

# REPORT ON MACHINERY.

No. 13445

Port of Glasgow

Received at London Office FEB 1895

No. in Survey held at Glasgow Date, first Survey 12<sup>th</sup> June 1894 Last Survey 22<sup>nd</sup> Jan<sup>y</sup> 1895  
Reg. Book. (Number of Visits)

on the P.P. "Humbrough" "Banshee" Tons { Gross 159 Net 58

Master [Signature] Built at Glasgow By whom built Maclean & Thomson When built 1894-5

Engines made at Glasgow By whom made Muir & Houston when made 1894-5

Boilers made at Glasgow By whom made Muir & Houston when made 1894-5

Registered Horse Power 22 Owners Banshee S.S. Co. Ltd Port belonging to Glasgow

Nom. Horse Power as per Section 28 [check]

**ENGINES, &c.** — Description of Engines Compound surface condensing No. of Cylinders Two  
 Diameter of Cylinders 13" x 28" Length of Stroke 18" Revolutions per minute as per rule 5.02  
 Diameter of Tunnel shaft as per rule 4.76 Diameter of Crank shaft journals 5 1/8" Diameter of Crank pin 5 1/8" Size of Crank webs 11" x 3 1/2"  
 Diameter of screw 5-6" Pitch of screw 8'-0" No. of blades three State whether moveable no Total surface 9.09 ft<sup>2</sup>  
 No. of Feed pumps one Diameter of ditto 1 3/4" Stroke 9 5/8" Can one be overhauled while the other is at work [check]  
 No. of Bilge pumps one Diameter of ditto 2 1/2" Stroke 9 5/8" Can one be overhauled while the other is at work [check]  
 No. of Donkey Engines one Sizes of Pumps 5 1/4" x 3 1/2" x 5" No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room Two 2" In Holds, &c. Two 2"

No. of bilge injections one sizes 2" Connected to condenser, or to circulating pump pumps a separate donkey suction fitted in Engine room & size 2"  
 Are all the bilge suction pipes fitted with roses yes Are the roses in Engine room always accessible yes Are the sluices on Engine room bulkheads always accessible yes  
 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 above  
 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 [check]  
 Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times yes  
 Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges yes  
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock before launch the screw shaft tunnel watertight none  
 Is it fitted with a watertight door [check] coaked from trunk fitted in after hatch for access to

**BOILERS, &c.** — (Letter for record S) Total Heating Surface of Boilers 535.09 ft<sup>2</sup>  
 No. and Description of Boilers one cylindrical Working Pressure 110 lbs Tested by hydraulic pressure to 220 lbs  
 Date of test 30/6/94 Can each boiler be worked separately [check] Area of fire grate in each boiler 24 1/2 ft<sup>2</sup> No. and Description of safety valves to each boiler one pair direct spring Area of each valve 3.99 Pressure to which they are adjusted 110 lbs Are they fitted with easing gear yes  
 Length 8-6" Material of shell plates steel Thickness 9/8" Description of riveting: circum. seams lap double long. seams butt tubular  
 Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 4 1/8" Lap of plates or width of butt straps 16"  
 Per centages of strength of longitudinal joint 108 Working pressure of shell by rules 114 lbs Size of manhole in shell 16" x 12"  
 Size of compensating ring McNils No. and Description of Furnaces in each boiler two plain Material steel Outside diameter 33"  
 Length of plain part top 5'-0" Thickness of plates bottom 9/16" Description of longitudinal joint riveted No. of strengthening rings none  
 Working pressure of furnace by the rules 136.172 Combustion chamber plates: Material steel Thickness: Sides 1/2" Back 1/2" Top 1/2" Bottom 5/8"  
 Pitch of stays to ditto: Sides 8" x 8" Back 8" x 8" Top 8" x 6 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 120 lbs  
 Material of stays steel Diameter at smallest part 9 1/2" x 1 1/2" Area supported by each stay 64 x 70" Working pressure by rules 120/121 End plates in steam space: Material steel Thickness 7/16" Pitch of stays 13" How are stays secured double nuts & washers Working pressure by rules 132 lbs Material of stays steel  
 Diameter at smallest part 2 7/8" Area supported by each stay 169 ft<sup>2</sup> Working pressure by rules 144 lbs Material of Front plates at bottom steel  
 Thickness 7/16" Material of Lower back plate steel Thickness 7/16" Greatest pitch of stays 13 1/2" x 11 1/2" Working pressure of plate by rules 185.123  
 Diameter of tubes 3" Pitch of tubes 4 1/4" x 4 1/4" Material of tube plates steel Thickness: Front 7/16" Back 5/8" Mean pitch of stays 9"  
 Pitch across wide water spaces 13 1/2" x 11 1/2" Working pressures by rules 175, 175, 156 Girders to Chamber tops: Material iron Depth and thickness of girder at centre 6" x 14" Length as per rule 20 1/8" Distance apart 6 1/2" Number and pitch of Stays in each two 8"  
 Working pressure by rules 133 lbs Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked separately  
 Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness  
 If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed  
 Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

Report also sent on the Hull of the ship

Lloyd's Register Foundation  
GLS/71-0217

13445 95

**DONKEY BOILER**— Description *None*

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 \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_ If fitted with easing gear \_\_\_\_\_ If steam from main boilers can enter the donkey boiler \_\_\_\_\_

Diameter of donkey boiler \_\_\_\_\_ Length \_\_\_\_\_ Material of shell plates \_\_\_\_\_ Thickness \_\_\_\_\_

Description of riveting long. seams \_\_\_\_\_ Diameter of rivet holes \_\_\_\_\_ Whether punched or drilled \_\_\_\_\_ Pitch of rivets \_\_\_\_\_

Lap of plating \_\_\_\_\_ Per centage of strength of joint \_\_\_\_\_ Rivets \_\_\_\_\_ Thickness of shell crown plates \_\_\_\_\_ Radius of do. \_\_\_\_\_ No. of Stays to do. \_\_\_\_\_

Plates \_\_\_\_\_ Dia. of stays. \_\_\_\_\_ Diameter of furnace Top \_\_\_\_\_ Bottom \_\_\_\_\_ Length of furnace \_\_\_\_\_ Thickness of furnace 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 uptake plates \_\_\_\_\_ Thickness of water tubes \_\_\_\_\_

SPARE GEAR. State the articles supplied:— *As required by the rules*

The foregoing is a correct description,  
*Wm Houston* Manufacturer.

**General Remarks** (State quality of workmanship, opinions as to class, &c. *Engines & boiler the particulars of which are given on the other side have been constructed under special survey the materials & workmanship are of good description they have been well fitted on board steam has been raised on the main boiler the safety valves adjusted & the engines tried under steam.*

*In my opinion the machinery of this vessel is eligible & has notification LMC 1.95*

*Insuring of the boiler & the jacking reports are hereto appended*

It is submitted that this vessel is eligible for THE RECORD + LMC 1-95

*W.A. 4-2-95*

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

Certificate (if required) to be sent to *Glasgow*

The amount of Entry Fee. . . £ *1* : : : When applied for, *29/1/95*

Special . . . . . £ *8* : : : *1/1/95*

Donkey Boiler Fee . . . . £ *4* : : : When received, *30/1/95*

Travelling Expenses (if any) £ *4* : : :

MACHINERY CERTIFICATE WRITTEN

Committee's Minute **TUES. 5 FEB 1895**

Assigned

*+ LMC 1.95*



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(The Surveyors are requested not to write on or below the space for Committee's Minute.)