

REPORT ON MACHINERY.

No. 846
TUE MAY 8 1923

Received at London Office

Date of writing Report March 23 1923 When handed in at Local Office March 23 1923 Port of Adelaide S. Australia
 No. in Survey held at Port Adelaide S.A. Date, First Survey Feb. 14 1922 Last Survey March 20 1923
 Reg. Book. on the Self Serv. Steamer "ERINA" Yard No. 3 (Number of Visits 26)

Master ✓ Built at Port Adelaide By whom built Doole & Steel Ltd Tons { Gross 3344.84
 Net 1908.84
 When built 1923 190
 Engines made at Port Adelaide By whom made Doole & Steel Ltd when made 1923
 Boilers made at Renfrew By whom made Babcock & Wilcox Ltd when made 1923
 Registered Horse Power 576 Owners Commonwealth Govt. of Australia Port belonging to
 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 S.C. Engine No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 25, 41, 68 Length of Stroke 45 Revs. per minute 65 Dia. of Screw shaft as per rule 13.32 Material of 1/2" steel
 as fitted 14.5 screw shaft

Is the screw shaft fitted with a continuous liner the whole length of the stern tube in two pieces 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 ends telescoped If two
 liners are fitted, is the shaft lapped or protected between the liners

Length of stern bush 5 ft 1"
 Dia. of Tunnel shaft as per rule 12.5 Dia. of Crank shaft journals as per rule 13.13 Dia. of Crank pin 13.25 Size of Crank webs 8 1/2 x 25 Dia. of thrust shaft under
 collars 13.25 Dia. of screw 16.6 Pitch of Screw 16.9 No. of Blades 4 State whether moveable no Total surface 85 sq ft

No. of Feed pumps 2 Diameter of ditto 4" Stroke 24" Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 3 1/2" Stroke 24" Can one be overhauled while the other is at work yes
 No. of Donkey Engines 4 Sizes of Pumps 10 1/2 x 7 1/2, 10 1/2 x 12 1/2 x 2" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Three of 3 1/2" Strokehold two of 3 1/2" Dia. In Holds, &c. Four of 3 1/2" Strokehold two of 3 1/2" Dia.
102 Hold Two of 3 1/2" 103 Hold Two of 3 1/2" 104 Hold Two of 3 1/2" 105 Hold One of 2 1/2" Dia.

No. of Bilge Injections 1 sizes 8" Connected to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size yes 3 1/2"

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 yes
 Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks Valves How upon 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
 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 101 & 2 Holds & four pump Bilge How are they protected Under timber 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

BOILERS, &c.—(Letter for record) Manufacturers of Steel D. Colville & Sons; Stewart & Lloyd for Tubes

Total Heating Surface of Boilers 5289 Is Forced Draft fitted yes No. and Description of Boilers 3 Babcock & Wilcox water
 Working Pressure 185 190 lbs Tested by hydraulic pressure to 350 lbs Date of test 22.9.22 No. of Certificate 46

Can each boiler be worked separately yes Area of fire grate in each boiler 84.5 sq ft No. and Description of Safety Valves to
 each boiler 2 Spring loaded Area of each valve 9.62 Pressure to which they are adjusted 190 lbs Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 24" Mean dia. of Drums 4-0 Length 13.3 1/2 Material of shell plates 1/2" steel
 Thickness 3/16" Range of tensile strength 28 to 32 Tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams 2 R Lap
 long. seams T.A.S. Butt 5 Diameter of rivet holes in long. seams 3/32" Pitch of rivets 3 3/4" Lap of plates or width of butt straps 4"
 Per centages of strength of longitudinal joint 76.5 Working pressure of shell by rules 210 lbs Size of manhole in shell 16" x 11"
 Size of compensating ring 28 1/2 x 22 1/2 x 3/8 No. and Description of Furnaces in each boiler Material Outside diameter

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

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 space:
 Material 1/2" 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 1/2" steel Thickness 3/16" Greatest pitch of stays Working pressure of plate by rules

Diameter of tubes 1 1/2" Pitch of tubes 2 1/2 x 2 1/4" Material of tube plates 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 of 1 1/2" Material 1/2" 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

004162-004978-0082

IS A DONKEY BOILER FITTED? *no*If so, is a report now forwarded? *✓*

SPARE GEAR. State the articles supplied:—*Connecting rods, tops and bolts (2) Bottom and Bolt & nuts (2)*
Crank & tunnel shaft coupling bolts & nuts (3 of each) Main bearing bolts & nuts (3 of each)
One set of suction & discharge valves; One set of piston rings; One set of breast rings;
for each of the following pumps. Edge Feed. General service, Donkey feed &
Ballast; One spare propeller. One set of piston rings for H.P. I.P. & L.P. Pistons
One H.P. piston valve; One set of air pump valves; 42 spare boiler tubes. One set of
Special fire bricks; Two main & Donkey check valves; 12 Manhole fittings for headers; Two safety
valve springs. One set of spars for Automatic feed regulator. One 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 -- 1922
 During erection on board vessel -- 1922
 Total No. of visits -- 56

Is the approved plan of main boiler forwarded herewith *✓*

" " " donkey " " *✓*

" " " " " *✓*

Dates of Examination of principal parts—Cylinders *17.2.22* Slides *17.2.22* Covers *17.2.22* Pistons *24.2.22* Rods *29.8.22*
 Connecting rods *17.2.22* Crank shaft *24.10.22* Thrust shaft *15.2.23* Tunnel shafts *15.2.23* Screw shaft *24.9.22* Propeller *20.10.22*
 Stern tube *19.7.22* Steam pipes tested *20.11.22* Engine and boiler seatings *5.1.23* Engines holding down bolts *15.19.2/23*
 Completion of pumping arrangements *14.3.23* Boilers fixed *20.4.22* Engines tried under steam *15.3.23*
 Completion of fitting sea connections *29.10.22* Stern tube *19.10.22* Screw shaft and propeller *20.10.22*
 Main boiler safety valves adjusted *12.3.22* Thickness of adjusting washers *12.3.22* Identification Mark on Do. *12.3.22*
 Material of Crank shaft *M. Steel* Identification Mark on Do. *12.3.22* Material of Thrust shaft *M. Steel* Identification Mark on Do. *12.3.22*
 Material of Tunnel shafts *M. Steel* Identification Marks on Do. *12.3.22* Material of Screw shafts *M. Steel* Identification Marks on Do. *12.3.22*
 Material of Steam Pipes *Steel drawn approx. 1.5.5.104 M. Steel* Test pressure *390 lbs 20.11.22 11.12.22*

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 *"KORIMOLA" EUNARRA & OTHERS*

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

The machinery of this vessel has been built under special survey of good material and workmanship, and in accordance with the Rules & regulations, and approved plans. Machinery and Boilers has been fixed on board in an efficient manner, tried under steam and found satisfactory; and are now eligible for the class of L.M.C. (subject to the water tube boilers being surveyed annually.)

It is submitted that
 this vessel is eligible for
 THE RECORD. + LMC 3.23. FD. CL.
 3 Water Tube Boilers. 185 lbs.

Ans. JWD.
 10/5/23.

The amount of Entry Fee ... £ 6 : 0 :
 Special ... £ 101 : 18 :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ 3 : 2 : 6

Committee's Minute

Assigned

FRI. 3 AUG. 1923

+ Lmb 3.23

2D. Cl.

CERTIFICATE WRITTEN

Ans. JWD.
 10/5/23.
 Engineer Surveyor to Lloyd's Register of Shipping.



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