

# IRON SHIP.

No. 3851 Survey held at *Middlesbrough* Date, First Survey *6 April*

Last Survey

*Rec. 36/1/77*  
*18 July 1877*

On the *Sailing Schooner "Emmie"*

Master *D. Roberts*

TONNAGE under  
Tonnage Deck } *119.39*  
Ditto of Third, Spar, or Awaiting Deck } *1.28*  
Ditto of Poop, or Revised Cr. Bk. } *9.25*  
Ditto of Houses on Deck } *129.92*  
Gross Tonnage } *9.61*  
Less Crew Space } *120 3/100*  
Less Engine Room }  
Register Tonnage as cut on Beam }

ONE, OR TWO DECKED, THREE DECKED VESSEL.  
~~SPAR, OR AWNING-DECKED VESSEL.~~  
HALF BREADTH (moulded) *11.0*  
DEPTH from upper part of Keel to top of Upper Deck Beams *9.7*  
GIRTH of Half Midship Frame (as per Rule) *18 3/4*  
1st NUMBER *87*  
1st NUMBER, if a THREE DECKED VESSEL *3393.0*  
2nd NUMBER *3.9*  
LENGTH *87*  
PROPORTIONS—Breadths to Length *8.9*  
Depths to Length—Upper Deck to Keel *3.9*  
Main Deck ditto *8.9*

Built at *Middlesbrough*  
When built *1877* Launched *16 July 1877*  
By whom built *Craggs & Sons*  
Owners *Jerveland & Co. Leith*  
Port belonging to *Middlesbrough*  
Destined Voyage *Baltic*  
If Surveyed while Building, Afloat, or in Dry Dock. *while building - also afloat.*

LENGTH on deck as per Rule *87* Feet. *0* Inches. BREADTH—Moulded... *22* Feet. *0* Inches. DEPTH, top of Floors to Upper Deck Beams *8* Feet. *8 1/2* Inches. Power of Engines... *one* No. of Decks with flat laid *one* No. of Tiers of Beams *one*

Dimensions of Ship per Register, length, *89-4* breadth, *22.15* depth, *8.45*

	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	<i>6 x 1 3/16</i>	<i>6 x 1 3/16</i>
STEM, moulding and thickness	<i>6 x 1 3/16</i>	<i>5 1/2 x 1 3/16</i>
STERN-POST for Rudder do. do.	<i>6 x 1 3/16</i>	<i>5 1/2 x 1 3/16</i>
Distance of Frames from moulding edge to moulding edge, all fore and aft	<i>20</i>	<i>20</i>
FRAMES, Angle Iron, for 3/4 length amidships	<i>3 2 1/2 5/16</i>	<i>3 2 1/2 5/16</i>
Do. for 1/2 at each end	<i>3 2 1/2 5/16</i>	<i>3 2 1/2 5/16</i>
REVERSED FRAMES, Angle Iron	<i>2 1/2 2 1/2 4/16</i>	<i>2 1/2 2 1/2 4/16</i>
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	<i>12 5/16</i>	<i>12 5/16</i>
thickness at the ends of vessel	<i>6 5/16</i>	<i>6 5/16</i>
depth at 3/4 the half-bdth. as per Rule	<i>24 5/16</i>	<i>24 5/16</i>
height extended at the Bilges	<i>5 1/2 3 7/16</i>	<i>5 1/2 3 7/16</i>
BEAMS, Upper, Spar, or Awaiting Deck Single or double Ang. Iron, Plate or Tee Bulb Iron	<i>5 1/2 3 7/16</i>	<i>5 1/2 3 7/16</i>
Single or double Angle Iron on Upper edge	<i>alternate frames</i>	<i>alternate frames</i>
Average space	<i>alternate frames</i>	<i>alternate frames</i>
BEAMS, Main, or Middle Deck Single or double Ang. Iron, Plate or Tee Bulb Iron	<i>5 1/2 3 7/16</i>	<i>5 1/2 3 7/16</i>
Single, or double Angle Iron, on Upper Edge	<i>alternate frames</i>	<i>alternate frames</i>
Average space	<i>alternate frames</i>	<i>alternate frames</i>
BEAMS, Lower Deck, Hold, or Orlop Single or double Ang. Iron, Plate or Tee Bulb Iron	<i>5 1/2 3 7/16</i>	<i>5 1/2 3 7/16</i>
Single or double Angle Iron on Upper Edge	<i>alternate frames</i>	<i>alternate frames</i>
Average space	<i>alternate frames</i>	<i>alternate frames</i>
KEELSONS Centre line, single or double plate, box, or Intercostal, Plates	<i>8 6/16 7 1/2 6/16</i>	<i>8 6/16 7 1/2 6/16</i>
" Rider Plate	<i>6 1/2 6/16 6 1/2 6/16</i>	<i>6 1/2 6/16 6 1/2 6/16</i>
" Bulb Plate to Intercostal Keelson	<i>3 3 6/16 3 3 6/16</i>	<i>3 3 6/16 3 3 6/16</i>
" Angle Irons	<i>3 3 6/16 3 3 6/16</i>	<i>3 3 6/16 3 3 6/16</i>
" Double Angle Iron Side Keelson	<i>3 3 6/16 3 3 6/16</i>	<i>3 3 6/16 3 3 6/16</i>
" Side Intercostal Plate	<i>3 3 6/16 3 3 6/16</i>	<i>3 3 6/16 3 3 6/16</i>
" do. Angle Irons	<i>3 3 6/16 3 3 6/16</i>	<i>3 3 6/16 3 3 6/16</i>
" Attached to outside plating with angle iron	<i>3 3 6/16 3 3 6/16</i>	<i>3 3 6/16 3 3 6/16</i>
BILGE Angle Irons	<i>3 3 6/16 3 3 6/16</i>	<i>3 3 6/16 3 3 6/16</i>
" do. Bulb Iron	<i>3 3 6/16 3 3 6/16</i>	<i>3 3 6/16 3 3 6/16</i>
" do. Intercostal plates riveted to plating for length	<i>3 3 6/16 3 3 6/16</i>	<i>3 3 6/16 3 3 6/16</i>
BILGE STRINGER Angle Irons	<i>3 3 6/16 3 3 6/16</i>	<i>3 3 6/16 3 3 6/16</i>
Intercostal plates riveted to plating for length	<i>3 3 6/16 3 3 6/16</i>	<i>3 3 6/16 3 3 6/16</i>
SIDE STRINGER Angle Irons	<i>3 3 6/16 3 3 6/16</i>	<i>3 3 6/16 3 3 6/16</i>
Transoms, material. Knight-heads. Hawse Timbers.	<i>iron</i>	<i>iron</i>
Windlass	<i>teak</i>	<i>teak</i>
Pall Bitt	<i>teak</i>	<i>teak</i>

The FRAMES extend in one length from *keel* to *gunwale* Riveted through plates with *5/8* in. Rivets, about *5"* apart.  
The REVERSED ANGLE IRONS on floors and frames extend *across* middle line to *upper turn of bilge* and to *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 *7/8* in. diameter, averaging *4 1/2* ins. from centre to centre.  
Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets *5/8* in. diameter, averaging *2 7/8* ins. from centre to centre.  
Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets *5/8* in. diameter averaging *2 7/8* ins. from centre to centre.  
Butts of *one* Strakes at Bilge for *1/2* length, *double* riveted with Butt Straps *4"* thicker than the plates they connect.  
Edges from bilge to Main Sheerstrake, worked clencher, *double or single* riveted; with rivets *5/8* in. diameter, averaging *2 7/8* ins. from cr. to cr.  
Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets *5/8* in. diameter, averaging *2 7/8* ins. from cr. to cr.  
Edges of Main Sheerstrake, *double or single* riveted, *Upper Sheerstrake, double or single riveted.*  
Butts of Main Sheerstrake, *double* riveted for *whole* length amidships. Butts of Upper or Spar Sheerstrake, treble riveted *length amidships.*  
Butts of Main Stringer Plate, *double* riveted for *whole* length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for *length.*  
Breadth of laps of plating in double riveting *4"* Breadth of laps of plating in single riveting *2 1/2"*  
Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? *treble and double.*  
Waterway, how secured to Beams *iron - riveted* (Explain by Sketch, if necessary.)  
Beams of the various Decks, how secured to the sides? *by bracket knees* No. of Breasthooks, *3* Crutches, *3*  
What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? *good.*  
Manufacturer's name or trade mark, *Stockton M. S. Co.*

The above is a correct description.  
Builder's Signature, *Craggs & Sons* Surveyor's Signature, *J. H. Truscott*  
Surveyor to Lloyd's Register of British and Foreign Shipping.

IRON 473-0043



See Secretary's letters dated Feb<sup>y</sup> 23, March 21.

**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* 1887th Jan

Masts, Bowsprit, Yards, &c., are *pitch pine & red 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 a 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 *Length fore mast 52'-6" - diam<sup>r</sup> at deck 15 1/4"*  
*Length main mast 53'-3" - diam<sup>r</sup> at deck 14"*  
*Length bowsprit 24'-0" - diam<sup>r</sup> 13"*

NUMBER for EQUIPMENT 3393.		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd pr Rule.	Test req'd per Rule.	ANCHORS.	N <sup>o</sup> .	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
N <sup>o</sup> .	SAILS.	CABLES, &c.	135	13 (blue line) 11-17-2-0 17-16-0-0	135 faths 13" 16	11 7/8 17 1/2	Bowers	2	5-1-0 5-0-4	7-11-3-0 7-9-2-0	5 5	7 7/20 7 7/20
one suit	Fore Sails,	Chain	Dudley 26 June 1877 (D. G. Lewis.)									
good	Fore Top Sails,	(State Machine where tested, name of Superintendent.)										
	Fore Topmast Stay Sails	Hmpn Strm Cbl	80	8	75-5 1/2							
	Main Sails,	Hawser ...	80	4 1/2	90-3"							
	Main Top Sails,	Towlines ...										
		Warp ...										
and		quality good										

Standing and Running Rigging *wire & hemp* - sufficient in size and *good* in quality. She has *one* Long Boat and *good*.  
The Windlass is *good* Capstan *good* and Rudder *good* Pumps *good* - 2 in x 5".  
**Engine Room Skylights.** How constructed? How secured in ordinary weather?  
What arrangements for deadlights in bad weather?  
**Coal Bunker Openings.** How constructed? How are lids secured? Height above deck?  
**Scuppers, &c.** - What arrangements for clearing upper deck of water, in case of shipping a sea? *Side ports and scuppers.*

**Cargo Hatchways.** - How formed? *5/16 plates*  
State size **Main Hatch** *13'-4" x 8'-0" x 2 ft above Deck* Forehatch *3'-2" long x 3'-3" wide x 1'-6" above Deck* Quarterhatch  
If of extraordinary size, state how framed and secured?  
What arrangement for shifting beams? *deep web plate 1/2" thick at middle of main Hatch.*  
**Hatches,** If strong and efficient? *strong and efficient*

Order for Special Survey No. 626	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	<i>April 6, 9, 16, 18, 19, 24, 30, May 7, 9, 14, 28, 31;</i>
Date <i>26 May 1877</i>		2nd. On the plating during the process of riveting	<i>June 5, 12, 15, 20, 25; July 4, 16, 18.</i>
Order for Ordinary Survey No.		3rd. When the beams were in and fastened, and before the decks were laid....	
Date		4th. When the ship was complete, and before the plating was finally coated or cemented..	
No. <i>20</i> in builder's yard.		5th. After the ship was launched and equipped	

**General Remarks** (State quality of workmanship, &c.) *General quality of workmanship &c. - good.*  
*Hande on Deck aft - 14' x 11'-4" x 6'.*

*R. Baggett*

State if one, two, or three, decked vessel, or if spar, or arwing decked; and the lengths of poop, forecassle, or raised quarter deck, and the length of double, or part double bottom  
How are the surfaces preserved from oxidation? Inside *Portland cement* Outside *paint.*  
I am of opinion this Vessel should be Classed *100 A. 1.*

The amount of the Entry Fee ... £ 2 : 0 : is received by me, *SPG*  
Special ... £ 6 : 0 : *29 July 1877*  
Certificate ... : :  
(Travelling Expenses, if any, £.....).

Committee's Minute *31st July 1877.*  
Character assigned *100A*  
*A 20 P*  
*J. H. Truscott.*  
*This vessel approved for entry to Lloyd's Register of Shipping*  
*Classed 100 A 1*  
*recommended*  
*One Star*  
*30/7/77*