

REPORT ON MACHINERY.

(15318)

No. 441

No. in Survey held at Newcastle
Reg. Book.

Date, first Survey 17th Nov 78

(Received in London Office 12/4/81)
Last Survey 21st March 81

on the Screw Steamer "Fedele" Grimalvesi

Tons 1638
1067

Master W.H. Shilston

Built at Newcastle

When built 1881

Engines made at Newcastle

By whom made Palmer's Co. when made 1881

Boilers made at Do.

By whom made Do. when made 1881

Registered Horse Power 150

Owners Messrs. J.H.P. Bovey

Port belonging to London.

ENGINES, &c.—

Description of Engines Inverted Compound Surface Condensing.

Diameter of Cylinders 31 & 58 ins. Length of Stroke 36" No. of Rev. per minute 65 Point of Cut off, High Pressure 9/16" Low Pressure 9/16"

Diameter of Screw shaft 11" Diameter of Tunnel shaft 9 3/4" Diameter of Crank shaft journals 10 1/2" Diameter of Crank pin 10 1/2" size of Crank webs 7 1/2 x 12

Diameter of screw 15.0" Pitch of screw 14 1/2 15 feet No. of blades 4 state whether moveable no. total surface 54 sq. feet.

No. of Feed pumps 2 diameter of ditto 4 1/4" Stroke 18" Can one be overhauled while the other is at work yes.

No. of Bilge pumps 2 diameter of ditto 4 1/4" Stroke 18" Can one be overhauled while the other is at work yes.

Where do they pump from fore holds, engine space tunnel well and tanks & sea.

No. of Donkey Engines 2 Size of Pumps 9 x 12 & 4 1/2 x 8 Where do they pump from fore holds, engine space, tunnel well, all tanks and sea.

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 low pressure, levers over condenser.

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 platform

OILERS, &c.—

Number of Boilers 2 Description Single ended, cylindrical & multitubular.

Working Pressure 80 lbs. Tested by hydraulic pressure to 160 lbs. Date of test 13.12.80. No of certifi^c 514

Description of superheating apparatus or steam chest horizontal dome

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 36 sq. ft. Description of safety valves spring

No. to each boiler 2 area of each valve 12.5 sq. in. 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 ins.

Diameter of boilers 12.3" Length of boilers 9.7 1/2" description of riveting of shell long. seams lap triple riv circum. seams double riveted

Thickness of shell plates 7/8" diameter of rivet holes 1 3/16" whether punched or drilled drilled pitch of rivets 4 1/2"

Lap of plating 7 1/2" per centage of strength of longitudinal joint 73.6 working pressure of shell by rules 83 lbs.

Size of manholes in shell 12 x 16 size of compensating rings through end plate

No. of Furnaces in each boiler 2 outside diameter 43" length, top 6.0" bottom 8.8"

Thickness of plates top 1/2", bot 9/16" description of joint single butt if rings are fitted 1/2" ring greatest length between rings 5.10"

Working pressure of furnace by the rules 87 lbs.

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

Pitch of stays to ditto — sides 8 1/2" back 8" top 16 1/2" radius

If stays are fitted with nuts or riveted heads riveted heads working pressure of plating by rules 89 lbs.

Diameter of stays at smallest part 1 5/16" working pressure of ditto by rules 115 lbs.

End plates in steam space, thickness 3/4" pitch of stays to ditto 16 3/8" how stays are secured to nuts & washers

Working pressure by rules 80 lbs. diameter of stays at smallest part 2 3/16" working pressure by rules 90 lbs.

Front plates at bottom, thickness 1/4" Back plates, thickness 3/4" greatest pitch of stays 11" working pressure by rules 100 lbs.

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Report recd. 25/3/81 sent to Lond. 11/4/81

Diameter of tubes $3\frac{1}{2}$ " pitch of tubes $5 \times 4\frac{3}{4}$ " thickness of tube plates, front $3\frac{1}{4}$ " back $1\frac{1}{6}$ "
 How stayed tube stamp pitch of stays $9\frac{1}{2} \times 15$ " width of water spaces $12\frac{1}{2}$ "
 Diameter of Steam chest $4\frac{1}{2}$ " length $5\frac{1}{2}$ "
 Thickness of plates $9\frac{1}{16}$ " description of longitudinal joint lap down diameter of rivet holes $7\frac{1}{8}$ " pitch of rivets $2\frac{1}{4}$ "
 Working pressure of shell by rules 99 lbs. Diameter of flue — thickness of plates —
 If stiffened with rings — distance between rings — Working pressure by rules —
 End plates of steam chest; thickness $1\frac{1}{16}$ " How stayed $4, 2\frac{1}{4}$ Stays $15\frac{1}{2}$ pitch
 Steam chest; how connected to boiler Steam pipe

DONKEY BOILER— Description cylindrical and vertical.
 Made at Newcastle By whom made Clarke, Chapman & Co when made March 1881
 Where fixed Stockhold working pressure 80 lbs. Tested by hydraulic pressure to 160 lbs. No. of Certificate 545 .
 Fire grate area 22 sq. ft Description of safety valves spring No. of safety valves 1 area of each 11.5 sq. ins.
 If fitted with easing gear yes If steam from main boilers can enter the donkey boiler no.
 Diameter of donkey boiler $6\frac{1}{2}$ " length $12\frac{1}{2}$ " description of riveting long seams down whether punched or drilled punched.
 thickness of shell plates $9\frac{1}{16}$ " diameter of rivet holes $15\frac{1}{16}$ "
 pitch of rivets $3\frac{3}{4}$ " lap of plating $4\frac{1}{4}$ " per centage of strength of joint 72
 thickness of crown plates $9\frac{1}{16}$ " stayed by $6, 1\frac{1}{2}$ Stays
 Diameter of furnace, top $4\frac{1}{2}$ " bottom $5\frac{1}{2}$ " length of furnace $6\frac{1}{2}$ "
 thickness of plates $9\frac{1}{16}$ " description of joint lap.
 thickness of furnace crown plates $9\frac{1}{16}$ " stayed by $6, 1\frac{1}{2}$ Stays
 Working pressure of shell by rules 92 lbs. working pressure of furnace by rules 85 lbs.
 diameter of uptake 16 " thickness of plates $3\frac{3}{4}$ " thickness of water tubes $3\frac{3}{8}$ "



The foregoing is a correct description, Manufacturer's

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 render the vessel eligible in my opinion to have the notification of Lloyd's M.B. recorded in the Society's Register Book.

It is submitted that this vessel is eligible to have the notification of Lloyd's M.B. recorded in the Register Book
 M. 13/4/81

Large blue ink scribbles and a signature, likely the Engineer Surveyor's mark.

The amount of Entry Fee. £ 3 : - : - received by me,
 Special .. £ 22 : 10 : -
 Certificate (if required) gratis - - - 8th April 1881.
 To be sent as per margin.

Committee's Minute

Thursday, April, 11th 1881.
 + Lloyd's M.B.

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

