

REPORT ON MACHINERY

No. 50360.

APL 1906

TUES. 3 APL 1906

Port of Newcastle-on-Tyne

Received at London Office

No. in Survey held at
Reg. Book.

South Shields

Date, first Survey

Nov. 7

Last Survey

20th March 1906

(Number of Visits 25)

53 Supp. on the

S.S. EVELYN

Master

Built at

Goole

By whom built

Goole Shipbuilding Co.

Tons

Gross 235

Net 74

When built 1906

Engines made at

South Shields

By whom made

G. J. Grey

when made 1906

Boilers made at

By whom made

J. J. Eltringham

when made 1906

Registered Horse Power

Owners

J. Marr & Son

Port belonging to

Fleetwood

Nom. Horse Power as per Section 28

69.4

Is Refrigerating Machinery fitted

No

Is Electric Light fitted

No

ENGINES, &c.—Description of Engines

Tri-compound

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

12 $\frac{1}{4}$ - 21 - 33

Length of Stroke

24

Revs. per minute

Dia. of Screw shaft

as per rule 7 $\frac{1}{2}$

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

Fitting

If two

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

Length of stern bush

2'-6"

Dia. of Tunnel shaft

as per rule 6.305

Dia. of Crank shaft journals

as per rule 6.62

Dia. of Crank pin

6 $\frac{5}{8}$

Size of Crank webs

12 $\frac{1}{2}$ x 4 $\frac{1}{2}$

Dia. of thrust shaft under

collars

6 $\frac{7}{8}$

Dia. of screw

8'-6"

Pitch of screw

10'-6"

No. of blades

4

State whether moveable

No

Total surface

28 sq

No. of Feed pumps

1

Diameter of ditto

2 $\frac{1}{4}$

Stroke

13 $\frac{1}{2}$

Can one be overhauled while the other is at work

No. of Bilge pumps

1

Diameter of ditto

2 $\frac{3}{4}$

Stroke

13 $\frac{1}{2}$

Can one be overhauled while the other is at work

No. of Donkey Engines

2

Sizes of Pumps

4 $\frac{1}{2}$ x 2 $\frac{3}{4}$ x 4

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

In Engine Room

One of 2 $\frac{1}{2}$

Ford. slush tank

1 of 2 $\frac{1}{2}$ in fish tank

In Holds, &c.

1 of 2 $\frac{1}{2}$

After slush tank

No. of bilge injections

1

sizes

2 $\frac{3}{4}$

Connected to condenser, or to circulating pump

Pump

Is a separate donkey suction fitted in Engine room & size

Yes

2 $\frac{1}{2}$

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

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

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

New Year

Is the screw shaft tunnel watertight

Engine off

Is it fitted with a watertight door

Yes

worked from

Yes

BOILERS, &c.—

(Letter for record 5)

Total Heating Surface of Boilers

1250 sq

Is forced draft fitted

No

No. and Description of Boilers

One single ended

Working Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

14-2-05

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

33.5 sq

No. and Description of safety valves to

each boiler

Two spring loaded

Area of each valve

3.976 sq

Pressure to which they are adjusted

185 lbs

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

17"

Mean dia. of boilers

12'-3"

Length

10'-0"

Material of shell plates

Steel

Thickness

1 $\frac{1}{8}$ "

Range of tensile strength

282-32

Are they welded or flanged

No

Descrip. of riveting: cir. seams

double

long. seams

quintuple

Diameter of rivet holes in long. seams

1 $\frac{1}{8}$ "

Pitch of rivets

6 $\frac{1}{4}$ "

Lap of plates or width of butt straps

12 $\frac{3}{8}$ "

Per centages of strength of longitudinal joint

rivets 83%

plate 82%

Working pressure of shell by rules

180 lbs

Size of manhole in shell

Size of compensating ring

No. and Description of Furnaces in each boiler

2 plain

Material

Steel

Outside diameter

44"

Length of plain part

top 70 $\frac{1}{2}$ "

bottom 64"

Thickness of plates

crown 4.9"

bottom 6.4"

Description of longitudinal joint

rivetted

No. of strengthening rings

2

Working pressure of furnace by the rules

181 lbs

Combustion chamber plates: Material

Steel

Thickness: Sides

1 $\frac{1}{8}$ "

Back

2 $\frac{1}{8}$ "

Top

1 $\frac{1}{8}$ "

Bottom

4 $\frac{9}{16}$ "

Pitch of stays to ditto: Sides

9 $\frac{3}{4}$ x 9 $\frac{3}{8}$

Back

9 $\frac{3}{4}$ x 8 $\frac{1}{2}$

Top

9 $\frac{3}{4}$ x 9 $\frac{3}{8}$

If stays are fitted with nuts or riveted heads

Photo

Working pressure by rules

181 lbs

End plates in steam space:

Material of stays

Steel

Diameter at smallest part

1 $\frac{1}{2}$ "

Area supported by each stay

90 sq

Working pressure by rules

197 lbs

Material of stays

Steel

Material

Steel

Thickness

1 $\frac{3}{8}$ "

Pitch of stays

16 $\frac{1}{2}$ x 16 $\frac{1}{2}$

How are stays secured

JW & W & S

Working pressure by rules

181 lbs

Material of stays

Steel

Diameter at smallest part

2 $\frac{3}{8}$ "

Area supported by each stay

276 sq

Working pressure by rules

182 lbs

Material of Front plates at bottom

Steel

Thickness

1 $\frac{1}{8}$ "

Material of Lower back plate

Steel

Thickness

7 $\frac{1}{8}$ "

Diameter of tubes

3 $\frac{1}{2}$ "

Pitch of tubes

4 $\frac{1}{4}$ "

Material of tube plates

Steel

Thickness: Front

1 $\frac{3}{8}$ x 1 $\frac{1}{2}$

Back

7 $\frac{1}{8}$ "

Mean pitch of stays

14 $\frac{1}{2}$ "

Pitch across wide water spaces

14 $\frac{1}{2}$ "

Working pressures by rules

181 lbs

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

9 $\frac{3}{4}$ x 1 $\frac{1}{2}$ "

Length as per rule

2-8 $\frac{1}{2}$ "

Distance apart

9 $\frac{3}{4}$ "

Number and pitch of Stays in each

Two 9 $\frac{3}{4}$ "

Working pressure by rules

188 lbs

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

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

Made at	By whom made	When made	Where fixed	
Working pressure tested by hydraulic pressure to	No. of Certificate	Fire grate area	Description of safety valves	
No. of safety valves	Area of each	Pressure to which they are adjusted	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	Thickness of shell crown plates	Radius of do.
		Plates	No. of Stays to do.	
Dia. of stays.	Diameter of furnace Top	Bottom	Length of furnace	Thickness of furnace plates
joint	Thickness of furnace crown plates	Stayed by	Working pressure of shell by rules	
Working pressure of furnace by rules	Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	

SPARE GEAR. State the articles supplied:— 2 Top end, 2 bottom end, 2 main bearing bolts & nuts, 1 set coupling bolts & nuts, 1 set Piston bolts, 1 set feed, bilge, air & circ. pump valves, 1 propeller, 1 main & 1 donkey check valve

prop. of Grey
Wells
Manufacturer of Engine

Mr. D. Cunningham & Co. Manufacturer of Lumber

Dates of Survey while building	During progress of work in shops - -	1905: Nov. 10, 17, 24. Dec. 8, 21. 1906: Jan. 10, 26. Feb. 6, 16. Mch. 12, 16, 20.
	During erection on board vessel - -	Blk. 1905: Nov. 7, 30. Dec. 6, 20. 1906: Jan. 5, 10, 12, 16, 22, 25, 31. Feb. 5, 7, 14.
	Total No. of visits	25

Is the approved plan of mo

Is the approved plan of main boiler forwarded herewith

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been built under Special Survey & in our opinion is eligible for record \pm L. M. C. 3.06

It is submitted that
this vessel is eligible for
THE RECORD # L.M.C. 3.06

Paul.
3.4.06

40
Howards-on-Tyne.

*Certificate (if required) to be set
along the space for Committee's Minute.)*

The amount of Entry Fee..	£	1	:	:	When applied for,
Special	£	10	:	7	27 MAR 1906
Donkey Boiler Fee	£	-	:	-	When received,
Travelling Expenses (if any) £	-	:	:	-	24

314 P. A. Dryden Towne & A. J. Gresham
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

FRI 6 APL 2004

Assigned

+ Lm 6. 3. 06

MACHINERY CERTIFICATE
WRITTEN.

Lloyd's Register
Foundation