **2-3" N° 2** **2-3" N° 3**  
**1-2 1/2" TUNNEL WELL**  
 Main Water Circulating Pump Direct Bilge Suctions, No. and size **1 @ 9"** Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **1 @ 5"**  
 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 **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 **forward bilge suction** How are they protected **limber boards**  
 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, &c.—**(Letter for record **S**) Total Heating Surface of Boilers **7974 sq ft**  
 Which Boilers are fitted with Forced Draft **yes** Which Boilers are fitted with Superheaters **P & S main**  
 No. and Description of Boilers **2 SB + 1 Aux SB** Working Pressure **220**  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? **yes**  
 IS A DONKEY BOILER FITTED? **yes** If so, is a report now forwarded? **yes**  
 Can the donkey boiler be used for domestic purposes only **yes**  
**PLANS.** Are approved plans forwarded herewith for Shafting **B type** Main Boilers **10.11.41** Auxiliary Boilers **11.10.41** Donkey Boilers **yes**  
 (If not state date of approval)  
 Superheaters **Standard** General Pumping Arrangements **27-8-42** 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 NORTH EASTERN MARINE ENGINEERING CO. (1938) LTD.

The foregoing is a correct description.

**John Neill**  
 DIRECTOR

Manufacturer.



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NOTE.—The words which do not apply should be deleted. Is a Report also sent on the hull of the ship? If not, state whether, and when, one will be sent.

1942 1943

During progress of work in shops - - -   
 During erection on board vessel - - -   
 Total No. of visits 49

JUNE 4.5.15.26 SEPT. 18.22 OCT. 13.22 NOV. 19.26 DEC. 1.3.11 JAN. 6.8.27 MAR. 12.13.19.29 APR. 5.15.20 21.30 MAY. 4.11.13.17  
 MAY 18.25.27.31 JUNE 1.10.22.23.24.25.28.29 JULY 2.5.6.7.8.9 SEPT. 22

Dates of Examination of principal parts - Cylinders 11.5.43 Slides 18.5.43 Covers 11.5.43

Pistons 18.5.43 Piston Rods 18.5.43 Connecting rods 18.5.43

Crank shaft 17.5.43 Thrust shaft 9.12.42 17.5.43 Intermediate shafts 26.11.42

Tube shaft ✓ Screw shaft 23.6.43 Propeller 10.6.43

Stern tube 17.5.43 24.6.43 Engine and boiler seatings 6.7.43 Engines holding down bolts 6.7.43

Completion of fitting sea connections 4.6.43

Completion of pumping arrangements Boilers fixed 6.7.43 Engines tried under steam 9.7.43

Main boiler safety valves adjusted 9.7.43 Thickness of adjusting washers P. 5.7/16 SPT 3/16 C 5.7/16 S 5.7/32 SPT 7/16  
8108 8174 ERB 1059.5.8

Crank shaft material Steel Identification Mark Roll 17.5.43 Thrust shaft material S Identification Mark Roll 17.5.43  
8240. 8256.7 8260 8295 8299 ERB

Intermediate shafts, material Identification Marks Roll 26.11.42 Tube shaft, material ✓ Identification Mark ✓  
8367. ERB

Screw shaft, material Steel Identification Mark Roll 23.6.43 Steam Pipes, material Steel Test pressure 660 Date of Test Various

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 ✓

Is this machinery duplicate of a previous case..... If so, state name of vessel B. Class Engines

General Remarks (State quality of workmanship, opinions as to class, &c. This machinery has been constructed under Special Survey in accordance with the requirements of the Rules the Approved Plans & the Specification

The materials & workmanship are good & the machinery proved satisfactory under working conditions at quay.

The machinery is eligible in my opinion to have the Record.  
+ LMC 10.43. 2SB (spt) & 1 anc SB. F.I. CL.

The amount of Entry Fee ... £ 6.010. When applied for, [-2 NOV 1943]

Special +25%... £ 127.12.6. When received,

Donkey Boiler Fee ... £ : : 19

Travelling Expenses (if any) £ : :

R. Moffatt  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 16 NOV 1943

Assigned + LMC 10.43  
30 CL

NEWCASTLE-ON-TYNE