

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 22 OCT 1924
NEWCASTLE-ON-TYNE

Date of writing Report 2nd Oct 1924 When handed in at Local Office 2nd Oct 1924 Port of NEWCASTLE-ON-TYNE

No. in Survey held at Hebburn & Newcastle Date, First Survey 11 June 1923 Last Survey 2nd October 1924
 Reg. Book. 70919 on the Steel Iron Screw Steamer Yalamba. (Number of Visits 116)

Built at Hebburn By whom built R & W Hawthorn Leslie & Co Ltd Yard No. 533 Gross Tons 8 Net Tons 4 When built 1924

Engines made at St. Peter, Newcastle By whom made do Engine No. 3571 when made 1924

Boilers made at do do By whom made do Boiler No. 3571 when made 1924

Registered Horse Power _____ Owners British India Str Nav Co Ltd Port belonging to London

Nom. Horse Power as per Rule 1376 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Iron Screw 4 Cylinder Triple Expansion.

Dia. of Cylinders 25.42 1/2 51 Length of Stroke 51 Revs. per minute 103 No. of Cylinders 8 No. of Cranks 4 each set

Dia. of Crank shaft journals 15 1/8 as fitted 15 1/8 Dia. of Crank pin 5 1/2 Crank webs 15 1/8 Mid. length breadth 22 Thickness parallel to axis 9 1/2

Diameter of Thrust shaft under collars 15 1/8 as fitted 15 1/8 Diameter of Tunnel shaft 14 3/8 as fitted 14 3/8 Diameter of Screw shaft 15 1/2 as fitted 15 1/2 Is the Screw shaft fitted with a continuous liner the whole length of the stern tube yes 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 joints burned 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 appliance fitted at the after end of the shaft to permit of it being efficiently lubricated no Length of Stern Bush 62 5/16 Diameter of Propeller 16-9

Pitch of Propeller 18-3 to 20-3 No. of Blades 3 State whether Moveable yes Total Surface 63.5 ft each

No. of Feed Pumps fitted to the Main Engines one to each set Diameter of ditto 5 1/4 Stroke 25 1/2 Can one be overhauled while the other is at work yes

No. of Bilge Pumps fitted to the Main Engines do Diameter of ditto 5 1/4 Stroke 25 1/2 Can one be overhauled while the other is at work yes

Total number and size of power driven Feed and Bilge Auxiliary Pumps one pair main feed 12 1/2 x 12 x 24, one Harbour feed 6 x 8 x 18, one stokehold bilge 8 x 8 x 8, one general service 8 x 8 x 10 & emergency 100 tons per hour

No. and size of Pumps connected to the Main Bilge Line Ballast 9 x 11 x 12, Stokehold bilge 8 x 8 x 8, General Service 8 x 8 x 10 & emergency 100 tons per hour

No. and size of Ballast Pumps One 9 x 11 x 12 No. and size of Lubricating Oil Pumps, including Spare Pump None

Are two independent means arranged for circulating water through the Oil Cooler None No. and size of suction connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 2 1/2 in Engine & Boiler room oil gutters and in Holds, &c. One 3 1/2 in No 1, Two 3 in No 2, Two 3 in No 3, Two 2 3/4 in No 4, one 3 1/2 in No 5, one 2 1/2 in tunnel well and one 2 1/2 in each cofferdam

No. and size of Main Water Circulating Pump Bilge Suctions Two, 11 No. and size of Donkey Pump Direct Suctions Two, 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 connections with the sea direct on the skin of the ship yes Are they 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 Discharge Pipes above or below the deep water line above

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 None How are they protected 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 Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes Stone system worked from upper lower platform

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 21882 sq ft

Forced Draft fitted yes No. and Description of Boilers 7 Single Ended Working Pressure 215 lbs per 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

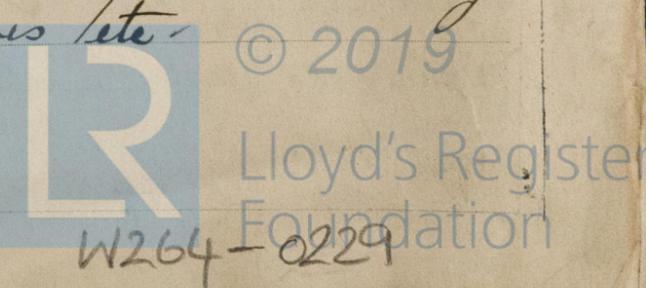
PLANS. Are approved plans forwarded herewith for Shafting yes Main Boilers yes Auxiliary Boilers None Donkey Boilers None

General Pumping Arrangements yes Oil fuel Burning Piping Arrangements yes

SPARE GEAR. State the articles supplied: As required by the rules, also one set of rings & springs for H.P. piston, 2 rings for M.P. piston, 4 rings for L.P. piston, 10 junk ring studs, 6 cylinder cover studs, 6 coning cover studs, 2 rings for H.P. piston valve, 2 top end & one bottom end bush, 2 eccentric strap bolts & nuts, 2 eccentric rod end studs, 20 condenser tubes & 50 ferrules, 6 Kinghorn valves, guards & studs, one air pump, rod & nut, one spring for main feed discharge, one spring to each of H.P. M.P. & L.P. cylinders also one for M.P. & L.P. receivers, one propeller shaft with nut, 2 propeller blades, one circulating pump impeller & shaft, one feed check valve, one set of suction & discharge valves for main feed pumps, a spring for each pump escape valve, 4 safety valve springs, 6 studs & nuts for propeller blades, 20 boiler tubes, a set of valves for each auxiliary pump, 8 burners, 6 atomizers, 6 burner nuts, 2 burner valves etc.



The foregoing is a correct description
 J. Hawthorn, Manufacturer.



1923
 June 1. 15. 18. 22. July 10. 23. 24. 30. 31. Aug. 2. 8. 10. 14. 22. 27. 29. Sep. 4. 5. 6. 10. 12. 21. 26. Oct. 1. 2. 4. 11. 15. 18. 23. 25. 30. Nov. 1. 5. 9. 13. 16. 20. 26. 27. 29. Dec. 3. 4. 7. 11. 14. 18. 19. 21. 27. 1924
 Apr. 1. 3. 7. 9. 10. 11. 15. 24. 28. 30. May 2. 7. 9. 14. 15. 20. 23. 27. June 5. 19. 20. 30. July 1. 2. 3. 7. 9. 10. 28. Aug. 8. 19. 21. 22. 28. Sept. 5. 10. 11. 18. 19. 22. 24. 25. 30. Oct. 2.

Dates of Survey while building - During progress of work in shops -
 During erection on board vessel -
 Total No. of visits 116.

Dates of Examination of principal parts - Cylinders 23/6, 31/7, 2/8, 8/8, 10/8, 22/8, 4/9, 11/10
 Slides 30/7, 8/8, 22/8, 15/10/23
 Covers 23/6, 8/8, 11/10, 18/10, 23/10, 25/10, 1/11/23
 Pistons 8/8, 10/8, 22/8, 4/9, 13/11, 20/11/23
 Rods 18/10, 30/7, 31/7, 10/8, 29/8, 4/9/23
 Connecting rods 30/7, 31/7, 10/8, 29/8, 4/9/23
 Crank shaft 11/10, 20/11, 11/12, 14/12/23
 Thrust shaft 18/10, 23/10/23, 14/11, 25/11, 26/2/24
 Tunnel shafts 11/10, 22/10, 25/10, 1/11, 13/11
 Screw shaft 18/10, 23/10, 12/11, 21/12/23
 Propeller 4/6, 4/9, 15/10, 18/10, 13/11, 26/11
 Stern tube 26/11/23, 26/2, 1/4, 10/4/24
 Engine and boiler seatings 28/7, 28/8/24
 Engines holding down bolts 8/8, 15/8, 19/8, 28/9/24
 Completion of pumping arrangements 12/9/24
 Boilers fixed 15/8, 19/8, 28/8/24
 Engines tried under steam 11/9/24
 Completion of fitting sea connections 10/5, 1/7, 3/7/24 and in Dry Dock 12/9/24
 Stern tube 15/5, 1/7, 3/7/24
 Screw shaft and propeller 10/7 and in dry dock 12/9/24
 Main boiler safety valves adjusted 10/9/24
 Thickness of adjusting washers Forward Br. 18/32 - 38" Middle Port 5/16 - 7/16" Mid Centre 11/32 - 3/8" Mid Star 1/4 - 13/32" Aft Port 3/8 - 3/8" Aft Centre 3/8 - 11/32" Aft Star 3/8 - 11/32"

Material of Crank shaft S. M. Steel Identification Mark on Do. 4347D. MR.
 Material of Thrust shaft S. M. Steel Identification Mark on Do. 6715 N. G.M.
 Material of Tunnel shafts S. M. Steel Identification Marks on Do. 6715 N. G.M.
 Material of Screw shafts S. M. Steel Identification Marks on Do. 6715 N. G.M.
 Material of Steam Pipes Steel & Copper Test pressure 645 + 430 lbs per sq. in. Date of Test 8/2, 14/2, 4/3, 8/3, 20/3 2/4 7/4, 9/4, 24/4, 30/4 9/5, 14/5 27/5, 9/7, 22/8/24
 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.)
 The machinery of this vessel has been built under special survey the materials and workmanship are of good quality, it has been securely fitted on board and a full speed trial run.

In my opinion the machinery of this vessel is now eligible for record LMC 10/24 (in red) and fitted for oil fuel burning, flash point above 150°F.

Forging & Castings reports, steel test invoices, reports on High Lift Safety valves, fuel heaters & Turnbolls self closing sluice valves now forwarded.

It is submitted that this vessel is eligible for THE RECORD. + LMC 10.24. FD. CL Fitted for oil fuel 10.24. FP above 150°F.

George Hurdock
 Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 6 : 0
 Special ... £ 134 : 8
 Donkey Boiler Fee ... £
 Travelling Expenses (if any) £

Committee's Minute FRI, 24 OCT 1924
 Assigned + LMC 10.24. FD. CL Fitted for oil fuel 10.24 F.P. above 150°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.

CERTIFICATE WRITTEN



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Date of writing
 No. in Survey Reg. Book.
 90919 on the
 Master
 Engines made at
 Boilers made at
 Nominal Horse
 MULTITUB
 Manufacturers
 Total Heating S
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