

# REPORT ON MACHINERY.

No. 32241

Port of Newcastle

THUR. 5 SEP 1895

Received at London Office

No. in Survey held at Newcastle

Date, first Survey 5<sup>th</sup> February

Last Survey 27 Aug

1895

Reg. Book.

(5) on the Steel Screw Steamer "AUREOLE"

(Number of Visits 39)

Gross 3975.5  
Net 2553.0

Master J. P. Crosby Built at Newcastle

By whom built Thos. & S. B. Co.

When built 1895

Engines made at Newcastle

By whom made Wallsend Shipyard & Engineering Co.

when made 1895

Boilers made at Newcastle

By whom made Wallsend Shipyard & Engineering Co.

when made 1895

Registered Horse Power 385

Owners Hunting & Son

Port belonging to Newcastle

Nom. Horse Power as per Section 28 393 394 NP

ENGINES, &c. — Description of Engines Triple Expansion Direct Acting No. of Cylinders Three

Diameter of Cylinders 27-44-41 Length of Stroke 48 Revolutions per minute 65 Diameter of Screw shaft 12.8

Diameter of Tunnel shaft 12.2 Diameter of Crank shaft journals 13.5 Diameter of Crank pin 13.5 Size of Crank webs 9 1/4 x 19 1/2

Diameter of screw 18-0 Pitch of screw 19-0 No. of blades 4 State whether moveable Solid Total surface 90 ft

No. of Feed pumps Two Diameter of ditto 4 Stroke 26 Can one be overhauled while the other is at work yes

No. of Bilge pumps Two Diameter of ditto 4 1/2 Stroke 26 Can one be overhauled while the other is at work yes

No. of Donkey Engines Two Sizes of Pumps 2 duplex feed 4 x 6 stroke No. and size of Suctions connected to both Bilge and Donkey pumps 8 1/2 x 6

In Engine Room 3 1/2 mm Suction, 3 1/2 Centre In Holds, &c. —

No. of bilge injections 1 sizes 4 Connected to condenser, or to circulating pump Is a separate donkey suction fitted in Engine room & size yes 4

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 Are they Valves or Cocks both

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yes Are the discharge pipes above or below the deep water line 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 none How are they protected —

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

When were stern tube, propeller, screw shaft, and all connections examined in dry dock on ways Is the screw shaft tunnel watertight no Tunnel

Is it fitted with a watertight door — worked from engine room aft.

BOILERS, &c. — (Letter for record (S)) Total Heating Surface of Boilers 6549

No. and Description of Boilers Three S.E. (3 r.f.) Cyl. Multi Working Pressure 160 lb Tested by hydraulic pressure to 320 lb

Date of test 29/3/95 Can each boiler be worked separately yes Area of fire grate in each boiler 56.6 sq ft No. and Description of safety valves to each boiler Two, Direct spring

Area of each valve 9.62 Pressure to which they are adjusted 165 lb Are they fitted with easing gear yes Smallest distance between boilers or uptakes and bunkers or woodwork 18 Mean diameter of boilers 15-3

Length 10-6 Material of shell plates steel Thickness 1 1/2 Description of riveting: circum. seams Lap Smith Riv. long. seams DBS. Tackle

Diameter of rivet holes in long. seams 1 1/2 Pitch of rivets 8 Lap of plates or width of butt straps 14 3/8

Per centages of strength of longitudinal joint rivets 89.00 Working pressure of shell by rules 162 lb Size of manhole in shell 16 x 12

Size of compensating ring 8 x 1 1/2 No. and Description of Furnaces in each boiler Three, Rotted Material steel Outside diameter 43 1/4

Length of plain part 9 Thickness of plates 3 1/2 Description of longitudinal joint Welded No. of strengthening rings none

Working pressure of furnace by the rules 161 lb Combustion chamber plates: Material steel Thickness: Sides 3 1/2 Back 7/8 Top 2 1/2 Bottom 3 1/2

Pitch of stays to ditto: Sides 9 7/8 x 9 7/8 Back 9 7/8 x 9 Top 9 7/8 x 9 7/8 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 160 lb

Material of stays steel Diameter at smallest part 1.61 Area supported by each stay 93 sq in Working pressure by rules 198 lb End plates in steam space:

Material steel Thickness 1 1/4 Pitch of stays 23 1/2 x 20 1/2 How are stays secured ON + RIV. Working pressure by rules 162 lb Material of stays steel

Diameter at smallest part 3.28 Area supported by each stay 474 Working pressure by rules 160 lb Material of Front plates at bottom steel

Thickness 7/8 Material of Lower back plate steel Thickness 7/8 Greatest pitch of stays 12 3/4 Working pressure of plate by rules 163 lb

Diameter of tubes 3 1/4 Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates steel Thickness: Front 3 1/2 Back 3/4 Mean pitch of stays 9

Pitch across wide water spaces 15 Working pressures by rules 160 lb Girders to Chamber tops: Material steel Depth and thickness of girder at centre 8 x 1 1/2 (2 1/2 x 1 1/2) Length as per rule 32 1/2 Distance apart 8 (9 7/8) Number and pitch of Stays in each Two - 9 7/8

Working pressure by rules 161 lb 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 —

Lloyd's Register  
NW4843-0058



DONKEY BOILER— Description *No Donkey Boiler fitted.*

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 boiler  
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  
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:— *N.P. Valve spindle screw + Strap bolts + nuts, 1 pair each to  
+ Bottom head bolts + braces. 2 Main Bearing Bolts + nuts, 1 set Coupling bolts + nuts, 2 each  
feed + bilge valves + seats 1 set each eye + piston rings + bolts. 3 safety Valve springs, Boiler tubes  
also 1/2 crank shaft, 1 tail shaft + propeller.*

The foregoing is a correct description,  
"OR THE WALLSEND SHIPWAY & ENGINEERING CO.,  
*L. Rusden* Manufacturer.  
Manager Sep 3/95

General Remarks (State quality of workmanship, opinions as to class, &c. *The Engines + Boilers of this Vessel  
have been constructed under special survey the Boilers tested  
by Hydraulic pressure to twice the working pressure, the Engines +  
Boilers tried under steam + the safety Valves adjusted to the  
working pressure the whole working satisfactorily which renders  
the vessel eligible in our opinion to have the notation  
\* LMC 8.95 in the Register Book.*

It is submitted that

this vessel is eligible for  
THE RECORD

✠ LMC 8.95.

*WMS*  
5.9.95

Certificate (if required) to be sent to

NEWCASTLE-ON-TYNE

MACHINERY CERTIFICATE  
WRITTEN

The amount of Entry Fee. . . £ 3.0 : When applied for,

Special . . . . . £ 39.13 : 49.18.95

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

Travelling Expenses (if any) £ : : 7/9/95

Committee's Minute TUES. 10 SEP 1895

Assigned

+ LMC 8.95

*Alfred + G. L. Hindmarsh*  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



© 2021

Lloyd's Register  
Foundation