

# REPORT ON MACHINERY.

Lon. No. 52842  
Aln. No. 4342

Port of *Aberdeen* *London*

19 FEB. 92

No. *4342*

No. in Survey held at *Aberdeen*  
Reg. Book.

Date, first Survey *Dec. 14/91* Last Survey *Feb. 15 1892*  
" *Lon. 23 Feb. 92* *23 March* (Number of Visits *9*)

*6* on the *S S "Dabulamanyi"*

Tons { Gross *1534*  
Net *980*  
When built *1882*

Master \_\_\_\_\_ Built at *Aberdeen* By whom built *Hall Russell & Co*

Engines made at *Aberdeen* By whom made *Hall Russell & Co* when made *1888 Tripled*

Boilers made at *Aberdeen* By whom made *Hall Russell & Co* when made *1888*

Registered Horse Power *200* Owners *J. I. Rennie & Son* Port belonging to *Aberdeen*

## ENGINES, &c.—

Description of Engines \_\_\_\_\_ No. of Cylinders \_\_\_\_\_  
Diam. of Cylinders \_\_\_\_\_ Length of Stroke \_\_\_\_\_ Rev. per minute \_\_\_\_\_ Point of Cut off, High Pressure \_\_\_\_\_ Low Pressure \_\_\_\_\_  
Diameter of Screw shaft \_\_\_\_\_ Diam. of Tunnel shaft \_\_\_\_\_ Diam. of Crank shaft journals \_\_\_\_\_ Diam. of Crank pin \_\_\_\_\_ size of Crank webs \_\_\_\_\_  
Diameter of screw \_\_\_\_\_ Pitch of screw \_\_\_\_\_ No. of blades \_\_\_\_\_ state whether moveable \_\_\_\_\_ total surface \_\_\_\_\_  
No. of Feed pumps \_\_\_\_\_ diameter of ditto \_\_\_\_\_ Stroke \_\_\_\_\_ Can one be overhauled while the other is at work \_\_\_\_\_  
No. of Bilge pumps \_\_\_\_\_ diameter of ditto \_\_\_\_\_ Stroke \_\_\_\_\_ Can one be overhauled while the other is at work \_\_\_\_\_  
Where do they pump from \_\_\_\_\_  
No. of Donkey Engines \_\_\_\_\_ Size of Pumps \_\_\_\_\_ Where do they pump from \_\_\_\_\_  
Are all the bilge suction pipes fitted with roses \_\_\_\_\_ Are the roses always accessible \_\_\_\_\_ Are the sluices on Engine room bulkheads always accessible \_\_\_\_\_  
No. of bilge injections \_\_\_\_\_ and sizes \_\_\_\_\_ Are they connected to condenser, or to circulating pump \_\_\_\_\_  
How are the pumps worked \_\_\_\_\_  
Are all connections with the sea direct on the skin of the ship \_\_\_\_\_ Are they Valves or Cocks \_\_\_\_\_  
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates \_\_\_\_\_ Are the discharge pipes above or below the deep water line \_\_\_\_\_  
Are they each fitted with a discharge valve always accessible on the plating of the vessel \_\_\_\_\_ Are the blow off cocks fitted with a spigot and brass covering plate \_\_\_\_\_  
What pipes are carried through the bunkers \_\_\_\_\_ How are they protected \_\_\_\_\_  
Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times \_\_\_\_\_  
Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges \_\_\_\_\_  
When were stern tube, propeller, screw shaft, and all connections examined in dry dock \_\_\_\_\_  
Is the screw shaft tunnel watertight \_\_\_\_\_ and fitted with a sluice door \_\_\_\_\_ worked from \_\_\_\_\_

## BOILERS, &c.—

No. of Boilers \_\_\_\_\_ Description \_\_\_\_\_ Material \_\_\_\_\_ Letter (for record) \_\_\_\_\_  
Working Pressure \_\_\_\_\_ Tested by hydraulic pressure to \_\_\_\_\_ Date of test \_\_\_\_\_  
Description of superheating apparatus or steam chest \_\_\_\_\_  
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 \_\_\_\_\_ Description of safety valves \_\_\_\_\_ No. to each boiler \_\_\_\_\_  
Area of each valve \_\_\_\_\_ Are they fitted with easing gear \_\_\_\_\_ No. of safety valves to superheater \_\_\_\_\_ area of each valve \_\_\_\_\_  
Are they fitted with easing gear \_\_\_\_\_ Smallest distance between boilers and bunkers or woodwork \_\_\_\_\_ Diameter of boilers \_\_\_\_\_  
Length of boilers \_\_\_\_\_ description of riveting of shell long. seams \_\_\_\_\_ circum. seams \_\_\_\_\_ Thickness of shell plates \_\_\_\_\_  
Diameter of rivet holes \_\_\_\_\_ whether punched or drilled \_\_\_\_\_ pitch of rivets \_\_\_\_\_ Lap of plating \_\_\_\_\_  
Per centage of strength of longitudinal joint \_\_\_\_\_ working pressure of shell by rules \_\_\_\_\_ size of manholes in shell \_\_\_\_\_  
Size of compensating rings \_\_\_\_\_ No. of Furnaces in each boiler \_\_\_\_\_ Description of Furnaces \_\_\_\_\_  
Outside diameter \_\_\_\_\_ length \_\_\_\_\_ thickness of plates \_\_\_\_\_ description of joint \_\_\_\_\_ if rings are fitted \_\_\_\_\_  
Greatest length between rings \_\_\_\_\_ working pressure of furnace by the rules \_\_\_\_\_ combustion chamber plating, thickness, sides \_\_\_\_\_ back \_\_\_\_\_ top \_\_\_\_\_  
Pitch of stays to ditto, sides \_\_\_\_\_ back \_\_\_\_\_ top \_\_\_\_\_ If stays are fitted with nuts or riveted heads \_\_\_\_\_ working pressure of plating by rules \_\_\_\_\_ Diameter of stays at smallest part \_\_\_\_\_ working pressure of ditto by rules \_\_\_\_\_ end plates in steam space, thickness \_\_\_\_\_  
Pitch of stays to ditto \_\_\_\_\_ how stays are secured \_\_\_\_\_ working pressure by rules \_\_\_\_\_ diameter of stays at smallest part \_\_\_\_\_ working pressure by rules \_\_\_\_\_ Front plates at bottom, thickness \_\_\_\_\_ Back plates, thickness \_\_\_\_\_  
Greatest pitch of stays \_\_\_\_\_ working pressure by rules \_\_\_\_\_ Diameter of tubes \_\_\_\_\_ pitch of tubes \_\_\_\_\_ thickness of tube plates, front \_\_\_\_\_ back \_\_\_\_\_ how stayed \_\_\_\_\_ pitch of stays \_\_\_\_\_ width of water spaces \_\_\_\_\_  
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 \_\_\_\_\_

State of Report is also sent on the H.M. of the Ship

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LON695 - 0408



52842 L

DONKEY BOILER— Description *Vertical Steel*  
 Made at *Aberdeen* by whom made *Messrs J. Abernethy & Co* when made *1892* where fixed *Shrekhold*  
 Working pressure *90 lbs* tested by hydraulic pressure to *180 lbs* No. of Certificate *117* fire grate area description of safety  
 valves *Direct spring* No. of safety valves *one* area of each *14.19* if fitted with easing gear *yes* if steam from main boilers can  
 enter the donkey boiler *no* diameter of donkey boiler *6' 5"* length *10' 6"* description of riveting *DbL riv lap*  
 Thickness of shell plates *1/2" full* diameter of rivet holes *13/16* whether punched or drilled *drilled* pitch of rivets *2 3/4* lap of plating *4 1/4*  
 per centage of strength of joint *64 + 40%* thickness of crown plates *3/32"* stayed by *dished & 8- 2 1/8" steel stays*  
 Diameter of furnace, top *5' 2"* bottom *5' 4"* length of furnace *6' 4"* thickness of plates *3/32"* description of joint *S riv lap*  
 Thickness of furnace crown plates *3/32"* stayed by *uptake & eight 2 1/8" stays* working pressure of shell by rules *90 lbs*  
 Working pressure of furnace by rules *90 lbs* diameter of uptake *1' 6"* thickness of plates *3/8"* thickness of water tubes *5/16"*

SPARE GEAR. State the articles supplied :—

The foregoing is a correct description,  
*James Warrington* Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c.)

*This donkey boiler is intended for the above named vessel, it has been constructed under Special Survey, and is of good material, and workmanship. It will be forwarded to London this week, where it will be fitted on board, together with its mountings.*

*Donkey Boiler now fitted in Shrekhold. - Safety valves set under steam to blow at 80 lbs.*

*It is submitted that this vessel is eligible to remain AB*  
*W.A.*  
*24.3.92*

*It is submitted that this report be handed to the local engineer-surveyors for their guidance in adjusting the safety valves when the boiler has been fitted on board.*  
*W.A.*  
*19-2-92*

The amount of Entry Fee .. £ ✓ : : received by me,  
 Special .. .. £ ✓ : :  
 Donkey Boiler Fee .. .. £ 2 : 2 :  
 Certificate (if required) .. £ : : Feb 18 1892  
 To be sent as per margin.  
 (Travelling Expenses, if any, £ )

Committee's Minute

*For London Surveyors*

*Geo. L. Hindmarsh*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

TUES. 29 MAR 1892

*As now*

Lloyd's Register Foundation