

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 30 NOV 1941

Date of writing Report

19

When handed in at Local Office

3/11/41 Port of NEWCASTLE-ON-TYNE.

No. in Survey held at  
Reg. Book.

Date, First Survey 26 March

Last Survey 30 Oct 1941.

(Number of Visits 78)

36314 on the

S.S. EMPIRE STEVENSON

Tons { Gross 6209.14  
Net 4221.60

Built at S. Shields By whom built J. Readhead &amp; Sons Ltd. Yard No. 524 When built 1941

Engines made at S. Shields By whom made J. Readhead &amp; Sons Ltd. Engine No. 524 When made 1941

Boilers made at S. Shields By whom made J. Readhead &amp; Sons Ltd. Boiler No. 524 When made 1941

Registered Horse Power

Owners Ministry of War Transport Port belonging to S. Shields

Nom. Horse Power as per Rule

415

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

Trade for which Vessel is intended

General Cargo

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

Triple Expansion

Revs. per minute 66

Dia. of Cylinders 24 x 40 x 68 Length of Stroke 45 No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 13 1/2 as fitted 13 1/2 Crank pin dia. 13 1/2 Crank webs Mid. length breadth 1-7 1/2 Mid. length thickness 8 1/2 Thickness parallel to axis 8 1/2 Thickness around eye-hole 6

Intermediate Shafts, diameter as per Rule 12.87 as fitted 12 7/8 Thrust shaft, diameter at collars as per Rule 13 1/2 as fitted 13 1/2

Tube Shafts, diameter as per Rule as fitted Screw Shaft, diameter as per Rule 14.33 as fitted 14 1/2 Is the tube screw shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes as per Rule .74 as fitted .74 Thickness between bushes as per Rule as fitted 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

Length of Bearing in Stern Bush next to and supporting propeller 4-10

Feed Pumps worked from the Main Engines, No. 2 Diameter 4 Stroke 24 Can one be overhauled while the other is at work Yes

Bilge Pumps worked from the Main Engines, No. 2 Diameter 4 1/2 Stroke 24 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) 9 1/2 x 12 x 18 (1) 8 x 11 x 18 How driven Steam

Ballast Pumps, No. and size (1) 9 1/2 x 12 x 18 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 3-3 dia In Pump Room

Main Water Circulating Pump Direct Bilge Suctions, No. and size One 7 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 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—side pockets How are they protected Wood savings

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, &amp;c.—(Letter for record S) Total Heating Surface of Boilers 5486 sq. ft.

Which Boilers are fitted with Forced Draft Main Which Boilers are fitted with Superheaters None

No. and Description of Boilers 2 Main S.E.M. 2 S.B. Working Pressure 220 lbs

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes

IS A DONKEY BOILER FITTED? No 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 31-12-40 Main Boilers 24-9-40 Auxiliary Boilers Yes Donkey Boilers Yes

Superheaters General Pumping Arrangements 24-12-40 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

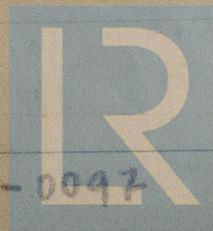
See specification as fitted for list of Manager's additional spare gear.

The foregoing is a correct description.  
FOR JOHN READHEAD & SONS LTD.

J. H. M. M. M.

28.10.41.

Manufacturer.



© 2020

Lloyd's Register  
Foundation

W1181-0097

MANAGING DIRECTOR.



1941  
 During progress of work in shops - - - Mar. 26. Apr. 2. 11. 18. 21. May 2. 9. 14. 15. 19. 22. 27. 29. June 6. 10. 12. 23. 24. 27. July 2. 3. 4. 7. 9. 11. 14. 15. 17. 18. 22. 23. 24. 25. 28. 30. Aug. 1. 5. 7. 8. 11. 13. 15. 18. 19. 20. 21. 22. 25. 26. 27. 28. 29.  
 During erection on board vessel - - - Sep. 1. 2. 3. 4. 5. 9. 10. 11. 12. 15. 16. 18. 22. 23. 25. 30. Oct. 3. 8. 13. 15. 16. 17. 20. 21. 24. 30.  
 Total No. of visits 78.

Dates of Examination of principal parts—Cylinders 9-9-41 Slides 4-9-41 Covers 4-9-41  
 Pistons 4-9-41 Piston Rods 10-9-41 Connecting rods 10-9-41  
 Crank shaft 7-8-41 Thrust shaft 19-9-41 Intermediate shafts 19-9-41  
 Tube shaft ✓ Screw shaft 27-8-41 Propeller 27-8-41  
 Stern tube 20-8-41 Engine and boiler seatings 15-9-41 Engines holding down bolts 14-10-41  
 Completion of fitting sea connections 25-8-41  
 Completion of pumping arrangements 20-10-41 Boilers fixed 21-9-41 Engines tried under steam 15-10-41  
 Main boiler safety valves adjusted 16-10-41 Thickness of adjusting washers P 5-3/8" S 5-3/8" 16-10-41 17-10-41  
 Crank shaft material S.M. Steel Identification Mark 5703 Thrust shaft material S.M. Steel Identification Mark 5667  
 Intermediate shafts, material S.M. Steel Identification Marks 5669 5672 5670 5673 5671 5674 Tube shaft, material ✓ Identification Mark 4-4-41  
 Screw shaft, material S.M. Steel Identification Mark 5668 Steam Pipes, material S.M. Steel Test pressure 660 lbs Date of Test 22-9-41  
 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 SCOTT  
 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 mooring trials & in my opinion is eligible for classification with records of +L.M.C. 10, 41. F.D.C.L.

The amount of Entry Fee ... £ 5 : 0 : When applied for, 15 NOV 1941  
 Special ... £ 109 : 1 : 3 :  
 Donkey Boiler Fee ... £ ✓ : When received,  
 Travelling Expenses (if any) £ ✓ : 19

Committee's Minute FRI. 14 NOV 1941  
 Assigned Lamb 10.41  
 J.D., C.L.

