

## REPORT ON MACHINERY.

Port of London

WED 30 DEC 1896

No. in Survey held at London

Reg. Book.

Date, first Survey 6 Aug 1895 Last Survey 21 Dec 1896(Number of Visits 39)on the Steel S.S. "Ready"Master LookerBuilt at MiddlesbroughBy whom built R. L. Briggs & SonTons { Gross 76.2  
Net 2.5Engines made at LondonBy whom made J. Stewart & Sons. LtdWhen built 1896Boilers made at "By whom made "when made 1896Registered Horse Power 65Owners J. Constantwhen made 1896Nom. Horse Power as per Section 28 50Port belonging to LondonIs Electric Light fitted No.ENGINES, &c.—Description of Engines Comp. Surface Cond. No. of Cylinders Two No. of Cranks TwoDiameter of Cylinders 14 x 30 13/16 Length of Stroke 22 Revolutions per minute 120 Diameter of Screw shaft as per ruleDiameter of Tunnel shaft as fitted 6 1/4 Diameter of Crank shaft journals 6 1/4 Diameter of Crank pin 6 1/4 Size of Crank webs 12 1/2 x 14 1/2Diameter of screw 1.4 Pitch of screw 10 9 No. of blades 3 State whether moveable No Total surface 21 sq ft.No. of Feed pumps One Diameter of ditto 2 3/4 Stroke 11 Can one be overhauled while the other is at work YesNo. of Bilge pumps One Diameter of ditto 2 3/4 Stroke 11 Can one be overhauled while the other is at work YesNo. of Donkey Engines One Sizes of Pumps 3" dia x 6" Ht. No. and size of Suctions connected to both Bilge and Donkey pumpsIn Engine Room One each 2" dia In Holds, &c. One 2" dia in eachNo. of bilge injections 1 sizes 2 1/2 Connected to condenser, or to circulating pump — Is 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 stices on Engine room bulkheads always accessible YesAre all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks bothAre 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 aboveAre 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 YesWhat pipes are carried through the bunkers None How are they protected —Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times YesAre the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges YesWhen were stern tube, propeller, screw shaft, and all connections examined in dry dock new Is the screw shaft tunnel watertight NoIs it fitted with a watertight door — worked from —BOILERS, &c.—(Letter for record S.) Total Heating Surface of Boilers 930 sq ft Is forced draft fitted NoNo. and Description of Boilers One Multi-tubular Working Pressure 140 lb Tested by hydraulic pressure to 280 lbDate of test 9/1/96 Can each boiler be worked separately Yes Area of fire grate in each boiler 36 sq ft No. and Description of safety valves toeach boiler Two Spring Area of each valve 4.9 sq ft Pressure to which they are adjusted 140 lb Are they fittedwith easing gear Yes Smallest distance between boilers or uptakes and bunkers or woodwork abt 8" Mean diameter of boilers 10.6"Length 10.6 3/4 Material of shell plates S Thickness 1 1/32 Description of riveting: circum. seams Lap. DR. in long. seams Lap. DR. inDiameter of rivet holes in long. seams 1 3/16 Pitch of rivets 4" Lap of plates on width of butt straps 7 7/8Per centages of strength of longitudinal joint 64.69 Working pressure of shell by rules 140 lb Size of manhole in shell 16 x 12Size of compensating ring 4 x 1 1/16 No. and Description of Furnaces in each boiler Two Plain Material S Outside diameter 3'-3"Length of plain part top 6'-6" Thickness of plates crown 5/8 Description of longitudinal joint Welded No. of strengthening rings NoneWorking pressure of furnace by the rules 140 lb Combustion chamber plates: Material S Thickness: Sides 9/16 Back 9/16 Top 9/16 Bottom 9/16Pitch of stays to ditto: Sides 8 x 8 Back 8 x 7 1/2 Top 8 x 8 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 170 lbMaterial of stays S Diameter at smallest part 1-22 Area supported by each stay 64 sq ft Working pressure by rules 150 lb End plates in steam space:Material S Thickness 1" Pitch of stays 16 x 16 How are stays secured 7/16 nut Working pressure by rules 175 lb Material of stays SDiameter at smallest part 2 3/16 Area supported by each stay 256 sq ft Working pressure by rules 140 lb Material of Front plates at bottom SThickness 3/4 Material of Lower back plate S Thickness 1 3/16 Greatest pitch of stays abt 12" Working pressure of plate by rules 159 lbDiameter of tubes 3 1/2 Pitch of tubes 4 1/4 x 4 1/4 Material of tube plates S Thickness: Front 3/4 Back 3/4 Mean pitch of stays 9 1/2Pitch across wide water spaces 15 1/2 Working pressures by rules 160 lb Girders to Chamber tops: Material S Depth andthickness of girder at centre 6 3/4 x 1 1/2 Length as per rule 29 Distance apart 8" Number and pitch of Stays in each 2 x 8Working pressure by rules 165 lb Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler workedseparately — Diameter — Length — Thickness of shell plates — Material — Description of longitudinal joint — Diam. of rivetholes — 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 —



**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 \_\_\_\_\_ 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 \_\_\_\_\_ Thickness of shell crown plates \_\_\_\_\_ Radius of do. \_\_\_\_\_ No. of Stays to do. \_\_\_\_\_  
 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:—

*Spare Gear supplied as required by The Society's Rules.*

The foregoing is a correct description,

FOR JOHN STEWART & SON, LIMITED.

Manufacturer.

*Charles Savill*

Dates \_\_\_\_\_  
 During progress of work in shops - - -  
 of Survey \_\_\_\_\_  
 while erection on board vessel - - -  
 building \_\_\_\_\_  
 Total No. of visits \_\_\_\_\_

*6<sup>th</sup> August 95 to 29<sup>th</sup> October 1896.  
 29<sup>th</sup> Oct to 29<sup>th</sup> December 1896.*

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

*The Engines and Boilers of this vessel have been constructed under special Survey. The material and workmanship are good and satisfactory.*

*The Machinery of this vessel is in good condition and in my opinion eligible to be classed in the Register Book + L.M.C. 12.96.*

*This vessel, Engines and Boilers are duplicates of the Machinery of the S.S. "John Holliday" and "Frank."*

It is submitted that  
 this vessel is eligible for  
 THE RECORD + L.M.C. 12.96

*J.S.*  
*1.1.97*

The amount of Entry Fee. £ *1* : :  
 Special . . . . . £ *8* : :  
 Donkey Boiler Fee . . . . . £ : :  
 Travelling Expenses (if any) £ : :  
 When applied for, *3/12/96*  
 When received, *1/1/97*

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

Committee's Minute

FRI 1 JAN 1897

Assigned

*+ L.M.C. 12.96*



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 Foundation