

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 2 JUN 1943 When handed in at Local Office 2 JUN 1943 Port of NEWCASTLE-ON-TYNE Received at London Office 7 JUN 1943

No. in Survey held at South Shields Date, First Survey 28-10-42 Last Survey 17-5-43
 Reg. Book 26413 on the S.S. EMPIRE PERDITA Tons Gross 7028.41
Net 4875.76

Built at South Shields By whom built J. Readhead & Sons Ltd Yard No. 533 When built 1943
 Engines made at South Shields By whom made J. Readhead & Sons Ltd Engine No. 533 When made 1943
 Boilers made at Sunderland By whom made G. Clark (1938) Ltd Boiler No. 1306 When made 1943
 Registered Horse Power _____ Owners Ministry of War Transport Port belonging to S. Shields
 Nom. Horse Power as per Rule 510 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 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 14 1/4 Crank pin dia. 14 3/4 Crank webs 22 Mid. length breadth 22 Thickness parallel to axis 9
 as per Rule 14 as fitted 14 1/4 Mid. length thickness 9 shrunk Thickness around eye-hole 6 3/8

Intermediate Shafts, diameter 13.33 Thrust shaft, diameter at collars 14
 as fitted 13 5/8 as fitted 14 1/4

Tube Shafts, diameter 14.85 Screw Shaft, diameter 15 1/4 Is the tube shaft fitted with a continuous liner Yes
 as fitted _____ as fitted _____

Bronze Liners, thickness in way of bushes .765 Thickness between bushes .812 Is the after end of the liner made watertight in the propeller boss Yes
 as per Rule _____ as fitted _____ 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 _____ If so, state type _____ Length of Bearing in Stern Bush next to and supporting propeller 5-1/8

Propeller, dia. 18-3 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. No Diameter _____ Stroke _____ 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) 7 x 9 1/2 x 21 (1) 7 x 9 1/2 x 21 Pumps connected to the Main Bilge Line { No. and size (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 Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps:—In Engine and Boiler Room 4-3 dia
 In Pump Room Yes In Holds, &c. N 1 hold 2-3 dia N 2 hold 2-3 dia N 3 hold 2-3 dia
N 5 hold 2-3 dia N 6 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 Sea Connections fitted direct on the skin of the ship As per H.B.T. 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 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 _____

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 7248.9

Which Boilers are fitted with Forced Draft 3 Main Which Boilers are fitted with Superheaters 3 Main

No. and Description of Boilers 3 S.E.M. Working Pressure 220 lbs

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Sunderland Report N/33625

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 22-8-41 Main Boilers 23-4-42 Auxiliary Boilers Yes Donkey Boilers Yes
 (If not state date of approval)

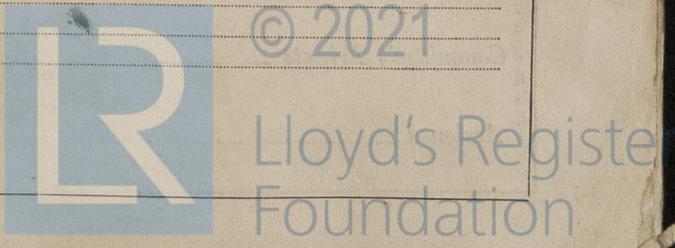
Superheaters Yes General Pumping Arrangements 18-12-42 Oil fuel Burning Piping Arrangements Yes

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. FOR JOHN READHEAD & SONS, LTD.
 H.M. Coateworth Manufacturer.
 Director.



1942. ^{1943.}
 During progress of work in shops - - - { OCT. 28. NOV. 6. 11. 18. 24. DEC. 1. 3. 4. 9. 10. 11. 14. 15. 18. 21. 23. 31. JAN. 4. 5. 6. 8. 13. 14. 15. 18. 19. 20. 21. 22. 26. 27. 28. 29.
 During erection on board vessel - - - { FEB. 1. 2. 3. 4. 8. 9. 10. 11. 15. 17. 19. 24. 26. MAR. 1. 2. 3. 5. 4. 9. 10. 11. 15. 16. 17. 19. 22. 23. 24. 25. 26. 29. 30. 31. APR. 1. 2. 5. 6. 7. 8. 9. 10.
 APR. 12. 13. 14. 15. 16. 17. 19. 20. 21. 22. 27. 28. 29. MAY. 17.
 Total No. of visits 96

Dates of Examination of principal parts - Cylinders 15-3-43 Slides 16-3-43 Covers 16-3-43
 Pistons 15-3-43 Piston Rods 11-3-43 Connecting rods 11-3-43
 Crank shaft 21-11-42 Thrust shaft 10-4-43 Intermediate shafts 10-4-43
 Tube shaft ✓ Screw shaft 10-3-43 Propeller 10-3-43
 Stern tube 6-3-43 Engine and boiler seatings 30-3-43 Engines holding down bolts 15-4-43
 Completion of fitting sea connections 10-3-43
 Completion of pumping arrangements 20-4-43 Boilers fixed 30-3-43 Engines tried under steam 16-4-43
 Main boiler safety valves adjusted 16-4-43 Thickness of adjusting washers P/P-^{3/8"} 5/8 C/P-^{1/2"} 5/8 S/P-^{1/2"} 5/8
 Crank shaft material S.M. Steel Identification Mark 7110 Thrust shaft material S.M. Steel Identification Mark 7655
 Intermediate shafts, material S.M. Steel Identification Marks 7656 7659 7657 7660 7658 7661 Tube shaft, material ✓ Identification Mark 12-2-43
 Screw shaft, material S.M. Steel Identification Mark 7662 Steam Pipes, material S.P. Steel Test pressure 660 lbs. Date of Test 16/30/31-4-43
 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 CAPULET

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. 43 F.D.C.L. 3 S.B. (S.F.).

NEWCASTLE-ON-TYNE.

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

The amount of Entry Fee	£ 6 : 0 :	When applied for, 2 JUN 1943
Special	£ 75 - 7 - 6	
Donkey Boiler Fee	£ ✓ :	When received, 19
Travelling Expenses (if any)	£ ✓ :	

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

Committee's Minute FRI. 11 JUN 1943
 Assigned + L.M.C. 5. 43.
 F.D. Chy