15925

REPORT ON MACHINERY.

No. 456 (Received at London Office 17th. April 1882)

No. in Reg. Book. ✓ Survey held at Jarrow Date, first Survey 20 April 1881 Last Survey 1 April 1882

on the S.S. Marsca 2211 Tons 1425

Master F. O. Moen Built at Palmers S & E Co When built 1882

Engines made at Jarrow By whom made Palmers S & E Co when made 1882

Boilers made at Jarrow By whom made " " when made 1882

Registered Horse Power 250 Owners Porteous & Lenier Port belonging to London

ENGINES, &c.—

Description of Engines Inverted direct acting compound surface condensing

Diameter of Cylinders 36. 68 Length of Stroke 45 No. of Rev. per minute 73 Point of Cut off, High Pressure 1/2 Low Pressure 1/2

Diameter of Screw shaft 12½ Diameter of Tunnel shaft 11½ Diameter of Crank shaft journals 12½ Diameter of Crank pin 12¾ size of Crank webs —

Diameter of screw 17'. 0" Pitch of screw mean 17'. 0 No. of blades four state whether moveable yes total surface 73 ft.

No. of Feed pumps two diameter of ditto 4½ Stroke 24" Can one be overhauled while the other is at work yes

No. of Bilge pumps two diameter of ditto 4½ Stroke 24 Can one be overhauled while the other is at work yes

Where do they pump from Main & aft hold tunnel & engine room bilges

No. of Donkey Engines two Size of Pumps 11" dia × 12" Sk 4" " × 8" Sk Where do they pump from From Sea ballast tank & the above bilges

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 ¼ dia Are they connected to condenser, or to circulating pump circulating pumps

How are the pumps worked levers.

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 29. 3. 82.

Is the screw shaft tunnel watertight yes. and fitted with a sluice door yes. worked from upper platforms

BOILERS, &c.— Front bottom plate steel.

Number of Boilers two Description cylindrical return tubular

Working Pressure 80 Tested by hydraulic pressure to 160 ℔. Date of test 1. May. 81. certif 655

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 60 Description of safety valves spring

No. to each boiler two area of each valve 15.9 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 about 1 ft.

Diameter of boilers 180" Length of boilers 10.6" description of riveting of shell long. seams lap. three rivets circum. seams lap. two rivets

Thickness of shell plates 1/16 diameter of rivet holes 1 3/8 whether punched or drilled drilled pitch of rivets 5 1/8

Cup of plating 9 ⅛ per centage of strength of longitudinal joint 73.3 working pressure of shell by rules 82 ℔.

Size of manholes in shell 16" × 12" size of compensating rings —

No. of Furnaces in each boiler four outside diameter 37" length, top 6'. 6" bottom 9'. 6"

Thickness of plates ½. 9/16 description of joint Leeds. inside if rings are fitted Adams. greatest length between rings 7'. 0"

Working pressure of furnace by the rules 91 lbs.

Combustion chamber plating, thickness, sides ½ back ½ top ½

Pitch of stays to ditto ✓ sides 8" back 8½" top 18 rad.

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

Diameter of stays at smallest part 1¼ working pressure of ditto by rules 102 lbs.

End plates in steam space, thickness ¾" pitch of stays to ditto 15¾ × 15 how stays are secured double nuts & washers

Working pressure by rules 90 ℔. diameter of stays at smallest part 2⅛" working pressure by rules 92 ℔

Front plates at bottom, thickness 11/16 Back plates, thickness 11/16 greatest pitch of stays 11" working pressure by rules 106

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Diameter of tubes 3 ½ pitch of tubes 4¾ × 5" thickness of tube plates, front ¾ back 11/16

How stayed tube stays. pitch of stays 15" × 14¼ width of water spaces 11½

Diameter of ~~Superheater or~~ Steam chest 66 length 5'. 9"

Thickness of plates 9/16 description of longitudinal joint laps. dk. diameter of rivet holes ⅞ pitch of rivets 2⅞

Working pressure of shell by rules 98 lbs. 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 13/16 How stayed 6. 2⅛ Stays 18" pitch

Superheater or steam chest; how connected to boiler Steam pipes.

DONKEY BOILER— Palmers No 8 Standard Description Vertical cylindrical with cross water tubes

Made at Jarrow By whom made Palmers Lt & Co when made December 1881

Where fixed? in Stokehold working pressure 70 lbs Tested by hydraulic pressure to 160 lbs No. of Certificate 755

Fire grate area 27 ¾ ft Description of safety valves Spring No. of safety valves one area of each 12.56

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'. 6" description of riveting laps double riveted

thickness of shell plates 7/16 diameter of rivet holes 13/16 whether punched or drilled punched

pitch of rivets 3" lap of plating 4" per centage of strength of joint 42.4

thickness of crown plates ½" stayed by 6 stays & Uptake (Stays 2" diam)

Diameter of furnace, top 4'. 9" bottom 5'. 2½ length of furnace 6'. 2½

thickness of plates ½" description of joint laps angle riveted

thickness of furnace crown plates ½" stayed by 4 Water tubes & 12, 1¼" Stays

Working pressure of shell by rules 68 working pressure of furnace by rules ample

diameter of uptake 17" thickness of plates 7/16 thickness of water tubes ⅜"

The foregoing is a correct description,

J. P. Hall for Palmers Co Ltd Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. The material and workmanship appear to be good and the engines & boilers worked well under steam.

It is respectfully submitted that the machinery of this vessel is eligible to be classed Lloyds M.C. 4.82.

It is submitted that this vessel is eligible to have the notation Lloyds M.C. recorded Jm. 17/4/82

The amount of Entry Fee .. £ 3 : — : — received by me,
Donkey Boiler 2 : 2 : —
Special .. £ 31 : 5 : —
Certificate (if required) .. £ — : 5 : — 15 April 1882 } W.L.S.
To be sent as per margin.

(Travelling Expenses, if any, £ 0.9.0)

C. E. Stromeyer
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute Tuesday, April 18th 1882.

Robert Edmund Taylor & Son Printers, 19, Old Street, Goswell Road, London, E.C.