

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 26 AUG 1944

Date of writing Report 19... When handed in at Local Office 21. 8. 1944 Port of NEWCASTLE-ON-TYNE
 No. in Survey held at Reg. Book South Shields Date, First Survey (1943) Oct 4th Last Survey Aug 10th 1944
 (Number of Visits 119) Tons Gross 7047.49 Net 4741.25
 89207 on the S.S. EMPIRE MOULMEIN
 Built at S. Shields By whom built J. Readhead & Sons Ltd Yard No. 540 When built 1944
 Engines made at South Shields By whom made J. Readhead & Sons Ltd Engine No. 540 When made 1944
 Boilers made at Sunderland By whom made W. & A. Bell (1920) Ltd Boiler No. 1020 When made 1944
 Registered Horse Power Owners Ministry of War Transport Port belonging to S. Shields
 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 Refrigerated General Cargo

ENGINES, &c.—Description of Engines Triple Expansion Revs. per minute 76
 Dia. of Cylinders 24 1/2 x 39 x 70 Length of Stroke 48 No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 14 Crank pin dia. 14 3/4 Mid. length breadth 22 Thickness parallel to axis 9
 as fitted 14 1/4 Crank webs 9 shrunk Thickness around eye-hole 6 3/8
 Intermediate Shafts, diameter as per Rule 13.33 Thrust shaft, diameter at collars as per Rule 14
 as fitted 13 5/8 as fitted 14 1/2
 Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule 14.95 Is the shaft fitted with a continuous liner Yes
 as fitted Is the after end of the liner made watertight in the propeller boss Yes

Propeller, dia. 18-2 Pitch 16-6 No. of Blades 4 Material C.I. whether Moveable No Total Developed Surface 110 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) 7 x 9 1/2 x 21 Pumps connected to the Main Bilge Line (1) 10 1/2 x 13 x 24 (1) 7 x 9 1/2 x 21
 How driven Steam How driven Steam
 Ballast Pumps, No. and size (1) 10 1/2 x 13 x 24 (1) 7 x 9 1/2 x 21 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 dia In Holds, &c. N1 hold 2-3 dia N2 hold 2-3 dia N3 hold 2-3 dia
 N4 hold 2-3 dia N5 hold 2-3 dia Tunnel well 1-2 1/2 dia

Main Water Circulating Pump Direct Bilge Suctions, No. and size One 9 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 Ball
 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 Bilge How are they protected Wood casings
 What pipes pass through the deep tanks 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
 Which Boilers are fitted with Forced Draft Main Aux B Which Boilers are fitted with Superheaters Pat. Shield
 No. and Description of Boilers 2 Main 1 Aux S.E.M. Working Pressure 220 lbs
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes (B.C.) British Corporation Certificate
 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 18-1-43 Main Boilers Auxiliary Boilers Donkey Boilers
 (If not state date of approval) Superheaters General Pumping Arrangements 23-12-43 Oil fuel Burning Piping Arrangements

SPARE GEAR.
 Has the spare gear required by the Rules been supplied Yes in accordance with specification.
 State the principal additional spare gear supplied

The foregoing is a correct description.

FOR JOHN READHEAD & SONS, LTD.
H.M. Coatsworth. Manufacturer.

Director.



Balance No. for main boiler 1324 Aux boiler 4008

5-14

During progress of work in shops --- (1943) Oct. 4, 15, 27 Nov. 5, 9, 15, 16, 17, 19, 22, 28 Dec. 3, 6, 7, 8, 17, 23, 24, 28, 29, 30, 31 (1944) Jan. 4, 5, 6, 7, 10, 11, 12, 14, 17, 19, 20, 21, 25, 26, 27, 31 Feb. 1, 2, 3, 7, 8, 9, 10, 11, 14, 15, 17, 18, 21, 22, 28 Mar. 1, 3, 6, 8, 9, 10, 14, 15, 16, 17, 20, 24, 28, 29, 30 Apr. 6, 13, 18, 24, 25, 26, 27 May 2, 4, 8, 9, 11, 15, 22, 24, 25, 30 June 2, 6, 8, 9, 10, 12, 15, 19, 20, 21, 22, 26, 27, 29, 30 July 3, 6, 7, 11, 12, 13 July 14, 17, 18, 19, 20, 21, 31 Aug. 2, 3, 4, 8, 9, 10

Total No. of visits 119

Dates of Examination of principal parts --- Cylinders 26-4-44 Slides 9-5-44 Covers 26-4-44
 Pistons 9-5-44 Piston Rods 10-6-44 Connecting rods 10-6-44
 Crank shaft 19-1-44 Thrust shaft 12-7-44 Intermediate shafts 12-7-44
 Tube shaft ✓ Screw shaft 30-5-44 Propeller 30-5-44
 Stern tube 22-5-44 Engine and boiler seatings 29-6-44 Engines holding down bolts 7-7-44
 Completion of fitting sea connections 8-6-44 11-7-44
 Completion of pumping arrangements 19-7-44 Boilers fixed 6-7-44 Engines tried under steam 12-7-44
 Main boiler safety valves adjusted 4-8-44 Thickness of adjusting washers F/S 1/16" C/P 1/32" S/P 1/2"
 Crank shaft material S.M. Steel Identification Mark 8253 Thrust shaft material S.M. Steel Identification Mark 8591
 Intermediate shafts, material S.M. Steel Identification Marks 8575 8576 8579 8577 8580 Tube shaft, material ✓ Identification Mark 26-4-44
 Screw shaft, material S.M. Steel Identification Mark 8574 Steam Pipes, material S.M. Steel Test pressure 660 lbs Date of Test 26-27-29-30-6-44
 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 Yes ✓ If so, state name of vessel EMPIRE PICKWICK

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 rule requirements & approved plans. Materials & workmanship are good. The machinery was satisfactorily tested on moving trial & in my opinion is eligible for classification with records of +L.M.C.B, 44. F.D.C.L. 25.B(S/F) 1 Aug 3 S.B.

NEWCASTLE-ON-TYNE

The amount of Entry Fee	£ 6-0-0	When applied for,	19
Special (including supervision & specification)	£ 76-11-6	When received,	19
Donkey Boiler Fee	£ ✓ : ✓ :		
Travelling Expenses (if any)	£ ✓ : ✓ :		19

J. H. Matthews
 Engineer Surveyor to Lloyd's Register of Shipping.

WED. 6 SEP 1944

Committee's Minute
 Assigned LMC * 8.44
 2 SB (Sp) + 1 Am + SB
 220lb 20%

