

REPORT ON MACHINERY.

7911

No. 7911

No. in Survey held at Glasgow

Date, first Survey Nov 10th 1886 Last Survey April 18th 1887

Reg. Book. Glasgow on the S. S. "Yarmouth"

Received at London Office 18th
(Number of Visits 52) Tons 1432.10
445.84

Master E. Hoelger Built at Dumbarton By whom built A. McMillan & Son When built 1884

Engines made at Glasgow By whom made David Rowan & Son when made 1884

Boilers made at " By whom made " when made 1884

Registered Horse Power 260 Owners Mr. L. G. Baker President Port belonging to Glasgow

ENGINES, &c.

Description of Engines Triple Expansion

Diameter of Cylinders 26" 41" 65" Length of Stroke 42" No. of Rev. per minute 93 Point of Cut off, High Pressure 29" Low Pressure 26"

Diameter of Screw shaft 13" Diam. of Tunnel shaft 12 1/2" Diam. of Crank shaft journals 13" Diam. of Crank pin 13" size of Crank webs built shaft

Diameter of screw 13.6" Pitch of screw 14 1/2" No. of blades four state whether moveable Yes total surface 62 sq ft

No. of Feed pumps Two diameter of ditto 3 1/2" Stroke 21" Can one be overhauled while the other is at work Yes

No. of Bilge pumps Two diameter of ditto 3 1/2" Stroke 21" Can one be overhauled while the other is at work Yes

Where do they pump from All Compartments

No. of Donkey Engines Two Size of Pumps Double pump 4" x 4" x 8" Where do they pump from Sea Bilge Hotwell
Ballast pump 4 1/2" x 8" x 10"

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 4 1/2" Are they connected to condenser or to circulating pump To Circulating

How are the pumps worked By 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 new to load line

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 bilge pipes to fresh air which can be used for bunkers How are they protected By wood casing

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 On slip before launching

Is the screw shaft tunnel watertight Yes and fitted with a sluice door Yes worked from Upper platform

BOILERS, &c.

Number of Boilers Two Description Round Horizontal Whether Steel or Iron Steel

Working Pressure 160 lbs Tested by hydraulic pressure to 320 lbs Date of test 18th March 1887

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 Yes

No. of square feet of fire grate surface in each boiler 99 sq ft Description of safety valves Direct Spring No. to each boiler Two

Area of each valve 16.8" Are they fitted with easing gear Yes No. of safety valves to superheater None area of each valve None

Are they fitted with easing gear Yes Smallest distance between boilers and bunkers or woodwork about 12" Diameter of boilers 13 ft

Length of boilers 16' 6" description of riveting of shell long. seams double butt straps circum. seams Triple riveted Thickness of shell plates 1 1/4"

Diameter of rivet holes 19/32" whether punched or drilled Drilled pitch of rivets 4.14" + 3.58" Lap of plating 20" x 13/16" Staps

Percentage of strength of longitudinal joint 82% working pressure of shell by rules 160 lbs size of manholes in shell 16" x 12"

Size of compensating rings Doubling plate No. of Furnaces in each boiler Six

Outside diameter 3'-1" length, top 6' 9" bottom 6' 9" thickness of plates 9/16" description of joint Corrugated if rings are fitted Yes

Greatest length between rings None working pressure of furnace by the rules 162 lbs combustion chamber plating, thickness, sides 9/16" back None top 9/16"

Pitch of stays to ditto, sides 4 1/2" x 4 1/2" back top 4 1/2" x 4 1/2" stays are fitted with nuts or riveted heads nuts working pressure of plating by rules 142 lbs

Diameter of stays at smallest part 1 3/8" working pressure of ditto by rules 174 lbs end plates in steam space, thickness 16/16"

Pitch of stays to ditto 16" x 15" how stays are secured by double nuts working pressure by rules 140 lbs diameter of stays at smallest part 2 5/8" working pressure by rules 168 lbs

Greatest pitch of stays None working pressure by rules None Diameter of tubes 3 1/2" pitch of tubes 5" x 5" thickness of tube plates, front 14/16" back 14/16" how stayed by tubes pitch of stays 10" x 10" width of water spaces 6"

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

Pitch of rivets None working pressure of shell by rules None diameter of flue None thickness of plates None If stiffened with rings None

Distance between rings None working pressure by rules None end plates of superheater, or steam chest; thickness None how stayed None

Superheater or steam chest; how connected to boiler None



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7911/87

DONKEY BOILER— Description *Round vertical*

Made at *Strayon* by whom made *Lindsay Burnett & Co* when made *1887* where fixed *In Stothold*
Working pressure *80 lbs* tested by hydraulic pressure to *110 lbs* No. of Certificate *1453* fire grate area *9.6 sq ft* description of safety
valves *Direct Spring* No. of safety valves *One* area of each *4"* if fitted with easing gear *Yes* if steam from main boilers can
enter the donkey boiler *No* diameter of donkey boiler *4' 6"* length *8' 6"* description of riveting *Double lap*
Thickness of shell plates *1/16"* diameter of rivet holes *13/16"* whether punched or drilled *Drilled* pitch of rivets *2 3/4"* lap of plating *4 7/8"*
per centage of strength of joint *40%* thickness of crown plates *1/16"* stayed by *4 stays & 1 plate*
Diameter of furnace, top *3' 5"* bottom *3' 11"* length of furnace *3' 10"* thickness of plates *1/16"* description of joint *Single riveted*
Thickness of furnace crown plates *1/16"* stayed by *As above* working pressure of shell by rules *100 lbs*
Working pressure of furnace by rules *100 lbs* diameter of uptake *12"* thickness of plates *1/16"* thickness of water tubes *1/16"*

SPARE GEAR. State the articles supplied:— *1/3 Crank Shaft, 1 pair Connecting rod brasses, 1 Air for
bucket rod with guide, 1 Circulating pump bucket & rod, 2 main bearing bolts & nuts, 2 Connecting
rod bolts top & bottom with nuts, Eccentric rod bolts & nuts, 1 set Coupling bolts, 1 set Piston
Springs, 1 set Lead & Sledge pump Valves with seats, 1 set S. R. Valves for all pumps, and a Considerable
quantity of assorted bolts & nuts, Iron Boiler & Condenser
tubes &c*
The foregoing is a correct description,
David Rowan Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. *These Engines & Boilers are of good
workmanship & materials and are now in good order & safe working
condition and eligible in my opinion to be noted in the Register
Book* *Lloyds M.C. 4/87*

*It is submitted that this vessel
is eligible to be surveyed
& should be recorded*

18/4/87

Lloyd

The amount of Entry Fee .. £ *2* : - : - received by me,
Special .. £ *33* : - : -
Donkey Boiler Fee .. £ - : - : -
Certificate (if required) .. £ - : - : - *16/4/1887*
To be sent as per margin.
(Travelling Expenses, if any, £ - *8/-*)

James Morrison
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.
Clyde District

Committee's Minute **TUESDAY 19 APRIL 1887**

L M C

