

REPORT ON MACHINERY.

(Received in London Office)

Survey held at Newcastle

Date, first Survey 5th Jan'y

Last Survey 9th Sept 1880

on the

Screw Steamer "Simoom"

2070
Tons 1350

Master L. Straker

Built at

Newcastle

When built

1880

Engines made at

Newcastle

By whom made

The Wallsend Shipway Engineering Co. & Co.

When made

1880

Boilers made at

Do

By whom made

Do

When made

1880

Registered Horse Power

235

Owners

Bedouin Steam Nav^y Co.

Port belonging to

Liverpool

ENGINES, &c.—

Description of Engines

Inverted compound Surface Condensing

Diameter of Cylinders 34 & 66 Length of Stroke 42 No. of Rev. per minute 60 Point of Cut off, High Pressure .5 Low Pressure .5

Diameter of Screw shaft 11½ Diameter of Tunnel shaft 10¾ Diameter of Crank shaft journals 11½ Diameter of Crank pin 11½ size of Crank webs 7½ X 13¼

Diameter of screw 15.2 Pitch of screw 17.6 No. of blades 4 state whether moveable solid total surface 58 sq. ft.

No. of Feed pumps 2 diameter of ditto 4 Stroke 21 Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 diameter of ditto 4 Stroke 21 Can one be overhauled while the other is at work yes.

Where do they pump from fore hold, engine space, tunnel well and all tanks

No. of Donkey Engines 1 Feed pump 1 Ballast pump Size of Pumps Feed 4 in. x 9 Stroke (5 ft) Ballast 8 in. x 10 Stroke Where do they pump from fore hold, engine space

tunnel well and all tanks

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 1 and sizes 5 Are they connected to condenser, or to circulating pump circulating

How are the pumps worked from high & low pressure cylinder liners.

Are all connections with the sea direct on the skin of the ship yes. Are they Valves or Cocks Screw valves and cocks.

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

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

BOILERS, &c.—

Number of Boilers 2 Description cylindrical and multitubular (steel)

Working Pressure 90 lbs. Tested by hydraulic pressure to 180 lbs. Date of test 19.7.80 No. of Certificate 428

Description of superheating apparatus vertical dome contracted neck

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 60 Description of safety valves spring

No. to each boiler 2 area of each valve 11 sq. ins. 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 15"

Diameter of boilers 13.4 Length of boilers 10.6 description of riveting of shell long. seams double butt circum. seams lap double riv^d

Thickness of shell plates 13/16 diameter of rivet holes 1 whether punched or drilled drilled pitch of rivets 3¾

Lap of plating 5¾ per centage of strength of longitudinal joint 70 working pressure of shell by rules 92 lbs.

Size of manholes in shell 11½ X 15" size of compensating rings 6 X 8

No. of Furnaces in each boiler 3 outside diameter 40" length, top 7.0 bottom 9.0

Thickness of plates 17/32 description of joint double butt if rings are fitted half ring greatest length between rings 6" 6

Working pressure of furnace by the rules 94 lbs.

Combustion chamber plating, thickness, sides 5" back 5 top 5

Pitch of stays to ditto ✓ sides 8" back 8¾ top 21" radius

if stays are fitted with nuts or riveted heads nuts working pressure of plating by rules 99 lbs.

Diameter of stays at smallest part 1¾ working pressure of ditto by rules 125 lbs.

End plates in steam space, thickness ¾ pitch of stays to ditto 14¾ X 15 how stays are secured double nuts & washers

Working pressure by rules 102 lbs. diameter of stays at smallest part 2¾ working pressure by rules 160 lbs.

Front plates at bottom, thickness ¾ Back plates, thickness 11/16 greatest pitch of stays 12¾ working pressure by rules 104 lbs.

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Lloyd's Register

Foundation

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Diameter of tubes $3\frac{1}{2}$ " pitch of tubes $4\frac{3}{4}$ " thickness of tube plates, front $\frac{3}{4}$ " back $\frac{3}{4}$ "
How stayed tube stamp pitch of stays $14\frac{1}{2} \times 9\frac{1}{2}$ " width of water spaces $1\frac{1}{4}$ "
Diameter of ~~Superheater~~ Steam chest $4\frac{1}{2}$ " length $6\frac{1}{2}$ "
Thickness of plates $\frac{1}{2}$ " description of longitudinal joint lap dim^d diameter of rivet holes $\frac{3}{4}$ " pitch of rivets 2
Working pressure of shell by rules 140 lbs. Diameter of flue — thickness of plates —
If stiffened with rings — distance between rings — Working pressure by rules —
End plates of ~~superheater~~ steam chest; thickness $\frac{5}{8}$ " How stayed $4\frac{1}{2}$ " radius
~~Superheater~~ steam chest; how connected to boiler contracted neck 18" diamⁿ $\frac{5}{8}$ " thick

DONKEY BOILER— Description Vertical cylindrical
Made at Newcastle By whom made Clarke Chapman & Symonds made September 1880
Where fixed Stokholm working pressure 50 lbs. Tested by hydraulic pressure to 100 lbs. No. of Certificate
Fire grate area 19 sq ft. Description of safety valves Spring No. of safety valves 1 area of each
If fitted with easing gear ~~yes~~ If steam from main boilers can enter the donkey boiler No
Diameter of donkey boiler $5\frac{1}{2}$ " length 12" 7" description of riveting lap double riveted
thickness of shell plates $\frac{3}{8}$ " diameter of rivet holes $\frac{3}{4}$ " whether punched or drilled punched
pitch of rivets 3" lap of plating $3\frac{3}{4}$ " per centage of strength of joint 75
thickness of crown plates $\frac{1}{2}$ " stayed by 4 Gussset stamp $10 \times \frac{1}{2}$ "
Diameter of furnace, top $3\frac{1}{2} \times 9$ " bottom 5×0 " length of furnace 3×0 "
thickness of plates $\frac{7}{16}$ " description of joint lap single riveted
thickness of furnace crown plates $\frac{1}{2}$ " stayed by 27" radius
Working pressure of shell by rules 65 lbs. working pressure of furnace by rules 65 lbs.
diameter of uptake $15 \times 2\frac{1}{2}$ " thickness of plates $\frac{7}{16}$ " thickness of water tubes stamp tubes $\frac{1}{2}$ " thick

The foregoing is a correct description,
FOR THE WALLSEND SLIPWAY & ENGINEERING CO LD.
Manufacturer.
W Lloyd Butler

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

The Machinery of this vessel has been specially surveyed during construction; the materials and workmanship good and under vessel eligible in my opinion to have the notification of + L Lloyd M.C. recorded in the Society's Register Book

This is submitted that this vessel is eligible to have the notification of Lloyd M.C. recorded in the Register Book. JM 16/9/80

The amount of Entry Fee £ 3 : - : - received by me,
Special .. £ 31 : 15 : - } W.L.S.
Certificate (if required) gratis - : - : - 14th Sept 1880
(To be sent as per margin.)
(Travelling Expenses, if any, £ 0 . 5 . 0)

Committee's Minute Sep 16th 1880
+ Lloyd M.C.

David Purves
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping
North Shields
Lloyd's Register Foundation