

REPORT ON MACHINERY.

Port of

Newcastle

Received at London Office

18

No. in Survey held at
Reg. Book.

Newcastle

Date, first Survey

31 Dec 91

Last Survey

28 Oct 92

1892

(Number of Visits

27)

on the

S.S. Port Melbourne

Master

J. R. Smith

Built at

Newcastle

By whom built

Hawthorn Leslie & Co

When built

1892

Engines made at

Newcastle

By whom made

Hawthorn Leslie & Co

when made

"

Boilers made at

"

By whom made

"

when made

"

Registered Horse Power

650

Owners

Anglo Australasian

Port belonging to

London

Nom. Horse Power as per Section 28

528

Steam raised

ENGINES, &c.—

Description of Engines

Triple expansion

No. of Cylinders

Three

Diameter of Cylinders

30, 40, 70

Length of Stroke

52

Revolutions per minute

60

Diameter of Screw shaft

as per rule 14.1

Diameter of Tunnel shaft

as per rule 13.4

as fitted

4

Diameter of Crank-shaft journals

14 3/4

Diameter of Crank pin

15

Size of Crank webs

28 dia 410

Diameter of screw

18.0

Pitch of screw

20.6

No. of blades

4

State whether moveable

Ys

Total surface

93 sq

No. of Feed pumps

2

Diameter of ditto

4 1/2

Stroke

27

Can one be overhauled while the other is at work

Ys

No. of Bilge pumps

2

Diameter of ditto

4 1/2

Stroke

27

Can one be overhauled while the other is at work

Ys

No. of Donkey Engines

Two

Sizes of Pumps

7 1/2 x 4 1/2 x 10 7

12 x 8 1/2 x 14

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room S. 3. C. 4 P. 3 In Hold, &c. One with P. 3. S. 3 Main with P. 3

In Engine Room

S. 3. C. 4 P. 3

In Hold, &c.

One with P. 3. S. 3

Main with P. 3

S. 3. C. 4 P. 3

In Hold, &c.

One with P. 3. S. 3

Main with P. 3

S. 3. C. 4 P. 3

In Hold, &c.

One with P. 3. S. 3

Main with P. 3

S. 3. C. 4 P. 3

No. of bilge injections

1 size 7 1/2

Connected to condenser, on to circulating pump

Ys

Is a separate donkey suction fitted in Engine room & size

Ys

3

Are all the bilge suction pipes fitted with roses

Ys

Are the roses in Engine room always accessible

Ys

Are the sluices on Engine room bulkheads always accessible

Ys

Ys

Are all connections with the sea direct on the skin of the ship

Ys

Are they Valves or Cocks

Both

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates

Ys

Are the discharge pipes above or below the deep water line

at line

Ys

Are they each fitted with a discharge valve always accessible on the plating of the vessel

Ys

Are the blow off cocks fitted with a spigot and brass covering plate

Ys

Ys

What pipes are carried through the bunkers

Cold suction

How are they protected

efficiently cladded

Ys

Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times

Ys

Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges

Ys

When were stern tube, propeller, screw shaft, and all connections examined in dry dock

now

Is the screw shaft tunnel watertight

Ys

Ys

Is it fitted with a watertight door

Ys

worked from

top engine platform

Ys

Ys

Ys

Ys

Ys

Ys

Ys

Ys

Ys

Ys

BOILERS, &c.—

(Letter for record

a)

Total Heating Surface of Boilers

9152

No. and Description of Boilers

Two double ended

Working Pressure

160

Tested by hydraulic pressure to

320

Date of test

14.9.92

Can each boiler be worked separately

Ys

Area of fire grate in each boiler

100 sq

No. and Description of safety valves to

each boiler

Two - spring

Area of each valve

15.90

Pressure to which they are adjusted

160 lbs

Are they fitted

with easing gear

Ys

Smallest distance between boilers or uptakes and bunkers or woodwork

10 ft

Mean diameter of boilers

15.6

Length

17.6

Material of shell plates

steel

Thickness

1/2

Description of riveting: circum. seams

as per rule

Length

17.6

Material of shell plates

steel

Thickness

1/2

Description of riveting: circum. seams

as per rule

long. seams

as per rule

Pitch of rivets

9 3/8

Lap of plates or width of butt straps

24 3/8

Diameter of rivet holes in long. seams

1 1/8

Pitch of rivets

9 3/8

Lap of plates or width of butt straps

24 3/8

Per centages of strength of longitudinal joint

86

Working pressure of shell by rules

160

Size of manhole in shell

12 x 16

Size of compensating ring

7 x 1 1/2

No. and Description of Furnaces in each boiler

Eight plain

Material

steel

Outside diameter

39

Length of plain part

top 3.0

Thickness of plates

bottom 3.0

Description of longitudinal joint

welded

No. of strengthening rings

one

Working pressure of furnace by the rules

83

Combustion chamber plates: Material

steel

Thickness: Sides

3/8

Back

3/8

Top

3/8

Bottom

3/8

Pitch of stays to ditto: Sides

8

Material of stays

steel

Diameter at smallest part

1 1/2

Area supported by each stay

64 sq

Working pressure by rules

160

End plates in steam space:

Material

steel

Thickness

2 1/2

Pitch of stays

Material

steel

Thickness

2 1/2

Pitch of stays

16

How are stays secured

as per rule

Working pressure by rules

169

Material of stays

steel

Diameter at smallest part

5.4

Diameter at smallest part

5.4

Area supported by each stay

256 sq

Working pressure by rules

160

Material of Front plates at bottom

steel

Thickness

3/4

Material of Lower back plate

steel

Thickness

3/4

Greatest pitch of stays

1/2

Working pressure of plate by rules

160

Diameter of tubes

3 1/2

Pitch of tubes

4 3/4

Material of tube plates

steel

Thickness: Front

3/4

Back

1/2

Mean pitch of stays

as per rule

Pitch across wide water spaces

15

Working pressures by rules

160

Girders to Chamber, tops: Material

steel

Depth and

thickness of girder at centre

7 1/2 x 1 1/2

Length as per rule

26

Distance apart

Working pressure by rules

160

Superheater or Steam chest; how connected to boiler

Ys

Can the superheater be shut off and the boiler worked

separately

Ys

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

holes

Pitch of rivets

Ys

Working pressure of shell by rules

Ys

Diameter of flue

Material of flue plates

Thickness

If stiffened with rings

DONKEY BOILER—

Description

June

Made at _____ By whom made _____ When made _____ Where fixed _____
 Working pressure _____ tested by hydraulic pressure to _____ No. of Certificate _____ Fire grate area _____ Description of safety valves _____
 No. of safety valves _____ Area of each _____ Pressure to which they are adjusted _____ If fitted with easing gear _____ If steam from main boilers can enter the donkey boiler _____
 Diameter of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____
 Description of riveting long. seams _____ Diameter of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____
 Lap of plating _____ Per centage of strength of joint _____ Thickness of shell crown plates _____ Radius of do. _____ No. of Stays to do. _____
 Dia. of stays _____ Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace plates _____ Description of joint _____
 Thickness of furnace crown plates _____ Stayed by _____ Working pressure of shell by rules _____
 Working pressure of furnace by rules _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied:— *beam shaft, an + pump bucket rod + guard
 circulating pump bucket rod, 2 top end, 2 bottom end 2 main beam
 and set of coupling bolts, Valve spindle, feed pump ram, eccentric
 strap, fly wheel pump valves, 2 propeller blades, piston springs &c &c
 The foregoing is a correct description,
 and ordinary engine room outfit*

Manufacturer _____

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

For

B. & W. HAWTHORN, LESLIE & CO., LIMITED,

J. Marshall **DIRECTOR**

*The machinery of the vessel has been constructed under
 special survey the materials and workmanship are
 sound and good and eligible, in my opinion, to be
 placed in the class + LMC 10.92 in the *Locusts Register*
*Book.**

*The vessel sailed without having the safety valves
 adjusted and it was stated that this would be
 done on the arrival in London.*

Boiler tracings will be forwarded with sister ship and in hand.

Certificate (if required) to be sent to *Newcastle Office*

The amount of Entry Fee.. £ *0 : 0 : 0* When applied for, *10/11/92*

Special .. £ *46 : 18 : 0* When received, *12/11/92*

Donkey Boiler Fee .. £ _____

Travelling Expenses (if any) £ _____

**MACHINERY CERTIFICATE
 WRITTEN.**

TUES. 15 NOV 1892

Committee's Minute

Assigned

+ LMC 11.92

11.11.92
James Fairclough
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



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 Foundation