

REPORT ON MACHINERY.

No. 8955

Port of Shull

Received at London Office 14 APR 1894

No. in Survey held at Berkeley & Hull
Reg. Book.

Date, first Survey Jan 10th Last Survey 9th April 1894
(Number of Visits 13)

255 on the San Juan Steamer

Dormule

Tons ^{Gross} 125
_{Net} 46

Master Built at Berkeley By whom built Cochrane & Cooper

When built 1894

Engines made at Shull By whom made Charles & Holmes & Co when made 1894

Boilers made at Shull By whom made Charles & Holmes & Co when made 1894

Registered Horse Power 45 Owners Miss Hamling & Co Port belonging to Shull

Nom. Horse Power as per Section 28

ENGINES, &c.— Description of Engines Compound Inverted D. A. No. of Cylinders two
Diameter of Cylinders 16" x 32" Length of Stroke 22 Revolutions per minute 112 Diameter of Screw shaft ^{as per rule} 6.09"
_{as fitted} 6.576"
Diameter of Tunnel shaft ^{as per rule} 5.78" Diameter of Crank shaft journals 6 1/4" Diameter of Crank pin 6 1/4" Size of Crank webs 9 1/2" x 4 1/4"
_{as fitted} 6"
Diameter of screw 7.9" Pitch of screw 10.6 to 9.9" No. of blades 4 State whether moveable No Total surface 224 ft
No. of Feed pumps One Diameter of ditto 1 3/4" Stroke 22 Can one be overhauled while the other is at work -
No. of Bilge pumps One Diameter of ditto 2" Stroke 22" 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. two 2"
5" Ejector with suction in the Engine bilge and discharge on deck.
No. of bilge injections one sizes 5 1/2" Connected to condenser, or to circulating pump pumps a separate donkey suction fitted in Engine room 8" size No - 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 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
When were stern tube, propeller, screw shaft, and all connections examined in dry dock Jan 1894 Is the screw shaft tunnel watertight No tunnel
Is it fitted with a watertight door Yes worked from -

BOILERS, &c.— (Letter for record S) Total Heating Surface of Boilers 7515 ft
No. and Description of Boilers One cylindrical Invert Working Pressure 110 lb Tested by hydraulic pressure to 220 lb
Date of test 24/3/94 Can each boiler be worked separately - Area of fire grate in each boiler 279 ft No. and Description of safety valves to
each boiler Two Spring loaded Area of each valve 3.98 sq Pressure to which they are adjusted 112 lb Are they fitted
with easing gear Yes Smallest distance between boilers or uptakes and bunkers or woodwork 7" Mean diameter of boilers 10.3"
Length 9.3" Material of shell plates Steel Thickness 2 3/32" Description of riveting: circum. seams all on lap long. seams 3/16 on lap
Diameter of rivet holes in long. seams 1 1/32" Pitch of rivets 4 3/4" Lap of plates or width of butt straps 8"
Per centages of strength of longitudinal joint ^{rivets} 83.0 Working pressure of shell by rules 112 lb Size of manhole in shell 16" x 12"
_{plate} 78.9
Size of compensating ring 6" x 2 3/32" No. and Description of Furnaces in each boiler two Plain Material Steel Outside diameter 37"
Length of plain part ^{top} 6.0" Thickness of plates ^{crowns} 9 1/16" Description of longitudinal joint welded No. of strengthening rings -
_{bottom} 6.3" _{bottom} 9 1/16"
Working pressure of furnace by the rules 121 lb Combustion chamber plates: Material Steel Thickness: Sides 7 1/32" Back 7 1/32" Top 7 1/32" Bottom 19 1/32"
Pitch of stays to ditto: Sides 8 1/2" Back 8 1/2" Top 8 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 120 lb
Material of stays Steel Diameter at smallest part 1 1/4" Area supported by each stay 8 1/2" x 8 1/2" Working pressure by rules 137 lb End plates in steam space:
Material Steel Thickness 1 3/16" Pitch of stays 15 1/2" How are stays secured all nuts Working pressure by rules 130 lb Material of stays Steel
Diameter at smallest part 2 1/4" Area supported by each stay 15 1/2" Working pressure by rules 130 lb Material of Front plates at bottom Steel
Thickness 1 1/16" Material of Lower back plate Steel Thickness 10 1/16" Greatest pitch of stays 8 1/2" Working pressure of plate by rules 110 lb
Diameter of tubes 3 1/4" Pitch of tubes 4 7/8" Material of tube plates Steel Thickness: Front 1 1/16" Back 1 1/16" Mean pitch of stays 14 9/8" x 9"
Pitch across wide water spaces 15" Working pressures by rules 110 lb Girders to Chamber tops: Material Iron Depth and
thickness of girder at centre 6" x 1 1/2" Length as per rule 26 1/4" Distance apart 7 1/4" Number and pitch of Stays in each two 8 1/2"
Working pressure by rules 134 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
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 Are they fitted with easing gear

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 _____ 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 valves. One set bilge pump valves. Set check valves. Safety valve spring.*

The vessel efficient with masts and sails as a steamer

The foregoing is a correct description,

Charles Holmberg Manufacturer.

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

*The Machinery and Boiler of this Steam Trawler 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. 494** in the Register Book.*

It is submitted that this vessel is eligible for THE RECORD **L.M.C. 494**

[Large handwritten signature]

[Handwritten initials]

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

Certificate (if required) to be sent to _____

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

Special £ 8 : - : *12/4/94*

Donkey Boiler Fee £ 1 : - : When received, _____

Travelling Expenses (if any) £ _____ : - : *30/4/94*

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

Committee's Minute
Assigned

TUES. 17 APR 1894

L.M.C. 494

