

# REPORT ON MACHINERY.

Port of *London*

45940\*

No. *346* on the *Sonsley boiler of the S.S. "Goorla"* Tons *4104*  
 No. in Survey held at *London* Date, first Survey *April 30<sup>th</sup>* Last Survey *August 14<sup>th</sup>* 18 *90*  
 Reg. Book. *346* Master *Henderson* Built at *Sumbarton* By whom built *W. Senny Bros* When built *1882*  
 Engines made at *Sumbarton* By whom made *W. Senny Bros* when made *1882*  
 Boilers made at *"* By whom made *"* when made *1882*  
 Registered Horse Power *500* Owners *British India S.R. Co* Port belonging to *Glasgow*

## 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  
 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

## OILERS, &c.—

Number of Boilers *one* Description *Horizontal multitubular* Whether Steel or Iron *Steel*  
 Working Pressure *80 lbs* Tested by hydraulic pressure to *160* Date of test *August 14<sup>th</sup> 90*  
 Description of superheating apparatus or steam chest *None*  
 Can each boiler be worked separately ☒ Can the superheater be shut off and the boiler worked separately *No*  
 No. of square feet of fire grate surface in each boiler *25* Description of safety valves *spring* No. to each boiler *2*  
 Area of each valve 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 ☒ Diameter of boilers *9-0*  
 Length of boilers *7-0* description of riveting of shell long. seams *double riv* circum. seams *double riv* Thickness of shell plates *9/16*  
 Diameter of rivet holes *1"* whether punched or drilled *drilled* pitch of rivets *3 3/8"* Lap of plating *4 1/2*  
 Percentage of strength of longitudinal joint *71* working pressure of shell by rules *83 lbs* size of manholes in shell *1-5" x 1-1"*  
 Size of compensating rings *6 1/2" x 9/16* No. of Furnaces in each boiler *2*  
 Outside diameter *2-10* length, top *4-6* bottom *6-0* thickness of plates *1/2"* description of joint *double butt* if rings are fitted *No*  
 Greatest length between rings ☒ working pressure of furnace by the rules *109* combustion chamber plating, thickness, sides *1/16"* back *1/16"* top *1/16"*  
 Pitch of stays to ditto, sides *4 1/2"* back *4 1/2" x 8"* top *8"* If stays are fitted with nuts or riveted heads *Nuts* working pressure of plating by rules *84 lbs*  
 Diameter of stays at smallest part *1 1/4"* working pressure of ditto by rules *80* end plates in steam space, thickness *2 3/8*  
 Pitch of stays to ditto *1-3 x 1-1 1/2* how stays are secured *double nuts & washers* working pressure by rules *93* diameter of stays at smallest part *1 1/4"* working pressure by rules *107* Front plates at bottom, thickness *3/8* Back plates, thickness *3/8*  
 Greatest pitch of stays *15" x 8"* working pressure by rules *82* Diameter of tubes *2 3/4"* pitch of tubes *3 3/4"* thickness of tube plates, front *1/16"* back *5/16"* how stayed *lutes* pitch of stays *12"* width of water spaces *12*  
 Diameter of Superheater or Steam chest *2-6* length *2-0* thickness of plates *1/16"* description of longitudinal joint *lap double* diam. of rivet holes *1/8"*  
 Pitch of rivets *3 1/4"* working pressure of shell by rules *100* 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

Description of furnaces



459402

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 \_\_\_\_\_ 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 \_\_\_\_\_

SPARE GEAR. State the articles supplied :—

The foregoing is a correct description,  
Manufacturer.

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

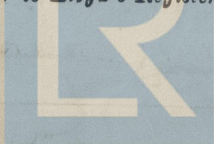
This boiler has been built in accordance with the Societies Rules & under the Surveyors inspection, it has been tested by hydraulic pressure to 160 lbs per sq inch & at that pressure was found to be tight & sound. The S.S. "Goonka" for which it is intended is unclassified.  
Certificate as marked Lloyd's 160 lbs. 14.8.90  
J.B.P.C.

The amount of Entry Fee .. £ : : act 15/8/90 received by me, 15/11/91  
Special .. .. £ 2 : 2 :  
Donkey Boiler Fee .. .. £ : :  
Certificate (if required) .. £ : : 25/3/18  
To be sent as per margin.

(Travelling Expenses, if any, £ \_\_\_\_\_)

Committee's Minute

Maurice Nelson  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



Lloyd's Register  
Foundation