

# REPORT ON MACHINERY.

No. 11234

Port of Glasgow

2 MAR 92

No. in Survey held at Glasgow

Date, first Survey 6<sup>th</sup> Feb 1891 Last Survey 18<sup>th</sup> January 1892

Ref. Book. 46 on the

(Number of Visits) 39

Auxiliary Steam Barge, "Maria Rickmers,"

Tons Gross 3822.18  
Net 3345.96

Master J. Gennreich

Built at Port Glasgow

By whom built Russell & Co. (26<sup>th</sup>)

When built 1891.22

Engines made at Greenock

By whom made Kincaid & Co. Ltd

when made 1891.22

Boilers made at Glasgow

By whom made H. Wallace & Co.

when made 1891.

Registered Horse Power 160

Owners Rickmers, Reimann, & Co. Ltd

Port belonging to Bremenhaven

Shiffahr Actien Gesellschaft

## 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 One Description Multitubular Material Steel Letter (for record) S.  
Working Pressure 150 lbs. Tested by hydraulic pressure to 300 lbs. Date of test 1<sup>st</sup> December 1891.  
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 \_\_\_\_\_  
Total Heating Surface 2,027 square feet.  
No. of square feet of fire grate surface in each boiler 65 Description of safety valves Direct Spring No. to each boiler Two  
Area of each valve 8.3 sq. ft. 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 12" Diameter of boilers 15'-0"  
Length of boilers 11'-0" description of riveting of shell long. seams d. butt str. circum. seams d. riv. lap Thickness of shell plates 1 1/4"  
Diameter of rivet holes 1 7/16" whether punched or drilled drilled pitch of rivets 7 3/4" x 3 7/8" Lap of plating 22" butt str.  
Per centage of strength of longitudinal joint 83.1% working pressure of shell by rules 150 lbs. size of manholes in shell 12" x 16"  
Size of compensating rings d. riv. ring No. of Furnaces in each boiler three Description of Furnaces welded & flanged  
Outside diameter 44" length 7'-9" thickness of plates 17/32" description of joint welded if rings are fitted yes  
Greatest length between rings 23" working pressure of furnace by the rules 150 lbs. combustion chamber plating, thickness, sides 1/2" back 1/2" top 3/32"  
Pitch of stays to ditto, sides 4" back 4" top 7 1/2" x 7" If stays are fitted with nuts or riveted heads nuts working pressure of plating by rules 157 lbs. Diameter of stays at smallest part 1 3/8" working pressure of ditto by rules 158 lbs. and plates in steam space, thickness 29/32" wash.  
Pitch of stays to ditto 16" x 15" how stays are secured d. nuts working pressure by rules 150 lbs. diameter of stays at smallest part 2 3/4" working pressure by rules 152 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 1/2" pitch of tubes 4 3/4" thickness of tube plates, front 3/4" back 3/4" how stayed stubs pitch of stays 9 1/2" x 13" 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 \_\_\_\_\_

GLS164-0163



11234 *ges*

DONKEY BOILER— Description *Dry back. Multitubular.*  
Made at *Glasgow* by whom made *H. Wallace & Co* when made *1891* where fixed *on deck*,  
Working pressure *90 lbs.* tested by hydraulic pressure to *180 lbs.* No. of Certificate *3066.* fire grate area *24 sq ft* description of safety  
valves *Direct spring* No. of safety valves *Two* area of each *4 sq in* if fitted with easing gear *yes* if steam from main boilers can  
enter the donkey boiler *no* diameter of donkey boiler *8'-3"* length *6'-8"* description of riveting *d. 1/4 in*  
Thickness of shell plates *9/16* diameter of rivet holes *15/16* whether punched or drilled *drilled* pitch of rivets *4 3/4 x 2 1/2* description of plating —  
per centage of strength of joint *80.3* thickness of *end* plates *15/16* stayed by *stay tubes & stay bars 2 1/2 dia*  
Diameter of furnace, top *28 1/2* bottom — length of furnace *6'-8"* thickness of plates *1/2* description of joint *butt*  
Thickness of furnace crown plates — stayed by *Steam dome 24 1/2 x 24 1/2* working pressure of shell by rules *100 lbs.*  
Working pressure of furnace by rules *140 lbs.* diameter of uptake tubes *3 1/2* thickness of *tube* plates *15/16* thickness of water tubes —

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,  
PRO **MINCAID & CO LIMITED** Manufacturer.

*John G. Mincaid*

General Remarks (State quality of workmanship, opinions as to class, &c. *The above mentioned*  
*boilers have been built under special survey and*  
*are of good workmanship & material. They have*  
*been sent to Greenock where they will be put on*  
*board the vessel. —*

*This Report forwarded to Greenock Surveyor for completion*

*John Sanderson*  
*Glasgow 18/1/92. —*

Certificate (if required) to be sent to

The amount of Entry Fee .. £ .. : : received by me,

Special .. .. £ *5 : 13* : —  
*being 5/- survey fee.*

Donkey Boiler Fee .. .. £ .. : : —

*1<sup>st</sup> March 1892*

(Travelling Expenses, if any, £ .. : : —)

Committee's Minute

TUES. 8 MAR 1892

FRI 11 MAR 1892

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



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Foundation