

REPORT ON MACHINERY.

No. 3280. (a)

Date of writing Report 22nd Aug 1921 When handed in at Local Office

Received at London Office

19

Port of

MELBOURNE

WED. 12 OCT. 1921

No. in Survey held at Castlemaine & Melbourne

Date, First Survey 10th Feb 1920 Last Survey 22nd Aug 1921.

Reg. Book.

(Number of Visits 57.)

on the S.S. "EUDUNDA"

Master Built at SYDNEY N.S.W. By whom built Cockatoo Naval Dockyard.

Tons } Gross
Net
When built 1920

Engines made at Castlemaine By whom made Thompson & Co (Castlemaine) Pty Ltd when made 1921

Boilers made at Renfrew (partly) completed at Melbourne. By whom made Babcock & Wilcox Ltd when made 1921

Registered Horse Power Owners Commonwealth Government Line Port belonging to Port Adelaide

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 25", 41" & 68" Length of Stroke 45" Revs. per minute 65 Dia. of Screw shaft as per rule 13.82 as fitted 14 1/2" Material of screw shaft Mild steel

Is the screw shaft fitted with a continuous liner the whole length of the stern tube In three pieces Is the after end of the liner made water tight

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 Fits tightly If two

liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 5'-0 1/2"

Dia. of Tunnel shaft as per rule 12.5 as fitted 12 1/2 Dia. of Crank shaft journals as per rule 13.13 as fitted 13 1/4 Dia. of Crank pin 13 1/4 Size of Crank webs 8 3/4 by 25 1/2 Dia. of thrust shaft under

collars 13 1/4 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 7 Stroke 21 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Main 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 & 7 x 21, 10 1/2 & 12 1/2 x 21 No. and size of Suctions connected to both Bilge and Donkey pumps

in Engine Room Three 3 1/2" Stokehold - Two 3 1/2" In Holds, &c. Forepeak - One 3 1/2" No 1 Hold - Two 3 1/2"

No 2 Hold - Two 3 1/2", No 3 Hold - Two 3 1/2", No 4 Hold - Two 3 1/2" Tunnel Well - One 2 1/2"

No. of Bilge Injections 1 sizes 8" Connected to condenser, or 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

Are all connections with the sea direct on the skin of the ship Yes The Main Injection is fitted on a plate box. 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 No Are the Discharge Pipes above or below the deep water line Main Disch 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 Nos 1 & 2 Hold & Fore peak bilge suction How are they protected Under 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 Eng room top platform.

OILERS, &c.—(Letter for record S) Manufacturers of Steel Stewart & Lloyd.

Total Heating Surface of Boilers 8289 sq ft Is Forced Draft fitted Yes No. and Description of Boilers 3 Babcock & Wilcox Water tube.

Working Pressure 185 lbs Tested by hydraulic pressure to 350 lbs Date of test 26/5/21 No. of Certificate

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 185 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 21" Mean dia. of drums 4'-0" Length 13'-3 1/2" Material of shell plates Steel

Thickness 17/32" Range of tensile strength 28/32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D.R. Lap

long. seams T.R. Single butt Diameter of rivet holes in long. seams 31/32" Pitch of rivets 3 3/4" Lap of plates or width of butt straps 7"

Per centages of strength of longitudinal joint rivets 77.5 plate 75.8 Working pressure of shell by rules 210 lbs Size of manhole in shell 11" x 15"

Size of compensating ring 22" x 28 3/4" x 7/8" 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

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 steam space:

Material Steel Thickness 13/16" Pitch of stays None How are stays secured Working pressure by rules 240 lbs 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 Lower back plate Steel Thickness 17/32" Greatest pitch of stays None Working pressure of plate by rules

Diameter of tubes 1 1/2" Pitch of tubes 25/8, 2 3/4" Material of tube plates Steel Thickness: Front 1" Back Header Tubes Mean pitch of stays 7"

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 shell plates 3/4" Material Steel Description of longitudinal joint Weld Diam. of rivet holes

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

SUPERHEATER. Type 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

013346-013355-0311

Lloyd's Register Foundation

IS A DONKEY BOILER FITTED? No.

If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied:— Connecting Rod 2sp end bolts & nuts - 2, Bottom end bolts & nuts - 2 Crank & tunnel shaft coupling bolts & nuts - 3 of each, Main bearing bolts & nuts - 3, One set of suction & discharge valves, one set of piston rings, one set of bucket rings for each of the following pumps - Bilge, feed, general service, donkey feed & ballast pumps, One spare propeller One set of piston rings for H.P. 1P & LP pistons 1 H.P. piston valve, one set of air pump valves, 42 Spare boiler tubes, one set of special fire bricks, Main & donkey feed check valves (2). 12 Handhole fittings for headers, 2 safety valve springs, 1 set of spares for automatic feed regulator, one set of firebars.

The foregoing is a correct description,
For and on behalf of

THOMPSON & CO. (MELBOURNE) PROPY. LTD.

Andrew Reid

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1920 - Feb 10th Mar 4th May 14th June 25th July 2nd 19th 24th Aug 2nd 13th 19th Sept 10th 15th 29th Oct 5th 7th 14th 20th Nov 6th 10th 18th 29th Dec 9th
During erection on board vessel - - - 1920 Dec 13th 1921 Jan 5, 12, 14, 17, 27, Feb 1, 8, 14, 17, Mar 7, 9, 11, 21, 31, April 5, 7, 18, May 3, 10, 18, 26, June 2, 10, 13, 21, July 15, 25, 29, Aug 1, 3, 12, 18
Total No. of visits 57

Is the approved plan of main boiler forwarded herewith No

" " " donkey " " " ✓

Dates of Examination of principal parts—Cylinders 4/3/20 + 4/6/20 Slides 4/6/20 Covers 4/6/20 Pistons 4/6/20 Rods 25/6/20

Connecting rods 25/6/20 Crank shaft 2/7/20 Thrust shaft 3/8/20 Tunnel shafts 18/11/20 Screw shaft 31/3/21 Propeller 31/3/21

Stern tube 13/12/20 Steam pipes tested 8/2/21 Engine and boiler seatings 13/12/20 Engines holding down bolts 18/5/21

Completion of pumping arrangements 4/8/21 Boilers fixed 26/5/21 Engines tried under steam 4/8/21

Completion of fitting sea connections Done at Sydney Stern tube 9/3/21 Screw shaft and propeller 3/5/21

Main boiler safety valves adjusted 18/8/21 (Trial Trip) Thickness of adjusting washers Port 17 21 32, 32, 13 17 32, 32, 15 13 32, 32

Material of Crank shaft Mild Steel Identification Mark on Do. No 20 H.P. Material of Thrust shaft Steel Identification Mark on Do. No 23

Material of Tunnel shafts Steel Identification Marks on Do. Nos 24, 25, 26, 27, 28 Material of Screw shafts Steel Identification Marks on Do. No 29 Spare Shaft No 46

Material of Steam Pipes Steel Test pressure 550 lbs.

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"

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 & workmanship and in accordance with the Rules & approved plans. The Machinery & Boilers have been fitted on board in an efficient manner, tried under steam & are now eligible for record of - LMC 8, 21. Subject to W.T. Boilers being surveyed annually.

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 8.21 FD CL
3 Watertube Boilers

Subject to the Water Tube Boilers
being surveyed annually.

Reid
18/10/21

The amount of Entry Fee ... £ 6 : 0 : When applied for,

Special charged at Glasgow on Boilers £ 117 : 12 : 19

Donkey Boiler Fee ... £ : : When received,

Travelling Expenses (if any) £ 6 : 10/6 16/9/21

Committee's Minute

Assigned

+ LMC 8.21

FD. C. L. Ref. col.

CERTIFICATE WRITTEN

A. McMan & A. J. McMan
Engineer Surveyors to Lloyd's Register of Shipping.



© 2021

Lloyd's Register
Foundation