

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report

19

When handed in at Local Office

14/5/10 25 Port of

NEWCASTLE-ON-TYNE

No. in Survey held at

Newcastle-on-Tyne

Date, First Survey

6 Aug 1924

Last Survey

1 May 1925

Reg. Book.

89297 on the

Steel Sc.

INANDA

(Number of Visits 65)

Tons

Gross

Net

Built at Newcastle

By whom built Swanburn's & Higham Richardson & Co. Ltd.

Yard No. 1259

When built 1925

Engines made at Newcastle

By whom made Wallsend Slipway & Eng. Co. Ltd.

Engine No. 856

when made 1925

Boilers made at Newcastle

By whom made Wallsend Slipway & Eng. Co. Ltd.

Boiler No. 856

when made 1925

Registered Horse Power

Owners J. J. Harrison

Port belonging to Liverpool

Nom. Horse Power as per Rule

606

Is Refrigerating Machinery fitted for cargo purposes

No.

Is Electric Light fitted

Yes

Trade for which Vessel is intended

Ocean Trade

ENGINES, &c.—Description of Engines

Inverted Quadruple Expansive

Revs. per minute

Dia. of Cylinders 26" 36" 52" 76" Length of Stroke 54" No. of Cylinders 4 No. of Cranks 4

Crank shaft, dia. of journals as per Rule 15.18" as fitted 15 1/2" Crank pin dia. 15 3/4" Crank webs Mid. length breadth 2.5" Mid. length thickness 10 1/2" shrunk Thickness parallel to axis 10 1/2" Thickness around eye-hole 8"

Intermediate Shafts, diameter as per Rule 14.46" as fitted 14 1/2" Thrust shaft, diameter at collars as per Rule 15.18" as fitted 15 1/2"

Tube Shafts, diameter as per Rule as fitted Screw Shaft, diameter as per Rule 16.02" as fitted 16 1/2" Is the shaft fitted with a continuous liner? Yes

Bronze Liners, thickness in way of bushes as per Rule .79" as fitted .78" Thickness between bushes as per Rule .59" as fitted .54" 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 shaft? No

Length of Bearing in Stern Bush next to and supporting propeller 69 1/2"

Propeller, dia. 18'-9" Pitch 17'-3" No. of Blades 4 Material Bronze whether Moveable Yes Total Developed Surface 110 sq. feet

Feed Pumps worked from the Main Engines, No. 2. Diameter 4 1/2" Stroke 27" Can one be overhauled while the other is at work? Yes

Bilge Pumps worked from the Main Engines, No. 2. Diameter 5" Stroke 27" Can one be overhauled while the other is at work? Yes

Feed Pumps No. and size Two 10 1/2" x 8" x 22" How driven Steam

Pumps connected to the Main Bilge Line No. and size One 10" x 10" x 12" Ballast One 10" x 6 1/2" x 9" Ser. Ser. One 3" x 5"

Ballast Pumps, No. and size One 7" Centrifugal - One 10" x 10" x 12" Lubricating Oil Pumps, including Spare Pump, No. and size None

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 One 5" Two 3" Two 2 1/2"

In Holds, &c. No. 1. Hold 2-3" No. 2. Hold 2-3" No. 3. Hold 2-2 1/2" Deep Tank 2-2 1/2" No. 4. Hold 2-2 1/2" Tunnel well 2 1/2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size One 15" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One 5"

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 the deep water line? Main Discharge - on 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 are carried through the bunkers? Forward Bilge Suctions

How are they protected? Wood cased

What pipes pass through the deep tanks? Bilge, Deep Tank & Ballast Suctions

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, &c.—(Letter for record Y) Total Heating Surface of Boilers 10458

Is Forced Draft fitted? No

No. and Description of Boilers 2 H.E. & 1 S.E. Cyl. Mult. 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

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. State the articles supplied:— Propeller shaft - key + nut - nuts + bolts - boss with studs, nuts + locking washers - 1000 blades - one Thompson's coupling - two pair top and one pair bottom end bearings - one air pump rod complete - one circulating pump impeller with pump shaft - set air pump valves - air pump valve seating complete with studs + guards - two feed pump valves + seats - two boiler chest valves - top end connecting rod bolts + nuts - 2 bottom end bolts + nuts - 2 main bearing bolts + nuts - two sets coupling bolts - two bilge pump valves - set of three pump suction + discharge valves - one set of valves each for Ballast pump, Donkey pump and auxiliary boiler donkey pump - slide rod complete with saddle - end - one eccentric sheave (for H.E. or S.E.) - one eccentric sheave (for 1st or 2nd S.P.) - one eccentric strap - 50 condenser tubes - 100 ferrules - one spring for each escape valve + 6 safety valve springs - 12 boiler tubes - one set piston rings + springs for each of H.E. + 1st S.P. cylinders - one set piston rings for each of 2nd S.P. and S.P. cylinders

The foregoing is a correct description,

FOR THE WALLSEND SLIPWAY & ENGINEERING CO. LIMITED.

A. Cairns

Manufacturer.

DIRECTOR.



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Lloyd's Register Foundation

W32-0011

1924
 Aug. 6. 18. 26. Sept. 4. 8. 12. 15. 18. 25. 26. Oct. 1. 7. 13. 16. 17. 30. Nov. 6. 13. 20. 21. 25. 27. 28. Dec. 1. 5. 19. 22.
 1925
 24. 29. 31. Jan. 5. 12. 16. 19. 20. 22. 23. 28. 29. Feb. 2. 3. 10. 11. 12. 13. 16. 17. 18. 24. Mar. 2. 5. 11. 12. 13. 16. 17. 23.
 24. 26. 31. Apr. 6. 7. 21. 30. May 1.

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - - -

Total No. of visits 65.

Dates of Examination of principal parts—Cylinders 20. 11. 24 Slides 22. 12. 24 Covers 20. 11. 24
 Pistons 22. 12. 24 Piston Rods 5. 12. 24 Connecting rods 22. 12. 24
 Crank shaft 28. 11. 24 Thrust shaft 25. 11. 24 Intermediate shafts 25. 11. 24
 Tube shaft ✓ Screw shaft 29. 12. 24 Propeller 22. 12. 24
 Stern tube 19. 12. 24 Engine and boiler seatings 2. 3. 75 Engines holding down bolts 2. 3. 75
 Completion of pumping arrangements 7. 4. 25 Boilers fixed 24. 3. 75 Engines tried under steam 7. 4. 25
 Main boiler safety valves adjusted 7. 4. 25 Thickness of adjusting washers 2 1/16" 3 3/8" Pat. Riv. Riv. 3/8" 5/16" 5/8"
 Crank shaft material S.M. Ingot Steel Identification Mark 6975N Thrust shaft material S.M. Ingot Steel Identification Mark 6975N
 Intermediate shafts, material S.M. Ingot Steel Identification Marks 6975N Tube shaft, material S.M. Ingot Steel Identification Mark ✓
 Screw shaft, material S.M. Ingot Steel Identification Mark 6975N Steam Pipes, material A.N. Iron Test pressure 600 lbs ✓ Date of Test 28. 1. 23. 75
 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 carrying and burning oil fuel 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 of this vessel has been constructed under special survey. The materials and workmanship are sound and good. The machinery has been efficiently installed on the vessel. The main and auxiliary engines were tried out under steam with satisfactory results. In my opinion the vessel is now eligible for notation
 - L.M.C. 4. 25. C.L. ✓

It is submitted that
 this vessel is eligible for
 THE RECORD. + LMC 5. 25. CL.

J.W.D.
 27/5/25

APR

Rice Ames.

Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 6 : - : When applied for.
 Special ... £ 105 : 6 : 20 APR 1925
 Donkey Boiler Fee ... £ : : :
 Travelling Expenses (if any) £ : : : When received.
 25/5/25

Committee's Minute

MAY 29 1925

Assigned

+ L.M.C. 5. 25

C.L.



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NEWCASTLE-ON-TYNE.

Certificate to be sent to

The Surveyors are requested not to write on or below the space for Committee's Minute.