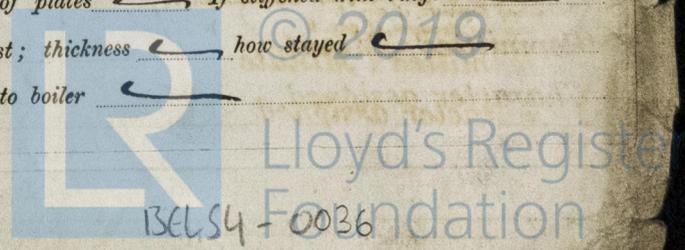


# REPORT ON MACHINERY.

No. in Survey held at Glasgow Date, first Survey 18<sup>th</sup> May 1884 Last Survey 16<sup>th</sup> March 1884  
 Book. S.S. "Star of Victoria" (Number of Visits) 41 3 3239.598  
 Supn the J. Smith Built at Belfast By whom built Worthman & Clark When built 1884  
 Engines made at Glasgow By whom made John & James Thomson when made 1884  
 Makers made at " By whom made " when made 1884  
 Registered Horse Power 350 Owners James P. Corry & Coy Port belonging to Belfast

**ENGINES, &c.**  
 Description of Engines Triple Expansion  
 Diameter of Cylinders 25 1/2" 43" 6 1/2" Length of Stroke 48" No. of Rev. per minute 40 Point of Cut off, High Pressure .7 Low Pressure .6  
 Diameter of Screw shaft 13 1/2" Diam. of Tunnel shaft 12 3/4" Diam. of Crank shaft journals 13 1/2" Diam. of Crank pin 13 1/2" size of Crank webs 9 1/2" x 14 3/4"  
 Diameter of screw 1 1/4" Pitch of screw 19 1/2" No. of blades Low state whether moveable Yes total surface 82.4 ft<sup>2</sup>  
 No. of Feed pumps Two diameter of ditto 4" Stroke 24" Can one be overhauled while the other is at work Yes  
 No. of Bilge pumps Two diameter of ditto 4" Stroke 24" Can one be overhauled while the other is at work Yes  
 Where do they pump from All Compartments  
 No. of Donkey Engines One Size of Pumps 10" x 12" Stroke Where do they pump from Ballast & Bilges  
Two (Weirs) 8" 6" x 18"  
 Are all the bilge suction pipes fitted with roses Yes Are the roses always accessible Yes Are the sluices on Engine room bulkheads always accessible Yes  
 No. of bilge injections One and sizes 4" valve Are they connected to condensers or to circulating pump To Circulating  
 How are the pumps worked By levers  
 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 below 3 ft 7" 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 —  
 Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times Yes  
 Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges Yes  
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock Immediately before launching Jan 21<sup>st</sup>  
 Is the screw shaft tunnel watertight Yes and fitted with a sluice door Yes worked from Upper deck

**BOILERS, &c.**  
 Number of Boilers Two Description Round Horizontal double ended Whether Steel or Iron Steel  
 Working Pressure 160 lbs Tested by hydraulic pressure to 320 lbs Date of test 11<sup>th</sup> Feb 1884  
 Description of superheating apparatus or steam chest none  
 Can each boiler be worked separately Yes Can the superheater be shut off and the boiler worked separately —  
 Area of square feet of fire grate surface in each boiler 94 ft<sup>2</sup> Description of safety valves Direct Spring No. to each boiler Two  
 Area of each valve 9.62" 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 10" Diameter of boilers 12" 9"  
 Length of boilers 14 ft description of riveting of shell long. seams Double riveted circum. seams Double riveted thickness of shell plates 1 3/16"  
 Diameter of rivet holes 1 7/16" whether punched or drilled Drilled pitch of rivets 4 1/8" + 3 1/8" Lap of plating Straps 18"  
 Percentage of strength of longitudinal joint 84.6% working pressure of shell by rules 162 lbs size of manholes in shell 16" x 12"  
 Size of compensating rings Lapped ring double riveted No. of Furnaces in each boiler Two  
 Outside diameter 3' 0" length, top 6' 9" bottom Through surface thickness of plates 8/16" description of joint Corrugated if rings are fitted —  
 Greatest length between rings — working pressure of furnace by the rules 166 lbs combustion chamber plating, thickness, sides 8/16" full back — top 8/16" full  
 Pitch of stays to ditto, sides 4" x 4" back — top 4" x 8" If stays are fitted with nuts or riveted heads Nuts working pressure of plating by rules 160 lbs Diameter of stays at smallest part 1 1/4" working pressure of ditto by rules 166 lbs end plates in steam space, thickness 1 1/16" with doubling 10"  
 Greatest pitch of stays — working pressure by rules — Diameter of tubes 3 1/2" pitch of tubes 4 1/8" x 4 3/4" thickness of tube plates, front 1 1/16" back 1 1/16" how stayed By tubes pitch of stays 9 1/2" x 9 3/4" width of water spaces 6"  
 Diameter of Superheater or Steam chest none 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 —



**DONKEY BOILER**— Description *Round Horizontal*  
 Made at *Clayton* by whom made *John & James Thomson* when made *1884* where fixed *On upper*  
 Working pressure *90 lbs* tested by hydraulic pressure to *180 lbs* No. of Certificate *1441* fire grate area *24 sq ft* description  
 valves *Direct Spring* No. of safety valves *Two* area of each *4"* if fitted with easing gear *Yes* if steam from main  
 enter the donkey boiler *No* diameter of donkey boiler *8' 6"* length *8' 3"* description of riveting *Lap joint tube*  
 Thickness of shell plates *13/16"* diameter of rivet holes *1 1/16"* whether punched or drilled *Drilled* pitch of rivets *3 1/2"* lap of plating *0*  
 per centage of strength of joint *57 1/2%* thickness of ~~cross~~ <sup>end</sup> plates *1 1/16"* stayed by *1 1/8" Steel Stays 14" x 14" pitch*  
 Diameter of furnace, <sup>top</sup> *32"* bottom *—* length of furnace *5' 9"* thickness of plates *8/16"* description of joint *Lap*  
 Thickness of <sup>Crown</sup> ~~furnace~~ <sup>plates</sup> *8/16"* stayed by *Screw Stays 1 1/2" dia 8 1/2" x 8 1/2" pitch* working pressure of shell by rules *98*  
 Working pressure of furnace by rules *121 lbs* diameter of uptake *—* thickness of plates *—* thickness of water tubes *—*

**SPARE GEAR.** State the articles supplied:— *Two propeller blades, 4 Connecting rod bolts (top + bottom) 2 main bearing bolts, 2 Eccentric strap bolts, 6 Shaft coupling bolts, 2 Steam valves, 2 Ridge valves, 1 pair Crank pin brasses, 1 piston rod, 1 Air & 1 Circulating pump rod, 2 Slide valve spindles, 2 Air pump guards & nuts, and a considerable quantity of bolts nuts & studs assorted also Cylinders, valves & valves with springs & 2 safety valve springs &c*  
 The foregoing is a correct description,  
*John & James Thomson* Manufacturers

**General Remarks** (State quality of workmanship, opinions as to class, &c. *These Engines & Boilers are of good workmanship and materials and are now in good order & safe working condition & liable in my opinion to be noted in the Register*  
 "LLOYD'S M.C." 3/84

The sea valves and cocks and stern tube were fitted on this vessel at Belfast in a satisfactory manner, before vessel was launched.  
*James Maston*

This submitted that this vessel is eligible to have the notification + 2 m & 3 m recorded  
 25/3/1884

Lloyd's

The amount of Entry Fee .. £ 3 : - : - received by me,  
 Special .. £ 34 : 10 : -  
 Donkey Boiler Fee .. £ - : - : -  
 Certificate (if required) .. £ - : - : - 25/3/1884  
 To be sent as per margin.  
 (Travelling Expenses, if any, £ 1" 13" 0)

*James Morrison*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping



Committee's Minute  
 TUESDAY 5 APRIL 1884  
 + *J.M.*