

## REPORT ON MACHINERY.

No. 23871.

Received at London Office 30 JUN 1911

Date of writing Report

19

When handed in at Local Office 23<sup>rd</sup> June 1911

Port of Hull

No. in Survey held at

Hull Beverley

Date, First Survey

Oct. 19<sup>th</sup>

Last Survey

20<sup>th</sup> June 1911

Reg. Book.

58 Oppen the

Shul Se. K. "Night Hawk"

(Number of Visits)

55

Tons

Gross 287

Net 113

Master

Built at

Beverley

By whom built

Cook, Welton &amp; Gemmell

When built

1911

Engines made at

By whom made

Messrs

when made

1911

Boilers made at

Hull

By whom made

Charles D. Holmes &amp; Co. Ltd

when made

1911

Registered Horse Power

Owners

Pioneer Steam Fishing Co. Ltd

Port belonging to

Grimby

Nom. Horse Power as per Section 28

87

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

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

Triple Expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders 13 $\frac{1}{2}$ " ~ 23" ~ 37"

Length of Stroke

26"

Revs. per minute

110

Dia. of Screw shaft

as per rule 7.79

Material of

S

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

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

If two

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

Length of stern bush

36"

Dia. of Tunnel shaft

as per rule 6.9

Dia. of Crank shaft journals

as per rule 7.24

Dia. of Crank pin

7.5

Size of Crank webs

14 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ "

Dia. of thrust shaft under

collars

7.5"

Dia. of screw

9'-6"

Pitch of Screw

11'-6"

No. of Blades

4

State whether moveable

No

Total surface

34 sq

No. of Feed pumps

Two

Diameter of ditto

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

Stroke

14 $\frac{3}{4}$ "

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

Two

Diameter of ditto

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

Stroke

14 $\frac{3}{4}$ "

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

One

Sizes of Pumps

5" x 2 $\frac{3}{4}$ " x 5"

No. and size of

Suctions connected to both Bilge and Donkey pumps

In Engine Room

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

Two 2"

In Holds, &amp;c.

One 2' to fore hold

One

2' to elush well

No. of Bilge Injections

1

sizes

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

Connected to condenser, or to circulating pump

pmp

Is a separate Donkey Suction fitted in Engine room &amp; size

Yes

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

6"

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

hold suction

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

29. 4. 11

of Stern Tube

29. 4. 11

Screw shaft and Propeller

29. 4. 11

Is the Screw Shaft Tunnel watertight

None

Is it fitted with a watertight door

worked from

BOILERS, &amp;c.—(Letter for record

S)

Manufacturers of Steel

Phoenix

Apt. 8. A. H. V. of Houlder

Total Heating Surface of Boilers

1500 sq

Is Forced Draft fitted

No

No. and Description of Boilers

One

by Multi Sing. Ended

No. of Certificate

1797

Working Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

31. 3. 11

No. and Description of Safety Valves

to

Can each boiler be worked separately

Area of fire grate in each boiler

46.8 sq

No. and Description of Safety Valves

to

each boiler

Two Spring

Area of each valve

4.9 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

11"

Mean dia. of boilers

14'-0"

Length

10'-9"

Material of shell plates

S

Thickness

1 $\frac{5}{32}$ "

Range of tensile strength

28

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

L. D.

long. seams

D. B. S. J. R.

Diameter of rivet holes in long. seams

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

Pitch of rivets

8"

Lap of plates or width of butt straps

18"

Per centages of strength of longitudinal joint

rivets 88.8

plate 85

Working pressure of shell by rules

185 lbs

Size of manhole in shell

16" x 12"

Size of compensating ring

7" x 1 $\frac{5}{32}$ "

No. and Description of Furnaces in each boiler

3 plain

Material

S

Outside diameter

39"

Length of plain part

top 6'-5"

Thickness of plates

bottom 6'-5"

Description of longitudinal joint

welded

No. of strengthening rings

0

Working pressure of furnace by the rules

189 lbs

Combustion chamber plates: Material

S

Thickness: Sides

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

Back

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

Top

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

Bottom

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

Working pressure by rules

181 lbs

Pitch of stays to ditto: Sides

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

Back

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

Top

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

If stays are fitted with nuts or riveted heads

Yes

Working pressure by rules

187 lbs

End plates in steam space:

Material of stays

S

Material of stays

S

Diameter at smallest part

2.4

Area supported by each stay

115.1875

Working pressure by rules

185 lbs

Material of stays

S

Material

S

Thickness

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

Pitch of stays

20" x 20"

How are stays secured

D. B. S. J. R.

Working pressure by rules

185 lbs

Material of Front plates at bottom

S

Diameter at smallest part

7.5"

Area supported by each stay

400 sq

Working pressure by rules

195 lbs

Material of plate by rules

184 lbs

Thickness

1"

Material of Lower back plate

S

Thickness

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

Greatest pitch of stays

14 $\frac{1}{2}$ " x 9 $\frac{1}{2}$ "

Working pressure of plate by rules

184 lbs

Diameter of tubes

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

Pitch of tubes

5" x 5 $\frac{1}{4}$ "

Material of tube plates

S

Thickness: Front

1"

Back

8"

Mean pitch of stays

10 $\frac{1}{2}$ "

Pitch across wide water spaces

13 $\frac{3}{4}$ "

Working pressures by rules

189 lbs

Girders to Chamber tops: Material

S

Depth and

Number and pitch of stays in each

3 in, 9 $\frac{1}{2}$ "

thickness of girder at centre

10" x 2"

Length as per rule

3'-8"

Distance apart

9 $\frac{1}{2}$ "

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



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 Sa
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	Radius of do.	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 connectors, rod bolts and nuts, two main bearing bolts and nuts, one set coupling bolts and nuts, one set each, feed and bilge air, and donkey pump valves, iron various sizes, various bolts nuts &c.

The foregoing is a correct description,

CHARLES D. HOLMES & CO. L<sup>td</sup> Manufacturer.

Harold I. Sheardson  
 Dates of Survey while building  
 During progress of work in shops - 1910: Oct. 19. 21. 27. Nov. 3. 4. 9. 11. 14. 18. 21. Dec. 2. 6. 7. 9. 12. 15. 17. 20. 1911:  
 During erection on board vessel - Jan. 11. 13. 23. 25. 30. Feb. 9. 11. 20. 27. Mar. 2. 7. 9. 13. 21. 24. 28. 30. 31. Apr. 3. 6. 10. 20. 21. 26. 27.  
 May 3. 8. 15. 29. Jun. 1. 7. 9. 13. 14. 15. 20.  
 Total No. of visits 55  
 Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 10. 4. 11 Slides 29. 5. 11 Covers 29. 5. 11 Pistons 8. 5. 11 Rods 26. 4. 11  
 Connecting rods 26. 4. 11 Crank shaft 10. 4. 11 Thrust shaft 29. 5. 11 Tunnel shafts Screw shaft 6. 4. 11 Propeller 6. 4. 11  
 Stern tube 6. 4. 11 Steam pipes tested 14. 6. 11 Engine and boiler seatings 1. 6. 11 Engines holding down bolts 15. 6. 11  
 Completion of pumping arrangements 20. 6. 11 Boilers fixed 15. 6. 11 Engines tried under steam 20. 6. 11  
 Main boiler safety valves adjusted 15. 6. 11 Thickness of adjusting washers 9/16" 9/16"  
 Material of Crank shaft Steel Identification Mark on Do. 745 B. 3. 4. 11 Material of Thrust shaft Steel Identification Mark on Do. 745 B. 29. 5. 11  
 Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Iron Identification Marks on Do. 745 B. 6. 4. 11  
 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 boilers of this vessel have been constructed under special supervision in accordance with the Rules, the materials and workmanship are good. The boiler tested by hydraulic pressure, and with the engines secured on board tested under steam. 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.C. 6. 11 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 6. 11.

JWD. 30/6/11

The amount of Entry Fee .. £ 1 : : :  
 Special .. £ 13 : : :  
 Donkey Boiler Fee .. £ : : :  
 Travelling Expenses (if any) £ : 2 : :  
 When applied for, 28. 6. - 19. 11.  
 When received, 30. 6. 1911.

Committee's Minute

Assigned

1911. 4 JUL 1911

Thurs 6. 11

James Barclay  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

VESS

These particulars are

Signal Letters (if any)

Official Number.

132,107

No., Date, and Port of Prev

Whether British or Foreign Built. Whether and if a

British

Number of Decks

Number of Masts

Rigged

Stern

Build

Galleries

Head

Framework and description

vessel

Number of Bulkheads

Number of water ballast tanks and their capacity in tons

Total to quarter the depth from weather to bottom of keel

No. of sets of Engines.

Description of Engines.

Triple expansion direct acting inverted cylinder

No. of Shafts.

Particulars of Boilers.

Description Cyl. Multi

Number Iron or Steel

Loaded Pressure 180 lbs

GROSS TONNAGE

Under Tonnage Deck

Space or spaces between Decks

Turret or Tank

Forecastle (Side No.)

Bridge space

Peep or Break

Side Houses

Deck Houses

Chart Houses

Spaces for machinery, and 1

Section 78 (2) of the Merc

1894

Excess of Hatchways

Gross Tonnage

Deductions, as per Contra

Registered Tonnage

NOTE. 2 The only spaces above

Open Forecastle

less companion

NOTE 1- The tonnage of

spaces above

Name of Master

No. of Owners

Name, Residence, and Des

Pioneer Ste

Grimby, in the E

Manager- Geo

Dated 21<sup>st</sup> June

(830) (70635) Wt. 14095/26 1000



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