

REPORT ON MACHINERY.

Port of Greenock

THUR, 3 MAR 1898

Received at London Office 18

No. in Survey held at Greenock Date, first Survey 25th Nov 1896 Last Survey 25th Feb 1898
 Reg. Book. S 157 (Number of Visits 157)
 37 on the Screw Steamer "Boverie" Tons } Gross 3987
 } Net 2578
 Master A. Shotton Built at Port Glasgow By whom built Russell & Co. When built 1898
 Engines made at Greenock By whom made Rankin & Blackmore when made 1897 & 8
 Boilers made at do By whom made do do when made 1897 & 8
 Registered Horse Power 346 Owners Steam Ship Boverie Coy (Lim^d) Port belonging to Glasgow
 Nom. Horse Power as per Section 28 346 Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines

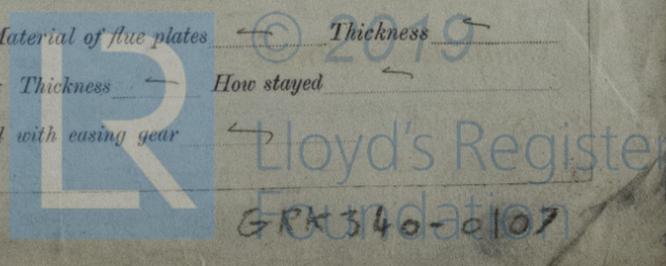
Description of Engines		No. of Cylinders	No. of Cranks
Diameter of Cylinders	Length of Stroke	Revolutions per minute	Diameter of Screw shaft as per rule as fitted
Diameter of Tunnel shaft as per rule as fitted	Diameter of Crank shaft journals	Diameter of Crank pin	Size of Crank webs
Diameter of screw	Pitch of screw	No. of blades	State whether moveable
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
No. of Donkey Engines	Sizes of Pumps	No. and size of Suctions connected to both Bilge and Donkey pumps	
In Engine Room		In Holds, &c.	
No. of bilge injections	sizes	Connected to condenser, or to circulating pump	Is a separate donkey suction fitted in Engine room & size
Are all the bilge suction pipes fitted with roses	Are the roses in Engine room always accessible	Are the sluices on Engine room bulkheads always accessible	
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 and all boiler mountings accessible at all times			
Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication 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	
Is it fitted with a watertight door	worked from <u>Donkey Boiler</u>	Is forced draft fitted	

BOILERS, &c.— (Letter for record) Total Heating Surface of Boilers _____ Is forced draft fitted _____

No. and Description of Boilers One Cylindrical Multitubular Working Pressure 80 lbs Tested by hydraulic pressure to 160 lbs
 Date of test 22.12.97 Can each boiler be worked separately Area of fire grate in each boiler 30.6 sq ft No. and Description of safety valves to each boiler Two direct spring Area of each valve 7 sq in Pressure to which they are adjusted 80 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork Boiler on deck Mean diameter of boilers 10" 0"
 Length 9" 0" Material of shell plates Steel Thickness 5/8" Description of riveting: circum. seams Lap single long. seams Lap triple
 Diameter of rivet holes in long. seams 13/16" Pitch of rivets 3 1/4" Lap of plates or width of butt straps 5 3/4"
 Per centages of strength of longitudinal joint rivets 66 plate 75 Working pressure of shell by rules 99 lbs Size of manhole in shell 16 x 12"
 Size of compensating ring 2.8 x 2.4 x 1 1/2" No. and Description of Furnaces in each boiler Two plain Material Steel Outside diameter 36"
 Length of plain part top 5.8" bottom 5.8" Thickness of plates crown 3 7/16" bottom 3 7/16" Description of longitudinal joint D B Strap No. of strengthening rings _____
 Working pressure of furnace by the rules 81 lbs Combustion chamber plates: Material Steel Thickness: Sides 1/2" Back 15/32" Top 9/16" Bottom 1/2"
 Pitch of stays to ditto: Sides 10 x 9" Back 9 x 9" Top 12 x 9" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 83 lbs
 Material of stays Steel Diameter at smallest part 1 1/8" x 1 1/4" Area supported by each stay 81 to 108 sq in Working pressure by rules 87.69 lbs End plates in steam space: Material Steel Thickness 5/8" Pitch of stays 14 1/2" x 14 1/2" How are stays secured double nuts Working pressure by rules 80 lbs Material of stays Steel
 Diameter at smallest part 1 1/2" Area supported by each stay 217 sq in Working pressure by rules 91 lbs Material of Front plates at bottom Steel
 Thickness 1 1/16" Material of Lower back plate Steel Thickness 9/16" Greatest pitch of stays 9" Working pressure of plate by rules 134 lbs
 Diameter of tubes 3 1/2" Pitch of tubes 4 3/4" x 4 5/8" Material of tube plates Steel Thickness: Front 1/16" Back 1/16" Mean pitch of stays 14"
 Pitch across wide water spaces 1 1/4" Working pressures by rules 85 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 6 1/2" x 3 7/8" double Length as per rule 26" Distance apart 12" Number and pitch of Stays in each Two 9"
 Working pressure by rules 136 lbs Superheater or Steam chest; how connected to boiler _____ Can the superheater be shut off and the boiler worked separately _____
 Diameter _____ Length _____ Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet holes _____ 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 _____

If a Report also sent on the Hull of the Ship? If a Report also sent on the Hull of the Ship?

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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 _____ Rivets _____ Thickness of shell crown plates _____ Radius of do. _____ No. of Stays to do. _____
 Plates _____
 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:—

The foregoing is a correct description,

Randall Macdonald Manufacturer.

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

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

Certificate (if required) to be sent to Committee's Minute.

The amount of Entry Fee..	£	:	:	When applied for,
Special	£	:	:1s.....
Donkey Boiler Fee	£	:	:	When received,
Travelling Expenses (if any) £	:	:	:1s.....

A. L. Brown
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.
 Greenock District.

Committee's Minute **FRI, 4 MAR 1898**
 Assigned

