

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

12 NOV 1935

Date of writing Report 28/10/1935 When handed in at Local Office 6/11/1935 Port of NEWCASTLE ON TYNE.

No. in Survey held at Newcastle (Walker). Date, First Survey 4 Feb Last Survey 4 Nov 1935  
Reg. Book. on the Steel Linn S UMTATA (Number of Visits 107.) Tons Gross 8137 Net 5061

Built at Walker on Tyne By whom built Swan Hunter &amp; Wigham Richardson Ltd Yard No. 1480 When built 1935-11

Engines made at ditto. By whom made ditto. Engine No. 1480 When made 1935

Boilers made at ditto. By whom made ditto. Boiler No. 1480 When made 1935.

Registered Horse Power Owners Ballard King &amp; Co Ltd Port belonging to LONDON

Nom. Horse Power as per Rule 1118 1124 Is Refrigerating Machinery fitted for cargo purposes Yes. Is Electric Light fitted Yes.

Trade for which Vessel is intended S. Africa - U.K.

ENGINES, &amp;c.—Description of Engines Twin Triple Exp. with Bauer Welch Lph. Stm. Turbines Revs. per minute 120

Dia. of Cylinders 22 1/2 + 38 + 63 Length of Stroke 39 No. of Cylinders Six No. of Cranks Six

Crank shaft, dia. of journals as per Rule 12.4 as fitted 12.875 Crank pin dia. 12 7/8 Crank webs Mid. length breadth shrunk Thickness parallel to axis 8 Thickness around eye-hole 5 7/8

Intermediate Shafts, diameter as per Rule 12.1 as fitted 12.5 Thrust shaft, diameter at collars as per Rule 12.1 x 1.05 = 12.7 as fitted 330 mm = 13

Tube Shafts, diameter as per Rule as fitted Screw Shaft, diameter as per Rule 13.35 as fitted 13.75 Is the shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes as per Rule 23/32 as fitted 23/32 Thickness between bushes as per Rule 9/16 as fitted 19/32 8 7/8 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 C.L. in one piece.

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

Propeller, dia. 15 ft Pitch 14.4 ft MEAN No. of Blades 3 Material Bronze whether Moveable No Total Developed Surface 64 sq. feet

Feed Pumps worked from the Main Engines, No. NONE Diameter Stroke Can one be overhauled while the other is at work Yes.

Bilge Pumps worked from the Main Engines, No. one Diameter 5 1/2 Stroke 21 Can one be overhauled while the other is at work Yes.

INDEP. Feed Pumps No. and size 2 - 10" WATER 1 - 12" STEAM x 24" Stroke Pumps connected to the Main Bilge Line No. and size 1 - 10" x 10" x 18" 1 - 12" x 14" x 24" 5 1/2" Emergency Bilge Pump

How driven Steam Steam Steam 3 - 9" x 8" x 18" Simplex Steam

Ballast Pumps, No. and size One 12" x 14" x 24" Simplex Steam Lubricating Oil Pumps, including Spare Pump, No. and size 3 - 9" x 8" x 18" Simplex Steam

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 Four 3 1/2"

In Pump Room In Holds, &amp;c. No. 1 Hold Two 3"; No 2 Hold Two 3 1/2"; No 3 Hold Two 3"

No. 4 Hold one 3" Tunnel well one 2 1/2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size Two 14" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size Two 6"

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 Tank &amp; bilge pipes How are they protected with Steel plate covers.

What pipes pass through the deep tanks none 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 Yes worked from upper deck

MAIN BOILERS, &amp;c.—(Letter for record 5) Total Heating Surface of Boilers 14184 sq. ft.

Is Forced Draft fitted Yes No. and Description of Boilers 4 Single Ended Multi-tube Working Pressure 225 lbs/sq. in.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes.

IS A DONKEY BOILER FITTED? No. If so, is a report now forwarded? Yes.

Is the donkey boiler intended to be used for domestic purposes only Yes.

PLANS. Are approved plans forwarded herewith for Shafting Main Boilers Auxiliary Boilers Donkey Boilers

(If not state date of approval) Superheaters General Pumping Arrangements Oil fuel Burning Piping Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes.

State the principal additional spare gear supplied 2 mang. Rye Propellers (one Pat &amp; one Starb), 1 Tail Shaft, 1 pair Conn rod

Top end Brasses, 1 pair Conn Rod Bottom end Brasses, 1 Air Pump Bucket &amp; Rod, 1 Air Pump Head

Valve with valves, 1 set Bilge pump Suction Valves, 100 Condenser tubes, 1 Feed check valve

&amp; seat.

The foregoing is a correct description.

SWAN, HUNTER &amp; WIGHAM RICHARDSON, LTD.

G. J. Shundy Manufacturer.



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Lloyd's Register

Foundation

W1178-0200



1935  
Feb. 4 Mar. 18 Apr. 5. 11. 23. 30. May 2. 7. 9. 13. 15. 20. 22. 24. 27. 29. 30. June 3. 5. 6. 7. 11. 12. 13. 14. 17. 18. 19. 20. 24. 25. July 2. 3.  
During progress of work in shops - - 5. 8. 9. 11. 12. 15. 16. 17. 18. 19. 22. 23. 24. 25. 26. 30. Aug. 1. 2. 6. 7. 9. 12. 13. 16. 19. 20. 21. 23. 26. 27. 28. 29. 30. Sep. 2. 3. 4. 5. 6. 9. 10.  
Dates of Survey while building {  
During erection on board vessel - - { 13. 16. 17. 18. 19. 20. 24. 25. 27. 30. Oct. 1. 2. 3. 4. 7. 8. 9. 11. 14. 15. 18. 22. 23. 24. 25. 30. 31. Nov. 1. 4.  
Total No. of visits 107.

Dates of Examination of principal parts—Cylinders P. 19/7/35 : S. 20/8/35 Slides P. 19/7/35 : S. 20/8/35 Covers P. 19/7/35 : S. 20/8/35  
Pistons P. 12/8/35 : S. 27/8/35 Piston Rods P. 2/8/35 : S. 27/8/35 Connecting rods P. 12/8/35 : S. 27/8/35  
Crank shaft P. 16/7/35 : S. 16/7/35 Thrust shaft P. 15. 12/8/35 Intermediate shafts 17/7/35 to 12/8/35  
Tube shaft ✓ Screw shaft P. 15. 12/8/35 Spare 4/9/35 Propeller 12/8/35  
Stern tube P. 7/8/35 : S. 12/8/35 Engine and boiler seatings 29/8/35 + 7/10/35 Engines holding down bolts 18/9/35  
Completion of fitting sea connections 29/8/35  
Completion of pumping arrangements 18/10/35 Boilers fixed 7/10/35 Engines tried under steam 22/10/35 (mooring) + 30/10/35  
Main boiler safety valves adjusted 22/10/35 Thickness of adjusting washers Port F 9/16 Sup 1/2 F 11/32 Sup 1/2 F 13/32 Sup 1/2 F 3/8 Sup 5/16. A 1/16 + 1/4 A 3/8 1/4 A 11/32 1/4 A 11/32  
Crank shaft material S.M. Steel Identification Mark 5489 C.S.P Thrust shaft material S.M. Steel Identification Mark 7909 J.D  
Intermediate shafts, material S.M. Steel Identification Marks 5555 C.S.P Tube shaft, material ✓ Identification Mark ✓  
Screw shaft, material S.M. Steel Identification Mark 5555 C.S.P Steam Pipes, material S.D. Steel Test pressure 675 lb Date of Test 16/8/35 to 18/10/35  
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 No If so, state name of vessel ✓

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

The machinery has been built under special survey in accordance with the Rules, satisfactorily installed and tried under steam under full working conditions.

The materials and workmanship are good.

The vessel is eligible, in my opinion to be classed with this Society and to have record of L.M.C. 11.35. C.L.

The amount of Entry Fee ... £ 6 : 0 : 0 When applied for, 8 NOV 1935  
Special ... £ 127 : 19 : 0  
Donkey Boiler Fee ... £ ✓ : : When received, 19. 11. 35  
Travelling Expenses (if any) £ : : 20/11

a. Watt.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 15 NOV 1935

Assigned

+ L.M.C. 11.35 J.D., C.L.



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