

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

1 SEP 1928

Date of writing Report 19 When handed in at Local Office 4.8.28 Port of Newcastle-on-Tyne.  
 No. in Survey held at Wallsend Date, First Survey 12 Sept. 27 Last Survey 2 Aug. 1928  
 Reg. Book. on the New Steel S.S. "Caspia" (Number of Visits 47.)  
 Built at Walker By whom built Sir Wm. Armstrong Whitworth & Co. Ltd. Tons Gross 6018  
 Engines made at Wallsend By whom made Wallsend Slipway & Co. Ltd. Engine No. 845 Tons Net 3720  
 Boilers made at Wallsend By whom made Wallsend S. & E. Coy. Ltd. Boiler No. 845 When built 1928.  
 Registered Horse Power 533 Owners Port belonging to  
 Nom. Horse Power as per Rule 533 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes.  
 Trade for which Vessel is intended Carrying petroleum in bulk.

ENGINES, &c.—Description of Engines Triple expansion Revs. per minute 43  
 Dia. of Cylinders 24" x 45" x 45" Length of Stroke 48" No. of Cylinders Three No. of Cranks Three  
 Crank shaft, dia. of journals as per Rule 13.9" Crank pin dia. 14 1/4" Crank webs Mid. length breadth 23 1/2" Thickness parallel to axis 9 1/4" Thickness around eye-hole 6 3/8"  
 Intermediate Shafts, diameter as per Rule 13.24" Thrust shaft, diameter at collars as per Rule 13.9" as fitted 14 1/4"  
 Tube Shafts, diameter as fitted Screw Shaft, diameter 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 3 1/4" Thickness between bushes as per Rule 23 3/32" 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  
 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  
 If two liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft no  
 Length of Bearing in Stern Bush next to and supporting propeller 5'-5" sq. feet  
 Propeller, dia. 18'-9" Pitch 14'-0" No. of Blades 4 Material Cast Iron whether Movable yes Total Developed Surface 110  
 Feed Pumps worked from the Main Engines, No. none Diameter Stroke Can one be overhauled while the other is at work  
 Bilge Pumps worked from the Main Engines, No. two Diameter 4 1/2" Stroke 26" Can one be overhauled while the other is at work yes  
 Feed Pumps No. and size 2 @ 10" x 8" x 21" Pumps connected to the Main Bilge Line No. and size 1 @ 8" x 8" x 6" 1 @ 12" x 8" x 10"  
 How driven Steam How driven Steam  
 Ballast Pumps, No. and size 1 @ 8" x 8" x 6" Lubricating Oil Pumps, including Spare Pump, No. and size none  
 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 2 @ 2 1/2" 1 @ 3" 2 @ 7 1/2" @ feedams.  
 In Holds, &c. Carrying petroleum in bulk.  
 York Hold app. 2 @ 2 1/2" dia. Strs 2 @ 2", Coffdam 1 @ 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 @ 3 1/2" Are all the Bilge Suction Pipes in holds and tanks 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  
 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 none How are they protected  
 What pipes pass through the deep tanks none Have they been tested as per Rule  
 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 none Is it fitted with a watertight door worked from

MAIN BOILERS, &c.—(Letter for record 3.) Total Heating Surface of Boilers 4443.  
 Is Forced Draft fitted yes No. and Description of Boilers Three single ended Working Pressure 180 lbs  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes  
 IS A DONKEY BOILER FITTED? yes If so, is a report now forwarded? yes  
 PLANS. Are approved plans forwarded herewith for Shafting no Main Boilers yes Auxiliary Boilers Donkey Boilers yes  
 Superheaters General Pumping Arrangements and Oil fuel Burning Piping Arrangements yes.

SPARE GEAR. State the articles supplied:—Two each bolts and nuts for top and bottom ends and main bearings. One set coupling bolts. Set of feed & bilge pump valves. Quantity of assorted bolts nuts & iron. 2 Propeller blades. Set of for C. P. Set of for P. valves. 1 main & 1 aux check valves spindle. 1 spindle & impeller springs. 1 top & 1 bot end bearing. 1 Ecc strap. 1 main bearing bot half. 1 set valves & piston pump for each aux engine. Spares for fan & sub feed pps & oil fuel installation as per list enclosed.

The foregoing is a correct description,

FOR THE WALLSEND SLIPWAY &amp; ENGINEERING CO. LIMITED.

Manufacturer.

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W1125-0013



During progress of work in shops - - 1927 SEP. 12. 21. 26. 28. OCT. 4. 17. 27. 28. NOV. 7. 10. 24. 28. 29. DEC. 7. 8. 12. 20. 21. 23. 30.  
Dates of Survey while building During erection on board vessel - - 1928 JAN. 5. 10. 12. 17. 19. 23. 26. 27. FEB. 3. 6. 7. 9. 15. 29. MAR. 9. 20. APR. 3. 22.  
MAY. 31. JUNE. 16. 22. JULY. 2. 12. 13. 16. 27. AUG. 2.  
Total No. of visits 47

Dates of Examination of principal parts - Cylinders 10.1.28 Slides 5.1.28 Covers 5.1.28  
Pistons 20.12.27. Piston Rods 29.1.28 Connecting rods 3.2.28  
Crank shaft 20.12.27. Thrust shaft 20.12.27. Intermediate shafts 22.5.28  
Tube shaft 3.2.28 Screw shaft 3.4.28 Propellers 3.4.28  
Stern tube 3.4.28 Engine and boiler seatings 2.4.28 Engines holding down bolts 24.4.28  
Completion of fitting sea connections 2.4.28 Boilers fixed 12.4.28 Engines tried under steam 24.4.28  
Completion of pumping arrangements 24.4.28 Thickness of adjusting washers 12.4.28 P. 3/4, 5/8, 3/4, 5/8, 3/4, 5/8, F.B.H. P. 1 1/2, 5/8, 3/4.  
Main boiler safety valves adjusted 24.4.28 Identification Mark 4545.6. W.B. Thrust shaft material off steel Identification Mark 4932 W.B.  
Crank shaft material off steel Identification Marks 4931 Tube shaft, material off steel Identification Mark 4931  
Screw shaft, material off steel Identification Mark 4931 Steam Pipes, material S.D. Copper Test pressure 360 lbs. Date of Test 16.4.28  
Is an installation fitted for burning oil fuel yes. Is the flash point of the oil to be used over 150°F. yes.  
Have the requirements of the Rules for carrying and burning oil fuel been complied with yes.  
Is this machinery duplicate of a previous case no If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)

This machinery has been built under Special Survey. Materials & Workmanship good. Hydraulic tests satisfactory. The whole of the machinery has been efficiently installed & secured in the vessel and tried under steam & is in good & safe working condition & eligible in my opinion to be classed & have marks + L.M.C. 8-28. T.S. C.L. Fitted for oil fuel. 8-28. F.P. above 150°F. E.L. in the Register Book.

It is submitted that this vessel is eligible for THE RECORD.

+ L.M.C. 8-28 C.L. F.D.

Fitted for oil fuel 8-28. F.P. above 150°F.

D.P. 3/9/28.

J.

The amount of Entry Fee ... £ 6.0.0  
Special ... £ 101.13.0  
Donkey Boiler Fee ... £ 8.2.0  
Travelling Expenses (if any) £

When applied for, 28 AUG 1928  
When received, 31.8.28

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 7 SEP 1928

Assigned

+ L.M.C. 8-28. F.D. C.L. Fitted for oil fuel 8-28. F.P. above 150°F.



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