

REPORT ON MACHINERY

No.

9195

TUES. 1 SEP 1894

Port of Hull

No. in Survey held at Reg. Book.

Hull

Date, first Survey Apr. 26th

Received at London Office U.L.S. 18
Last Survey Aug. 17th 18 94
(Number of Visits 21)

Master on the

Steam Trawler Blackbird

Tons } Gross 136
Net 45

Master

Built at Hull

By whom built Carter & Lim

When built 1894

Engines made at Hull

By whom made Carter & Lim

when made 1894

Boilers made at Hull

By whom made Carter & Lim

when made 1894

Registered Horse Power 45

Owners Pineau Steam Towing Co

Port belonging to Grimsby

Nom. Horse Power as per Section 28 47

ENGINES, &c.—

Description of Engines Triple 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"
as fitted 5 3/8"

Diameter of Tunnel shaft

as per rule 5.01"
as fitted 5 3/8"

Diameter of Crank shaft journals 5 3/8"

Diameter of Crank pin 5 3/8"

Size of Crank webs 6 1/2" x 7 3/2"

Diameter of screw 7.8"

Pitch of screw 9.5"

No. of blades 4

State whether moveable No

Total surface 2109 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 -

No. of Bilge pumps One

Diameter of ditto 3"

Stroke 10

Can one be overhauled while the other is at work -

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, &c. One 2"

Ejector with suction in Engine Bilge & flush well and discharge on deck

No. of bilge injections one sizes 3 1/2"

Connected to condenser, or to circulating pump pumps as a separate donkey suction fitted in Engine room & size for 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 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 board covered

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 and new Is the screw shaft tunnel watertight in tunnel

Is it fitted with a watertight door yes worked from yes

BOILERS, &c.—

(Letter for record S)

Total Heating Surface of Boilers 800 sq ft

No. and Description of Boilers One Cylindrical Small

Working Pressure 160 lb

Tested by hydraulic pressure to 320 lb

Date of test 23/1/94

Can each boiler be worked separately -

Area of fire grate in each boiler 28 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 165

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 chopalle

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 1/4"

Per centages of strength of longitudinal joint

rievts 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 41/64"
bottom 41/64"

Description of longitudinal joint welded

No. of strengthening rings -

Working pressure of furnace by the rules 161 lb

Combustion chamber plates: Material Steel Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 11/16"

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" x 8" 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" x 14 1/2" 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 4 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 thickness of girder at centre 6" x 2"

Length as per rule 27"

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

Working pressure of shell by rules

Diameter of flue

Material of flue plates

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

Lloyd's Register Foundation
HUL409-0145

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 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 _____ 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:— *Two top end bolts. Two bottom end bolts. Two main bearing bolts. One set coupling bolts. One set feed pump valve. One set Bilge pump valve, set escape valve & safety valve spring. The vessel efficient with masts and sails as a drifter.*

The foregoing is a correct description,
 EARLE'S
 SHIPBUILDING & ENGINEERING CO. LIMITED
 Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c.) *Workmanship Good*

A. S. Leach
 GENERAL MANAGER & DIRECTOR

The Machinery and Boiler of this vessel are now in my opinion in safe working condition. They have been constructed under special survey and placed on board in accordance with the Society's Rules. The case is respectfully submitted for the notification + L.M.C. 8,94 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 8-94

W.A.
 4-9-94

[Large red scribble]

Certificate (if required) to be sent to *Hull.*

The amount of Entry Fee.. £ 1 : 0 : _____ When applied for, _____

Special £ 0 : 0 : _____ 16/9/94

Donkey Boiler Fee £ ✓ : _____ When received, _____

Travelling Expenses (if any) £ ✓ : _____ 29.10.18. 20.10.94

Committee's Minute **FRIDAY 7 SEP 1894**

Assigned *James Bone*
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



The Surveys are requested not to write on or below the space for Committee's Minute.