

REPORT ON MACHINERY.

No. 21832

Port of

Hull

Received at London Office

10th 26 OCT 1909

No. in Survey held at

Hull

Date, first Survey

July 30th

Last Survey

Oct. 18th 1909

No. Book.

Supp on the

Hawke

ALBATROZ

(Number of Visits 24)

Gross 325

Tons Net 174

When built 1909

Master

Built at

Selby

By whom built

Boehman & Sons

as made at

Hull

By whom made

Amos & Smith Ltd.

when made

5

Machinery made at

5

By whom made

5

when made

5

Registered Horse Power

Owners Empresa de Pesca Maritima Limitada

Port belonging to Lisbon

Horse Power as per Section 28

85

Is Refrigerating Machinery fitted for cargo purposes

No.

Is Electric Light fitted

Yes

Engines, &c.—Description of Engines

Inboard triple expansion

No. of Cylinders

3

No. of Cranks

3

No. of Cylinders

13-22½-37

Length of Stroke

24

Revs. per minute

114

Dia. of Screw shaft

as per rule 7.56

as fitted 7.5

Material of screw shaft

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

Yes

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

Yes

If two

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

Length of stern bush 2'9"

No. of Tunnel shaft

as per rule 6.58

as fitted 7

Dia. of Crank shaft journals

as per rule 6.9

as fitted 7½

Dia. of Crank pin

7½

Size of Crank webs

143x43

Dia. of thrust shaft under

No. of Blades

7½

Dia. of screw

9'6"

Pitch of Screw

10'9"

No. of Blades

4

State whether moveable

No.

Total surface

33 sq.

No. of Feed pumps

2

Diameter of ditto

27"

Stroke

12"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

27"

Stroke

12"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

2

Sizes of Pumps

6x3x6 - 4½x2½x4"

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

Engine Room

2-2' (Fore & aft)

In Holds, &c.

2-2' (Hold & stow well)

No. of Bilge Injections

1

sizes

3"

Connected to condenser, or to circulating pump

Yes

Is a separate Donkey Suction fitted in Engine room & size

2" 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

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

How are they protected

Wood casing

Yes

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

1.9.09.

of Stern Tube

1.9.09.

Screw shaft and Propeller

15.10.09.

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

MILERS, &c.—(Letter for record

S

Manufacturers of Steel

Phoenix & Co.

Horseshoe

Westphalia

Total Heating Surface of Boilers

520 sq.

Is Forced Draft fitted

No.

No. and Description of Boilers

1. S.E. Muehlenbach

Working Pressure

180 lbs.

Tested by hydraulic pressure to

360 lbs.

Date of test

30.9.09

No. of Certificate

1724

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

52 sq.

No. and Description of Safety Valves to

Each boiler

2 Spring loaded

Area of each valve

5.93

Pressure to which they are adjusted

180 lbs.

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

7"

Mean dia. of boilers

13'6"

Length

10'6"

Material of shell plates

Steel

Thickness

3/32"

Range of tensile strength

28-32

Are the shell plates welded or flanged

No.

Descrip. of riveting: cir. seams

5/16 Lap.

No. of rivets

87

Diameter of rivet holes in long. seams

1/8"

Pitch of rivets

7.77"

Lap of plates or

width of butt straps

16 3/4"

Percentages of strength of longitudinal joint

rivets 87

plate 85.5

Working pressure of shell by rules

182

Size of manhole in shell

16x12"

No. of compensating ring

40x30x1 3/4"

No. and Description of Furnaces in each boiler

3 plain

Material

Steel

Outside diameter

3'3 1/2"

Length of plain part

top 69.5

bottom 64.5

Thickness of plates

crown 3/4"

bottom 3/4"

Description of longitudinal joint

Welded

No. of strengthening rings

Working pressure of furnace by the rules

196

Combustion chamber plates: Material

Steel

Thickness: Sides

4/16"

Back

7/16"

Top

4/16"

Bottom

Pitch of stays to ditto: Sides

9 1/4 x 9 1/2"

Back

8 1/4 x 10"

Top

8 1/2 x 9 1/2"

If stays are fitted with nuts or riveted heads

Yes

Working pressure by rules

186

Material of stays

Steel

Diameter at smallest part

7/8"

Area supported by each stay

18.75

Working pressure by rules

198

End plates in steam space:

Material

Steel

Thickness

1/4"

Pitch of stays

17 1/2 x 1 1/2"

How are stays secured

Welded

Working pressure by rules

220

Material of stays

Steel

Diameter at smallest part

6 1/8"

Area supported by each stay

293

Working pressure by rules

216

Material of Front plates at bottom

Steel

Thickness

2 1/2"

Material of Lower back plate

Steel

Thickness

3/8"

Greatest pitch of stays

14 x 10"

Working pressure of plate by rules

180

Diameter of tubes

3 1/2"

Pitch of tubes

4 3/4 x 4 3/4"

Material of tube plates

Steel

Thickness: Front

2 1/2"

Back

7/8"

Mean pitch of stays

9 1/4 x 1 1/2"

Pitch across wide water spaces

14"

Working pressures by rules

182

Girders to Chamber tops: Material

Steel

Depth and

Thickness of girder at centre

9 1/4 x 1 1/2"

Length as per rule

2 1/8"

Distance apart

Working pressure by rules

200

Superheater or Steam chest; how connected to boiler

Can the superheater be shut off and the boiler worked

separately

Yes

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

Thickness

stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

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 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:— *Two top & two bottom end connecting rods, two main bearing bolts, one set of coupling bolts & nuts, one set of feed & bilge pump valves, one set of air pump valves, one main & one donkey feed check valve, assorted bolts & nuts etc*

The foregoing is a correct description,

FOR AMOS & SMITH LTD.

Manufacturer.

W. H. H. H.

Managing Director.

Dates of Survey while building { During progress of work in shops - 1909 - July 30. Aug 4. 11. 20. 26. 28. 31. Sept 1. 2. 8. 13. 15. 18. 28. 30. Oct 6. 7. 9. 11.
During erection on board vessel - Oct 12. 14. 15. 16. 18.
Total No. of visits 24

Is the approved plan of main boiler forwarded herewith *yes.*

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 2.9.09. Slides 18.9.09. Covers 2.9.09. Pistons 18.9.09. Rods 2.9.09. Connecting rods 2.9.09. Crank shaft 8.9.09. Thrust shaft 26.8.09. Tunnel shafts. Screw shaft 26.8.09. Propeller 26.8.09. Stern tube 26.8.09. Steam pipes tested 9.10.09. Engine and boiler seatings 1.9.09. Engines holding down bolts 7.10.09. Completion of pumping arrangements 18.10.09. Boilers fixed 7.10.09. Engines tried under steam 12.10.09. Main boiler safety valves adjusted 12.10.09. Thickness of adjusting washers $P\frac{5}{16} S\frac{9}{32}$. Material of Crank shaft *Steel* Identification Mark on Do. *592 J.W.G.* Material of Thrust shaft *Steel* Identification Mark on Do. *26.8.09 J.W.G.* Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts *Iron* Identification Marks on Do. *26.8.09 J.W.G.* Material of Steam Pipes *Solid drawn copper* Test pressure *360 lbs.*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery & boiler of this vessel have been constructed under Special Survey, are of good material & workmanship & have been fitted & secured on board in accordance with the Rules. They are now in good working condition & eligible in my opinion to have record of T.L.M.C. 10.09 in the Register Book.*

It is submitted that this vessel is eligible for THE RECORD. + LMC 10.09

H.E.D.
27.10.09. *J.W.G.*

The amount of Entry Fee. £ 1 : 0 : 0
Special £ 12 : 15 : 0
Donkey Boiler Fee £ : :
Travelling Expenses (if any) £ : 8 : 2

When applied for, 23/10/1909
When received, 30.10.09

John W. Gwynne
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

FRI. 29 OCT 1909

Assigned

+ LMC 10.09