

REPORT ON MACHINERY

No. 5282

LLOYD'S REGISTER OF SHIPS
23 JUN. 83

No. in Reg. Book. Survey held at *Beverley & Hulls Cardiff* Date, first Survey *6 July '82* Last Survey *9 April 1883*

on the *iron screw steamer "Alice"* Master *John Guy* Built at *Beverley* When built *1883*

Engines made at *Hull* By whom made *Good & Menzies* when made *1882 1883*

Boilers made at *Hull* By whom made *d.* when made *1882*

Registered Horse Power *20* Owners *Messrs John Bland & Co.* Port belonging to *Cardiff*

ENGINES, &c.—

Description of Engines *Single cylinder inverted direct surface condensing*
Diameter of Cylinder *20"* Length of Stroke *18"* No. of Rev. per minute *58* Point of Cut off, High Pressure *1 1/2* Low Pressure *2 1/2*
Diameter of Screw shaft *4 1/2"* Diameter of Tunnel shaft *no tunnel* Diameter of Crank shaft journals *5 1/2"* Diameter of Crank pin *5 1/2"* size of Crank web *3 1/2" x 6"*
Diameter of screw *7.0* Pitch of screw *11.0* No. of blades *3* state whether moveable *no* total surface *17.5 sq.*
Diameter of ditto *1 3/4"* Stroke *9"* Can one be overhauled while the other is at work *x*
Diameter of ditto *1 3/4"* Stroke *9"* Can one be overhauled while the other is at work *x*
Hald & Eugene Room
Size of Pumps *2 1/4" dia. x 4 1/2"* Where do they pump from *sea, Bilge, & tank & d. d. d.*

one Are the roses always accessible *yes* Are the sluices on Engine room bulkheads always accessible *no*
Are they connected to condenser, or to circulating pump *circulating*
Are they Valves or Cocks *Valves (main injection & Kingston)*
Are the discharge pipes above or below the deep water line *Above*
Are the blow off cocks fitted with a spigot and brass covering plate *yes*
How are they protected *x*
Are the valves in connection with the machinery accessible at all times *yes in engine room*
Are valves arranged so as to prevent an unintentional connection between the sea and the bilges *yes*
propeller, screw shaft, and all connections examined in dry dock *now new*
Is the hull watertight *no tunnel* and fitted with a sluice door *x* worked from *x*

Description *circular multitubular ordinary marine type*
Tested by hydraulic pressure to *80 lb* Date of test *25th Nov. 82*
Heating apparatus or steam chest *Vertical cylinder with open bottom*
Can the superheater be shut off and the boiler worked separately *x*
Description of safety valves *Spring loaded*
Area of each valve *9.5 sq. in.* Are they fitted with easing gear *yes*
Area of each valve *x* are they fitted with easing gear *x*

Length of boilers *8.7* description of riveting of shell long. seams *alternating lap* circum. seams *single riv. lap*
Diameter of rivet holes *13/16"* whether punched or drilled *punched* pitch of rivets *long = 2 1/2" cr = 2"*
Percentage of strength of longitudinal joint *67%* working pressure of shell by rules *50*
Size of compensating rings *3 1/4" x 1/2"*
Outside diameter *3 1/4"* length, top *6.0* bottom *8.0*
Description of joint *single riv. lap* if rings are fitted *no* greatest length between rings *7.0*

Plating, thickness, sides *3/8"* back *1/2"* top *7/16"*
Sides *2.9"* back *8 1/2" to 9"* top *11"*
Working pressure of plating by rules *40 lb*
Working pressure of ditto by rules *50 lb*
Pitch of stays to ditto *13"*
Diameter of stays at smallest part *1 1/4" to 1 5/8"* working pressure by rules *43 lb*
Back plates, thickness *1/2"* greatest pitch of stays *11"* working pressure by rules *50 lb*

HUL395-0210

Lloyd's Register Foundation

Diameter of tubes $3\frac{1}{4}$ pitch of tubes $4\frac{1}{2}$ thickness of tube plates, front $\frac{1}{2}$ back $\frac{1}{2}$
How stayed *nutted stay tubes* pitch of stays 12 in mid width of water spaces $1\frac{1}{4}$
Diameter of ~~superheater~~ Steam chest $2\frac{1}{2}$ length $3\frac{1}{2}$
Thickness of plates $7/16$ description of longitudinal joint *single rivet lap* diameter of rivet holes $13/16$ pitch of rivets 2
Working pressure of shell by rules $133\frac{1}{4}$ 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 $\frac{1}{2}$ How stayed 2 $1\frac{1}{2}$ stays
Superheater or steam chest; how connected to boiler *by double riveted flange & the 2 nutted stays*

DONKEY BOILER Description
Made at By whom made when made
Where fixed working pressure Tested by hydraulic pressure to No. of Certificate
Fire grate area Description of safety valves No. of safety valves area of each
If fitted with easing gear If steam from main boilers can enter the donkey boiler
Diameter of donkey boiler length description of riveting
thickness of shell plates diameter of rivet holes whether punched or drilled
pitch of rivets lap of plating per centage of strength of joint
thickness of crown plates stayed by
Diameter of furnace, top bottom length of furnace
thickness of plates description of joint
thickness of furnace crown plates stayed by
Working pressure of shell by rules working pressure of furnace by rules
diameter of uptake thickness of plates thickness of water tubes

The foregoing is a correct description,
Good Manger Manufacturer.

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

*It is submitted
that this vessel is now
able to leave the wharf
L.M.C. received M.L.H.
28/9/13*

Cardiff 21st June 1883

*Seacocks fitted with guards. Handle fitted to donkey pump, and suction pipe
to forehold. Easing gear of the safety valves put in order. Flywheel secured to
crankshaft. Safety valves seen under steam, blowing at 40 lb working pressure.
Engine seen working at full pressure, starting, reversing and stopping.
Spoc gear put on board.*

P. E. Heydell

The amount of Entry Fee .. £ 1 : : : received by me, *at Cardiff*
Special .. £ 8 : 8 : : *R. W. A.*
Certificate (if required) *gratis* : : : *29 Sept 1883*
To be sent as per margin.

(Travelling Expenses, if any, £)
Committee's Minute FRIDAY 28 SEPT 1883 18
JBW
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