

No. 5097 Survey held at *Middlesbrough* Date, First Survey *14<sup>th</sup> July 1882* Last Survey *18<sup>th</sup> January 1883*  
On the *S.S. Cousins Arabis*  
TONNAGE under Tonnage Deck *1740.54* ~~ONE OR TWO DECKED~~ **THREE DECKED VESSEL**  
Ditto of Poop, *6.10* ~~SPAR, OR AWNING DECKED VESSEL~~  
Ditto of Houses on Deck *40.33*  
Ditto of Forecastle *41.47*  
Gross Tonnage *1905.29*  
Less Crew Space *64.61*  
Less Engine Room *1840.68*  
Register Tonnage as out on Beam *609.69*  
*1230.99*

Half Breadth (moulded) *14.50*  
Depth from upper part of Keel to top of Upper Deck Beams *26.25*  
Girth of Half Midship Frame (as per Rule) *39.17*  
1st Number *82.92*  
1st Number, if a 3-Decked Vessel deduct 7 feet *75.00*  
Length *268.5*  
2nd Number *203.84*  
Proportions— Breadths to Length... *4.6*  
Depths to Length—Upper Deck to Keel... *10.2*  
Main Deck ditto *14.3*  
Master *J. C. Thoro*  
Built at *Middlesbrough*  
When built *1882* Launched *13<sup>th</sup> Nov*  
By whom built *Raylton Dixon & Co.*  
Owners *E. & J. Arabis*  
Residence *London*  
Port belonging to *London*  
Destined Voyage *Sept. fixed*  
Surveyed while Building, Afloat, or in Dry Dock

LENGTH on deck as per Rule	Feet. Inches.	BREADTH Moulded	Feet. Inches.	DEPTH top of Floors to Upper Deck Beams	Feet. Inches.	Do. do. Main Deck Beams	Feet. Inches.	Power of Engines	Horse.	No. of Decks with flat laid	No. of Tiers of Beams
<i>268</i>	<i>6</i>	<i>35</i>	<i>0</i>	<i>24</i>	<i>3</i>	<i>16</i>	<i>9</i>	<i>170</i>	<i>170</i>	<i>Two</i>	<i>Three</i>
Dimensions of Ship per Register, length, <i>240.2</i> breadth, <i>35.25</i> depth, <i>24.05</i>											
KEEL, depth and thickness	Inches in Ship.	Inches per Rule.									
STEM, moulding and thickness	<i>9 1/2 x 2 1/2</i>	<i>9 1/2 x 2 1/2</i>									
STERN-POST for Rudder do. do.	<i>9 x 2 1/2</i>	<i>9 x 2 1/2</i>									
" " for Propeller	<i>9 x 5 1/2</i>	<i>9 x 5</i>									
Distance of Frames from moulding edge to moulding edge, all fore and aft	<i>24</i>	<i>24</i>									
FRAMES, Angle Iron, for 1/2 length amidships	<i>5</i>	<i>3</i>	<i>8</i>	<i>5</i>	<i>3</i>	<i>8</i>					
Do. for 1/4 at each end	<i>5</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>3</i>	<i>4</i>					
REVERSED FRAMES, Angle Iron	<i>3</i>	<i>3</i>	<i>4</i>	<i>3</i>	<i>3</i>	<i>4</i>					
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	<i>23 1/2</i>	<i>9 1/2</i>	<i>8</i>	<i>23 1/2</i>	<i>9 1/2</i>	<i>8</i>					
" thickness at the ends of vessel	<i>11 3/4</i>	<i>8</i>		<i>11 3/4</i>	<i>8</i>						
" depth at 3/4 the half-bdth. as per Rule	<i>4 1/2</i>	<i>4 1/2</i>		<i>4 1/2</i>	<i>4 1/2</i>						
" height extended at the Bilges	<i>4</i>	<i>4</i>		<i>4</i>	<i>4</i>						
BEAMS, Upper, Spar, or Awning Deck	<i>4</i>	<i>4</i>		<i>4</i>	<i>4</i>						
Single or double Angle Iron, Plate or Tee Bulb Iron	<i>3</i>	<i>3</i>	<i>6</i>	<i>3</i>	<i>3</i>	<i>6</i>					
Average space	<i>48</i>	<i>48</i>		<i>48</i>	<i>48</i>						
BEAMS, Main, or Middle Deck	<i>6</i>	<i>3</i>	<i>9</i>	<i>6</i>	<i>3</i>	<i>8</i>					
Single or double Angle Iron, Plate or Tee Bulb Iron	<i>24</i>	<i>24</i>		<i>24</i>	<i>24</i>						
Average space	<i>9 1/2</i>	<i>9</i>	<i>9 1/2</i>	<i>9</i>	<i>9</i>						
BEAMS, Lower Deck	<i>4</i>	<i>4</i>	<i>8</i>	<i>4</i>	<i>4</i>	<i>8</i>					
Single or double Angle Iron, Plate or Tee Bulb Iron	<i>10 1/2</i>	<i>10 1/2</i>	<i>13</i>	<i>10 1/2</i>	<i>13</i>						
Average space	<i>11 3/4</i>	<i>13</i>	<i>11 3/4</i>	<i>13</i>	<i>13</i>						
BEAMS, Hold, or Orlop	<i>5 1/2</i>	<i>4</i>	<i>9</i>	<i>5 1/2</i>	<i>4</i>	<i>9</i>					
Single or double Angle Iron, Plate or Tee Bulb Iron	<i>5 1/2</i>	<i>4</i>	<i>9</i>	<i>5 1/2</i>	<i>4</i>	<i>9</i>					
Average space	<i>3 1/2</i>	<i>3</i>	<i>4</i>	<i>3 1/2</i>	<i>4</i>	<i>4</i>					
KEELSONS Centre line, single or double plate, box, or intercostal, Plates	<i>8 1/2</i>	<i>8</i>	<i>8 1/2</i>	<i>8</i>	<i>8</i>	<i>8</i>					
" Rider Plate	<i>5 1/2</i>	<i>4</i>	<i>9</i>	<i>5 1/2</i>	<i>4</i>	<i>9</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>5 1/2</i>	<i>4</i>	<i>9</i>	<i>5 1/2</i>	<i>4</i>	<i>9</i>					
" Side Intercostal Plate	<i>5 1/2</i>	<i>4</i>	<i>9</i>	<i>5 1/2</i>	<i>4</i>	<i>9</i>					
" do. Angle Irons	<i>5 1/2</i>	<i>4</i>	<i>9</i>	<i>5 1/2</i>	<i>4</i>	<i>9</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>					
BILGE 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	<i>5 1/2</i>	<i>4</i>	<i>9</i>	<i>5 1/2</i>	<i>4</i>	<i>9</i>					
" 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>					
BILGE STRINGER Angle Irons	<i>5 1/2</i>	<i>4</i>	<i>9</i>	<i>5 1/2</i>	<i>4</i>	<i>9</i>					
Intercoastal plates riveted to half length	<i>5 1/2</i>	<i>4</i>	<i>9</i>	<i>5 1/2</i>	<i>4</i>	<i>9</i>					
SIDE STRINGER Angle Irons	<i>5 1/2</i>	<i>4</i>	<i>9</i>	<i>5 1/2</i>	<i>4</i>	<i>9</i>					

The FRAMES extend in one length from *heel* to *gunwale*  
The REVERSED ANGLE IRONS on floors and frames extend *across* middle line to *top of M. dk. str. & 1* and to *gunwale* alternately  
KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? *Yes*  
PLATING. Garboard, double riveted to Keel, with rivets *1 1/8* in. diameter, averaging *5 7/8* ins. from centre to centre.  
Edges of Garboards and to upper part of Bilge, worked clench, 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 clench, double riveted; with rivets *7/8* in. diameter, averaging *3 1/2* ins. from centre to centre.  
Butts of *three* Strakes at Bilge for *half* length, treble riveted with Butt Straps *1/16* thicker than the plates they connect.  
Edges from Bilge to Main Sheerstrake, worked clench, 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 clench, double or single riveted; with rivets *7/8* in. diameter, averaging *3 1/2* ins. from cr. to cr.  
Edges of Main Sheerstrake, double or single riveted.  
Butts of Main Sheerstrake, treble riveted for *half* length amidships. Butts of Upper or Spar Sheerstrake, treble riveted for *half* length amidships.  
Butts of Main Stringer Plate, treble riveted for *half* length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for *half* length amidships.  
Breadth of laps of plating in double riveting *6* dia. Breadth of laps of plating in single riveting  
Butt Straps of Keelsons, Stringer and Tie Plates, treble double or single Riveted?  
What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? *Good*  
Manufacturer's name or trade mark, *Dorman, Lang & Co., Bolekoff, Vaughan & Co., and Jones Bros.*  
The above is a correct description.  
Builder's Signature, *Wm. Dorman* Surveyor's Signature, *J. Thomson*  
Surveyor to Lloyd's Register of British and Foreign Shipping.

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



Workmanship. Are the butts of plating planed or otherwise fitted? *Planed.*  
Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies? *Yes.*  
Are the fillings between the ribs and plates solid single pieces? *Yes.*  
Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? *Yes.*  
Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? *Yes.*  
Do any rivets break into or through the seams or butts of the plating? *A few in the butts.*

Masts, Bowsprit, Yards, &c., are *iron & pine* in *good* condition, and sufficient in size and length. If of Iron or Steel give Scantlings of Plating, Angle Irons, &c., and further explain by Sketch showing how the lower Masts and Bowsprit are constructed, showing the number of Plates and Angle Irons, mode of riveting, quality of Materials, and if stamped with Maker's name.  
State also Length and Diameter of Lower Masts and Bowsprit. *Fore mast 44-11 x 22 3/4; Main mast 65-10 x 19 1/2; plates 9/16 & 5/16, two in the round, and doubled for 6 ft. at partners. Seams double riveted; butts below partners, double riveted, above partners treble riveted. Plates tested as per rule, made by Stockton Malleable Iron Co.*

NUMBER for EQUIPMENT	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprntd.	ANCHORS.	No.	Weight. Ex. Stock.	Test per Certificate.	Weight req'd per Rule.	Machine where Tested & Suprntd.
24490	Fore Sails,	Chain .....	270	1 3/8	59 1/8	270-1 3/8	22 Nov. 82	Bower Anchors	7444	32-3-7	30-14-2-21	32-0-0	10 Nov. 82
	Fore Top Sails,	Iron Stream Chain	45	1 1/8	22 3/4	45-1 1/8	10 Nov. 82		7443	32-2-0	30-10-0-0	32-0-0	10 Nov. 82
	Fore Topmast Stay Sails,	or Steel Wire ..	Tested at Low Walker by R. Burrell										
		Hempen Stem ..							7352	24-1-0	26-11-1-0	24-1-0	9 Oct. 82
	Main Sails,	Cable .....							Tested at Low Walker by R. Burrell.				
	Main Top Sails,	Towline, Hemp.	90	4	33	90-4		Stream Anchor	7445	10-3-21	12-14-2-0	10-2-0	10 Nov. 82
	and	Steel Wire ..	90	9 1/2		90-9 1/2		Kedge	7446	5-1-0	4-11-3-14	5-1-0	10 Nov. 82
		Hawser .....	90	4 1/2		90-4 1/2		2nd Kedge	7448	2-2-14	5-2-2-0	2-2-0	10 Nov. 82
		Warp .....	80	6									
		quality <i>Good</i>											

Standing and Running Rigging *4.1 wire & hemp* sufficient in size and *good* in quality. She has *2 Life Long* Boats and *2 others*  
The Windlass is *Harfield & Co's* Capstan *Good* and Rudder *Good* Pumps *Five hand - Good.*

Engine Room Skylights.—How constructed? *Iron comings, wood skylight.* How secured in ordinary weather? *Slide bars.*

What arrangements for deadlights in bad weather? *Solid shutters fitted with bulls' eyes.*

Coal Bunker Openings.—How constructed? *Iron comings* How are lids secured? *Hatch bars* Height above deck? *24 inches.*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *Scuppers, water ports and mooring pipes fitted in the bulwarks.*

Cargo Hatchways.—How formed? *Of plates and angles fitted in the usual manner.*

State size Main Hatch *20'-0" x 11'-0"* Forehatch *16'-0" x 10'-0"* Quarterhatch *16'-0" x 11'-0"*

If of extraordinary size, state how framed and secured? *Deep web plate, shifting beams, and fore and afters.*

What arrangement for shifting beams? *Solid 3" red pine.*

Order for Special Survey No. *999*  
Date *25<sup>th</sup> Nov. 1881*  
Order for Ordinary Survey No. *209*  
Date *1882*  
No. *209* in builder's yard.

- DATES of Surveys held while building as per Section 18.
- 1st. On the several parts of the frame, when in place, and before the plating was wrought
  - 2nd. On the plating during the process of riveting
  - 3rd. When the beams were in and fastened, and before the decks were laid....
  - 4th. When the ship was complete, and before the plating was finally coated or cemented..
  - 5th. After the ship was launched and equipped

*First Survey, 14<sup>th</sup> July 1882*

*Last Survey, 18<sup>th</sup> January 1883*

General Remarks (State quality of workmanship, &c.) *Workmanship and material good.*

*This vessel has been built in accordance with the enclosed tracings, the Committee's Letters of the 4<sup>th</sup> August and 8<sup>th</sup> September 1882, and in general conformity with the rules for the contemplated class.*

*She has a full poop, open bridge, and forecastle; all the frames extending to the top height.*

*Water ballast tanks are fitted in the main and after holds; they have been tested by a head of water equal to the extreme draught of water of the vessel and found efficient.*

*Joseph Thomson*

State if one, two, or three decked vessel, or if open, or running decked; and the lengths of poop, bridge, forecastle, ~~raised quarter deck~~ (If double bottom, state particulars on separate form.)  
*36'-0" 63'-0" 34'-0"*

How are the surfaces preserved from oxidation? Inside *By cement and paint.* Outside *By paint.*

I am of opinion this Vessel should be Classed *100 H. 1.*

The amount of the Entry Fee ... £ 5 : : : is received by me, *R.H.*  
Special ... £ 71 : : : 18. 1. 1883.

Certificate ...  
(to be sent as per margin).  
(Travelling Expenses, if any, £ ...).

Committee's Minute

Character assigned

*Friday, 19th January, 1883.*

*Surveyor to Lloyd's Register of British and Foreign Shipping.*

*This vessel has been built in accordance with the approved plans appended and it is submitted she appears to be worthy of the favorable consideration of the Committee and is classed 100 H. 1.*

*15/1/83 J.B.*