

REPORT ON MACHINERY.

6639

No. 6639

Received at London Office THURSDAY 11 SEPT 1884

No. in Survey held at *Glasgow* Date, first Survey *24th May* Last Survey *4th Sept. 1884*
Reg. Book. on the *Screw Steamer "Queen"* (Number of Visits *21*) Tons *281 1/8*

Master *J. Logan* Built at *Glasgow* By whom built *R. Napier & Sons* When built *1854*.
Engines made at *Dundee* By whom made *H. B. Thompson* when made
Boilers made at *Glasgow* By whom made *Lees, Anderson & Co* when made *1884*.
Registered Horse Power *58*. Owners *H. McIlwraith* Port belonging to *Dundee*.

ENGINES, &c.—

Description of Engines *Compound Inverted Direct Acting.*
Diameter of Cylinders *20" x 136"* Length of Stroke *22 1/2"* No. of Rev. per minute *30* Point of Cut off, High Pressure *Far* Low Pressure *—*
Diameter of Screw shaft *6 1/2"* Diam. of Tunnel shaft *6"* Diam. of Crank shaft journals *6 1/2"* Diam. of Crank pin *6"* size of Crank webs *5" x 7 3/4"*
Diameter of screw *8 ft.* Pitch of screw *11" - 9"* No. of blades *4* state whether moveable *Yes* total surface *25 ft.*
No. of Feed pumps *One* diameter of ditto *2 1/2"* Stroke *22 1/2"* Can one be overhauled while the other is at work *—*
No. of Bilge pumps *One* diameter of ditto *2 1/2"* Stroke *22 1/2"* Can one be overhauled while the other is at work *—*
Where do they pump from *All Compartments.*
No. of Donkey Engines *One* Size of Pumps *3" dia 6" stroke* Where do they pump from *All Compartments*

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 *2 1/2"* Are they connected to condenser, or to circulating pump *Cir pump.*
How are the pumps worked *Direct from crossheads.*
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 *about*
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 *30th June 1884 & subsequently.*
Is the screw shaft tunnel watertight *Not tested* fitted with a sluice door *—* worked from *—*

BOILERS, &c.—

Number of Boilers *One* Description *Round Horizontal* Whether Steel or Iron *steel (part)*
Working Pressure *70 lbs.* Tested by hydraulic pressure to *140 lbs.* Date of test *9th June 1884.*
Description of superheating apparatus or steam chest *None*
Can each boiler be worked separately *—* Can the superheater be shut off and the boiler worked separately *—*
No. of square feet of fire grate surface in each boiler *34 ft.* Description of safety valves *d. Spring* No. to each boiler *Two*
Area of each valve *8.3"* 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* *9"* Diameter of boilers *11'-0"*
Length of boilers *9'-6"* description of riveting of shell long. seams *double butt and weld.* circum. seams *double lap.* Thickness of shell plates *1/16" iron*
Diameter of rivet holes *7/8"* whether punched or drilled *rim.* pitch of rivets *4"* Lap of plating *Bates 11"*
Per centage of strength of longitudinal joint *70 for weld* working pressure of shell by rules *70 lbs.* size of manholes in shell *18" x 13"*
Size of compensating rings *3/4" ring 6" broad* No. of Furnaces in each boiler *Two.*
Outside diameter *36 7/8"* length, top *6'-0"* bottom *9'-0"* thickness of plates *7/16"* description of joint *welded* if rings are fitted *L. drive*
Greatest length between rings *6'-0"* working pressure of furnace by the rules *77 lbs.* combustion chamber plating, thickness, sides *7/16"* back *7/16"* top *7/16"*
Pitch of stays to ditto, sides *8 1/2" x 8 1/2"* back *8 1/2" x 8 1/2"* top *8 1/2" x 8 1/2"* If stays are fitted with nuts or riveted heads *Nuts.* working pressure of plating by rules *75 lbs.* Diameter of stays at smallest part *1.14"* working pressure of ditto by rules *83 lbs.* end plates in steam space, thickness *3/4" steel*
Pitch of stays to ditto *14" x 14"* how stays are secured *d. nuts* working pressure by rules *70 lbs.* diameter of stays at smallest part *2 1/4"* working pressure by rules *86 lbs.* Front plates at bottom, thickness *3/4"* Back plates, thickness *3/4"*
Greatest pitch of stays *—* working pressure by rules *—* Diameter of tubes *3 1/4"* pitch of tubes *4 1/2"* thickness of tube plates, front *3/4"* back *5/8"* how stayed *S. tubes* pitch of stays *9" x 13 1/2"* width of water spaces *6"*
Diameter of Superheater or Steam chest *—* length *—* thickness of plates *—* description of longitudinal joint *—* diam. of rivet holes *—*
Pitch of rivets *—* working pressure of shell by rules *—* 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 *—* how stayed *—*
Superheater or steam chest; how connected to boiler *—*

Form No. 8—2000—3/7/83. (State of Report is also sent on the Hull of the Ship)



GLS149-0316

6639 Gls

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 DONKEY BOILER— Description *Vertical with Cross tubes (Steel)*
 Made at *Gateshead* by whom made *Clarke, Chapman & Co* when made *1884* where fixed *Stoke hold*.
 Working pressure *50 lbs* tested by hydraulic pressure to *100 lbs* No. of Certificate *1402* fire grate area *10 ft.* description of safety valves *dir. Spring* No. of safety valves *One* area of each *7.* if fitted with easing gear *Yes* if steam from main boilers can enter the donkey boiler *No* diameter of donkey boiler *4'-6"* length *9'-0"* description of riveting *Lap double*
 Thickness of shell plates *3/8"* diameter of rivet holes *3/4"* whether punched or drilled *no* pitch of rivets *3"* lap of plating *3 7/8"*
 per centage of strength of joint *72* thickness of crown plates *3/8"* stayed by *4 stays 1 1/8" diameter*
 Diameter of furnace, top *3'-2"* bottom *3'-10"* length of furnace *6'-0"* thickness of plates *3/8"* description of joint *Single Lap.*
 Thickness of furnace crown plates *3/8"* stayed by *as above* working pressure of shell by rules *100 lbs.*
 Working pressure of furnace by rules *65 lbs.* diameter of uptake *12"* thickness of plates *7/16"* thickness of water tubes *3/8"*

SPARE GEAR. State the articles supplied:—
Sig^d Richard Hirst Newcastle
No new spare gear has been fitted as the usual amount of spare bolts, nuts & valves are on board

The foregoing is a correct description,
Lies. Anderson & Co Manufacturers.

General Remarks (State quality of workmanship, opinions as to class, &c.) *This vessel has been fitted with new main and donkey boilers of the above dimensions made under special survey. The sea cocks have been shifted from bottom to upper turn of bilge. The propeller shaft drawn and fitted with a new propeller. The whole of the machinery has been overhauled and examined. In my opinion the machinery is now in a good and efficient working condition and eligible to be noted in the Register Book.*
 + N.B. 84. L.M.C.B. 84.

It is submitted that this vessel is eligible to have the classification in B 4, 8 4 + N.B. 84 recorded
 W.P.
 11/9/84

19/9/84

The amount of Entry Fee . . . £ . . . received by me,
 Special *Damage* £ 4: 4: 0 9/9/84
 Donkey Boiler Fee . . . £ 4: 4: 0 5/9/84
 Certificate (if required) . . . £ . . . 2: 6 18
 To be sent as per margin.
 (Travelling Expenses, if any, £ . . .)

Lies. Anderson & Co
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

J.M.B. & Co
 + N.B. 84

