

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 15 JAN 1945

Date of writing Report 17 - 11 - 1944 When handed in at Local Office

Port of BRISBANE

No. in Survey held at BRISBANE Date, First Survey 26 - 5 - 42 Last Survey 14 - 11 - 1944
Reg. Book. (Number of Visits 77)

on the SINGLE SCREW STEAMER "RIVER FITZROY"

Gross 5107.9
Net 2788.21
Tons

Built at BRISBANE By whom built EVANS DEAKIN & CO. LTD. Yard No. 12. When built 1944

Engines made at ROCKLEA, BRISBANE. By whom made COMMONWEALTH GOVT MARINE ENGINE WORKS. Engine No. when made 1944

Boilers made at SYDNEY, N.S.W. By whom made BABCOCK & WILCOX LTD. Boiler No. when made 1944

NOMINAL Registered Horse Power RECIPIROTOR 493 TURBINE 73 Owners COMMONWEALTH OF AUSTRALIA. Port belonging to BRISBANE

Nom. Horse Power as per Rule 566 580 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES

Trade for which Vessel is intended INTERNATIONAL

ENGINES, &c.—Description of Engines TRIPLE EXPANSION WITH BAUER-NACH EXHAUST TURBINE Revs. per minute 85

Dia. of Cylinders 24 1/2, 40 1/2 & 67 Length of Stroke 48 No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 14.078 as fitted 14 1/8 Crank pin dia. 14 1/8 Crank webs Mid. length breadth 2 1/4 shrunk Thickness parallel to axis 9 Thickness around eye-hole 6 1/4

Intermediate Shafts, diameter as per Rule 13.4 as fitted 13 1/2 Thrust shaft, diameter at collars as per Rule 14.078 as fitted 14 1/4

Tube Shafts, diameter as per Rule as fitted Screw Shaft, diameter as per Rule 14.825 as fitted 15 1/8 Is the tube screw shaft fitted with a continuous liner YES

Bronze Liners, thickness in way of bushes as per Rule 7.47 as fitted 25/32 Thickness between bushes as per Rule 56 as fitted 19/32 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 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

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 If so, state type Length of Bearing in Stern Bush next to and supporting propeller 5' 0 1/2"

Propeller, dia. 17' 0" Pitch 16' 9" VARIABLE AVERAGE No. of Blades 4 Material BRONZE whether Moveable YES Total Developed Surface 102 sq. feet

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

Bilge Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work

Feed Pumps No. and size 2 - 12" x 8" x 22" GEN. SERVICE. 1 - 10 1/2" x 7" x 21" Pumps connected to the No. and size 2 - BILGE 9" x 10" x 24". BALLAST 10 1/2" x 12" x 24"

How driven DIRECT ACTING STEAM DRIVEN. Main Bilge Line How driven DIRECT ACTING STEAM DRIVEN.

Ballast Pumps, No. and size ONE GEN. SERVICE 10 1/2" x 7" x 21" Lubricating Oil Pumps, including Spare Pump, No. and size TWO - 8" x 9" x 18"

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, ENGINE ROOM - TWO 3", THRUST RECESS - ONE 2 1/2". BOILER ROOM - TWO 3"

In Holds, &c. ONE 3" PORT AND ONE 3" STARBOARD IN ALL HOLDS (Nos 1, 2, 3, 4 & 5). ONE 2 1/2" PORT & STARBOARD SIDES OF

COFFERDAMS EXCEPT COFFERDAM BETWEEN FOREPEAK & NO. 1. D.B. TANK WHICH HAS ONE 2 1/2" SUCTION. ONE 2 1/2" IN TUNNEL WELL.

Main Water Circulating Pump Direct Bilge Suctions, No. and size ONE, 11" 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 ALL VALVES (EXCEPT BOILER & EVAP BLOW DOWN COCKS)

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 BOTH

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 STEAM & EXHAUST TO FORWARD DECK. How are they protected 5/16" STEEL PLATE CASING.

What pipes pass through the deep tanks 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 YES Is it fitted with a watertight door YES worked from ENG. ROOM AT LEVEL OF 2ND DECK.

MAIN BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers 7212 SQUARE FEET

Is Forced Draft fitted YES No. and Description of Boilers TWO BABCOCK & WILCOX WATER TUBE Working Pressure 240 LBS

IS A REPORT ON MAIN BOILERS NOW FORWARDED? YES (S/P. 220/6)

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

PLANS. Are approved plans forwarded herewith for Shafting No. Main Boilers 26-8-41. Auxiliary Boilers Donkey Boilers

(If not state date of approval) SEE SECRETARY'S LETTER E28. 10-2-42. FORWARDING COPIES OF APPROVED PLANS FOR S.S. "BURNSIDE"

Superheaters 30-8-41. General Pumping Arrangements 1-6-42 Oil fuel Burning Piping Arrangements 3-7-41.

SPARE GEAR. State the articles supplied:— AS PER RULES (See list forwarded with Syd Rpt 19252 on SS "RIVER CLARENCE".)

The foregoing is a correct description,

W. Rodgers, Manager Commonwealth
Govt. Marine Engine Works, Brisbane, Queensland.



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Lloyd's Register
Foundation

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26.5.42, 27.5.42, 1.6.42, 12.11.42, 1.1.43, 6.4.43, 24.5.43, 25.5.43, 10.6.43, 16.6.43, 22.6.43, 9.7.43, 15.7.43, 19.7.43, 24.8.43
 1.9.43, 17.9.43, 29.9.43, 9.10.43, 19.10.43, 22.11.43, 29.11.43, 3.12.43, 13.12.43, 24.12.43, 28.12.43, 31.12.43, 25.1.44
 10.2.44, 1.3.44, 3.3.44, 6.3.44, 8.3.44, 13.3.44, 17.3.44, 5.4.44, 14.4.44, 19.4.44, 27.4.44,
 10.5.44, 15.5.44, 22.5.44, 23.5.44, 24.5.44, 31.5.44, 2.6.44, 6.6.44, 8.6.44, 9.6.44, 16.6.44, 20.6.44, 24.6.44, 26.6.44,
 29.6.44, 4.7.44, 10.7.44, 13.7.44, 13.7.44, 19.7.44, 26.7.44, 7.8.44, 18.8.44, 24.8.44, 28.8.44, 8.9.44, 18.9.44, 25.9.44, 29.9.44
 4.10.44, 5.10.44, 13.10.44, 16.10.44, 25.10.44, 30.10.44, 7.11.44, 12.11.44, 14.11.44.

Dates of Survey while building
 During progress of work in shops - -
 During erection on board vessel - - -
 Total No. of visits 77.

Dates of Examination of principal parts—Cylinders 22.6.43 To 19.10.43 Slides 29.11.43 Covers 19.10.43
 Pistons 13.12.43 Piston Rods 24.12.43 Connecting rods 25.1.44
 Crank shaft 17.8.44 Thrust shaft 28.2.44 Intermediate shafts 3.12.43
 Tube shaft ✓ Screw shaft 3.12.43 Propeller 17.4.44
 Stern tube 13.4.44 Engine and boiler seatings 10.5.44 Engines holding down bolts 20.6.44

Completion of fitting sea connections 5.4.44
 Completion of pumping arrangements 8.9.44 Boilers fixed 18.9.44 Engines tried under steam 29.9.44
 Main boiler safety valves adjusted 29.9.1944. Thickness of adjusting washers STARB° BOILER .355" " .50" " .693"
 PORT BOILER. INBOARD .594" OUTBOARD .569" SUPERHEATER .666"

Crank shaft material MILD STEEL Identification Mark L.P. LLOYDS 178. J.E.N. 2.4.43
 Thrust shaft material MILD STEEL Identification Mark 3/16" B.P.F.
 Intermediate shafts, material MILD STEEL Identification Marks 3.12.43. J.E.N.
 Tube shaft, material ✓ Identification Mark ✓
 Screw shaft, material MILD STEEL Identification Mark 3.12.43. J.E.N.
 Steam Pipes, material MILD STEEL Test pressure 720 LBS. ✓ Date of Test 23.5.44 To 26.7.44

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 the use of oil as fuel been complied with YES. ✓
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo No. ✓ If so, have the requirements of the Rules been complied with ✓
 Is this machinery duplicate of a previous case YES. ✓ If so, state name of vessel "RIVER BURDEKIN" ✓

General Remarks (State quality of workmanship, opinions as to class, &c.)
 THE MACHINERY OF THIS VESSEL HAS BEEN BUILT UNDER SPECIAL SURVEY IN ACCORDANCE WITH THE RULES AND APPROVED PLANS. THE MATERIALS AND WORKMANSHIP ARE GOOD. THE INSTALLATION HAS BEEN FITTED ON BOARD IN AN EFFICIENT MANNER, TESTED UNDER WORKING CONDITIONS AND FOUND SATISFACTORY.
 THE MACHINERY IS NOW ELIGIBLE IN OUR OPINION TO BE CLASSED IN THE SOCIETY'S REGISTER BOOK WITH RECORD OF L.M.C 11,44, T.S. (C.L) AND THE NOTATIONS OF 2 W.T. BOILERS, 240 LBS. (SPT 220 LBS.) F.D., ONE L.P. TURBINE WITH D.R. GEARING AND HYDRAULIC COUPLING, FITTED FOR OIL FUEL 11,44, F.P. ABOVE 150°F.

Certificate to be sent to SYDNEY, N.S.W.

The amount of Entry Fee ... £ 7 : 10 : } When applied for,
 Special ... £ 206 : 12 : } 19.
 Donkey Boiler Fee ... £ ✓ : : } When received,
 Travelling Expenses (if any) £ 50 : 0 : } 19.

J.G. North & J. McEwen
 Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute FRI. 26 JAN 1945
 Assigned +LMC 11,44 F.D. C.L.
 FITTED FOR OIL FUEL 11,44 FLASH POINT ABOVE 160° F. 2 W.T.B. 240LB (Spt. 220LB)

