

REPORT ON MACHINERY.

17433

No. 17433

No. 1 Survey held at Newcastle

Date, first Survey 13th July 1883 Last Survey 8th March 1884

Received at London Office Rec'd 13th MAR. 1884

Reg. Bk.

on the steam steamer "St. Asaph"

(Number of Visits 20) Tons 1960.42
1284.26

Built at Scotwood By whom built Campbell Mac^r & B^r When built 1883

Engines made at Gateshead By whom made Hawkes Crawshaw & Co when made 1883

Boilers made at Gateshead By whom made do do when made 1883

Registered Horse Power 162 Owners Robt South Briggs & Sons Port belonging to Sunderland

ENGINES, &c.—

Description of Engines Compound inverted screw

Diameter of Cylinders 32 x 60 Length of Stroke 42 No. of Rev. per minute 60 Point of Cut off, High Pressure 5/8 Low Pressure 6/8

Diameter of Screw shaft 11 Diam. of Tunnel shaft 10 1/2 Diam. of Crank shaft journals 11 Diam. of Crank pin 11 size of Crank webs 13 1/2 x 7 3/8

Diameter of screw 15.0 Pitch of screw 18.6 No. of blades 4 state whether moveable no total surface 60 sq

No. of Feed pumps two diameter of ditto 4 Stroke 21 Can one be overhauled while the other is at work yes

No. of Bilge pumps two diameter of ditto 4 Stroke 21 Can one be overhauled while the other is at work yes

Where do they pump from Starboard from bilge (1) port from tanks, bilges (3) tunnel well hold

No. of Donkey Engines two Size of Pumps 10 x 10 & 4 x 8 Where do they pump from ballast same as port pumps

Are all the bilge suction pipes fitted with roses yes Are the roses always accessible yes Are the sluices on Engine room bulkheads always accessible yes

No. of bilge injections one and sizes 6 Are they connected to condenser, or to circulating pump yes

How are the pumps worked by lever over condenser from after engine.

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 none How are they protected ✓

Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times yes

Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges yes

When were stern tube, propeller, screw shaft, and all connections examined in dry dock new vessel

Is the screw shaft tunnel watertight ✓ and fitted with a sluice door yes worked from top platform

BOILERS, &c.—

Number of Boilers Two Description Cyl. simple ended Whether Steel or Iron Iron shell riveted joints

Working Pressure 80 lbs Tested by hydraulic pressure to 160 lbs Date of test Nov^r 28th 1883 & 1884

Description of superheating apparatus or steam chest none

Can each boiler be worked separately yes Can the superheater be shut off and the boiler worked separately ✓

No. of square feet of fire grate surface in each boiler 50 sq Description of safety valves spring No. to each boiler two

Area of each valve 12.56 sq Are they fitted with easing gear yes No. of safety valves to superheater ✓ area of each valve —

Are they fitted with easing gear ✓ Smallest distance between boilers and bunkers or woodwork 12 Diameter of boilers 14.0

Length of boilers 10.3 description of riveting of shell long. seams triple lap circum. seams double lap Thickness of shell plates 1

Diameter of rivet holes 1 5/16 whether punched or drilled drilled pitch of rivets 5.14 Lap of plating 11

Percentage of strength of longitudinal joint 71.2 working pressure of shell by rules 80.6 size of manholes in shell 12 x 16

Use of compensating rings 5 3/8 x 5/8 No. of Furnaces in each boiler three

Outside diameter 3.5 length, top 1.0 bottom 9.6 thickness of plates 1/2 description of joint simple butts if rings are fitted 1/2

Greatest length between rings 6.9 working pressure of furnace by the rules 80 combustion chamber plating, thickness, sides 7/16 back 7/16 top 7/16

Pitch of stays to ditto, sides 8 back 8 top 8 If stays are fitted with nuts or riveted heads nuts working pressure of plating by rules 84

Diameter of stays at smallest part 1 3/16 working pressure of ditto by rules 104 end plates in steam space, thickness 13/16

Pitch of stays to ditto 17 3/4 x 15 1/2 how stays are secured du row working pressure by rules 86 diameter of stays at smallest part 2 3/4

Greatest pitch of stays 8 working pressure by rules 80 Diameter of tubes 3 1/2 pitch of tubes 4 3/4 thickness of tube plates, front 3/4 back 3/4 how stayed tubes pitch of stays 14 1/4 width of water spaces 6

Diameter of Superheater or Steam chest none length — thickness of plates ✓ description of longitudinal joint — diam. of rivet holes —

Pitch of rivets — working pressure of shell by rules ✓ diameter of flue — thickness of plates ✓ If stiffened with rings ✓

Distance between rings — working pressure by rules ✓ end plates of superheater, or steam chest; thickness ✓ how stayed —

Superheater or steam chest; how connected to boiler —

Vertical text on the left margin: Wght req'd per Rule, Machine wh. Tested & Suppl., No. H. H. Southwell & Co., R. Barrell, Esq., 13/3/84, 19/3/84, 20/3/84, 21/3/84, 22/3/84, 23/3/84, 24/3/84, 25/3/84, 26/3/84, 27/3/84, 28/3/84, 29/3/84, 30/3/84, 31/3/84, 1/4/84, 2/4/84, 3/4/84, 4/4/84, 5/4/84, 6/4/84, 7/4/84, 8/4/84, 9/4/84, 10/4/84, 11/4/84, 12/4/84, 13/4/84, 14/4/84, 15/4/84, 16/4/84, 17/4/84, 18/4/84, 19/4/84, 20/4/84, 21/4/84, 22/4/84, 23/4/84, 24/4/84, 25/4/84, 26/4/84, 27/4/84, 28/4/84, 29/4/84, 30/4/84, 1/5/84, 2/5/84, 3/5/84, 4/5/84, 5/5/84, 6/5/84, 7/5/84, 8/5/84, 9/5/84, 10/5/84, 11/5/84, 12/5/84, 13/5/84, 14/5/84, 15/5/84, 16/5/84, 17/5/84, 18/5/84, 19/5/84, 20/5/84, 21/5/84, 22/5/84, 23/5/84, 24/5/84, 25/5/84, 26/5/84, 27/5/84, 28/5/84, 29/5/84, 30/5/84, 31/5/84, 1/6/84, 2/6/84, 3/6/84, 4/6/84, 5/6/84, 6/6/84, 7/6/84, 8/6/84, 9/6/84, 10/6/84, 11/6/84, 12/6/84, 13/6/84, 14/6/84, 15/6/84, 16/6/84, 17/6/84, 18/6/84, 19/6/84, 20/6/84, 21/6/84, 22/6/84, 23/6/84, 24/6/84, 25/6/84, 26/6/84, 27/6/84, 28/6/84, 29/6/84, 30/6/84, 1/7/84, 2/7/84, 3/7/84, 4/7/84, 5/7/84, 6/7/84, 7/7/84, 8/7/84, 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DONKEY BOILER— Description *Vertical with four cross tubes*
 Made at *Gateshead* by whom made *Clark Chapman & Co* when made *1883* where fixed *Stockholm*
 Working pressure *75* tested by hydraulic pressure to *150* No. of Certificate *1503* fire grate area *19.634* description of safety valves *Spring*
 No. of safety valves *one* area of each *11.040* if fitted with easing gear *75* if steam from main boilers can enter the donkey boiler *no*
 diameter of donkey boiler *6.0* length *13.0* description of riveting *double lap*
 Thickness of shell plates *1/2* diameter of rivet holes *7/8* whether punched or drilled *no* pitch of rivets *5 1/4* lap of plating *4 1/2*
 per centage of strength of joint *73* thickness of crown plates *9/16* stayed by *five stays 1 1/2 dia*
 Diameter of furnace, top *4.8* bottom *5.1* length of furnace *6.2* thickness of plates *9/16* description of joint *single lap*
 Thickness of furnace crown plates *1/2* stayed by *same as crown* working pressure of shell by rules *75*
 Working pressure of furnace by rules *75* diameter of uptake *15* thickness of plates *1/16* thickness of water tubes *3/8*

SPARE GEAR. State the articles supplied:— *Six coupling bolts, two top end bolts, two bottom bolts, two main bearing bolts, propeller, valves for helix & feed pumps, bolts & nuts and usual engine room outfit.*

The foregoing is a correct description,
Hawks Crawshaw & Son Manufacturer.
H6

General Remarks (State quality of workmanship, opinions as to class, &c.) *The machinery of this vessel has been constructed under special survey, the materials and workmanship are sound and good and eligible in my opinion to be classed L.M.C. 3.84 in the Society's Register Book.*

It is submitted that this vessel is eligible to have the inscription + 3.84 + on the B 13 84

The amount of Entry Fee . . . £ 2 : - : - received by me,
 Special . . . £ 24 : 6 : -
 Donkey Boiler Fee . . . £ - : - : -
 Certificate (if required) . . . £ - : - : -
 To be sent as per margin.
 (Travelling Expenses, if any, £ - : - : -)

J. H. Waller Esq.
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

FRIDAY 14 MARCH 1884

Committee's Minute

+ L. H. Waller

