

## REPORT ON MACHINERY.

9209

Port of *Hull*

MON. 10 SEP 1894

Received at London Office

No. in Survey held at  
Reg. Book.*Hull*

Date, first Survey

*May. 17<sup>th</sup>*

Last Survey

*Sep. 7<sup>th</sup>*

1894

(Number of Visits *21*)

Hull on the

*Steam Trawler Swift*

Master

Built at

*Hull*

By whom built

*Barlow & Lim*

Tons

Gross *136*Net *45*

When built

*1894*

Engines made at

*Hull*

By whom made

*Barlow & Lim*when made *1894*

Boilers made at

*Hull*

By whom made

*Barlow & Lim*when made *1894*

Registered Horse Power

*45*

Owners

*Pioneer Steam Fishing Co*

Port belonging to

*Grimsby*

Nom. Horse Power as per Section 28

*47*

## ENGINES, &amp;c.—

Description of Engines

*Simple Comp. Inv & Acting*

No. of Cylinders

*Three*

Diameter of Cylinders

*11" 14" 30"*

Length of Stroke

*21"*

Revolutions per minute

Diameter of Screw shaft

as per rule *5.307*

Diameter of Tunnel shaft

as per rule *5.01*

Diameter of Crank shaft journals

*5 1/2"*

Diameter of Crank pin

*5 1/2"*

Size of Crank webs

*6 1/2" 3 1/2" 3 1/2"*

Diameter of screw

*7.8"*

Pitch of screw

*9.5"*

No. of blades

*4*

State whether moveable

*No*

Total surface

*2129 sq ft*

No. of Feed pumps

*one*

Diameter of ditto

*2 1/4"*

Stroke

*10"*

Can one be overhauled while the other is at work

*Yes*

No. of Bilge pumps

*one*

Diameter of ditto

*3"*

Stroke

*10"*

Can one be overhauled while the other is at work

*Yes*

No. of Donkey Engines

*one*

Sizes of Pumps

*3" x 6"*

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

In Engine Room

*one 2"*

In Holds, &amp;c.

*one 2"**Suction with suction in the Engine Bilge & flush bell and discharge in the*

No. of bilge injections

*one sizes 3 1/2"*

Connected to condenser, or to circulating pump

*Is a separate donkey suction fitted in Engine room & size 2" - 4"*

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

*Suction to forward*

How are they protected

*hard cased*

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

*Nov 94*

Is the screw shaft tunnel watertight

*Is tunnel*

Is it fitted with a watertight door

*Yes*

worked from

*Yes*

## OILERS, &amp;c.—

(Letter for record *S*)

Total Heating Surface of Boilers

*800 sq ft*

No. and Description of Boilers

*One Cylindrical Hull*

Working Pressure

*160 lb*

Tested by hydraulic pressure to

*320 lb*

Date of test

*23/7/94*

Can each boiler be worked separately

*Yes*

Area of fire grate in each boiler

*280 sq ft*

No. and Description of safety valves to

each boiler

*Two Spring loaded*

Area of each valve

*3.14 sq ft*

Pressure to which they are adjusted

*16*

Are they fitted

with easing gear

*Yes*

Smallest distance between boilers or uptakes and bunkers or woodwork

*9"*

Mean diameter of boilers

*10.0"*

Length

*9.6"*

Material of shell plates

*Steel*

Thickness

*27/32"*Description of riveting: circum. seams *all on lap* long. seams *all chop all*

Diameter of rivet holes in long. seams

*1 3/16"*

Pitch of rivets

*6 7/8"*

Lap of plates or width of butt straps

*12 3/4"*

Per centages of strength of longitudinal joint

rivets *85%*plate *82.72%*

Working pressure of shell by rules

*160 lb*

Size of manhole in shell

*16" x 12"*

Size of compensating ring

*30" x 28" x 27/32"*

No. and Description of Furnaces in each boiler

*two Plain*

Material

*Steel*

Outside diameter

*35"*

Length of plain part

top *6.0"*bottom *6.3"*

Thickness of plates

crown *4 1/16"*bottom *4 1/16"*

Description of longitudinal joint

*welded*

No. of strengthening rings

*Yes*

Working pressure of furnace by the rules

*161 lb*

Combustion chamber plates: Material

*Steel*

Thickness: Sides

*9 1/16"*

Back

*9 1/16"*

Top

*9 1/16"*

Bottom

*4 1/16"*

Pitch of stays to ditto: Sides

*8"*

Back

*8 1/4"*

Top

*8"*

If stays are fitted with nuts or riveted heads

*nuts*

Working pressure by rules

*161 lb*

Material of stays

*Steel*

Diameter at smallest part

*1 3/8"*

Area supported by each stay

*8 1/2 sq in*

Working pressure by rules

*179 lb*

End plates in steam space:

Material

*Steel*

Thickness

*29/32"*

Pitch of stays

*15"*

How are stays secured

*all nuts*

Working pressure by rules

*166 lb*

Material of stays

*Steel*

Diameter at smallest part

*2 1/4"*

Area supported by each stay

*15 1/2 sq in*

Working pressure by rules

*165 lb*

Material of Front plates at bottom

*Steel*

Thickness

*27/32"*

Material of Lower back plate

*Steel*

Thickness

*13/16"*

Greatest pitch of stays

*12"*

Working pressure of plate by rules

*160 lb*

Diameter of tubes

*3 1/4"*

Pitch of tubes

*14 1/2"*

Material of tube plates

*Steel*

Thickness: Front

*27/32"*

Back

*10/16"*

Mean pitch of stays

*9"*

Pitch across wide water spaces

*13 1/4"*

Working pressures by rules

*166 lb*

Girders to Chamber tops: Material

*Iron*

Depth and

*8"*

Thickness of girder at centre

*6" x 2"*

Length as per rule

*24"*

Distance apart

*7 1/2"*

Number and pitch of Stays in each

*two 8"*

Working pressure by rules

*168 lb*

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

Pitch of rivets

*8"*

Working pressure of shell by rules

*166 lb*

Diameter of flue

*10"*

Material of flue plates

Thickness

*1/2"*

stiffened with rings

*Yes*

Distance between rings

*12"*

Working pressure by rules

*166 lb*

End plates: Thickness

*1/2"*

How stayed

*Yes*

Working pressure of end plates

*166 lb*

Area of safety valves to superheater

*166 lb*

Are they fitted with easing gear

*Yes*

HUL409-0203



## DONKEY BOILER—

Description

*No donkey boiler*

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

Diameter of donkey boiler

Length

Material of shell plates

Thickness

Description of riveting long seams

Diameter of rivet holes

Whether punched or drilled

Pitch of rivets

Lap of plating

Per centage of strength of joint

Rivets  
Plates

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

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:—*The top end bolts. The bottom end bolts. The**Main bearing bolts. One set coupling bolts. One set feed pump valves. One**set Bilge pump valves. Set Check valves. Safety valve spring.**The vessel efficient with masts and sails as a hauler*SHIPBUILDING AND ENGINEERING CO. LIMITED  
The foregoing is a correct description,*A. S. Leam*

Manufacturer.

## General Remarks

(State quality of workmanship, opinions as to class, &amp;c.)

*Workmanship Good*

*The Machinery and Boiler of this Steam Hauler have been constructed under Special Survey and placed on board in accordance with The Society's Rules. They are now in my opinion in safe working condition and the case is respectfully submitted for the notification + L.M.C. 9-94 in The Register Book.*

*It is submitted that this vessel is eligible for*

*THE RECORD + L.M.C. 9.94*

*A R S R*  
*10-9-94*

Certificate (if required) to be sent to

*Hull*

The amount of Entry Fee..

£ 1 : 0 :

When applied for,

Special ..

£ 0 : 0 :

When received,

Donkey Boiler Fee ..

£ ✓ :

Travelling Expenses (if any) £ ✓ :

29.10.94

MACHINE CERTIFICATE  
WRITTEN.*James Jones*  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

TUES. 11 SEP 1894

Assigned

*+ L.M.C. 9.94*

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Lloyd's Register  
Foundation

W B &amp; L (4)