

## REPORT ON MACHINERY.

No. 20,550

Date of writing Report

Sep. 19 08

When handed in at Local Office

23. 9 - 1908 Port of Hull

Received at London Office

THUR 24 SEP 1908

No. in Survey held at

Selby + Hull

Reg. Book.

Date, First Survey

June 25<sup>th</sup>

Last Survey

Sep 14<sup>th</sup> 1908

5 Supp. on the

Steel S. K. "Delta B."

(Number of Visits

19

Master

Built at

Selby

By whom built

Cochrane + Sons

Tons

Gross 219

Net 107

When built

1908

Engines made at

Hull

By whom made

Earle's S. &amp; E. Co. Ld.

when made

1908

Boilers made at

By whom made

do

when made

1908

Registered Horse Power

Owners

Societe Anonyme Delta

Port belonging to

Ostend

Nom. Horse Power as per Section 28

71.8 - 72

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

ENGINES, &amp;c.—Description of Engines

Triple Expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

12 1/2" - 21" - 34"

Length of Stroke

24"

Revs. per minute

109

Dia. of Screw shaft

as per rule 7.15"

Material of

Iron

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

the propeller boss

Yes

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

If two

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

Length of stern bush

30 1/2"

Dia. of Thrust shaft

as per rule 6.37"

Dia. of Crank shaft journals

as per rule 6.49"

Dia. of Crank pin

6 1/2"

Size of Crank webs

13 1/2" x 4 1/2"

Dia. of thrust shaft under

lars

6 3/4"

Dia. of screw

8" - 9"

Pitch of Screw

11" - 6"

No. of Blades

4

State whether moveable

No

Total surface

27 sq ft

No. of Feed pumps

2

Diameter of ditto

2 1/4"

Stroke

12"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

2 1/4"

Stroke

12"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

1

Sizes of Pumps

5" x 2 1/2" x 5"

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

Engine Room

One 2"

One 2 1/2"

In Holds, &amp;c.

One 2' to Slush Well, one 2' to

tank, and ejector suction from all parts

No. of Bilge Injections

1

size

3 1/2"

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room &amp; size

Yes 3 1/2"

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

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

Yes

Are they Valves or Cocks

both

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

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

at pipes are carried through the bunkers Slush Well + tank suction

How are they protected

wood casing

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Yes

the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

Yes

times of examination of completion of fitting of Sea Connections

1. 9. 08

of Stern Tube

1. 9. 08

Screw shaft and Propeller

1. 9. 08

the Screw Shaft Tunnel watertight

None

Is it fitted with a watertight door

Yes

worked from

MATERIALS, &amp;c.—(Letter for record

8)

Manufacturers of Steel

The Steel Co. of Scotland

Total Heating Surface of Boilers

1250 sq ft

Is Forced Draft fitted

No

No. and Description of Boilers

1 cyl. Multi

Working Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

24. 8. 08

No. of Certificate

1669

each boiler be worked separately

Yes

Area of fire grate in each boiler

32.5 sq ft

No. and Description of Safety Valves to

boiler

Two Spring

Area of each valve

3.98 sq in

Pressure to which they are adjusted

185 lbs

Are they fitted with easing gear

Yes

least distance between boilers or uptakes and bunkers or woodwork

6 1/2"

Mean dia. of boilers

12" - 6"

Length

10' - 0"

Material of shell plates

Steel

Thickness

1 1/2"

Range of tensile strength

28. 32

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

L.D.

seams

D.D.S.I.C.

Diameter of rivet holes in long. seams

1 1/2"

Pitch of rivets

7 1/4"

Lap of plates or width of butt straps

15 1/2"

percentages of strength of longitudinal joint

rivets

85.5

Working pressure of shell by rules

190 lbs

Size of manhole in shell

16" x 12"

of compensating ring

31" x 28" x 1 1/2"

No. and Description of Furnaces in each boiler

Two plain

Material Steel Outside diameter

44 1/4"

th of plain part

top

72"

bottom

Thickness of plates

crown

49"

bottom

64"

Description of longitudinal joint

Welded

No. of strengthening rings

0

working pressure of furnace by the rules

188 lbs

Combustion chamber plates: Material

5

Thickness: Sides

1 1/2"

Back

5/8"

Top

5/8"

Bottom

1 1/2"

of stays to ditto: Sides

8" x 8 1/2"

Back

8" x 8 1/2"

Top

8 1/2" x 8 1/2"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

186 lbs

Material of stays

Steel

Diameter at smallest part

1 1/2"

Area supported by each stay

72.25 sq in

Working pressure by rules

182 lbs

End plates in steam space:

Material

Steel

Thickness

1 1/2"

Pitch of stays

17" x 17"

How are stays secured

D. 7 washers

Working pressure by rules

185 lbs

Material of stays

Steel

Diameter at smallest part

2 1/2"

Area supported by each stay

289 sq in

Working pressure by rules

224 lbs

Material of Front plates at bottom

Steel

Thickness

1 1/2"

Material of Lower back plate

Steel

Thickness

3/8"

Greatest pitch of stays

14 1/2" x 8 1/2"

Working pressure of plate by rules

187 lbs

Pitch of tubes

3 1/2"

Pitch of tubes

4 1/2" x 4 1/4"

Material of tube plates

Steel

Thickness: Front

5/8"

Back

5/8"

Mean pitch of stays

9 5/8"

across wide water spaces

14 1/2"

Working pressures by rules

181 lbs

Girders to Chamber tops: Material

Steel

Depth and

Pitch of girder at centre

9" x 13 1/4"

Length as per rule

2' - 11 1/2"

Distance apart

8 1/2"

Number and pitch of stays in each

3 - 8 1/2"

Working pressure by rules

185 lbs

Superheater or Steam chest; how connected to boiler

Can the superheater be shut off and the boiler worked

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

Material of flue plates



# VERTICAL DONKEY BOILER—

Manufacturers of Steel

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

SPARE GEAR. State the articles supplied:— Two each top and bottom end connecting rod bolts and nuts, two main bearing bolts and nuts, one set coupling bolts and nuts, one set each air, feed and bilge pump valves, and a quantity of assorted bolts nuts etc.

The foregoing is a correct description,

F. J. Palethorpe Manufacturer.

Dates of Survey while building { During progress of work in shops - } SECRETARY: 1908 - Jun 25. Jul 9. 10 16. 20 25. 30. 31. Aug 21. 24. 27. 28. 31. Sep 1. 2. 3.  
{ During erection on board vessel - } Sep. 8. 9. 14.  
Total No. of visits 19.

Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 20.7.08 Slides 28.8.08 Covers 10.9.08 Pistons 25.7.08 Rods 16.7.08  
Connecting rods 16.7.08 Crank shaft 28.8.08 Thrust shaft 31.8.08 Tunnel shafts Screw shaft 31.8.08 Propeller 31.8.08  
Stern tube 31.8.08 Steam pipes tested 3.9.08 Engine and boiler seatings 27.8.08 Engines holding down bolts 8.9.08  
Completion of pumping arrangements 14.9.08 Boilers fixed 8.9.08 Engines tried under steam 8.9.08  
Main boiler safety valves adjusted 8.9.08 Thickness of adjusting washers 1/32 ~ 1/8  
Material of Crank shaft Steel Identification Mark on Do. 142. GAH Material of Thrust shaft Steel Identification Mark on Do. 57. GAH  
Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Iron Identification Marks on Do. 57. GAH  
Material of Steam Pipes Solid drawn Copper Test pressure 400 lbs

General Remarks (State quality of workmanship, opinions as to class, &c. The engines boiler of this vessel have been constructed under special survey in accordance with the Rules, the materials workmanship are good. The boiler tested by hydraulic pressure, and with the engines fitted and secured on board, they are now in good order and safe working condition and respectfully submitted as being eligible in my opinion to be classed with the notation of L.M.B. 9.08 in the Register Book

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 9.08.

The amount of Entry Fee .. £ 1 : : : When applied for, 23.9.08  
Special .. £ 10 : 16 : :  
Donkey Boiler Fee .. £ : : : When received, 15/10/08  
Travelling Expenses (if any) £ 4 : 1 : :  
£ 12 : 0 : 1

Committee's Minute

Assigned

FRI. 25 SEP 1908

+ L.M.B. 9.08

MACHINED  
WRITTEN



© 2021

Lloyd's Register  
Foundation