Rpt. 4.

REPORT ON MACHINERY.   No. 803

Received at London Office   SAT. JAN. 21 1922

Date of writing Report 24 Novr 1921 When handed in at Local Office Novr 24th 1921 Port of ADELAIDE S.A.

No. in Reg. Book.   Survey held at Osborne Pt Adelaide. Date, First Survey 19 Novr 1919 Last Survey Novr 22nd 1921. (Number of Visits 69)

on the S. single screw Steamer "EURIMBLA" Yard No 1.   Tons { Gross 3350.64 / Net 1915.89 }

Master ____ Built at Port. Adelaide By whom built POOLE & STEELE.   When built 1921 - 11Mo

Engines made at PORT ADELAIDE By whom made POOLE & STEELE   when made 1921.

Boilers made at RENFREW. Scotland By whom made Babcock & Wilcox Ltd   when made 1920.

Registered Horse Power ____ Owners Commonwealth Gort Line Port belonging to Sydney N S Wales

Nom. Horse Power as per Section 28 516. Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Vertical Triple Expansion No. of Cylinders 3. No. of Cranks 3.

Dia. of Cylinders 26" 41" 68" Length of Stroke 45" Revs. per minute 75 Dia. of Screw shaft as per rule 13.82 as fitted 14.5 Material of screw shaft M. Steel

Is the screw shaft fitted with a continuous liner the whole length of the stern tube Two Lengths Is the after end of the liner made water tight 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 an Canting two liners are fitted, is the shaft lapped or protected between the liners ___ Length of stern bush 5 ft 1" and forced with Red Lead

Dia. of Tunnel shaft as per rule 12.5 as fitted 12.5 Dia. of Crank shaft journals as per rule 13.13 as fitted 13.28 Dia. of Crank pin 13.25 Size of Crank webs 8½ x 27½ Dia. of thrust shaft under collars 13.25 Dia. of screw 16f 6 Pitch of Screw 16ft 9in No. of Blades 4 State whether moveable No Total surface 85 ☐

No. of Feed pumps 2. Diameter of ditto 7" Stroke 24" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2. Diameter of ditto 3½ Stroke 24" Can one be overhauled while the other is at work Yes

No. of Donkey Engines 4. Sizes of Pumps 10½ x 7 x 21. 10½ x 12½ x 21 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Three 3½ Stokehold Two 3½ In Holds, &c. Forepeak one 3½ No 1 Hold two 3½ No 2 Hold two 3½ No 3 Hold two 3½ No 4 Hold two 3½ Tunnel well one 2½"

No. of Bilge Injections 1 sizes 8" Connected to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 3½

Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible Suction fitted on plate box

Are all connections with the sea direct on the skin of the ship Yes Main. Are they Valves or Cocks Valves except Evaporator Ash & blow down Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates not all Are the Discharge Pipes above or below the deep water line Main Discharge below others 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 No 1 & 2 Holds & Fore plush Bilge Suctions How are they protected Wooden Limber boards

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Engine room middle platform

BOILERS, &c.—(Letter for record S.) Manufacturers of Steel D. Colville & Sons Ltd Scotland.

Total Heating Surface of Boilers 5289 Is Forced Draft fitted Assisted Yes No. and Description of Boilers 3 Babcock & Wilcox water tube

Working Pressure 185 lbs Tested by hydraulic pressure to 360 lbs. Date of test 18.4.21 No. of Certificate ___

Can each boiler be worked separately Yes. Area of fire grate in each boiler 84.5 ☐ No. and Description of Safety Valves to each boiler 2 Spring Loaded Area of each valve 9.62 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 2 ft. Mean dia. of Drums 4.0 Length 13.3½ Material of shell plates M. Steel

Thickness 7/32 + 1" Range of tensile strength 28 to 32 Tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D.R. Lap

long. seams 7.25 Shell 3L Diameter of rivet holes in long. seams 27/32" Pitch of rivets 3 3/64. Lap of plates or width of butt straps 4".

Per centages of strength of longitudinal joint rivets 75.5 plate 75.9 Working pressure of shell by rules 210 lbs Size of manhole in shell 11" x 15"

Size of compensating ring 28¾ x 22 x 7/8 No. and Description of Furnaces in each boiler ___ Material ___ Outside diameter ___

Length of plain part top/bottom ___ Thickness of plates crown/bottom ___ Description of longitudinal joint ___ No. of strengthening rings ___

Working pressure of furnace by the rules ___ Combustion chamber plates: Material ___ Thickness: Sides ___ Back ___ Top ___ Bottom ___

Pitch of stays to ditto: Sides ___ Back ___ Top ___ If stays are fitted with nuts or riveted heads ___ Working pressure by rules ___

Material of stays ___ Area at smallest part ___ Area supported by each stay ___ Working pressure by rules ___ End plates in Drum steam space:

Material STEEL Thickness 13/16 Pitch of stays None How are stays secured ___ Working pressure by rules ___ Material of stays ___

Area at smallest part ___ Area supported by each stay ___ Working pressure by rules ___ Material of Front plates at bottom ___

Thickness ___ Material of HEADERS Steel Thickness 7/32 Greatest pitch of stays ___ Working pressure of plate by rules ___

Diameter of tubes 1 3/8 3 3/4 Pitch of tubes 2 7/8 x 3 3/4 Material of tube plates steel Thickness: Front ___ Back ___ Mean pitch of stays ___

Pitch across wide water spaces ___ Working pressures by rules ___ Girders to Chamber tops: Material ___ Depth and

Thickness of girder at centre ___ Length as per rule ___ Distance apart ___ Number and pitch of stays in each ___

Working pressure by rules ___ Steam dome: description of joint to shell ___ % of strength of joint ___

Diameter ___ Thickness MUD DRUMS of shell plates 3/4 Material steel Description of longitudinal joint welded Diam. of rivet holes ___

Pitch of rivets ___ Working pressure of shell by rules ___ Crown plates ___ Thickness ___ How stayed ___

SUPERHEATER. Type None. Date of Approval of Plan ___ Tested by Hydraulic Pressure to ___

Date of Test ___ Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler ___

Diameter of Safety Valve ___ Pressure to which each is adjusted ___ Is Easing Gear fitted ___

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IS A DONKEY BOILER FITTED? _No_.   If so, is a report now forwarded? —

SPARE GEAR. State the articles supplied :— Connecting Rod Top End Bolts (2 off) Bottom end Bolts & Nuts (2 off) Crank & tunnel Shaft Coupling Bolts & nuts (3 off each) Main bearing Bolts 3 One Set of Suction & Discharge Valves: One Set of Piston rings: One Set of Bucket rings for each of the following pumps: Bilge pumps. Feed Pumps: General Service, Donkey Feed and Ballast Pumps. One Spare Propeller: One Set of Piston rings for H.P. & L.P. Pistons 1 H.P. piston Valve. One Set of Air Pumps Valves. 42 Spare Boiler tubes. One Set Special Fire bricks. Two main & Donkey Check valves. 12 Handhole fittings for Headers. Two Safety Valve Springs 1 Set of Spares for Automatic feed regulator 1 Set of Firebars.

The foregoing is a correct description,
For and on behalf of
POOLE & STEEL, LTD.
Arthur H Poole   Manufacturer.

Dates of Survey while building	During progress of work in shops	1919 Nov 12, Trials Dec 41. Total 3.	Total 33
	During erection on board vessel	1920 Jan 4, Feb 1, March 1, April 2, May 2, June 4, July 3, Aug 4, Sept 5, Oct 4, Nov 2, Dec 4
		1921 Jan 4, Feb 1, March 2, April 3, May 3, June 3, July 3, Aug 3, Oct 4, Nov 5. Total 33
	Total No. of visits	From Nov 19 1919 to 23-11-21. Total Visits 69	Is the approved plan of main boiler forwarded herewith ✓

" " " donkey " " " ✓

Dates of Examination of principal parts—Cylinders 28.2.21. Slides 10.3.21. Covers 10.3.20 Pistons 12.6.21. Rods 2.6.21.
Connecting rods 11-3.21. Crank shaft 27.8.20 Thrust shaft 3.8.21. Tunnel shafts 2.9.20 Screw shaft 12.4.21 Propeller 15.4.21
Stern tube 22.2.21. Steam pipes tested 5.8.19 - 11/21 Engine and boiler seatings 14.2.21. Engines holding down bolts 12.9.21.
Completion of pumping arrangements 30.4.21. Boilers fixed 28.10.21. Engines tried under steam 4-11/21 & 18.11/21.
Completion of fitting sea connections 12.5.21. Stern tube 20.2.21. Screw shaft and propeller 15.4.21.
Main boiler safety valves adjusted 16.11.21. Thickness of adjusting washers P'. Boiler Stbd 844 Pt 767 Centre Boiler 767 778 Stbd Pt 844
Material of Crank shaft M. Steel Identification Mark on Do. H.P. No. 1 L.P. No. 2 Material of Thrust shaft M. Steel Identification Mark on Do. No. 4.
Material of Tunnel shafts M. Steel Identification Marks on Do. No. 5,6,7,8,9 Material of Screw shafts M. Steel Identification Marks on Do. No. 10.
Material of Steam Pipes Copper Solid drawn. Test pressure 375 lbs ☐ inch.
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 Section 49 of the Rules been complied with —
Is this machinery duplicate of a previous case _Yes_. If so, state name of vessel "Emita" "Erriba" & others for Same Owners

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

The machinery of this vessel has been built under Special Survey of Good materials and workmanship and in accordance with the Rules and approved Plans. The machinery & Boilers have been board in an Efficient manner tried under Steam and are now eligible for Record of ✠ L.M.C. 11-21. Subject to W.T. Boilers being Surveyed annually.

It is submitted that
this vessel is eligible for
THE RECORD.   ✠ L.M.C. — 11.21.

F.D.   C.L.   Subject to the Water Tube Boiler   This vessels machinery Constructed
    ✠ L.   being surveyed annually.   from Same Standard Plans as all
23/1/22   ✓   185 lbs   E class viz. "Emita" "Eromanga" "Echuca"
                                      "Enoggera" "Erriba"
                                                  A C Heran

The amount of Entry Fee ... £ 6 - 0 :	When applied for,	
£126 less £34.16.0 Special ... £ 91 - 4 :	24 Nov 1921	
Charged at Gibsons Donkey Boiler Fee ... £ - :	When received,	_A A Fairweather_
Bydley for fees Travelling Expenses (if any) £ 3 : 18 3	7.2. 19 23	Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute   FRI. FEB 3 1922
Assigned   ✠ L.M.C. 11.21
              F.D. C.L.
              Inspect.

CERTIFICATE WRITTEN.

Surveyor's Signature