

No. 32241

REPORT ON MACHINERY.

THUR. 5 SEP 1895

Port of Newcastle

Received at London Office _____

No. in Survey held at Newcastle Date, first Survey 5th February 1895 Last Survey 27 Aug 1895
Reg. Book. _____ (Number of Visits 39)

(5) on the Steel Screw Steamer "AUREOLE" Tons { Gross 3975.5
Net 2553.0

Master J. P. Crosby Built at Newcastle By whom built Thorn & 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
as per rule 12.2 as fitted 13.1/4

Diameter of Tunnel shaft 13 Diameter of Crank shaft journals 13 1/2 Diameter of Crank pin 13 1/2 Size of Crank webs 9 1/4 x 19 1/2
as fitted 13

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
10" Ballast 8 1/2 x 6 1/2

In Engine Room 3 1/2 wing 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 (5)) Total Heating Surface of Boilers 6549

No. and Description of Boilers Three S.E. (3 r.f.) Cylindrical 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 South Riv long. seams DRS. Triple

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

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
plate 84.76

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 top 9 Thickness of plates crown 1 1/2 Description of longitudinal joint Welded No. of strengthening rings none
bottom 36 bottom 1 1/2

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

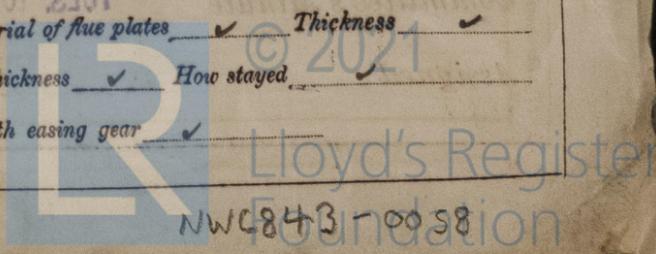
Diameter of tubes 3 1/4 Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates steel Thickness: Front 3/32 Back 3/4 Mean pitch of stays 9

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 _____



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-portion 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.
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.*

✠ LMC 8.95.

NEWCASTLE-ON-TYNE

MACHINERY CERTIFICATE WRITTEN

The amount of Entry Fee. . . £ 3.0 : When applied for, Special £ 39.13. : 4 9 18.95 Donkey Boiler Fee £ - : - : - : Travelling Expenses (if any) £ : : 7/9 18.95

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

Committee's Minute TUES. 10 SEP 1895

Assigned *+ LMC 8.95*

