

# REPORT ON MACHINERY.

Port of *Newcastle*

11 NOV 92

No. in Survey held at *Newcastle* Date, first Survey \_\_\_\_\_ Last Survey \_\_\_\_\_ 18  
Reg. Book. \_\_\_\_\_  
on the *S.S. Port Melbourne* Tons { Gross \_\_\_\_\_ Net \_\_\_\_\_  
Master \_\_\_\_\_ Built at *Newcastle* By whom built *Newcastle Iron Co* When built *1892*  
Engines made at *Newcastle* By whom made *do* when made \_\_\_\_\_  
Boilers made at \_\_\_\_\_ By whom made *do* when made \_\_\_\_\_  
Registered Horse Power \_\_\_\_\_ Owners \_\_\_\_\_ Port belonging to \_\_\_\_\_  
Nom. Horse Power as per Section 28 *528*

ENGINES, &c.— Description of Engines No. of Cylinders \_\_\_\_\_  
Diameter of Cylinders \_\_\_\_\_ Length of Stroke \_\_\_\_\_ Revolutions per minute \_\_\_\_\_ Diameter of Screw shaft \_\_\_\_\_ as per rule \_\_\_\_\_  
Diameter of Tunnel shaft \_\_\_\_\_ as per rule \_\_\_\_\_ Diameter of Crank shaft journals \_\_\_\_\_ Diameter of Crank pin \_\_\_\_\_ Size of Crank webs \_\_\_\_\_  
Diameter of screw \_\_\_\_\_ Pitch of screw \_\_\_\_\_ No. of blades \_\_\_\_\_ State whether moveable \_\_\_\_\_ Total surface \_\_\_\_\_  
No. of Feed pumps \_\_\_\_\_ Diameter of ditto \_\_\_\_\_ Stroke \_\_\_\_\_ Can one be overhauled while the other is at work \_\_\_\_\_  
No. of Bilge pumps \_\_\_\_\_ Diameter of ditto \_\_\_\_\_ Stroke \_\_\_\_\_ Can one be overhauled while the other is at work \_\_\_\_\_  
No. of Donkey Engines \_\_\_\_\_ Sizes of Pumps \_\_\_\_\_ No. and size of Suctions connected to both Bilge and Donkey pumps \_\_\_\_\_  
In Engine Room \_\_\_\_\_ In Holds, &c. \_\_\_\_\_  
No. of bilge injections \_\_\_\_\_ sizes \_\_\_\_\_ Connected to condenser, or to circulating pump \_\_\_\_\_ Is a separate donkey suction fitted in Engine room & size \_\_\_\_\_  
Are all the bilge suction pipes fitted with roses \_\_\_\_\_ Are the roses in Engine room always accessible \_\_\_\_\_ Are the sluices on Engine room bulkheads always accessible \_\_\_\_\_  
Are all connections with the sea direct on the skin of the ship \_\_\_\_\_ Are they Valves or Cocks \_\_\_\_\_  
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates \_\_\_\_\_ Are the discharge pipes above or below the deep water line \_\_\_\_\_  
Are they each fitted with a discharge valve always accessible on the plating of the vessel \_\_\_\_\_ Are the blow off cocks fitted with a spigot and brass covering plate \_\_\_\_\_  
What pipes are carried through the bunkers \_\_\_\_\_ How are they protected \_\_\_\_\_  
Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times \_\_\_\_\_  
Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges \_\_\_\_\_  
When were stern tube, propeller, screw shaft, and all connections examined in dry dock \_\_\_\_\_ Is the screw shaft tunnel watertight \_\_\_\_\_  
Is it fitted with a watertight door \_\_\_\_\_ worked from \_\_\_\_\_

BOILERS, &c.— (Letter for record *a*) Total Heating Surface of Boilers \_\_\_\_\_  
No. and Description of Boilers *One - cyl. single 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 *43 sq ft* No. and Description of safety valves to each boiler *Two - spring* Area of each valve *4.9 sq in* 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 *one ft* Mean diameter of boilers *12.3*  
Length *11.0* Material of shell plates *char* Thickness *3/2* Description of riveting: circum. seams *all* long. seams *knives joint*  
Diameter of rivet holes in long. seams *1/2 x 1/2* Pitch of rivets *8 1/2* Lap of plates or width of butt straps *2 1/2 x 14 1/2*  
Per centages of strength of longitudinal joint \_\_\_\_\_ plate *84.4* Working pressure of shell by rules *164* Size of manhole in shell *16 x 12*  
Size of compensating ring *7 x 1/2* No. and Description of Furnaces in each boiler *Three plain* Material *char* Outside diameter *36*  
Length of plain part \_\_\_\_\_ top \_\_\_\_\_ bottom *3.6* Thickness of plates \_\_\_\_\_ crown *3/2* Description of longitudinal joint *welded* No. of strengthening rings *one*  
Working pressure of furnace by the rules *190* Combustion chamber plates: Material *char* Thickness: Sides *9/16* Back *5/8* Top *9/16* Bottom *13/16*  
Pitch of stays to ditto: Sides *8* Back *8* Top *8* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *160*  
Material of stays *iron* Diameter at smallest part *1 1/2* Area supported by each stay *64 sq in* Working pressure by rules *160* End plates in steam space: Material *char* Thickness *29* Pitch of stays *17* How are stays secured *nut & washer* Working pressure by rules *164* Material of stays *iron*  
Diameter at smallest part *6 3/2* Area supported by each stay *289 sq in* Working pressure by rules *173* Material of Front plates at bottom *char*  
Thickness *3/4* Material of Lower back plate *char* Thickness *23* Greatest pitch of stays *13/16* Working pressure of plate by rules *160*  
Diameter of tubes *3 1/2* Pitch of tubes *4 3/4* Material of tube plates *char* Thickness: Front *3/4* Back *13/16* Mean pitch of stays *as plain*  
Pitch across wide water spaces *15* Working pressures by rules *160* Girders to Chamber tops: Material *iron* Depth and thickness of girder at centre *7 1/2 x 1 1/2* Length as per rule *26* Distance apart *8 1/2* Number and pitch of Stays in each *2 - 8*  
Working pressure by rules *160* Superheater or Steam chest; how connected to boiler \_\_\_\_\_ Can the superheater be shut off and the boiler worked separately \_\_\_\_\_  
Diameter \_\_\_\_\_ Length \_\_\_\_\_ Thickness of shell plates \_\_\_\_\_ Material \_\_\_\_\_ Description of longitudinal joint \_\_\_\_\_ Diam. of rivet holes \_\_\_\_\_ Pitch of rivets \_\_\_\_\_ Working pressure of shell by rules \_\_\_\_\_ Diameter of flue \_\_\_\_\_ Material of flue plates \_\_\_\_\_ Thickness \_\_\_\_\_  
If stiffened with rings \_\_\_\_\_ Distance between rings \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ End plates: Thickness \_\_\_\_\_ How stayed \_\_\_\_\_  
Working pressure of end plates \_\_\_\_\_ Area of safety valves to superheater \_\_\_\_\_ Are they fitted with easing gear \_\_\_\_\_

If the Report also sent on the Hull of the ship? \_\_\_\_\_



**DONKEY BOILER—** Description

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 \_\_\_\_\_ Rivets \_\_\_\_\_ 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:—

The foregoing is a correct description,

Manufacturer. \_\_\_\_\_

For

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

*H. Marshall*

**DIRECTOR**

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

*The boilers were seen under steam & the safety valves were adjusted to lift at 160 lbs. press. per sq. in.*

*Em Salmon.*  
*Eng. Surveyor to Lloyd's Register*  
*2/11/92*  
*2-11-92*

Certificate (if required) to be sent to

The amount of Entry Fee..	:	:	When applied for,
Special .. .. . £	:	:	..... 18.....
Donkey Boiler Fee .. .. £	:	:	When received
Travelling Expenses (if any) £	:	:	..... 18.....

*Sam F. L. L. L.*  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

**TUES. 15 NOV 1892**

Committee's Minute

As signed

*See First Entry*



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Foundation