

## REPORT ON MACHINERY.

AUG 13 1901

Port of

Glasgow

Received at London Office

19

No. in Survey held at  
Reg. Book.

Glasgow

Date, first Survey 3 Decr. 1900 Last Survey 3 August 1901.

(Number of Visits 35.)

on the

S.S. "ADANSI."

Tons { Gross 2643.86.  
Net 1643.32

Master

Built at

Dumbarton

By whom built

McMullan &amp; Low

When built 1901.

Engines made at

Glasgow

By whom made

Muir &amp; Houston Ltd.

when made 1901.

Boilers made at

Glasgow

By whom made

Muir &amp; Houston Ltd.

when made 1901.

Registered Horse Power

Owners

Elder Dempster &amp; Co.

Port belonging to

London.

Nom. Horse Power as per Section 28 257.

Is Refrigerating Machinery fitted

No

Is Electric Light fitted

No.

## ENGINES, &amp;c.—Description of Engines

Triple expansion, screw

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

23", 37", 61"

Length of Stroke

42"

Revs. per minute

72

Dia. of Screw shaft

as per rule

11.52

as fitted

13"

Lgth. of stern bush

4'-4"

Dia. of Tunnel shaft

as per rule 10.43

as fitted 11 1/2"

Dia. of Crank shaft journals

as per rule 10.98

as fitted 12 1/8"

Dia. of Crank pin

12 1/8"

Size of Crank webs

8 1/2"

Dia. of thrust shaft under

collars

12 1/8"

Dia. of screw

16'-0"

Pitch of screw

17'-0"

No. of blades

4

State whether moveable

no

Total surface

80 sq. ft.

No. of Feed pumps

2

Diameter of ditto

3 1/4"

Stroke

22"

Can one be overhauled while the other is at work

yes.

No. of Bilge pumps

2

Diameter of ditto

3 1/4"

Stroke

22"

Can one be overhauled while the other is at work

yes.

No. of Donkey Engines

Three

Sizes of Pumps

{ 3 x 5" - 4 x 6"

8 1/2 x 6" Duplex

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

In Engine Room

Four 3" dia.

In Holds, &amp;c.

Two in after hold, four

in forward holds, one in tunnel well all 3" in dia.

No. of bilge injections

1

sizes

5 1/2"

Connected to condenser, or to circulating pump pump Is a separate donkey suction fitted in Engine room &amp; size

yes 3"

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

values &amp; 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

yes.

When were stern tube, propeller, screw shaft, and all connections examined in dry dock

before launch

Is the screw shaft tunnel watertight

yes.

Is it fitted with a watertight door

yes

worked from

top platform.

## BOILERS, &amp;c.—

(Letter for record

(5)

Total Heating Surface of Boilers

4100 sq. ft.

Is forced draft fitted

no.

No. and Description of Boilers

Two single ended

Working Pressure

160 lbs

Tested by hydraulic pressure to

320 lbs

Date of test

12/6/01

Can each boiler be worked separately

yes

Area of fire grate in each boiler

56 sq. ft.

No. and Description of safety valves to

each boiler

2 Patent Spring

Area of each valve

6.49"

Pressure to which they are adjusted

165 lbs

Smallest distance between boilers or uptakes and bunkers or woodwork

12"

Mean dia. of boilers

14'-6"

Length

10'-3"

Material of shell plates

steel

Thickness

1 1/2"

Range of tensile strength

28 to 32

Are they welded or flanged

no

Descrip. of riveting: cir. seams

double

long. seams

tribble

Diameter of rivet holes in long. seams

1 3/16"

Pitch of rivets

7 1/4"

Lap of plates or width of butt straps

1'-5"

Per centages of strength of longitudinal joint

rivets 90.9

plate 84.6

Working pressure of shell by rules

146 lbs

Size of manhole in shell

16" x 12"

Size of compensating ring

Micheils

No. and Description of Furnaces in each boiler

3 Morrison

Material

steel

Outside diameter

3'-6 1/2"

Length of plain part

top {

bottom {

Thickness of plates

crown { 1/2"

Description of longitudinal joint

welded

No. of strengthening rings

✓

Working pressure of furnace by the rules

177 lbs

Combustion chamber plates: Material

steel

Thickness: Sides

9/16"

Back

9/16"

Top

9/16"

Bottom

13/16"

Pitch of stays to ditto: Sides

7 x 8"

Back

8 x 8"

Top

7 x 8"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

170 lbs

Material of stays

steel

Diameter at smallest part

1.45"

Area supported by each stay

64"

Working pressure by rules

181 lbs

End plates in steam space:

Material

steel

Thickness

7/8"

Pitch of stays

15 x 15"

Material

steel

How are stays secured

nuts

Working pressure by rules

161 lbs

Material of stays

steel

Diameter at smallest part

4.37"

Area supported by each stay

275 lbs

Working pressure by rules

194 lbs

Material of Front plates at bottom

steel

Thickness

7/8"

Material of Lower back plate

steel

Thickness

7/8"

Greatest pitch of stays

1 1/2 x 8"

Working pressure of plate by rules

240 lbs

Diameter of tubes

3/4"

Pitch of tubes

4 1/2 x 4 1/2"

Material of tube plates

steel

Thickness: Front

{ 7/8"

Back

7/8"

Mean pitch of stays

9"

Pitch across wide water spaces

14"

Working pressures by rules

250 lbs

Girders to Chamber tops: Material

iron

Depth and

thickness of girder at centre

7 x 2-1"

Length as per rule

28"

Distance apart

8"

Number and pitch of Stays in each

3-4"

Working pressure by rules

224 lbs

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

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

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓



**DONKEY BOILER—** No. *One* Description *Ordinary Horizontal marine type.*  
 Made at *Glasgow* By whom made *Muir & Houston Ltd* When made *1901* Where fixed *in stokehold*  
 Working pressure *160 lb* tested by hydraulic pressure to *320 lb* No. of Certificate *5817* Fire grate area *26 1/2* Description of safety valves *Sakint spring*  
 No. of safety valves *2* Area of each *3.14* Pressure to which they are adjusted *165 lb* If fitted with easing gear *yes* If steam from main boilers can enter the donkey boiler *no* Dia. of donkey boiler *9.6* Length *8.0* Material of shell plates *steel* Thickness *27/32* Range of tensile strength *28 to 32* Descrip. of riveting long. seams *treble* Dia. of rivet holes *1 1/8* Whether punched or drilled *drilled* Pitch of rivets *4 1/2*  
*Butt straps 17* Per centage of strength of joint *93* Rivets *85* Thickness of shell *end* plates *27/32* Radius of do. *hubb* No. of Stays to do. *13 1/2 x 13 1/2*  
 Area of stays. *3.49* Diameter of furnace *3.0* Bottom *✓* Length of furnace *82* Thickness of furnace plates *1/16* Description of joint *welded* Thickness of furnace crown plates *✓* Stayed by *✓* Working pressure of shell by rules *186 lb*  
 Working pressure of furnace by rules *178 lb* Diameter of *tubes* uptake *3 1/4* Thickness of *tube* uptake plates *1/16* Thickness of *tube* uptake tubes *7/16*

**SPARE GEAR.** State the articles supplied:— *Two top end & two bottom end connecting rod bolts, two main bearing bolts, one set coupling bolts, one set of feed & bilge pump valves. Etc.*

The foregoing is a correct description,

Manufacturer.

*James Stewart & Co.*  
 Dates { During progress of work in shops— *1900. Dec. 3. 1901. Jan. 7. 16. 23. 30. Feb. 4. 14. 22. Mar. 1. 6. 18. 24. 26. Apr. 15. 20.*  
 of Survey { During erection on board vessel— *May. 1. 7. 15. 22. 31. Jun. 3. 10. 13. 17. 18. 24. 25. Jul. 1. 5. 8. 11. 24. 25. Aug. 1. 3.*  
 while building { Total No. of visits *35.*

Is the approved plan of main boiler forwarded herewith *No*

" " " donkey " " " *No*

**General Remarks** (State quality of workmanship, opinions as to class, &c. *Boiler plans as for sp. "Ancobra."*)

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 *no*

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 *✓*

The machinery of this vessel has been constructed under Special Survey, the material & workmanship are of good quality, it has been securely fastened on board & tried under steam, & found to be in good working order. In my opinion it is eligible to be classed in the Register Book with the record of *+L.M.C.8.01—*

These Engines are duplicate of those of the sp. "Ancobra" Glasgow Report N<sup>o</sup> 18884.

It is submitted that this vessel is eligible for THE RECORD. *+L.M.C.8.01*

*J.S.*  
*14/8/01*

The amount of Entry Fee. £ *2*  
 Special .. £ *32.17*  
 Donkey Boiler Fee .. £  
 Travelling Expenses (if any) £

When applied for,

*12/8/01*

When received,

*31.9.01*

*J.W. Dimmock*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

Glasgow. 12 AUG. 1901

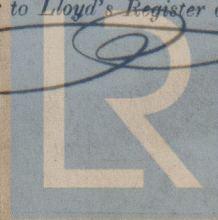
Assigned

*+ L.M.C. 8.01*

*When fee paid*

MACHINERY CERTIFICATE

WRITTEN 14.8.01



Lloyd's Register Foundation