

REPORT ON MACHINERY.

No. 2478.

Port of

Heane

Received at London Office

TUES. 6 NOV 1906

No. in Survey held at

Heane

Date, first Survey

7th November 1905

Last Survey

31st October 1906

(Number of Visits 45)

Reg. Book.

11. on the *Sub-Scow Steamer "Deux-Sœurs"*Master *E. Müller*

Built at

Heane

By whom built

Forges & Chantiers

Gross 2461

Tons Net 1533.16

When built 1906.

Engines made at

Heane

By whom made

Forges & Chantiers.

when made

1906

Boilers made at

Heane

By whom made

d^e

when made

1906

Indicated Horse Power

1350.

Owners

Comp. d'Algimay & Faustin. Capelle, Levite, Monaghan

Port belonging to

La Rochelle

Nom. Horse Power as per Section 28

190.

Is Refrigerating Machinery fitted for cargo purposes

No.

Is Electric Light fitted

No.

ENGINES, &c.—Description of Engines *Cable expansion Vertical*

No. of Cylinders

3.

No. of Cranks

3.

Dia. of Cylinders

20¹/₈, 33¹/₁₆, & 52¹/₈

Length of Stroke

35¹/₁₆

Revs. per minute

85.

Dia. of Screw shaft

as per rule 11¹/₁₆

Material of

Stub

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

2 liners

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

If two

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

Composition paint only

Length of stern bush

10¹/₁₆

Dia. of Tunnel shaft

as per rule 9¹/₁₆

Dia. of Crank shaft journals

as per rule 10¹/₁₆

Dia. of Crank pin

10¹/₁₆

Size of Crank webs

11¹/₈ x 7¹/₂

collars

10¹/₁₆

Dia. of screw

13¹/₁₆

Pitch of Screw

14¹/₁₆

No. of Blades

4

State whether moveable

No.

No. of Feed pumps

2.

Diameter of ditto

3¹/₂

Stroke

10¹/₂

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2.

Diameter of ditto

3¹/₈

Stroke

17¹/₂

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

2.

Sizes of Pumps

8¹/₈ x 7¹/₂

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

*In Engine Room (3) three 2³/₄ & turbine 6" Diameter In Holds, &c. (4) four 2³/₄ by Collector for head*and (4) four 2³/₄ by Collector. aft.

No. of Bilge Injections

1. sizes

6"

Connected to condenser, or to circulating pump

Circ. pump

Is a separate Donkey Suction fitted in Engine room & size

yes 2³/₄

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

yes

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

yes

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

*October 1906 of Stern Tube**August 1906*

Screw shaft and Propeller

August 1906

Is the Screw Shaft Tunnel watertight

yes

Is it fitted with a watertight door

yes

worked from

top platform.

BOILERS, &c.—(Letter for record)

(5)

Manufacturers of Steel

Sonain-Auzin, Schulz, Knoudt & Esser.

Total Heating Surface of Boilers

3234^{sq. feet}

Is Forced Draft fitted

No.

No. and Description of Boilers

2 Cylindrical multitubulars.

Working Pressure

170^{lb}

Tested by hydraulic pressure to

256^{lb}

Date of test

24.8.06

No. of Certificate

49.950

Can each boiler be worked separately

yes

Area of fire grate in each boiler

53.8^{sq. feet}

No. and Description of Safety Valves to

each boiler 2 with Springs

Area of each valve

3.14^{sq. in}

Pressure to which they are adjusted

170^{lb}

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

22"

Mean dia. of boilers

13.2¹/₁₆

Length

11.6"

Material of shell plates

Steel

Thickness

1⁹/₆₄

Range of tensile strength

27-30

Are the shell plates welded or flanged

flange

Descrip. of riveting: cir. seams

double

long. seams

double

Diameter of rivet holes in long. seams

1¹/₁₆

Pitch of rivets

4¹/₈

width of butt straps

18³/₈

Per centages of strength of longitudinal joint

75% plate 80%

Working pressure of shell by rules

195^{lb}

Size of manhole in shell

11¹/₈ & 15¹/₈

Size of compensating ring

33¹/₂ - 1¹/₈

No. and Description of Furnaces in each boiler

3 ribbed

Material

Steel

Outside diameter

39³/₈

Length of plain part

top 100"

Thickness of plates

bottom 3³/₆₄"

Description of longitudinal joint

welded

No. of strengthening rings

on

Working pressure of furnace by the rules

195

Combustion chamber plates: Material

Steel

Thickness: Sides

1⁹/₃₂"

Back

1⁹/₃₂"

Pitch of stays to ditto: Sides

9¹/₈ & 7¹/₄

Back

7¹/₄"

Top

7¹/₈"

If stays are fitted with nuts or riveted heads

nutted

Material of stays

Steel

Diameter at smallest part

1³/₁₆ - 1³/₈

Area supported by each stay

62^{sq. in}

Working pressure by rules

175^{lb}

Material of Front plates at bottom

Steel

Thickness

7¹/₈"

Pitch of stays

14 & 15"

How are stays secured

Double nuts

Diameter at smallest part

2¹/₃₂"

Area supported by each stay

96^{sq. in}

Working pressure by rules

180^{lb}

Material of Front plates at bottom

Steel

Thickness

7¹/₈"

Material of Lower back plate

Steel

Thickness

7¹/₈"

Greatest pitch of stays

22"

Diameter of tubes

3¹/₂"

Pitch of tubes

4¹/₈"

Material of tube plates

Steel

Thickness: Front

7¹/₈"

Pitch across wide water spaces

1¹/₈"

Working pressures by rules

180^{lb}

Girders to Chamber tops: Material

Steel

Depth and

*thickness of girder at centre**5¹/₂ x 1"*

Length as per rule

25¹/₁₆"

Distance apart

7¹/₈"

Number and pitch of stays in each

3 - 4¹/₈"

Working pressure by rules

190^{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*

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 casing 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 Plates
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:—2 Coumating, end top end bolts & 2 bottom end with nuts, 2 main bearing bolts 1 set of coupling bolts, 1 set of feed regulators & bilge pump valves, 1 set of piston springs, a quantity of assorted bolts & nuts. Various materials, 1 propeller span, "Cast iron".

The foregoing is a correct description,

Manufacturer.

LE DIRECTEUR DE L'EXPLOITATION

H. Briceau

Dates of Survey while building	During progress of work in shops—	1905. Nov. 7. 10. 11. Decm. 8. 1906 Jan. 9. 11. 15. 31. Apr. 3. 20. 25. May 7. 19. 26. Jun 9. 21. July 3. 19. 2. Aug. 1. 15. 27. 1906 Aug. 8. 16. 27. Sep. 3. 5. 8. 10. 13. 15. 19. 23. October 3. 5. 6. 15. 19. 22. 30. 31
Total No. of visits	45.	

Is the approved plan of main boiler forwarded herewith - Yes.

" " " donkey " " " Yes

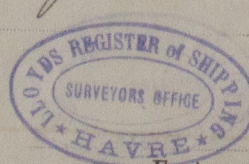
Dates of Examination of principal parts—Cylinders	October 06	Slides	10-06	Covers	10.06	Pistons	Oct. 1906	Rods	Oct. 1906
Connecting rods	Oct. 1906	Crank shaft	Oct. 06	Thrust shaft	Oct. 06	Tunnel shafts	Oct. 06	Screw shaft	July 1906
Stern tube	July 1906	Steam pipes tested	Oct. 1906	Engine and boiler seatings	Oct. 1906	Engines holding down bolts	Oct. 1906		
Completion of pumping arrangements	October 1906	Boilers fixed	September 1906	Engines tried under steam	October 1906				
Main boiler safety valves adjusted	October 1906	Thickness of adjusting washers	Post-ride Boiler (see 1 1/8)	Starb. Boiler (see 1 1/8)					
Material of Crank shaft	Steel	Identification Mark on Do.	145. A.C.	Material of Thrust shaft	Steel	Identification Mark on Do.	146. A.C.		
Material of Tunnel shafts	Steel	Identification Marks on Do.	147. A.C.	Material of Screw shafts	Steel	Identification Marks on Do.	148. A.C.		
Material of Steam Pipes	Copper	Test pressure	375. lb.						

General Remarks (State quality of workmanship, opinions as to class, &c. *Surveyors Letters (E) 1905. Nov. 7. 15. Dec. 2. 1906. Aug.*
The Engine & Boilers of this Vessel, have been built under special survey; the materials used were of good quality, and the workmanship satisfactory. The cylinders, covers, casing-valves, Condenser, steam pipes were tested by hydraulic pressure.
The 2 main Boilers were built in accordance with the approved plan, the materials tested at works were in Timms. Martin Steel, manufactured by the Steel works Demain & Anzin, Schulz Knaudt & Co. & Duisburg Eisen.
When all organs fitted with the Boilers, the safety valves have been adjusted under steam to 170. lb. per sq. inches, & an experience of working Engine was made on the rod of Heave with satisfactory results. The speed was of 10.9.

The machinery of this Vessel being in good and safe working condition. In my opinion it is eligible for to be classed, and to have the notation
*** LMG-10 06** *inserted in the Register Book.*

It is submitted that this vessel is eligible for THE RECORD H.L.M.E. 1

H. Cartier
 7.11.06
 7-11-06
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



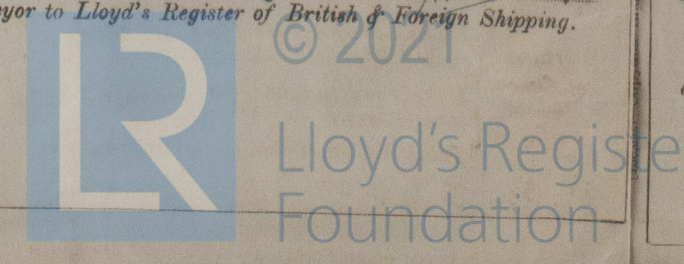
The amount of Entry Fee.	50. .. £ 2. : 0. :	When applied for,	3. November. 1906
Special	712.50 £ 28. : 10. :	When received,	3. November. 1906
Donkey Boiler Fee £ : : :		
Travelling Expenses (if any)	£ 6. : 1. :		

Committee's Minute

FRI. NOV 9 1906

Assigned

+ LMG 10.06
 MACHINERY CERTIFICATE
 WRITTEN



Lloyd's Register Foundation