

REPORT ON MACHINERY.

No. 846
TUE. MAY. 8 1923

Received at London Office

Date of writing Report ²⁴ March 23 1923. When handed in at Local Office ²⁴ 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 Steel Screw Steamer "ERINA" Yard 1103 (Number of Visits 26)
 Master ✓ Built at Port Adelaide By whom built Doole & Steel Ltd Tons { Gross 3344.84
 Engines made at Port Adelaide By whom made Doole & Steel Ltd when made 1923. Net 1908.84
 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 13.22 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 Indo. Glass paper 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 x 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 pumps: one of 3 1/2" 101 Hold. 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 except 104 operator cock and
 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 Man.
 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 platform

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 13-2 1/2 Material of shell plates M. Steel
 Thickness 3/2 & 1" 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. S Diameter of rivet holes in long. seams 3 1/2" Pitch of rivets 3 3/4" Lap of plates or width of butt straps 4"
 Per centages of strength of longitudinal joint rivets 78.5 Working pressure of shell by rules 210 lbs Size of manhole in shell 16" x 11"
 plate 72.8
 Size of compensating ring 28 1/2 x 22 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 _____ space: _____
 Material M. 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 _____ Thickness 1 1/2" Greatest pitch of stays _____ Working pressure of plate by rules _____
 Diameter of tubes 3 1/2" Pitch of tubes 2 1/2 x 2 1/2 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 Man. drums 3 1/2" Material M. 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 _____



004957-004978-0082

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 Bolted 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 Fuelbars.

For and on behalf of
POOLE & STEEL, LDB:
Arthur H Poole

Manufacturer.

Dates of Survey while building
During progress of work in shops - - - 1922 July 17. 24. Mar. 3. 10. 17. 28 April. 6. 18. 27 May. 3. 16. 23 30 June. 6. 23 July 1-11-19. 31 Aug. 8. 16. 28
During erection on board vessel - - - 1922 Sept. 5. 12. 19. 27 Oct. 7. 13. 29 Nov. 3. 7. 15. 23 Dec. 5. 11. 22 1923 Jan. 5. 12. 17. 22 26 Feb. 1. 6. 12. 15. 19 22. 27 Mar. 5. 7. 12. 8. 14. 15
Total No. of visits - 56
Is the approved plan of main boiler forwarded herewith Yes
" " " donkey " " Yes

Dates of Examination of principal parts - Cylinders 27. 2. 21. 23. 4. 5. 1923 Slides 20. 6. 22. 29. 8. 22 Covers 17. 2. 22 Pistons 24. 2. 22 Rods 29. 8. 22
Connecting rods 10. 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. 9. 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 21. 10. 22 Material of Thrust shaft M. Steel Identification Mark on Do. Lloyds No. 46
Material of Crank shaft M. Steel Identification Mark on Do. 21. 10. 22 Material of Screw shafts M. Steel Identification Marks on Do. Lloyds No. 46
Material of Tunnel shafts M. Steel Identification Marks on Do. 21. 10. 22 Test pressure 390 lbs 20. 11. 22 - 11. 12. 22.
Material of Steam Pipes Other than copper & brass 23. 5. 1923 Is the flash point of the oil to be used over 150° F. Yes

Have the requirements of Section 49 of the Rules been complied with Yes
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.

AWD
10/5/23

W. J. Fairclough
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 6 : 0 :
Special ... £ 101 : 18 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ 3 : 2 :
Committee's Minute FRI. 3 AUG. 1923
Assigned + Lmb 3. 23
30. Cl

Certificate (if required) to be sent to
The Surveyors are requested not to write on or below the space for Committee's Minute.

CERTIFICATE VERIFIED



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