

# REPORT ON MACHINERY.

8943

No. 8943

Port of Glasgow

No. in Survey held at Glasgow

Date, first Survey 10<sup>th</sup> Jan 1888 Last Survey Dec 21<sup>st</sup> 1888

Reg. Book.

297 on the

S. S. Benarty

Received at London Office. (Number of Visits 11)

Tons 1424 1119

Master L. Bontillon Built at Glasgow By whom built Barclay Curle & Co. When built 1876

Engines made at Glasgow By whom made Barclay Curle & Co. when made 1876

Boilers made at Do By whom made Do when made 1876

Registered Horse Power 190 Owners W. Thompson & Co. Port belonging to Lath.

## ENGINES, &c.—

Description of Engines  
 Diameter of Cylinders Length of Stroke No. of 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.—

Number of Boilers Description Whether Steel or Iron  
 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  
 Outside diameter length, top bottom 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  
 working pressure of shell by rules diameter of flue thickness of plates If stiffened with rings  
 working pressure by rules end plates of superheater, or steam chest; thickness how stayed  
 Superheater or steam chest; how connected to boiler

G15159-0400



8943 gls

**DONKEY BOILER**— Description *Cylindrical. Multitubular.*  
Made at *Glasgow* by whom made *Ross & Duncan* when made *1888* where fixed *on deck*  
Working pressure *150 lb* tested by hydraulic pressure to *125 lb* No. of Certificate *198 (London)* fire grate area *-* description of safety  
valves *Spring loaded (Empire)* No. of safety valves *Pair* area of each *-* if fitted with easing gear *Yes* if steam from main boilers can  
enter the donkey boiler *No* diameter of donkey boiler *6-9"* length *7-0"* description of riveting *Butt. triple*  
Thickness of shell plates *5/8"* diameter of rivet holes *7/8"* whether punched or drilled *Drilled* pitch of rivets *5 1/2"* lap of plating  
per centage of strength of joint *84* thickness of ~~end~~ plates *3/4"* stayed by *with 1/2" doubling Steel stays 2" new. 12 pitch*  
Diameter of furnace, top *38"* bottom *-* length of furnace *4-9"* thickness of plates *2 1/32"* description of joint *Butt*  
Thickness of ~~furnace crown~~ *comb cham* plates *17/32"* stayed by *1 1/4" curved stays 7 1/2" pitch* working pressure of shell by rules *150 lb*  
Working pressure of furnace by rules *150 lb* diameter of ~~water~~ tubes *3"* thickness of plates *3/4" x 1/16"* thickness of water tubes *-*

**SPARE GEAR.** State the articles supplied:—

The foregoing is a correct description,  
Manufacturer.

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

This boiler was originally intended for a new vessel, and has been constructed under special survey and is of good material & workmanship. On account of the great hurry in delivery we did not witness the usual hydraulic test, but I am informed by the makers that the boiler was satisfactorily tested before leaving their works. It has now been forwarded to London to be used as a donkey boiler on board the S.S. "Benarty" and to work at 70 lb per sq inch.

It is submitted that this vessel is eligible to remain as classed.

ALD  
31.12.88

The amount of Entry Fee £ : :  
Special .. £ : :  
Donkey Boiler Fee .. £ 2 : 2 :  
Certificate (if required) .. £ : :  
(To be sent as per margin.)  
(Travelling Expenses, if any, £ )

received *12/11/89*  
*9/1/89*  
*18*

*Walter E. Robson*  
Engineer Surveyor to Lloyd's Register of British & Foreign Ships

Committee's Minute  
*Remain as classed*

TUES 1 JAN 1889

FRIDAY 4 OCT 1889

2019  
FRIDAY 21 FEB 1889  
Lloyd's Register  
FRIDAY 14 FEB  
Foundation