

# REPORT ON MACHINERY. (40569)

No. \_\_\_\_\_ (Received in London Office 28 6 1881)  
 No. in Survey held at London Date, first Survey Mar 17 Last Survey June 12 1881  
 Reg. Book. 818 on the S. S. City of Ghent Tons 125  
 Master \_\_\_\_\_ Built at Grimsby When built 1871  
 Engines made at London By whom made Ward & Dunsmuir when made 1881  
 Boilers made at London By whom made Ward & Dunsmuir when made 1881  
 Registered Horse Power 440 Owners J. C. Thomas Port belonging to London

## ENGINES, &c.—

Description of Engines Direct acting inverted Compound Engines  
 Diameter of Cylinders 14" 8 28" Length of Stroke 20" No. of Rev. per minute 100 Point of Cut off, High Pressure 14" Low Pressure 14"  
 Diameter of Screw shaft 5 1/4" Diameter of Tunnel shaft 5 1/4" Diameter of Crank shaft journals 6" Diameter of Crank pin 6" size of Crank webs 3 1/2 x 7"  
 Diameter of screw 7' 0" Pitch of screw 12' 6" No. of blades 3 state whether moveable no total surface 13' 8"  
 No. of Feed pumps one diameter of ditto 2" Stroke 20" Can it be overhauled while the other is at work yes  
 No. of Bilge pumps one diameter of ditto 2" Stroke 20" Can it be overhauled while the other is at work yes  
 Where do they pump from Bilges & Engine room  
 No. of Donkey Engines Two Size of Pumps \_\_\_\_\_ Where do they pump from Bilges & sea, fore hold  
and after hold  
 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 3" Are they connected to condenser, or to circulating pump circulating pumps  
 How are the pumps worked direct from the crosshead  
 Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks cocks and valves  
 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 above  
 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 none How are they protected \_\_\_\_\_  
 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 Globe Dock 7th May 1881  
 Is the screw shaft tunnel watertight no Tunnel and fitted with a sluice door \_\_\_\_\_ worked from \_\_\_\_\_

## BOILERS, &c.—

Number of Boilers one Description Multitubular  
 Working Pressure 80 Tested by hydraulic pressure to 160 Date of test 6th May 1881  
 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. of square feet of fire grate surface in each boiler 21 1/2 Description of safety valves \_\_\_\_\_  
 No. to each boiler 2 area of each valve 5' 9 1/4 sq in 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 12" to Bunkers 6" to Main Hold  
 Diameter of boilers 8' 2" Length of boilers 9' description of riveting of shell long. seams Lap double R. circum. seams Double Riveted  
 Thickness of shell plates 3/4" diameter of rivet holes 1" whether punched or drilled punched pitch of rivets 3"  
 Lap of plating \_\_\_\_\_ per centage of strength of longitudinal joint 66.67 working pressure of shell by rules \_\_\_\_\_  
 Size of manholes in shell 12x16 and 11x15 size of compensating rings 6 x 3/4 and 5 1/2 x 3/4  
 No. of Furnaces in each boiler 2 outside diameter 2' 8 1/2" length, top 6' 6" bottom 8' 6"  
 Thickness of plates 7/16 & 1/2" description of joint lap joint if rings are fitted no greatest length between rings \_\_\_\_\_  
 Working pressure of furnace by the rules 89 lbs  
 Combustion chamber plating, thickness, sides 7/16" back 7/16" top 7/16"  
 Pitch of stays to ditto sides 6 1/2" back 7" top 6 1/2"  
 If stays are fitted with nuts or rivet heads rivet heads working pressure of plating by rules 90 lbs  
 Diameter of stays at smallest part 1 1/4" Stays working pressure of ditto by rules 150  
 End plates in steam space, thickness 1/16" pitch of stays to ditto 14 1/2" how stays are secured double nuts  
 Working pressure by rules 80 lbs diameter of stays at smallest part 2" dia working pressure by rules 83 lbs  
 Front plates at bottom, thickness 5/8" Back plates, thickness 5/8" greatest pitch of stays 12 working pressure by rules 83 lbs

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Diameter of tubes  $3\frac{1}{4}$  pitch of tubes  $4\frac{3}{8}$  thickness of tube plates, front  $\frac{5}{8}$  back  $\frac{5}{8}$   
How stayed *Stay Tubes* pitch of stays  $13" \times 8\frac{3}{4}$  width of water spaces  $9"$   
Diameter of Superheater or Steam chest *none*  $3'6"$  length *height*  $3'5"$   
Thickness of plates  $\frac{3}{8}"$  description of longitudinal joint *weld* diameter of rivet holes *—* pitch of rivets *—*  
Working pressure of shell by rules *ample* Diameter of flue *—* thickness of plates *—*  
If stiffened with rings *—* distance between rings *—* Working pressure by rules *—*  
End plates of superheater, or *none* steam chest; thickness  $\frac{1}{2}$  How stayed *curved & through stay to main shell*  
Superheater or steam chest; how connected to boiler *rivetted*

DONKEY BOILER— Description *vertical circular, horizontal water tube*  
Made at *Ashton under Lyne* By whom made *R. Atkinson* when made *1881*  
Where fixed *port side of* working pressure *80 lbs* Tested by hydraulic pressure to *160 lbs* No. of Certificate *—*  
Fire grate area *4 feet* Description of safety valves *Spring* No. of safety valves *one* area of each *5.64*  
If fitted with easing gear *yes* If steam from main boilers can enter the donkey boiler *yes*  
Diameter of donkey boiler *3'6"* length *height*  $6'6"$  description of riveting *double lap joint*  
thickness of shell plates  $\frac{3}{8}$  inch diameter of rivet holes  $\frac{3}{4}$  inch whether punched or drilled *punched*  
pitch of rivets  $2\frac{1}{2}"$  lap of plating *—* per centage of strength of joint  $70\%$   
thickness of crown plates  $\frac{3}{8}$  inch stayed by *4 vertical stays & uptake tube*  
Diameter of furnace, top  $2'10"$  bottom  $3'0"$  height length of furnace *5 feet*  
thickness of plates  $\frac{3}{8}$  inch description of joint *lap single rivetted*  
thickness of furnace crown plates  $\frac{3}{8}$  inch stayed by *4 vertical stays & uptake tube*  
Working pressure of shell by rules *—* working pressure of furnace by rules *120 lbs*  
diameter of uptake  $10" \text{ to } 11"$  thickness of plates  $\frac{5}{16}"$  thickness of water tubes  $\frac{5}{16}"$

The foregoing is a correct description,  
*Andrew D. Dunsmore* Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. The material of these  
boilers and engines as far as they have been renewed  
is of good quality. The high pressure cylinder contains  
two screw plugs well fitted in place of a few blow holes  
The workmanship is good. Both boilers were satisfactorily  
tested to double their working pressure with water & the  
Main boiler & engines were tested under steam while  
safety valves were being adjusted to 80 lbs. Both engines  
and boilers are securely fitted to the vessel

*Disputed matter that  
this vessel is eligible to  
have the notification  
Lloyds M.C. 681 and  
No 1381 recorded  
Jm 27/6/81*

The engines and boilers of this vessel appear to be in safe working  
condition and are in my opinion eligible to get the notification  
*Lloyds M.C. 681* recorded in the Register Book

The amount of Entry Fee .. £ 1 : : : received by me, *CLP*  
Special *7/7/81* .. £ 5 : 5 : 0  
Certificate (if required) .. £ *gratis*  $6\frac{1}{4}$  / 7 / 1881  
(To be sent as per margin.)  
(Travelling Expenses, if any, £ )

Committee's Minute *Friday, July, 8th 1881.*

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



Lloyd's Register  
Foundation