

REPORT ON MACHINERY.

No. 1940

Port of

Trieste

MUN. 20 JU 1908

Received at London Office

19

No. in Survey held at

Trieste

Date, first Survey

29 August 1907

Last Survey

16 July

1908

Reg. Book.

58 on the Steel Screw Steamer "PRAGA"

(Number of Visits)

3904.58

Master G Gullhuber Built at Trieste

By whom built Lloyd Austriaco

When built 1908

Engines made at Trieste

By whom made

Lloyd Austriaco

when made 1908

Boilers built at Trieste

By whom made

Lloyd Austriaco

when made 1908

Registered Horse Power

Owners

Lloyd Austriaco

Port belonging to

Trieste

Nom. Horse Power as per Section 28

495

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines Triple Expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders 26" x 43 1/2" x 73" Length of Stroke 48" Revs. per minute 78

Dia. of Screw shaft

as per rule 14.5

Material of screw shaft

Iron

Is the screw shaft fitted with a continuous liner the whole length of the stern tube

Yes

Is the after end of the liner made water tight

in the propeller boss Yes If the liner is in more than one length are the joints burned

If the liner does not fit tightly at the part

between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive fits the whole length two

liners are fitted, is the shaft lapped or protected between the liners

Length of stern bush 4' 6 1/2"

Dia. of Tunnel shaft as per rule 13.55

as fitted 13 3/4"

Dia. of Crank shaft journals as per rule 14.23

as fitted 14.5"

Dia. of Crank pin 14 3/4"

Size of Crank webs 9 1/2" x 21"

Dia. of thrust shaft under

collars 14.5" (Dia. of screw 16 1/2" Pitch of Screw 19"

No. of Blades 4

State whether moveable

Yes

Total surface 31.32 sq. feet

No. of Feed pumps 2

Diameter of ditto 4"

Stroke 26"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps 2

Diameter of ditto 4"

Stroke 26"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines 1

Sizes of Pumps 8" x 8" x 8"

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

In Engine Room 4 of 3 1/2" & 1 Boiler room 3 1/2" In Holds, &c. 9 of 3 1/2" diam.

No. 1-2, No. 2-2, No. 3-1 No. 4-2 No. 5-2 and 1 After hold, 1 Forepeak, 1 to Tunnel well

No. of Bilge Injections 1 sizes 12" Connected to circulating pump

Is a separate Donkey Suction fitted in Engine room & size 2 of 3 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

None

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

Yes

Are they Valves or Cocks

Valves

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

Dates of examination of completion of fitting of Sea Connections 4.5.08

of Stern Tube 4.5.08

Screw shaft and Propeller 13.4.08

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

Deck

BOILERS, &c.—(Letter for record)

Manufacturers of Steel

D. Colville & Sons

Total Heating Surface of Boilers 6855

Is Forced Draft fitted

Yes

No. and Description of Boilers

3 Single ended cylindrical

Working Pressure 200 lbs

Tested by hydraulic pressure to

400 lbs

Date of test

7.5.08 No. of Certificates 79, 80, & 81

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

54

No. and Description of Safety Valves to

each boiler 2 Cockburns

Area of each valve

7.0686

Pressure to which they are adjusted

205 lbs

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

18"

Mean dia. of boilers

14.9"

Length

11.8"

Material of shell plates

Steel

Thickness 1 5/8"

Range of tensile strength

28 1/2 to 32

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

double

long. seams treble riveted

Diameter of rivet holes in long. seams

1 3/8"

Pitch of rivets

9 1/8"

Lap of plates or width of butt straps

20"

Per centages of strength of longitudinal joint

rivets 92

plate 85

Working pressure of shell by rules

211 lbs

Size of manhole in shell

16 x 12"

Size of compensating ring

Mc Neils

No. and Description of Furnaces in each boiler

3 Deighton

Material

Steel

Outside diameter

46 1/2"

Length of plain part

top

bottom

Thickness of plates

crown

bottom

5/8"

Description of longitudinal joint

weld

No. of strengthening rings

—

Working pressure of furnace by the rules

219

Combustion chamber plates: Material

Steel

Thickness: Sides

3/2"

Back

3/2"

Top

3/2"

Bottom

3/2"

Working pressure by rules

205

Pitch of stays to ditto: Sides

9" x 8"

Back

8 1/2" x 8"

Top

9" x 7 1/2"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

215

End plates in steam space:

Material of stays

Steel

Diameter at smallest part

1 5/8"

Area supported by each stay

72

Working pressure by rules

203

Material of stays

Steel

Material

Steel

Thickness

1"

Pitch of stays

15" x 15 1/2"

How are stays secured

double nuts

Working pressure by rules

217

Material of Front plates at bottom

Steel

Diameter at smallest part

5.05

Area supported by each stay

232

Working pressure by rules

217

Material of

Front plates at bottom

Steel

Thickness

7/8"

Greatest pitch of stays

12 1/2" x 8 1/2"

Working pressure of plate by rules

236

Diameter of tubes

2 1/2"

Pitch of tubes

3 3/4" x 3 3/4"

Material of tube plates

Steel

Thickness: Front

1 1/4" x 7/8"

Back

3/4"

Mean pitch of stays

7 1/2"

Pitch across wide water spaces

13 1/2"

Working pressures by rules

224

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

10" x 4" double

Length as per rule

32"

Distance apart

7 3/4"

Number and pitch of stays in each

(2) 9"

Working pressure by rules

237

Superheater or Steam chest; how connected to boiler

None

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

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

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

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Working pressure of end plates

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Working pressure of end plates

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Working pressure of end plates

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VERTICAL DONKEY BOILER—

Manufacturers of Steel

No.	Description	By whom made	When made	Where fixed
Made at	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Description of Safety
If fitted with easing gear	If steam from main boilers can enter the donkey boiler	Dia. of donkey boiler	Date of adjustment	
Material of shell plates	Thickness	Range of tensile strength	Descrip. of riveting long. seams	Length
Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Lap of plating	Per centage of strength of joint
Working pressure of shell by rules	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
Working pressure of furnace by rules	Thickness of furnace crown plates	Stayed by	Dates of survey	
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes		

SPARE GEAR. State the articles supplied:— 1 Crank shaft, 1 Propeller shaft, 2 bronze propeller blades, 12 coupling bolts, set propeller studs and nuts, 2 slide Valve rods, 2 eccentric straps complete, 2 main bearing bolts, 2 crosshead bolts and nuts, 2 crank pin bolts & nuts, 1 pair crosshead brasses, 1 pair crank pin brasses, 2 bilge pump valves & seats, Air pump valves, feed pump valves

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
 During progress of work in shops— 29/8/07, 31/8, 17/9, 30/9, 4/10, 10/10, 12/10, 15/10, 16/10, 18/10, 18/11, 23/11, 12/12, 19/12, 21/12, 9/1/08, 13/1, 22/1
 During erection on board vessel— 25/1, 10/2, 12/2, 14/2, 15/2, 18/2, 26/2, 17/3, 25/3, 1/4, 6/4, 14/4, 29/4, 13/5, 14/5, 24/5, 25/5, 21/5, 2/6, 10/6, 13/6, 3/7
 Total No. of visits 43

Is the approved plan of main boiler forwarded herewith 720
 (See Glasgow report) 25750
 " " " donkey " " "

Dates of Examination of principal parts—Cylinders 12.12.07 Slides 12.12.07 Covers 12.12.07 Pistons 9.1.08 Rods 9.1.08
 Connecting rods 9.1.08 Crank shaft 10.2.08 Thrust shaft 10.2.08 Tunnel shafts 10.2.08 Screw shaft 6.4.08 Propeller 13.6.08
 Stern tube 6.4.08 Steam pipes tested 22.5.08 Engine and boiler seatings 10.6.08 Engines holding down bolts 10.6.08
 Completion of pumping arrangements 18.6.08 Boilers fixed 25.5.08 Engines tried under steam 23.6.08
 Main boiler safety valves adjusted 29.5.08 Thickness of adjusting washers For Brln 3/8" 3/8" Std 5/16" 4/32" Int 1/2" 1/2"
 Material of Crank shaft Steel Identification Mark on Do. 3768 MM Material of Thrust shaft Steel Identification Mark on Do. 3784 MM
 Material of Tunnel shafts Steel Identification Marks on Do. 3779 MM Material of Screw shafts Iron Identification Marks on Do. 2064 MM
 Material of Steam Pipes Copper Test pressure 400 lbs hydraulic Pressure

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery and boilers of this vessel have been constructed under Special Survey in accordance with the rules approved plans, the material and workmanship throughout are of good description
 The Copy of Glasgow report 25750 is enclosed herewith, the boilers having been completed at this and tested to 400 lbs. by hydraulic pressure and found tight with no signs of weakness

It is submitted that this vessel is eligible for THE RECORD. L.M.C. 7.08. ELEC. LIGHT. F.D.

HC. 21.7.08

21.7.08

The amount of Survey Fee... £72
 Special... £1074
 Donkey Boiler Fee... £
 Travelling Expenses (if any) £

When applied for, 11 July 1908
 When received, 3 5-19

Charles R. Hughes
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

FRI. 24 JUL 1908

Assigned

MACHINERY CERTIFICATE WRITTEN

+ L.M.C. 7.08
 F.D. elec. light



Lloyd's Register Foundation

This Office

Certificate (if required) to be sent to

(The Surveyor is requested not to write on or below the space for Committee's Minute.)