

REPORT ON MACHINERY.

Port of Shull

SAT. 18 MAR 1899

Received at London Office

No. in Survey held at Shull

Date, first Survey July 23rd 1898 Last Survey Mar 16th 1899.

Reg. Book.

(Number of Visits 22)

Master on the Iron Steam Drifter Seelmar

Tons { Gross 205
Net 68

Built at Shull By whom built Coak Wilson & Somerville When built 1899

Engines made at Shull By whom made Charles & Holmes & Co when made 1899

Boilers made at Shull By whom made Charles & Holmes & Co when made 1899

Registered Horse Power 58 Owners Pickering & Baldane & Co Port belonging to Shull

nom. Horse Power as per Section 28 64

Is Electric Light fitted No

ENGINES, &c.—Description of Engines Simple Compound No. of Cylinders Three No. of Cranks Three

Diameter of Cylinders 11 3/4" . 20" . 33" Length of Stroke 24 Revolutions per minute 172 Diameter of Screw shaft as per rule 6.68

Diameter of Tunnel shaft as per rule 6.04 Diameter of Crank shaft journals 6 9/16 Diameter of Crank pin 6 9/16 Size of Crank webs 9 x 4 9/8"

Diameter of screw 8.3 Pitch of screw 11:0 No. of blades 4 State whether moveable No Total surface 25 sq ft

No. of Feed pumps one Diameter of ditto 2 1/2" Stroke 14" Can one be overhauled while the other is at work -

No. of Bilge pumps one Diameter of ditto 2 1/2" Stroke 14" Can one be overhauled while the other is at work -

No. of Donkey Engines one Sizes of Pumps 2 1/2" x 5" No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room one 2' In Holds, &c. one 2'

Special suction in the Engine room Bilge & hold and discharge on deck.

No. of bilge injections one size 3' Connected to condenser, or to circulating pump Yes Is a separate donkey suction fitted in Engine room & size Special

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 -

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 Nov 1898 Is the screw shaft tunnel watertight Yes tunnel

Is it fitted with a watertight door - worked from -

BOILERS, &c.— (Letter for record S) Total Heating Surface of Boilers 1057 sq ft Is forced draft fitted No

Name and Description of Boilers One Cyl at Shull Working Pressure 200 lb Tested by hydraulic pressure to 400 lb

Date of test 17/1/99 Can each boiler be worked separately - Area of fire grate in each boiler 27.53 sq ft No. and Description of safety valves to

boiler Two Spring loaded Area of each valve 3.97 Pressure to which they are adjusted 205 lb Are they fitted

with easing gear Yes Smallest distance between boilers or uptakes and bunkers or woodwork 8" Mean diameter of boilers 11:6"

Length 9:6" Material of shell plates Steel Thickness 1 1/16" Description of riveting: circum. seams all overlap long. seams all shif. 1/2"

Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 7 3/32" Lap of plates or width of butt straps 15"

Percentages of strength of longitudinal joint 87.5% Working pressure of shell by rules 209 lb Size of manhole in shell 16" x 12"

of compensating ring 6" x 1 1/16" No. and Description of Furnaces in each boiler Two bottom Material Steel Outside diameter 44"

Length of plain part top 15" Thickness of plates bottom 1 1/16" Description of longitudinal joint welded No. of strengthening rings 4

Working pressure of furnace by the rules 207 lb Combustion chamber plates: Material Steel Thickness: Sides 2 1/32" Back 1 9/32" Top 1 10/16" Bottom 2 1/32"

Number of stays to ditto: Sides 7 3/4" Back 7 3/4" Top 7 7/8" If stays are fitted with nuts or riveted heads Yes Working pressure by rules 236 lb

Material of stays Steel Diameter at smallest part 1 1/2" Area supported by each stay 7 1/4" x 7 1/2" Working pressure by rules 243 lb End plates in steam space:

Material Steel Thickness 1 1/32" Pitch of stays 15 3/4" How are stays secured all nut Working pressure by rules 203 lb Material of stays Steel

Diameter at smallest part 2 3/32" Area supported by each stay 15 3/4" Working pressure by rules 233 lb Material of Front plates at bottom Steel

Thickness 2 7/32" Material of Lower back plate Steel Thickness 1 3/16" Greatest pitch of stays 12" Working pressure of plate by rules 200 lb

Diameter of tubes 3 1/2" Pitch of tubes 14 3/4" Material of tube plates Steel Thickness: Front 2 7/32" Back 1 3/16" Mean pitch of stays 9 1/2"

Depth across wide water spaces 14" Working pressures by rules 200 lb Girders to Chamber tops: Material Iron Depth and

Thickness of girder at centre 8" x 1 1/4" Length as per rule 28 7/8" Distance apart 7 5/8" Number and pitch of Stays in each Three 7 1/2"

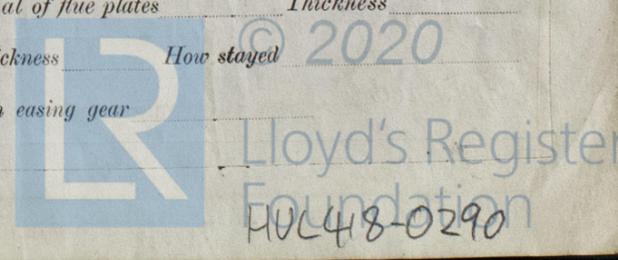
Working pressure by rules 218 lb Superheater or Steam chest; how connected to boiler - Can the superheater be shut off and the boiler worked

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 - Thickness -

- fitted 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 lead pump valves. One set bilge pump valves. One set check valves. Safety valve spring. The vessel efficient with masts and sails as a steamer.*

The foregoing is a correct description,

Charles S. Holmes Manufacturer.

Dates of Survey while building { During progress of work in shops - 1898: July 23 Sep 5. 16. 21 Oct 6. 14. Nov 14. 28 Dec 5. 19 / 1899: Jan 3. 11. 17. 20. 24. 30 Feb. 15 Mar 2. 6. 7. 9. 16. }
Total No. of visits 22

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

ENGINES—Length of stern bush *31"* Diameter of crank shaft journals *as per rule 6.36 as fitted 6.9 1/4* Diameter of thrust shaft under collars *6.9 1/4*

BOILERS—Range of tensile strength *29,632* Are they welded or flanged *N* DONKEY BOILERS—No. _____ Range of tensile strength _____

Is the approved plan of main boiler forwarded herewith *3/1/99* Is the approved plan of donkey boiler forwarded herewith _____

This case is similar in all respects to the "General Gordon" Hull Report No 12410.

The Machinery and Boiler of this Steam Steamer have been constructed under Special Survey and placed on board in accordance with the Society's Rules. They are good in my opinion in safe working condition and the case is respectfully submitted for the certification + L.M.C. 3.99 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. L.M.C. 3.99

A.C.H.

21. 3. 99

[Signature]
21. 3. 99

The amount of Entry Fee... £ 1 : 0 :
Special... £ 9 : 12 :
Donkey Boiler Fee... £ - : - :
Traveling Expenses (if any) £ - : - :
When applied for, *14/3/1899*
When received, *29. 3. 99*

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

MACHINERY CERTIFICATE WRITTEN.

TUES, 21 MAR 1899

Committee's Minute

Assigned

+ L.M.C. 3.99



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Lloyd's Register Foundation

Certificate (if required) to be sent to Hull

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