

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 2 NOV 1943 When handed in at Local Office 2 NOV 1943 Port of NEWCASTLE-ON-TYNE Received at London Office 3 NOV 1943

No. in Survey held at Wallaseid. Date, First Survey 4 June 1942 Last Survey 22 Sept. 1943

Reg. Book 37280 on the SS EMPIRE. CAMP (Number of Visits 49) 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 ocean 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 Crank webs Mid. length breadth 22" Thickness parallel to axis 9"

Intermediate Shafts, diameter as per Rule 13.32 as fitted 13 5/8 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 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 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 C.I. 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 yes

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

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 linen 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)

Which Boilers are fitted with Forced Draft yes Total Heating Surface of Boilers 7974 sq ft

No. and Description of Boilers 2 SB + 1 Aux SB Which Boilers are fitted with Superheaters P & S main

Working Pressure 220

IS A REPORT ON MAIN BOILERS NOW FORWARDED? yesIS A DONKEY BOILER FITTED? yesIf so, is a report now forwarded? yesCan 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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Lloyd's Register Foundation

011397-011407-0354

1942. JUNE 4.5.15.26 SEPT. 18.22 OCT. 13.22 NOV. 19.26 DEC. 1.3.11 1943 JAN. 6.8.27 MAR. 12.13.19.29 APR. 5.15.20 21.30 MAY. 4.11.13.17

Dates of Survey while building

During progress of work in shops - - -

During erection on board vessel - - -

Total No. of visits 49

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 17.5.43 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 1059.5.8

Crank shaft material Steel Identification Mark Roll 17.5.43 Thrust shaft material S Identification Mark Roll 17.5.43

Intermediate shafts, material Identification Marks Roll 26.11.42 Tube shaft, material Identification Mark

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 and 3B. F.D. CL.

The amount of Entry Fee ... £ 6 0 10

Special + 25% ... £ 127 12 16

Donkey Boiler Fee ... £

Travelling Expenses (if any) £

When applied for, -2 NOV 1943

When received, 19

Committee's Minute

Assigned

TUES. 16 NOV 1943

+ LMC 10.43

30 CL

Engine Surveyor to Lloyd's Register of Shipping.