

REPORT ON MACHINERY.

No. 22884

Port of Hull

Received at London Office WED. 24 AUG 1910

No. in Survey held at

Hull

Date, first Survey

May 10th

Last Survey

Aug 12th 1910

Reg. Book.

8 Supp on the

Steel S. K. Grosbeak

(Number of Visits 25)

Gross 192
Net 171

Master

Built at

Goole

By whom built Goole S. B. Rpg. Co.

When built 1910

Engines made at

By whom made

Messrs

when made 1910

Boilers made at

Hull

By whom made

Charles Co. Ltd.

when made 1910

Registered Horse Power

Owners Kelsall Bros & Buching Ltd

Port belonging to Hull

Nom. Horse Power as per Section 28

55

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

ENGINES, &c.—Description of Engines

Triple Expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

12" - 21" - 33"

Length of Stroke

21"

Revs. per minute

130

Dia. of Screw shaft

as per rule 7.38
as fitted 7.75

Material of

Iron

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

No

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

Yes

Length of stern bush

36"

Dia. of Tunnel shaft

as per rule

Dia. of Crank shaft journals

as per rule

6.5

Dia. of Crank pin

6 1/2

Size of Crank webs

12 1/2 x 4 1/2

Dia. of thrust shaft under

collars

6 1/2"

Dia. of screw

9 - 6"

Pitch of Screw

4 - 0"

No. of Blades

4

State whether moveable

No

Total surface

34 sq

No. of Feed pumps

1

Diameter of ditto

2 1/2"

Stroke

10"

Can one be overhauled while the other is at work

No. of Bilge pumps

1

Diameter of ditto

2 1/2"

Stroke

10"

Can one be overhauled while the other is at work

No. of Donkey Engines

One

Sizes of Pumps

4 1/2" - 2 1/4" - 4"

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

In Engine Room One 2", One 2 1/2", One 3 1/2"

In Holds, &c. One 2" to hold, Two 2" to tank

And Ejector suction from these parts

No. of Bilge Injections

1

sizes

3 1/2"

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room & size

Yes 2 1/2" Ejector

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

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

Tank hold Suctions

How are they protected

Wood casing

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

23. 7. 10

of Stern Tube

23. 7. 10

Screw shaft and Propeller

23. 7. 10

Is the Screw Shaft Tunnel watertight

None

Is it fitted with a watertight door

Yes

worked from

OILERS, &c.—(Letter for record

5)

Manufacturers of Steel

Phoenix Co.

Houlder

Westfalen

Total Heating Surface of Boilers

900 sq

Is Forced Draft fitted

No

No. and Description of Boilers

One Cyl. Multi S. Enail

Working Pressure

160 lbs

Tested by hydraulic pressure to

320 lbs

Date of test

8. 7. 10

No. of Certificate

1757

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

24.5 sq

No. and Description of Safety Valves to

each boiler

Two Spring

Area of each valve

3/4 sq

Pressure to which they are adjusted

160 lbs

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

11"

dia. of boilers

10 - 6"

Length

9 - 6"

Material of shell plates

Steel

Thickness

2 1/4"

Range of tensile strength

28.32

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

L.D.

long. seams

D.B.S.D.R.

Diameter of rivet holes in long. seams

1 1/2"

Pitch of rivets

6.52

Lap of plates or width of butt straps

11 1/4"

Per centages of strength of longitudinal joint

rivets. 80.6

plate. 82.4

Working pressure of shell by rules

161 lbs

Size of manhole in shell

16" x 12"

Size of compensating ring

4" x 3 1/2"

No. and Description of Furnaces in each boiler

Two plain

Material

S.

Outside diameter

34"

Length of plain part

top 6' - 4 1/2"

Thickness of plates

crown 2 1/4"

bottom 2 1/4"

Description of longitudinal joint

Welded

No. of strengthening rings

Yes

Working pressure of furnace by the rules

176 lbs

Combustion chamber plates: Material

Steel

Thickness: Sides

5/8"

Back

3/8"

Top

7/8"

Bottom

7/8"

Pitch of stays to ditto: Sides

8 1/2" x 9"

Back

9" x 10"

Top

9" x 7 1/2"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

165 lbs

Material of stays

Steel

Diameter at smallest part

1 1/2"

Area supported by each stay

76.5 sq

Working pressure by rules

184 lbs

End plates in steam space:

Material

Steel

Thickness

5/8"

Pitch of stays

5" x 15"

How are stays secured

D. N.

Working pressure by rules

161 lbs

Material of Front plates at bottom

S.

Diameter at smallest part

2 1/2"

Area supported by each stay

225 sq

Working pressure by rules

194 lbs

Material of Lower back plate

S.

Thickness

5/8"

Greatest pitch of stays

14" x 9"

Working pressure of plate by rules

191 lbs

Diameter of tubes

3"

Pitch of tubes

4 1/8" x 4 1/8"

Material of tube plates

S.

Thickness: Front

5/8"

Back

3/8"

Mean pitch of stays

9"

Pitch across wide water spaces

14"

Working pressures by rules

160 lbs

Girders to Chamber tops: Material

S.

Depth and

thickness of girder at centre

7 1/2" x 12"

Length as per rule

2 - 3 1/2"

Distance apart

7 1/2"

Number and pitch of stays in each

Two 9"

Working pressure by rules

226 lbs

Superheater or Steam chest; how connected to boiler

Nuts

Can the superheater be shut off and the boiler worked

Dome

Description of longitudinal joint

L.D.

Diam. of rivet

2"

separately

No

Diameter

2 - 6"

Length

2 - 6"

Thickness of shell plates

5/8"

Material

S.

Description of longitudinal joint

L.D.

Diam. of rivet

2"

Pitch of rivets

3 1/2"

Working pressure of shell by rules

370 lbs

Diameter of flue

S.

Material of flue plates

S.

Thickness

5/8"

If stiffened with rings

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 Safe
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 each top and bottom end connecting rods and nuts, two main bearing bolts and nuts, one set coupling bolts and nuts, one set each air, circulating, feed and bilge pump and a quantity of assorted bolts nuts etc*

The foregoing is a correct description,
F. J. Sale Thorpe Manufacturer.

Dates of Survey while building	During progress of work in shops -	1910: May 10. 23. 28. 30. Jun 2. 7. 9. 13. 16. Jul 4. 5. 8. 11. 15. 16. 18. 19. 20. 21. 23. 25. 26. 28. 30
	During erection on board vessel -	Aug 12
	Total No. of visits	25

Dates of Examination of principal parts—	Cylinders 4. 7. 10	Slides 15. 7. 10	Covers 4. 7. 10	Pistons 4. 7. 10	Rods 4. 7. 10
Connecting rods	15. 7. 10	Crank shaft 16. 7. 10	Thrust shaft 4. 7. 10	Tunnel shafts	Screw shaft 4. 7. 10
Propeller	23. 7. 10	Steam pipes tested 29. 7. 10	Engine and boiler seatings 23. 7. 10	Engines holding down bolts 23. 7. 10	
Completion of pumping arrangements	12. 8. 10	Boilers fixed 30. 7. 10	Engines tried under steam 30. 7. 10		
Main boiler safety valves adjusted	12. 8. 10	Thickness of adjusting washers	3/8" 3/8"		
Material of Crank shaft	S	Identification Mark on Do.	213 YATG	Material of Thrust shaft	S
Identification Mark on Do.	3721 MR	Material of Tunnel shafts	Identification Marks on Do.	Material of Screw shafts	Iron
Identification Marks on Do.	146 ATG	Material of Steam Pipes	Solid drawn copper	Test pressure	400 lbs per sq inch

General Remarks (State quality of workmanship, opinions as to class, &c. The engines and 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 secured on board, and tested under steam and found satisfactory. 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. 6-8-10* in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + LMC 8.10.

The amount of Entry Fee	£ 1 : . : .	When applied for.	23. 8. 19. 10
Special	£ 8 : 5 : .	When received.	5. 9. 10
Donkey Boiler Fee	£ : : .		
Travelling Expenses (if any)	£ : : .		

Committee's Minute
 Assigned + L M. 6. 8. 10

James Barclay
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.
 25/8/10
 6/9/10

