

REPORT ON MACHINERY.

(Received at London Office 6th Oct. 1882.)

16226

Survey held at

Newcastle

Date, first Survey 23rd May

Last Survey 5th Oct. 1882

on the

Screw Steamer

"Klyde"

1543
Tons 1022

Thos Hunter

Built at

Newcastle

When built

1882

Newcastle

By whom made

Walkend Shipyard

1882

By whom made

Wm J. & Co

when made

1882

Registered Horse Power

150

Owners

Klyde Steu. Ship Co. (Lm)

Port belonging to

London

GINES, &c.—

Description of Engines

Compound inverted screw

Diameter of Cylinders 32 & 62 Length of Stroke 36 No. of Rev. per minute 60 Point of Cut off, High Pressure .5 Low Pressure .5

Diameter of Screw shaft 10 3/4 Diameter of Tunnel shaft 10 1/4 Diameter of Crank shaft journals 10 3/4 Diameter of Crank pin 10 3/4 size of Crank webs 13 x 4

Diameter of screw 14.3 Pitch of screw 15.0 No. of blades 4 state whether moveable no total surface 30 sq ft

No. of Feed pumps 2 diameter of ditto 3 3/4 Stroke 20 Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 diameter of ditto 3 3/4 Stroke 20 Can one be overhauled while the other is at work yes

Where do they pump from all tanks holds, bilges & tunnel well

No. of Donkey Engines two Size of Pumps 10 x 10 Where do they pump from same as main engines

from sea & condenser, into condenser, boiler, on deck & overboard

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 Air pump

How are the pumps worked by lever over condenser

Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks 2 Valves & 4 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

How are they protected 2

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 yes and fitted with a sluice door yes worked from main deck

BOILERS, &c.—

Number of Boilers

Two

Description

Cylindrical suspended steel

Working Pressure

90 lbs

Tested by hydraulic pressure to

180 lbs

Date of test

Sept 7th 1882 No 967

Description of superheating apparatus or steam chest

vertical domes

Can each boiler be worked separately yes Can the superheater be shut off and the boiler worked separately no

No. of square feet of fire grate surface in each boiler 36.32 Description of safety valves spring

No. to each boiler two area of each valve 9.620 Are they fitted with easing gear yes

No. of safety valves to superheater none area of each valve are they fitted with easing gear

Smallest distance between boilers and bunkers or woodwork 10"

Diameter of boilers 12.6 Length of boilers 10.6 description of riveting of shell long. seams double riv'd butt circum. seams double riv'd lap

Thickness of shell plates 3/32 diameter of rivet holes 1 whether punched or drilled drilled pitch of rivets 4 1/2

lap of plating 5/4 per centage of strength of longitudinal joint 75.8 working pressure of shell by rules 90.2 lbs

Size of manholes in shell 15 x 11 1/2 size of compensating rings 3 x 3/4

No. of Furnaces in each boiler 2 outside diameter 3.6 length, top 7.0 bottom 8.10

Thickness of plates 9/16 description of joint double butt if rings are fitted 1/2 greatest length between rings 7.0

Working pressure of furnace by the rules 96.4 lbs

Combustion chamber plating, thickness, sides 1/2 back 1/2 top 1/2

Pitch of stays to ditto 8 1/2 back 8 1/4 top 1.9 rad.

If stays are fitted with nuts or riveted heads riveted heads working pressure of plating by rules 94 lbs

Diameter of stays at smallest part 1 1/4 working pressure of ditto by rules 108 lbs

End plates in steam space, thickness 13/16 pitch of stays to ditto 1 1/8 how stays are secured 4 into riv'd web

Working pressure by rules 89.5 lbs diameter of stays at smallest part 2 1/2 working pressure by rules 97 lbs

Front plates at bottom, thickness 11/16 Back plates, thickness 11/16 greatest pitch of stays 12 working pressure by rules 101 lbs

NW 782-0108

Diameter of tubes $3\frac{1}{4}$ " pitch of tubes $4\frac{5}{8}$ " thickness of tube plates, front $\frac{13}{16}$ " back $\frac{3}{4}$ "
How stayed *tube stays* pitch of stays $13\frac{1}{8}$ " width of water spaces 12"
Diameter of Superheater or Steam chest $3\frac{9}{16}$ " length 5.6"
Thickness of plates $\frac{1}{2}$ " description of longitudinal joint *lap welded* diameter of rivet holes $\frac{3}{4}$ " pitch of rivets $2\frac{1}{2}$ "
Working pressure of shell by rules 130 lbs Diameter of flue $\frac{1}{2}$ " thickness of plates $\frac{1}{2}$ "
If stiffened with rings ☒ distance between rings $\frac{1}{2}$ " Working pressure by rules $\frac{1}{2}$ "
End plates of superheater, or steam chest; thickness $\frac{5}{8}$ " How stayed *flushed*
Superheater or steam chest; how connected to boiler *contracted steel neck*

DONKEY BOILER—

Description *Vertical with cross tubes*
Made at *Stockton* By whom made *Henry Porter* when made 11-8-82
Where fixed *stockhold* working pressure 80 lbs Tested by hydraulic pressure to 160 lbs No. of Certificate 482
Fire grate area 19 sq' Description of safety valves *spring* No. of safety valves *two* area of each 7.07
If fitted with easing gear *yes* If steam from main boilers can enter the donkey boiler *no*
Diameter of donkey boiler 6.0" length 13.0" description of riveting *lap double riveted*
thickness of shell plates $\frac{9}{16}$ " diameter of rivet holes $\frac{13}{16}$ " whether punched or drilled *punched*
pitch of rivets $2\frac{3}{4}$ " lap of plating $4\frac{1}{8}$ " per centage of strength of joint 70.4
thickness of crown plates $\frac{5}{8}$ " stayed by *light stays* $1\frac{1}{2}$ " diam
Diameter of furnace, top 60" bottom 64" length of furnace 5.0"
thickness of plates $\frac{5}{8}$ " description of joint *lap single riveted*
thickness of furnace crown plates $\frac{5}{8}$ " stayed by *stays & staybolts*
Working pressure of shell by rules 90 lbs working pressure of furnace by rules 82 lbs
diameter of uptake 15" thickness of plates $\frac{3}{8}$ " thickness of water tubes $\frac{3}{8}$ "

The foregoing is a correct description, FOR THE WALLSEND SLIPWAY & ENGINEERING CO. L.

Manufacturer.

Joseph Ward & Co

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery of this vessel has been built under Special Survey the materials & workmanship are sound & good & eligible in my opinion to be classed as Lloyd's M.C. 10.82 in the Local Register Book.*

Submitted that this vessel is eligible to have M.C. 10.82
M.C. 10.82

The amount of Entry Fee £ 3 : - : - received by me,

Special £ 22 : 10 : -

Certificate (if required) *State* £ - : - : - 4th Oct 18

To be sent as per margin.

(Travelling Expenses, if any, £ - : - : -)

Committee's Minute

Tuesday, 10th October, 1882

W. L. S.
J. W. Wallender
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

North Shields

Lloyd's Register
Foundation