

REPORT ON MACHINERY

JUL 14 1900

Received from

Surveyed on 29 JUN 1900

Port of

Glasgow

Received at London Office

JUL 3 1900

No. in Survey held at Reg. Book.

Glasgow

Date, first Survey 17 March Last Survey 15 June 1900

(Number of Visits 5)

320 on the

SS. "Jupiter"

Tons { Gross 4896.00 Net 3216.81

Master A. Bilis de Ugarte

Built at Port Glasgow By whom built Russell & Co (No 455) When built 1900

Engines made at

Grimsby

By whom made

Rankin & Blackmore

when made 1900

Boilers made at

Glasgow

By whom made

Lindsay Burnett & Co

when made 1900

Registered Horse Power

Owners Francisco Martinez Rodas

Port belonging to Bilbao

Nom. Horse Power as per Section 28 403

Is Refrigerating Machinery fitted no

Is Electric Light fitted no

ENGINES, &c.—Description of Engines

Description of Engines			No. of Cylinders	No. of Cranks
Dia. of Cylinders	Length of Stroke	Revs. per minute	Dia. of Screw shaft as per rule as fitted	Lgth. of stern bush
Dia. of Tunnel shaft as per rule as fitted	Dia. of Crank shaft journals as per rule as fitted	Dia. of Crank pin	Size of Crank webs	Dia. of thrust shaft under collars
Dia. 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	
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		

BOILERS, &c.—

(Letter for record) Total Heating Surface of Boilers 7826 Is forced draft fitted no

No. and Description of Boilers	one single ended return tube	Working Pressure	80 lbs	Tested by hydraulic pressure to	160 lbs
Date of test	15/6/00	Can each boiler be worked separately	yes	Area of fire grate in each boiler	30.4
No. and Description of safety valves to each boiler	two direct spring	Area of each valve	7.06 sq. in.	Pressure to which they are adjusted	80 lbs
Smallest distance between boilers or uptakes and bunkers or woodwork	boiler on dock, 10.0 dia. of boilers	Length	9.0	Material of shell plates	steel
Thickness	3/16"	Range of tensile strength	27/32	Are they welded or flanged	no
Description of riveting	circle seams	Top seams	long	Bottom seams	lap tube
Diameter of rivet holes in long. seams	2/8	Pitch of rivets	3 5/8"	Lap of plates	width of shell plate 6 1/2"
Per centages of strength of longitudinal joint	ribs 76.1 plate 76.8	Working pressure of shell by rules	84 lbs	Size of manhole in shell	16 x 12
Size of compensating ring	25 x 29 1/2	No. and Description of Furnaces in each boiler	2 plain	Material	steel
Outside diameter	35 3/4	Thickness of plates	top 3/16" crown 3/16" bottom 3/16"	Description of longitudinal joint	welded
No. of strengthening rings	none	Working pressure of furnace by the rules	86	Combustion chamber plates: Material	steel
Thickness: Sides	1/2	Back	15/32	Top	3/16
Bottom	1/2	Working pressure by rules	85 lbs	End plates in steam space:	
Material of stays	steel	Thickness at smallest part	9/16"	Area supported by each stay	90 1/2 sq. in.
Working pressure by rules	85 lbs	Hour are stays secured	2 nuts	Working pressure by rules	80 lbs
Material of stays	steel	Thickness at smallest part	2.03	Area supported by each stay	292 sq. in.
Working pressure by rules	94 lbs	Material of Front plates at bottom	steel	Thickness	3/16"
Greatest pitch of stays	9 x 9"	Working pressure of plate by rules	105 lbs	Diameter of tubes	3 1/2"
Pitch of tubes	4 5/8 x 4 3/4"	Material of tube plates	steel	Thickness: Front	4/16"
Back	4/16"	Mean pitch of stays	13"	Pitch across wide water spaces	14"
Working pressures by rules	86 lbs + 100 lbs	Girders to Chamber tops: Material	steel	Depth and thickness of girder at centre	6 1/2 x 7 1/8 double
Length as per rule	26"	Distance apart	12"	Number and pitch of Stays in each	two 9"
Working pressure by rules	98 lbs	Superheater or Steam chest; how connected to boiler	none	Can the superheater be shut off and the boiler worked	
Diameter		Length		Thickness of shell plates	
Material		Description of longitudinal joint		Diam. of rivet	
Pitch of rivets		Working pressure of shell by rules		Diameter of flue	
Material of flue plates		Thickness		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— No. _____ 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 *no.* _____

Dia. of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____ Range of tensile strength _____

Descrip. of riveting long. seams _____ Dia. 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. _____

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,
Rudray Sumner & Co Manufacturers.

Dates of Survey while building
 During progress of work in shops - - 1900: March. 17. April. 20. May. 3. 16. June. 15.
 During erection on board vessel - -
 Total No. of visits *Five.*

Is the approved plan of main boiler forwarded herewith *Yes*
 " " " donkey " " " *Yes*

General Remarks (State quality of workmanship, opinions as to class, &c.)
This boiler has been constructed under special survey the materials and workmanship are of good description
The boiler has now been forwarded to Greenock when it is to be fitted on board

[Faint handwritten notes and scribbles, including numbers like 1857, 1858, 1859, 1860, 1861, 1862, 1863, 1864, 1865, 1866, 1867, 1868, 1869, 1870, 1871, 1872, 1873, 1874, 1875, 1876, 1877, 1878, 1879, 1880, 1881, 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900.]

The amount of Entry Fee. . . £ : :
 Special £ : :
 Donkey Boiler Fee £ 2 : :
 Travelling Expenses (if any) £ : :
 When applied for, *25/6/900*
 When received, *27/6/900*

A. McKeand
 Engineer Surveyor to Lloyd's Register of British & Foreign

Committee's Minute *Glasgow.* 2 JUL 1900

Assigned

[Handwritten signature]

Deferred for Completion

