

# IRON SHIP.

Rev 1878 28 28

No. 8028 Survey held at *Greenock and Port Glasgow* Date, First Survey *17<sup>th</sup> January* Last Survey *13<sup>th</sup> July* 1881

On the Ship *Rotomahana* Master *Mann*

**TONNAGE** under Tonnage Deck *1500.01*  
 Ditto of Third, Spar, or Awning Deck. *80.39*  
 Ditto of Popp, or Raised Q. Dk. *35.6*  
 Ditto of Houses on Deck *42.19*  
 Ditto of Forecastle *1658.19*  
 Gross Tonnage *173.87*  
 Less Crew Space  
 Less Engine Room  
 Register Tonnage as cut on Beam *1584.32*

**ONE, OR TWO DECKED, THREE DECKED VESSEL, SPAR, OR AWNING DECKED VESSEL.**  
 Half Breadth (moulded) *19.0*  
 Depth from upper part of Keel to top of Upper Deck Beams *35.0*  
 Girth of Half Midship Frame (as per Rule) *39.68*  
 1st Number *83.68*  
 1st Number, if a 3-Decked Vessel .. deduct 7 feet  
 Length *245.5*  
 2nd Number *20543.4*  
 Proportions— Breadths to Length *6.46*  
 Depths to Length— Upper Deck to Keel *9.8*  
 Main Deck ditto

Built at *Greenock*  
 When built *1881* Launched *June 81*  
 By whom built *Russell & Co*  
 Owners *Jas R. De Wolf*  
 Residence *Liverpool*  
 Port belonging to *Glasgow*  
 Destined Voyage *Calcutta*  
 If Surveyed while Building, Afloat, or in Dry Dock, *While building & afloat*

Official Number

**LENGTH** on deck as per Rule *245* Feet. *6* Inches. **BREADTH** Moulded *38* Feet. *0* Inches. **DEPTH** top of Floors to Upper Deck Beams *22* Feet. *11 1/2* Inches. Do. do. Main Deck Beams *22* Feet. *11 1/2* Inches. Power of Engines *1* Horse. No. of Decks with flat laid *One* No. of Tiers of Beams *Two*

Dimensions of Ship per Register, length *258.8* breadth *38.3* depth *21.75*

	Inches in Ship			Inches per Rule		
	In Ship	In Ship	In Ship	Inches per Rule	Inches per Rule	Inches per Rule
<b>KEEL</b> , depth and thickness	<i>9 1/2</i>	<i>2 1/2</i>	<i>8</i>	<i>9 1/2</i>	<i>2 1/2</i>	<i>8</i>
<b>STEM</b> , moulding and thickness	<i>9</i>	<i>2 1/2</i>	<i>8</i>	<i>9</i>	<i>2 1/2</i>	<i>8</i>
<b>STERN-POST</b> for Rudder do. do.	<i>9</i>	<i>2 1/2</i>	<i>8</i>	<i>9</i>	<i>2 1/2</i>	<i>8</i>
" " for Propeller						
Distance of Frames from moulding edge to moulding edge, all fore and aft	<i>24</i>			<i>24</i>		
<b>FRAMES</b> , Angle Iron, for 2/3 length amidships	<i>5</i>	<i>3 1/2</i>	<i>8</i>	<i>5</i>	<i>3 1/2</i>	<i>8</i>
Do. for 1/3 at each end	<i>5</i>	<i>3 1/2</i>	<i>7</i>	<i>5</i>	<i>3 1/2</i>	<i>7</i>
<b>REVERSED FRAMES</b> , Angle Iron	<i>3 1/2</i>	<i>3 1/2</i>	<i>8</i>	<i>3 1/2</i>	<i>3 1/2</i>	<i>8</i>
<b>FLOORS</b> , depth and thickness of Floor Plate at mid line for half length amidships	<i>2 1/2</i>		<i>10</i>	<i>2 1/2</i>		<i>10</i>
" thickness at the ends of vessel			<i>8</i>			<i>8</i>
" depth at 3/4 the half-bdth. as per Rule	<i>12 1/2</i>			<i>12 1/2</i>		
" height extended at the Bilges	<i>49</i>			<i>49</i>		
<b>BEAMS</b> , Upper, Spar, or Awning Deck } Single or d'ble Ang. Iron, Plate or Tee Bulb Iron } <i>9</i> - <i>9</i> <i>9</i> - <i>9</i>	<i>3 1/2</i>	<i>3</i>	<i>7</i>	<i>3 1/2</i>	<i>3</i>	<i>7</i>
Single or double Angle Iron on Upper edge	<i>48</i>			<i>48</i>		
Average space						
<b>BEAMS</b> , Main, or Middle Deck } Single or d'ble Ang. Iron, Plate or Tee Bulb Iron } - - - - -						
Single, or double Angle Iron, on Upper Edge						
Average space						
<b>BEAMS</b> , Lower Deck } Single or d'ble Ang. Iron, Plate or Tee Bulb Iron } - - - - -						
Single or double Angle Iron on Upper Edge						
Average space						
<b>BEAMS</b> , Hold, or Orlop } Single or d'ble Ang. Iron, Plate or Tee Bulb Iron } <i>9</i> - <i>9</i> <i>9</i> - <i>9</i>	<i>3 1/2</i>	<i>3</i>	<i>7</i>	<i>3 1/2</i>	<i>3</i>	<i>7</i>
Single or double Angle Iron on Upper Edge	<i>48</i>			<i>48</i>		
Average space						
<b>KEELSONS</b> Centre line, single or double plate, box, or Intercostal Plates	<i>18</i>		<i>13</i>	<i>18</i>		<i>13</i>
" Rider Plate	<i>12</i>		<i>13</i>	<i>12</i>		<i>13</i>
" Bulb Plate to Intercostal Keelson	<i>5 1/2</i>	<i>4</i>	<i>9</i>	<i>5 1/2</i>	<i>4</i>	<i>9</i>
" Angle Irons	<i>5 1/2</i>	<i>4</i>	<i>9</i>	<i>5 1/2</i>	<i>4</i>	<i>9</i>
" Double Angle Iron Side Keelson			<i>8</i>			<i>8</i>
" Side Intercostal Plate						
" do. Angle Irons	<i>3 1/2</i>	<i>3 1/2</i>	<i>8</i>	<i>3 1/2</i>	<i>3 1/2</i>	<i>8</i>
" Attached to outside plating with angle iron	<i>5 1/2</i>	<i>4</i>	<i>9</i>	<i>5 1/2</i>	<i>4</i>	<i>9</i>
<b>BILGE</b> Angle Irons	<i>5 1/2</i>	<i>4</i>	<i>9</i>	<i>5 1/2</i>	<i>4</i>	<i>9</i>
" do. Bulb Iron						
" do. Intercostal plates riveted to plating for length	<i>5 1/2</i>	<i>4</i>	<i>9</i>	<i>5 1/2</i>	<i>4</i>	<i>9</i>
<b>BILGE STRINGER</b> Angle Irons	<i>5 1/2</i>	<i>4</i>	<i>9</i>	<i>5 1/2</i>	<i>4</i>	<i>9</i>
Intercostal plates riveted to plating for length						
<b>SIDE STRINGER</b> Angle Irons	<i>5 1/2</i>	<i>4</i>	<i>9</i>	<i>5 1/2</i>	<i>4</i>	<i>9</i>

	Inches. In Ship	16ths. In Ship	Inches. per Rule	16ths. per Rule
Flat Keel Plates, breadth and thickness	<i>36</i>	<i>12</i>	<i>36</i>	<i>12</i>
<b>PLATES</b> in Garboard Strakes, br'dth & thickness	<i>10 1/2</i>	<i>12</i>	<i>10 1/2</i>	<i>12</i>
" From Garboard to upper part of Bilges				
" Of d'bling at Bilge, or increased thickness, and length applied <i>3 Strakes to</i>				
" From up. prt of Bilge to lr. edge of Sh'rstrake	<i>10 1/2</i>		<i>10 1/2</i>	
" Main Sheerstrake, breadth and thickness	<i>40</i>	<i>13</i>	<i>40</i>	<i>13</i>
" Of d'bling at Sh'stk. & lng. applied				
" From M'n. to Upr. or Spar Dk. Sh'rstrake				
" Up. or Spar Dk Sh'rstrake, br'dth & thic'k'ns	<i>11 1/2</i>	<i>16 3/4</i>	<i>11 1/2</i>	<i>16 3/4</i>
Butt Straps to outside plating, breadth & thickness	<i>10 1/2</i>	<i>12</i>	<i>10 1/2</i>	<i>12</i>
Lengths of Plating <i>See frame spaces</i>				
Shifts of Plating, and Stringers <i>2 1/2 ft spaces</i>				
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	<i>36</i>	<i>10</i>	<i>36</i>	<i>10</i>
Angle Iron on ditto	<i>5 1/2</i>	<i>4</i>	<i>5 1/2</i>	<i>4</i>
Tie Plates fore and aft, outside Hatchways	<i>14</i>	<i>10</i>	<i>14</i>	<i>10</i>
Diagonal Tie Plates on Beams No. of Pairs <i>See</i>	<i>14</i>	<i>10</i>	<i>14</i>	<i>10</i>
Flat of Up., Spar, or Awning Dk. <i>Yellow Pine</i>	<i>4</i>		<i>4</i>	
How fastened to Beams <i>By J screws</i>	<i>8</i>		<i>8</i>	
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness				
Is the Stringer Plate attached to the outside plating?				
Angle Irons on ditto, No.				
Tie Plates, outside Hatchways				
Diagonal Tie Plates on Beams, No. of pairs				
Flat of Middle Deck* do. do.				
How fastened to Beams				
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	<i>35</i>	<i>9</i>	<i>35</i>	<i>9</i>
Is the Stringer Plate attached to the outside plating?	<i>Yes</i>		<i>Yes</i>	
Angle Irons on ditto, No. <i>Two</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>4</i>
Stringer or Tie Plates, outside Hatchways	<i>14</i>	<i>10</i>	<i>14</i>	<i>10</i>
Flat of Lower Deck*				

The **FRAMES** extend in one length from *Keel* to *gunwale* Riveted through plates with *7/8* in. Rivets, about *Two* apart.  
 The **REVERSED ANGLE IRONS** on floors and frames extend *from middle line to upper D' Stringer and to every frame* alternately  
**KEELSONS.** Are the various lengths of Plates and Angle Irons properly connected? *Yes* And butts properly shifted? *Yes*  
**PLATING.** Garboard, double riveted to Keel, with rivets *1/8* in. diameter, averaging *5 1/8* ins. from centre to centre.  
 " Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets *7/8* in. diameter, averaging *3 1/2* ins. from centre to centre.  
 " Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets *7/8* in. diameter averaging *5 1/2* ins. from centre to centre.  
 " Butts of *three* Strakes at Bilge for *half* length, treble riveted with Butt Straps *1/16* in. thicker than the plates they connect.  
 " Edges from Bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets *7/8* in. diameter, averaging *3 1/2* ins. from cr. to cr.  
 " Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets *7/8* in. diameter, averaging *3 1/2* ins. from cr. to cr.  
 " Edges of Main Sheerstrake, double or single riveted. **Upper Sheerstrake**, double or single riveted.  
 " Butts of Main Sheerstrake, treble riveted for *half* length amidships. Butts of Upper or Spar Sheerstrake, treble riveted *1/2* length amidships.  
 " Butts of Main Stringer Plate, treble riveted for *half* length amidships. **Butts of Upper or Spar Stringer Plate**, treble riveted for *1/2* length.  
 " Breadth of laps of plating in double riveting *5 1/2* ins. Breadth of laps of plating in single riveting *5 1/2* ins.  
 Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? *Treble & double* No. of Breasthooks, *Three* Crutches, *Three*  
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? *Good*  
 Manufacturer's name or trade mark, *Angles & Bulbs. Dorman Howarth & Co. Plates Stockton Iron Co*  
 The above is a correct description.  
 Builder's Signature, *Russell & Co* Surveyor's Signature, *J. P. Aitken*  
 Surveyor to Lloyd's Register of British and Foreign Shipping.

Form No. 1 for Iron Ships—4000—24/5/81.

State clearly where plating is of alternate thicknesses—as distinguished from diminished thickness at ends of vessel. \* If Iron Deck, state if whole or part, and if wood deck is laid thereon.

