

# REPORT ON MACHINERY.

No. 508

(Received at London Office 10th JULY 1882.)

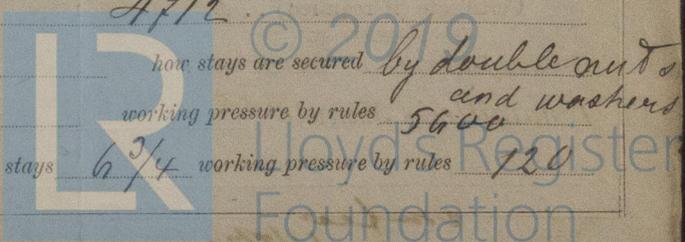
No. in Survey held at *Elbing* Date, first Survey \_\_\_\_\_ Last Survey *3<sup>rd</sup> July 1882*  
 Reg. Book. \_\_\_\_\_  
 on the *S.S. Malvinas* Tons *219.21*  
 Master *H Meyer* Built at *Elbing* When built *1882*  
 Engines made at *Elbing* By whom made *F Schichau* when made *1882*  
 Boilers made at *Elbing* By whom made *dito* when made *1882*  
 Registered Horse Power *70* Owners *Deutsch. Dampf- & Kosmos* Port belonging to *Hamburg*

**ENGINES, &c.—**

Description of Engines *Direct Acting inverted Compound*  
 Diameter of Cylinders *20 1/2 x 41 3/8* Length of Stroke *21 5/8* No. of Rev. per minute *75* Point of Cut off, High Pressure *3/4* Low Pressure *1/2*  
 Diameter of Screw shaft *6 5/8* Diameter of Tunnel shaft *6 1/2* Diameter of Crank shaft journals *6 5/8* Diameter of Crank pin *6 5/8* size of Crank webs *8 1/2 x 4 1/2*  
 Diameter of screw *9<sup>u</sup>* Pitch of screw *1 1/2<sup>u</sup>* No. of blades *4* state whether moveable *not* total surface *255 feet*  
 No. of Feed pumps *2* diameter of ditto *2 3/8* Stroke *13 3/4* Can one be overhauled while the other is at work *yes*  
 No. of Bilge pumps *1* diameter of ditto *4<sup>u</sup>* Stroke *9<sup>u</sup>* Can one be overhauled while the other is at work \_\_\_\_\_  
 Where do they pump from *all Bilges and Ballast tanks*  
 No. of Donkey Engines *1* Size of Pumps *4<sup>u</sup> diam 6 3/8<sup>u</sup>* Where do they pump from *from all Bilges and Ballast tanks*  
*One Centrifugal pump to work from tanks and arranged to assist steamer in de-watering*  
 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 *1* and sizes *2 3/8<sup>u</sup>* Are they connected to condenser, or to circulating pump *circulating pump*  
 How are the pumps worked *by lever from high pressure crosshead*  
 Are all connections with the sea direct on the skin of the ship *yes* Are they Valves or Cocks *Kingston Valves and Cocks*  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates *no* 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 \_\_\_\_\_  
 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 *new*  
 Is the screw shaft tunnel watertight *yes* and fitted with a sluice door *yes* worked from *Engine room*

**BOILERS, &c.—**

Number of Boilers *2* Description *Cylindrical return tubular*  
 Working Pressure *75* Tested by hydraulic pressure to *150* Date of test *5<sup>th</sup> June 1882*  
 Description of superheating apparatus or steam chest *dome on each Boiler*  
 Can each boiler be worked separately *yes* Can the superheater be shut off and the boiler worked separately \_\_\_\_\_  
 No. of square feet of fire grate surface in each boiler *180<sup>u</sup>* Description of safety valves *Adam's Spring valves*  
 No. to each boiler *two* area of each valve *7<sup>u</sup> inch* 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 1/2 to iron Bunker*  
 Diameter of boilers *7<sup>u</sup> 3<sup>u</sup>* Length of boilers *8<sup>u</sup> 4<sup>u</sup>* description of riveting of shell long. seams *triple* circum. seams *double*  
 Thickness of shell plates *1 1/16<sup>u</sup>* diameter of rivet holes *1<sup>u</sup>* whether punched or drilled *drilled* pitch of rivets *2 3/8*  
 Lap of plating *5 3/4* per centage of strength of longitudinal joint *75* working pressure of shell by rules *112*  
 Size of manholes in shell *12 1/2 x 16 1/2* size of compensating rings *3 1/2 x 5 1/8<sup>u</sup>*  
 No. of Furnaces in each boiler *2* outside diameter *2<sup>u</sup> 4 1/2<sup>u</sup>* length, top *6 1/2<sup>u</sup>* bottom *7<sup>u</sup> 7 1/2<sup>u</sup>*  
 Thickness of plates *7/16* description of joint *double riveted if rings are fitted yes* greatest length between rings *3<sup>u</sup> 3 1/2<sup>u</sup>*  
 Working pressure of furnace by the rules *182*  
 Combustion chamber plating, thickness, sides *7/16<sup>u</sup>* back *1/2<sup>u</sup>* top *7/16<sup>u</sup>*  
 Pitch of stays to ditto *7<sup>u</sup>* sides *7<sup>u</sup>* back *7<sup>u</sup>* top *10<sup>u</sup>*  
 If stays are fitted with nuts or riveted heads *with Nuts* working pressure of plating by rules *130*  
 Diameter of stays at smallest part *1<sup>u</sup>* working pressure of ditto by rules *4712*  
 End plates in steam space, thickness *1 3/16* pitch of stays to ditto *11 1/2* how stays are secured *by double nuts and washers*  
 Working pressure by rules *178* diameter of stays at smallest part *1 1/2* working pressure by rules *5600*  
 Front plates at bottom, thickness *1 3/16* Back plates, thickness *9/16* greatest pitch of stays *6 3/4* working pressure by rules *720*



Diameter of tubes  $3\frac{1}{4}$  pitch of tubes  $4\frac{1}{2}$  thickness of tube plates, front  $\frac{3}{4}$  back  $\frac{7}{8}$   
 How stayed *Stay tubes* pitch of stays  $12\frac{3}{4}$  width of water spaces  $1\frac{1}{2}$   
 Diameter of Superheater or Steam chest  $31\frac{1}{2}$  dome length *high*  $3-3\frac{1}{2}$   
 Thickness of plates  $\frac{3}{8}$  description of longitudinal joint *duplex* diameter of rivet holes  $\frac{3}{4}$  pitch of rivets  $2\frac{1}{2}$   
 Working pressure of shell by rules  $141$  Diameter of flue  $\frac{1}{2}$  thickness of plates  $\frac{1}{2}$   
 If stiffened with rings  distance between rings  $\frac{1}{2}$  Working pressure by rules  
 End plates of superheater, or steam chest; thickness  $\frac{1}{2}$  How stayed   
 Superheater or steam chest; how connected to boiler

**DONKEY BOILER—**

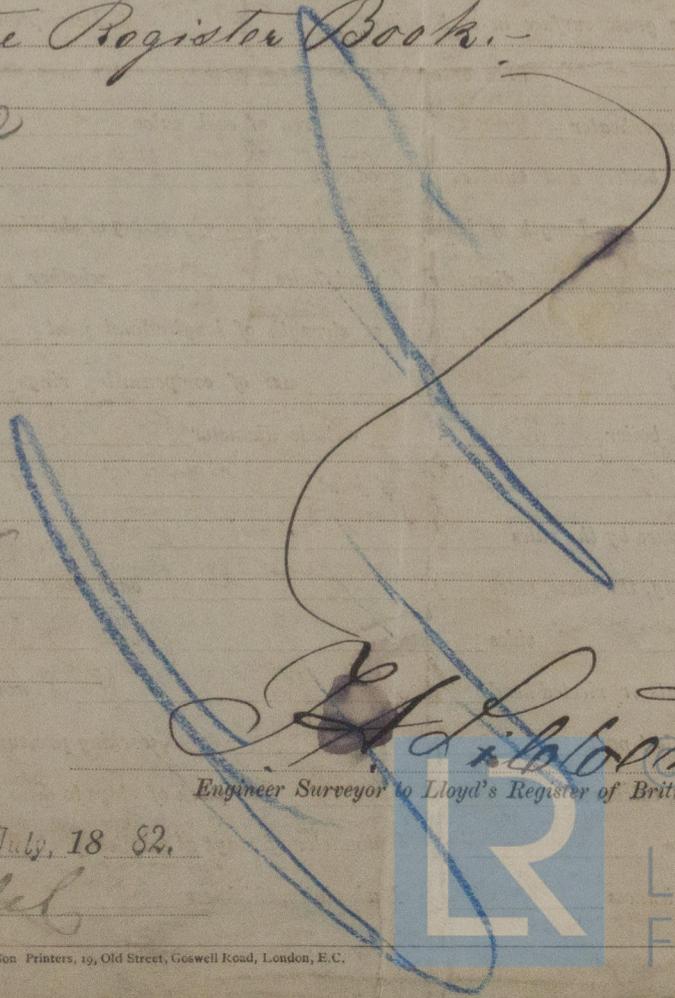
Description *none*  
 Made at \_\_\_\_\_ By whom made \_\_\_\_\_ when made \_\_\_\_\_  
 Where fixed \_\_\_\_\_ working pressure \_\_\_\_\_ Tested by hydraulic pressure to \_\_\_\_\_ No. of Certificate \_\_\_\_\_  
 Fire grate area \_\_\_\_\_ Description of safety valves \_\_\_\_\_ No. of safety valves \_\_\_\_\_ area of each \_\_\_\_\_  
 If fitted with easing gear \_\_\_\_\_ If steam from main boilers can enter the donkey boiler \_\_\_\_\_  
 Diameter of donkey boiler \_\_\_\_\_ length \_\_\_\_\_ description of riveting \_\_\_\_\_  
 thickness of shell plates \_\_\_\_\_ diameter of rivet holes \_\_\_\_\_ whether punched or drilled \_\_\_\_\_  
 pitch of rivets \_\_\_\_\_ lap of plating \_\_\_\_\_ per centage of strength of joint \_\_\_\_\_  
 thickness of crown plates \_\_\_\_\_ stayed by \_\_\_\_\_  
 Diameter of furnace, top \_\_\_\_\_ bottom \_\_\_\_\_ length of furnace \_\_\_\_\_  
 thickness of 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 plates \_\_\_\_\_ thickness of water tubes \_\_\_\_\_

The foregoing is a correct description,  
*J. Schickaw.* Manufacturer.

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

*The Engine and Boilers of this Vessel are of the very best material and of very good workmanship and in my opinion entitle the Vessel to be marked with **Lloyd's** M.C. 7. 82. in the Register Book.*

*This submitted that this vessel is eligible to have the notification of Lloyd's recorded M<sup>107</sup>/82*



The amount of Entry Fee *Two Pounds* £2 received by me,  
 Special *11/5/0* £11 : 5 : 0  
 Certificate (if required) .. £ : : 18  
To be sent as per margin.  
 (Travelling Expenses, if any, £ 10-0-0)

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

Committee's Minute *Tuesday, 11th July, 18 82.*  
*+ Mel*  
*11/8/82*



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