

# REPORT ON MACHINERY. I.

3/9/97

No. 344

Port of Trieste

Received at London Office

3/9/1897

No. in Survey held at  
Reg. Book.

Trieste

Date, first Survey 10/12 96

Last Survey 30/8 1897

on the

"Trieste"

(Number of Visits)

Gross 5095.32  
Net 3203.03  
When built 1897

Master

Built at

Trieste

By whom built

Austrian Lloyd's Arsenal

Engines made at

ditto

By whom made

ditto

when made 1897

Boilers made at

ditto

By whom made

ditto

when made 1897

Registered Horse Power

Owners Austrian Lloyd's Nav Co

Port belonging to

Trieste

Nom. Horse Power as per Section 28

555 HP (3200 ind. HP)

## ENGINES, &c.—

Description of Engines

Triple Expansion vertical

No. of Cylinders 3

Diameter of Cylinders  $29\frac{1}{2}$ "  $47\frac{1}{2}$ "  $76$ " Length of Stroke 54" Revolutions per minute 75 Diameter of Screw shaft  $13\frac{3}{8}$ "  
Diameter of Tunnel shaft  $14\frac{1}{4}$ " Diameter of Crank shaft journals 15" Diameter of Crank pin  $15\frac{1}{4}$ " Size of Crank webs  $10\frac{1}{2}$ " x  $14\frac{1}{2}$ "  
Diameter of screw 19" Pitch of screw  $19\frac{1}{2}$ " No. of blades 4 State whether moveable yes Total surface 102 sq ft  
No. of Feed pumps 1 Diameter of ditto  $5\frac{1}{2}$ " Stroke 27" Can one be overhauled while the other is at work yes  
No. of Bilge pumps 1 Diameter of ditto  $5\frac{1}{2}$ " Stroke 27" Can one be overhauled while the other is at work yes  
No. of Donkey Engines 1 Worthington Sizes of Pumps  $7\frac{1}{2}$ " x  $8\frac{1}{2}$ " x 10" No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room Bilge suction 4" Donkey suction  $3\frac{1}{2}$ " In Holds, &c.  $3\frac{1}{2}$ "

No. of bilge injections 2 sizes 14" Connected to ~~condenser~~ to circulating pumps Is a separate donkey suction fitted in Engine room & size yes  $3\frac{1}{2}$ "  
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 yes  
Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks Valves x Cocks  
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 no  
When were stern tube, propeller, screw shaft, and all connections examined in dry dock 22/8 Is the screw shaft tunnel watertight yes  
Is it fitted with a watertight door yes worked from Engine room Platform

## BOILERS, &c.—

(Letter for record S)

Total Heating Surface of Boilers 8076

No. and Description of Boilers 2 Double ended 6 sq. cylindrical Working Pressure 170 lbs Tested by hydraulic pressure to 340 lbs  
Date of test 23/6 97 Can each boiler be worked separately yes Area of fire grate in each boiler  $107\frac{1}{2}$  sq ft No. and Description of safety valves to each boiler 1 triple Spring v. Cockburn Area of each valve 11 sq ft Pressure to which they are adjusted 170 lbs Are they fitted with easing gear yes  
Smallest distance between boilers or uptakes and bunkers 9" Mean diameter of boilers  $14\frac{1}{2}$ "  
Length  $19\frac{1}{2}$ " Material of shell plates Steel Thickness  $1\frac{1}{2}$ " Description of riveting: circum. seams double x treble long. seams double butt strap.  
Diameter of rivet holes in long. seams  $1\frac{3}{8}$ " Pitch of rivets  $8\frac{1}{2}$ " Top of plates or width of butt straps  $19\frac{1}{2}$ "  
Per centages of strength of longitudinal joint plate 95 Working pressure of shell by rules 189 lbs Size of manhole in shell 12 x 16"  
Size of compensating ring 8 x  $1\frac{1}{2}$ " No. and Description of Furnaces in each boiler 6 suspensions Material Steel Outside diameter 3' 9"  
Length of plain part top 6" bottom 6" Thickness of plates crown 9/16" Description of longitudinal joint welded No. of strengthening rings  
Working pressure of furnace by the rules 195 lbs Combustion chamber plates: Material Steel Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 3/4"  
Pitch of stays to ditto: Sides 8 x  $8\frac{1}{2}$ " Back — Top 8 x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 216 lbs  
Material of stays Steel Diameter at smallest part 1' 48" Area supported by each stay 64 sq in Working pressure by rules 216 lbs End plates in steam space:  
Material Steel Thickness  $1\frac{1}{2}$ " Pitch of stays 15 x 15" How are stays secured D. W. x Washers Working pressure by rules 223 lbs Material of stays Steel  
Diameter at smallest part 2' 46" Area supported by each stay 225 sq in Working pressure by rules 191 lbs Material of Front plates at bottom Steel  
Thickness  $\frac{3}{4}$ " Material of Lower back plate Steel Thickness — Greatest pitch of stays — Working pressure of plate by rules —  
Diameter of tubes  $2\frac{1}{2}$ " Pitch of tubes  $3\frac{3}{4}$ " x  $3\frac{3}{4}$ " Material of tube plates Steel Thickness: Front  $\frac{3}{4}$ " x  $\frac{5}{8}$ " Back  $\frac{3}{4}$ " Mean pitch of stays  $7\frac{1}{2}$ "  
Pitch across wide water spaces 14" Working pressures by rules 206 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre  $7\frac{1}{2}$ " x  $1\frac{1}{2}$ " +  $10\frac{1}{2}$ " x  $2\frac{1}{2}$ " Length as per rule 4' 1 1/2" Distance apart 8" Number and pitch of Stays in each 5 8"  
Working pressure by rules 185 lbs 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

TR14155-0017



## DONKEY BOILER—

Description

See continuation of this Report II.

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:—

As prescribed by the Rules, and in addition all articles recommended by the same

The foregoing is a correct description,

Manufacturer.

D. Kadalotch

## General Remarks

(State quality of workmanship, opinions as to class, &amp;c.)

First class workmanship and best materials.

The Main and Donkey Boilers are made, with exception of rivetting up and staying, by the Wallsend Shipway & Engineering Co Limited as per Report No 34065

The Engines & Boilers are further provided with:  
 one pair of Weir feed pumps, Heater & Evaporator  
 " " Centrifugal type 10" Turbin for circulating, Gwynne & Co London  
 one Kirkaldy water producer

Stowders forced draught apparatus for Main Boilers

Fan Engine by Bellis of Birmingham

one Condenser for Winches 600 sq' cooling surface by the Wheeler Condensers & Engineering Co

## Deck Machinery:

Capstan Winch by Napier Brothers Glasgow

Steam Winches John Lynn Sunderland

2 Cleavers & Branes

Steering Gear

Galsometer

Brown Brothers Edinburgh

Galsometer Co London

It is submitted that

this vessel is eligible for

THE RECORD. + L. M. C. 8. 97 F. D.

Certificate (if required) to be sent to

The amount of Entry Fee..	£ 3: —:	When applied for,
Special .. .. .	£ 47: 15:	.....18.....
Donkey Boiler Fee .. .. .	£ 2: 2:	When received,
Travelling Expenses (if any) .. .. .	£ .. .. .	.....18.....

Committee's Minute

FRI. 10 SEP 1897

Assigned

+ L. M. C. 8. 97 F. D.

Frederic Shute

Engineer Surveyor to Lloyd's Register of British &amp; Foreign Shipping.



© 2020

Lloyd's Register  
Foundation