

REPORT ON MACHINERY.

Received at London Office 10th AUGUST, 1883.

No. 6205 Date, first Survey 11.9.82 Last Survey 8th Aug 1883
 Reg. Book. S. S. Torreador (Number of Visits 24) 682.00
 on the S. S. Torreador Tons 446.51
 Master H. M. Callum Built at Dumbarton By whom built Burrell & Son When built 1883
 Engines made at Airdrie By whom made Gibb & Hogg when made 1882-3
 Boilers made at Glasgow By whom made J. Davidson when made 1882-3
 Registered Horse Power 85 Owners Baird & Braun Port belonging to Glasgow

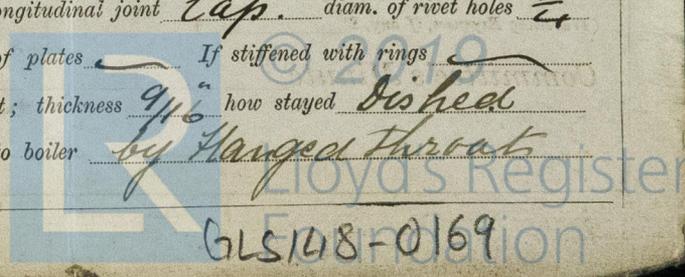
ENGINES, &c.—

Description of Engines Compound Inverted Direct Acting
 Diameter of Cylinders 23 1/2 x 45" Length of Stroke 33" No. of Rev. per minute 70 Point of Cut off, High Pressure 2/3 Low Pressure 2/5"
 Diameter of Screw shaft 8" Diam. of Tunnel shaft 8" Diam. of Crank shaft journals 8" Diam. of Crank pin 8" size of Crank webs 6" x 9"
 Diameter of screw 11-0" Pitch of screw 14-0" No. of blades 4 state whether moveable no total surface 32 sq. ft.
 No. of Feed pumps 2 diameter of ditto 3" Stroke 14" Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 diameter of ditto 3" Stroke 14" 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 8" x 10" stroke Where do they pump from Tank, Sea, Engine Room & holds.
 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 1 3/4" Are they connected to condenser, or to circulating pump Air pump.
 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
 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 Bend of Steam Whistle How are they protected wood casing.
 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 before launching
 Is the screw shaft tunnel watertight yes and fitted with a sluice door yes worked from upper platform

BOILERS, &c.—

Number of Boilers One Description Cylindrical Whether Steel or Iron parts.
 Working Pressure 80 lbs Tested by hydraulic pressure to 180 lbs Date of test 8th June 1883
 Description of ~~superheating apparatus~~ or steam chest Horizontal
 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 54-0" Description of safety valves Direct Spring No. to each boiler two
 Area of each valve 16" 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 16" to bunker diameter of boilers 13'-1 3/4"
 Length of boilers 9'-6" description of riveting of shell long. seams treb. Lap. circum. seams Double Lap. Thickness of shell plates 1 5/16"
 Diameter of rivet holes 1 3/16" whether punched or drilled drilled pitch of rivets 4 1/2" Lap of plating 12"
 Per centage of strength of longitudinal joint 73.5 working pressure of shell by rules 80 lbs. size of manholes in shell 12" x 18"
 Size of compensating rings 2 1/2 x 3 1/2" No. of Furnaces in each boiler Three
 Outside diameter 39" length, top 6'-4" bottom 8'-9" thickness of plates 1/2" description of joint double butt if rings are fitted yes
 Greatest length between rings 6'-4" working pressure of furnace by the rules 95 lbs combustion chamber plating, thickness, sides 7/16" back 7/16" top 1/2"
 Pitch of stays to ditto, sides 8 1/4" back 8 1/4" top hides stays are fitted with nuts or riveted heads nuts working pressure of plating by rules 79 lbs Diameter of stays at smallest part 1 1/8" working pressure of ditto by rules 108 lbs end plates in steam space, thickness 3/4"
 Pitch of stays to ditto 15" x 14" how stays are secured D. Nuts & washers working pressure by rules 89 lbs. diameter of stays at smallest part 2 1/8" working pressure by rules 94 Front plates at bottom, thickness 5/8" Back plates, thickness 5/8"
 Greatest pitch of stays 12 1/2" working pressure by rules 83 lbs. Diameter of tubes 3 1/2" pitch of tubes 4 1/2" thickness of tube plates, front 1 1/16" back 1 1/16" how stayed 5 tubes pitch of stays 15" x 14" width of water spaces 6"
 Diameter of Superheater or Steam chest 2'-4" length 5'-0" thickness of plates 7/16" description of longitudinal joint Lap. diam. of rivet holes 3/4"
 Pitch of rivets 2" working pressure of shell by rules 240 lbs 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 9/16" how stayed Dished
 Superheater or steam chest; how connected to boiler by Hanged Thrusts

[Form No. 8-3000-22/5/83.] (State if Report is also sent on the Hull of the Ship)



6205 qts.

DONKEY BOILER— Description *Vertical*
 Made at *Coatbridge* by whom made *Arnott & Co* when made *1883* where fixed *Stoke hold*
 Working pressure *60 lbs* tested by hydraulic pressure to *120 lbs* No. of Certificate *1087*. fire grate area *16 sq. ft.* description of safety
 valves *Lever & weight* No. of safety valves *One* area of each *4"* if fitted with easing gear *yes* if steam from main boilers can
 enter the donkey boiler *no* diameter of donkey boiler *5'-6"* length *10'-0"* description of riveting *double & single*
 Thickness of shell plates *3/8" steel* diameter of rivet holes *1 3/16"* whether punched or drilled *ruled* pitch of rivets *2 1/2"* lap of plating *3 1/2"*
 per centage of strength of joint *64%* thickness of crown plates *1/2" steel* stayed by *4 rod stays 1 1/2" diameter*
 Diameter of furnace, top *4'-6"* bottom *4'-8"* length of furnace *6'-0"* thickness of plates *7/16" steel* description of joint *Single Lap*
 Thickness of furnace crown plates *1/2" steel* stayed by *4 rod stays 1 1/2" diameter* working pressure of shell by rules *89 lbs*
 Working pressure of furnace by rules *59 lbs* diameter of uptake *16 3/4"* thickness of plates *3/8"* thickness of water tubes *5/16"*

SPARE GEAR. State the articles supplied:— *One set Coupling bolts, 2 Connecting Rod*
Top End Bolts, 2 Bottom End Bolts, 2 Main bearing Bolts,
One set Feed and Bilge Pump Valves. Bolts and nuts assorted
Iron of various sizes.

The foregoing is a correct description,
Cubb & Bogg Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. *The above mentioned*)
Engines and Boilers are now completed onboard of
good workmanship and material and the machinery
is now in my opinion in a safe and good working
condition and eligible to be noted in Register Book

"LLOYD'S L.C." 8.83.

The amount of Entry Fee .. £ *1 : 0 : 0* received by me,
 Special .. £ *12 : 15 : 0*
 Donkey Boiler Fee .. £ *2 : 2 : 0*
 Certificate (if required) .. £ *0 : 0 : 0* *9/8/1883*
 (Travelling Expenses, if any, £)

John Sanderson
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute *FRIDAY 13 AUGUST 1883*