

REPORT ON MACHINERY.

No. 28150

(Received at London Office 21/6/82)

No. in Survey held at Reg. Book.

Liverpool

Date, first Survey 28th Feb'y 82 Last Survey 13th June 1882.

53 on the

S.S. "City of Rome"

Tons 4615

Master

Kenedy

Built at

Barrow.

When built

1881

Engines made at

Barrow

By whom made Barrow S.B. Co

when made

1881

Boilers made at

Barrow

By whom made - do -

when made

1881

Registered Horse Power

1500

Owners Inman S.S. Co. (Limited)

Port belonging to

Liverpool

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	Diameter of Tunnel shaft	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	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				
No. 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 casing 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

BOILERS, &c.— 4 Auxiliary

Number of Boilers	Description	Working Pressure	Tested by hydraulic pressure to	Date of test
4	Jones' patent	80	160 lbs	2 on the 27 th March 82 on 5 th May 1882
Description of superheating apparatus or steam chest One horizontal cyl ^d steam chest to each boiler. One cyl ^d steam chest.				
Can each boiler be worked separately Yes Can the superheater be shut off and the boiler worked separately No.				
No. of square feet of fire grate surface in each boiler	22 ft.	Description of safety valves Spring. (Cox's patent)		
No. to each boiler	2	area of each valve 7.07	Are they fitted with easing gear Yes	
No. of safety valves to superheater	One	area of each valve 7.07	are they fitted with easing gear Yes	
Smallest distance between boilers and bunkers on woodwork 12"				
Diameter of boilers 6' 10 1/2"	Length of boilers 10 ft	description of riveting of shell long. seams Double butt joint circum. seams Double R ^d caps		
Thickness of shell plates 3/8"	diameter of rivet holes 1 1/8"	whether punched or drilled drilled pitch of rivets 2 1/2"		
Lap of plating 9" lap 4"	per centage of strength of longitudinal joint 81%	working pressure of shell by rules 104 lbs		
Size of manholes in ends 16 1/2" x 12 1/2"	size of compensating rings 2 1/2" x 3/4"			
No. of Furnaces in each boiler One	outside diameter breadth 4' 6" length, top 4' 2" bottom 4' 2"			
Thickness of plates	description of joint	if rings are fitted greatest length between rings		
Working pressure of furnace by the rules				
Combustion chamber plating, thickness, sides 1/2"	back 1/2"	top 1/2"		
Pitch of stays to ditto sides 8 1/2" x 8 1/2"	back 8 1/2" x 8"	top Circular secured by grommets.		
If stays are fitted with nuts or riveted heads Nuts	working pressure of plating by rules 101 lbs			
Diameter of stays at smallest part 1 1/8" & 1 1/16"	working pressure of ditto by rules 105 lbs			
End plates in steam space, thickness 5/8"	pitch of stays to ditto 15"	how stays are secured Double plates & nuts		
working pressure by rules 90 lbs	diameter of stays at smallest part 2 3/8"	working pressure by rules 108 lbs		
Front plates at bottom, thickness 5/8"	Back plates, thickness 5/8"	greatest pitch of stays 95 lbs		

Diameter of tubes $3\frac{1}{2}$ " pitch of tubes 5" thickness of tube plates, front $\frac{5}{8}$ " back $\frac{5}{8}$ "
 How stayed *Lute stays* pitch of stays 10" width of water spaces $1\frac{1}{2}$ " & $1\frac{1}{2}$ "
 Diameter of ~~Superheater~~ Steam chest 3' 0" length 12' 9"
 Thickness of plates $\frac{1}{2}$ " description of longitudinal joint *Double Lap* diameter of rivet holes $\frac{3}{4}$ " pitch of rivets $2\frac{1}{2}$ "
 Working pressure of shell by rules 164 lb. Diameter of flue $\frac{1}{2}$ " thickness of plates $\frac{1}{2}$ "
 If stiffened with rings $\frac{1}{2}$ " distance between rings $\frac{1}{2}$ " Working pressure by rules $\frac{1}{2}$ "
 End plates of superheater, or steam chest; thickness $\frac{5}{8}$ " How stayed *Hemispherical*
 Superheater ~~or~~ steam chest; how connected to boiler *Malleable iron branches 16" diam $\frac{5}{8}$ " thick riveted to boiler & steam chest*
 Diameter of Superheater ~~Steam~~ chest 3' 0" length 12' 9"
 Thickness of plates $\frac{1}{2}$ " description of longitudinal joint *Double Lap* diameter of rivet holes $\frac{3}{4}$ " pitch of rivets $2\frac{1}{2}$ "
 Working pressure of shell by rules 164 lb. Diameter of flue $\frac{1}{2}$ " thickness of plates $\frac{1}{2}$ "
 If stiffened with rings $\frac{1}{2}$ " distance between rings $\frac{1}{2}$ " Working pressure by rules $\frac{1}{2}$ "
 End plates of superheater, ~~or~~ steam chest; thickness $\frac{5}{8}$ " How stayed *Hemispherical*
 Superheater ~~or~~ steam chest; how connected to boiler *Superheater connected to Steam chest by Copper pipes*
 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,

Manufacturer.

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

material is of good quality in accordance with the requirements of the Rules and to plans approved and have been specially surveyed during the whole course of construction.

Three duplex engines have been replaced by new ones of 12" cylinders and 9" stroke to pump from bilges & sea to Boilers 1st and overboard. New turning wheel fitted to main shaft. New exhaust pipes fitted to each low pressure cylinder. High pressure cylinder, piston valves, pumps and crank pins examined and found efficient. Sea cocks, chests, propeller and shaft end examined and found in good order. Auxiliary Boilers tested under steam and the safety valves set to blow off at 80 lbs pressure.

The machinery and Boilers of this vessel are now in good order and in my opinion entitle the vessel to retain the certification. *Lloyd's M.C. 10th month 1881*

The amount of Entry Fee .. £ .. : received by me,

Special .. £ .. :

Certificate (if required) .. £ .. : 18

To be sent as per margin.

(Travelling Expenses, if any, £ ..)

Committee's Minute

Liverpool June 20th 1882

Lloyd's M.C. 10th 81

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



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