

# IRON SHIP.

16347  
R/ 22/576

No. 3628 Survey held at Middlebri Date, First Survey 1<sup>st</sup> Feb<sup>y</sup> Last Survey 1<sup>st</sup> May 1876.  
On the S. S. "Acklam" Master Hancy

Official Number 3270

TONNAGE under Tonnage Deck	403.57
Ditto of Third, Spar, or Awning Deck	
Ditto of <del>Deck</del> Raised Qr. Dk.	46.60
Ditto of Houses on Deck	46.10
Ditto of Forecastle	11.72
Gross Tonnage	507.99
Less Crew Spaces	28.79
Less Engine Room	162.56
Register Tonnage as cut on Beam	316 <sup>64</sup> / <sub>100</sub>

ONE, OR TWO DECKED, THREE DECKED VESSEL.	
SPAR, OR AWNING DECKED VESSEL.	
HALF BREADTH (moulded)	12.23
DEPTH from upper part of Keel to top of Upper Deck Beams	15.09
GIRTH of Half Midship Frame (as per Rule)	25.00
1st NUMBER	5232
1st NUMBER, if a THREE DECKED VESSEL	
LENGTH	164.0
2nd NUMBER	8580.
PROPORTIONS—Breathths to Length	6.7
Depths to Length—Upper Deck to Keel	10.8
Main Deck ditto	

Built at Middleborough  
 When built 1876 Launched 28/3/76  
 By whom built R. Dixon & Co.  
 Owners Messrs Rayner & Murray  
 Port belonging to Middlebri  
 Destined Voyage Baltic & coasting trade  
 If Surveyed while Building, Afloat, or in Dry Dock.  
While Building & Afloat

LENGTH on deck as per Rule	164 0	BREADTH—Moulded	24 5 1/2	DEPTH top of Floors to Upper Deck Beams	13 10	Power of Engines	65	Nº. of Decks with flat laid	one	Nº. of Tiers of Beams	two aft
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Dimensions of Ship per Register, length, 165.8 breadth, 24.7 depth, 13.55

	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	7 1/2 x 1 1/8	7 1/2 x 1 1/8
STEM, moulding and thickness	6 3/4 x 2	6 3/4 x 1 1/8
TERN-POST for Rudder do. do.	8 x 3 3/4	8 x 3 3/8
for Propeller	8 x 3 3/4	8 x 3 1/8
Distance of Frames from moulding edge to moulding edge, all fore and aft	21	21
(Class 90A)		
FRAMES, Angle Iron, for 3/4 length amidships	3 1/2 x 3	3 1/2 x 3
Do. for 1/2 at each end	3 x 2 1/2	3 x 2 1/2
REVERSED FRAMES, Angle Iron	3 x 2 1/2	3 x 2 1/2
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	15 x 6	15 x 6
thickness at the ends of vessel	15 x 6	15 x 6
depth at 3/4 the half-bdth. as per Rule	10 3/4	10 1/2
height extended at the Bilges	3 ft 6 ins	3 ft 6 ins
BEAMS, Upper, Spar, or Awning Deck	5 1/2 x 3	5 1/2 x 3
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron		
Single or double Angle Iron on Upper edge		
Average space	3 ft 6 ins	3 ft 6 ins
BEAMS, 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		
BEAMS, Lower Deck, Hold, or Orlop		
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	6 x 6 1/6	6 x 6
Single or double Angle Iron on Upper Edge	2 1/2 x 2 1/2	2 1/2 x 2 1/2
Average space	2 1/2 x 4 1/2	2 1/2 x 4 1/2
KEELSONS Centre line, single or double plate, box, or intercostal, Plates	11 x 9	11 x 9
" Rider Plate	7 1/2 x 9	7 1/2 x 9
" Bulb Plate to Intercostal Keelson		
" Angle Irons	3 1/2 x 3	3 1/2 x 3
" Double Angle Iron Side Keelson		
" Side Intercostal Plate		
" do. Angle Irons		
" Attached to outside plating with angle iron	2 1/2 x 3 1/2	2 1/2 x 3 1/2
BILGE Angle Irons	3 1/2 x 3	3 1/2 x 3
" do. Bulb Iron	6 x 6	6 x 6
" do. Intercostal plates riveted to plating for length		
BILGE STRINGER Angle Irons		
Intercostal plates riveted to plating for length	2 in fore hold as per Section	
SIDE STRINGER Angle Irons	3 1/2 x 3	3 1/2 x 3

	Inches. In Ship.	16ths. In Ship.	Inches. required	16ths. required
Flat Keel Plates, breadth and thickness	34	8	30	8
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied	6.7		6.7	
fm up. part of Bilge to lr. edge of Sh'rstrake	6.7		6.7	
Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake.				
Up. or Spar Dk Sh'rstrake, brdth & thickness	33	9	33	9
Butt Straps to outside plating, breadth & thickness	9 3/4	7.6	9 3/4	7.6
Lengths of Plating	8 ft 9 ins		8 ft 9 ins	
Shifts of Plating, and Stringers	3-6-4		3-6-4	
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	34	7	34	7
Angle Iron on ditto	3 1/2 x 3 x 6		3 1/2 x 3 x 6	
Tie Plates fore and aft, outside Hatchways	8	7	8	7
Diagonal Tie Plates on Beams No. of Pairs,				
Planksheer material and scantling				
Waterways do. do.	8utter.		8utter.	
Flat of Upper Deck do. do.	3 1/2		3 1/2	
How fastened to Beams	3/16		3/16	
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				
Waterways materials and scantlings				
Flat of Middle Deck do. do.				
How fastened to Beams				
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	21	6	21	6
Is the Stringer Plate attached to the outside plating?	3ed			
Angle Irons on ditto, No. 2	3 1/2 x 3 1/2 x 6		3 1/2 x 3 1/2 x 6	
Stringer or Tie Plates, outside Hatchways				
Flat of Lower Deck				
Ceiling betwixt Decks, thickness and material	Cope iron		2 1/2	
in hold do. do.			2 1/2	
Main piece of Rudder, diameter at head	4 1/4		4 1/4	
do. at heel	2 1/2		2 1/2	
Can the Rudder be unshipped afloat?	yes.			
Bulkheads No. 4 Thickness of		5		5
Height up to upper 1/5 cabin floor plating over.				
How secured to sides of ship	Let into double frame angles			
Size of Vertical Angle Irons	3 x 2 1/2 x 3/16			30 ins.
Are the outside Plates doubled two spaces of Frames in length?	yes.			

Transoms, material. Knight-heads. Hawse Timbers. plates & angles.  
 Windlass Patent Governor & Pall Bitt 2 Steam Winches

The FRAMES extend in one length from Keel to Gunwale Riveted through plates with 3/4 in. Rivets, about 6" apart.  
 The REVERSED ANGLE IRONS on floors and frames extend across middle line to R. & D. of upper & l. and to 6 in. in hold str. 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" in. diameter, averaging 5 ins. from centre to centre.  
 Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 3/4 in. diameter, averaging 3 1/2 ins. from centre to centre.  
 Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 3/4 in. diameter averaging 3 1/4 ins. from centre to centre.  
 Butts of one Strakes at Bilge for whole length, double riveted with Butt Straps 7/16 thicker than the plates they connect.  
 Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 3/4 in. diameter, averaging 3 1/4 ins. from cr. to cr.  
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 3 1/4 ins. from cr. to cr.  
 Edges of Main Sheerstrake, double or single riveted. Upper Sheerstrake, double or single riveted. Double Lower edge.  
 Butts of Main Sheerstrake, treble riveted for 1/2 length amidships. Butts of Upper or Spar Sheerstrake, double riveted mid length amidships.  
 Butts of Main Stringer Plate, treble riveted for 1/2 length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for whole length.  
 Breadth of laps of plating in double riveting 5 ins Breadth of laps of plating in single riveting 2 7/8 ins.

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Treble or double riveted.  
 Waterway, how secured to Beams Butter. (Explain by Sketch, if necessary.)  
 Beams of the various Decks, how secured to the sides? Knees turned & Solid Welded. No. of Breasthooks, 4 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, James Nesh March Iron Co, Plating & Co. Thos Vaughan & Co.  
 The above is a correct description.  
 Builder's Signature, R. Dixon Surveyor's Signature, J. Sennett  
 Surveyorsto Lloyd's Register of British and Foreign Shipping.

**Workmanship.** Are the butts of plating planed or otherwise fitted? Planed. 163479 <sup>nm</sup>  
 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 of wood 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 Foremast 56ft, 16" dia. Mainmast 53ft, 16" dia. Pitch Pine

NUMBER for EQUIPMENT <u>9438</u>		Bathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS.	No.	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
No.	SAILS.	CABLES, &c.	195	1 1/8	22 3/4	195-1 1/8	3. Bowers	1	10.0.6	12.0.0.0	10.0.0	12.0.0.0
		Chain	90	1 1/8	6 1/4		Tested at Dept of Marine	1	10.0.0	12.0.0.0	10.0.0	12.0.0.0
1	Fore Sails,	The Old Hill Co. N. Judley					(State Machine where Tested, Date, & name of Superintendent.)					
1	Fore Top Sails,	Doal 12 <sup>th</sup> 1876										
1	Fore Topmast Stay Sails	Hamp Strm Cbl	90	1 1/8	6 3/4	90-1 1/8	Stream	1	8.3.0	10.17.2.0	8.2.0	10.7.0.0
1	Main Sails,	Hawser ...	90	5 1/2		90-6 1/2	Kedges	1	3.3.23	6.7.2.0	4.3.0	
1	Main Top Sails, and Spare	Towlines ...	90	7 1/2				1	1.3.0	4.4.1.14	2.1.0	
		Warp ...	90	7 1/2							1.0.0	
		quality <u>good</u>	40	3								

Standing and Running Rigging Wire & Hemp sufficient in size and good in quality. She has one 20ft Boat and an 18ft boat, one 15ft dingy.  
 The Windlass is good and Rudder good Pumps 5ft<sup>2</sup> 4 1/2 inch

Engine Room Skylights.—How constructed? Seak How secured in ordinary weather? Secured to iron coamings inside

What arrangements for deadlights in bad weather? Bullseye

Coal Bunker Openings.—How constructed? circular iron How are lids secured? Iron bar Height above deck? 6 1/2"

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? 4 Freecing scuttles 2.10 x 1.1 and 4 Scuppers on each side of ship

Cargo Hatchways.—How formed? 7/16 plates

State size Main Hatch 16.0 x 8.2 Forehatch 17.4 x 8.9 Quarterhatch 3.6 x 3.6

If of extraordinary size, state how framed and secured? —

What arrangement for shifting beams? Web beam 2.7 deep 7/16 fitted between double angles and four iron fore and afters.

Hatches, If strong and efficient? Strong and efficient.

er for Special Survey No. 540 DATES of Surveys held while building as per Section 18.  
 Date 9<sup>th</sup> Sept 1875 1st. On the several parts of the frame, when in place, and before the plating was wrought } Specially surveyed Feb. 1, 3, 4, 8, 10, 16, 21,  
 2nd. On the plating during the process of riveting } 25, March 1, 4, 8, 13, 15, 21, 22, 24, 27  
 3rd. When the beams were in and fastened, and before the decks were laid... } 29, April 5, 6, 12, May 1<sup>st</sup>, 1876.  
 4th. When the ship was complete, and before the plating was finally coated or cemented.. }  
 5th. After the ship was launched and equipped

No. 127 in builder's yard.

General Remarks (State quality of workmanship, &c.) Workmanship & Materials Good.

This vessel has been built in accordance with accompanying -ing Tracup, submitted and approved. See Secty's Letter 21<sup>st</sup> January 1876 and 29<sup>th</sup> Jan<sup>y</sup>. Has a raised quarter deck, frames to top height, beams 5 1/2 x 3 x 7/16, stringers 3 1/4 x 7/16 angles on de 3 x 3 1/2 x 6/16 x 2 1/2 x 2 1/2 x 5/16, tie plates 8 x 7/16, plating 7/16, Deck 3 1/2 fir sec 2 with 8/16 fal. N & S. B., strengthened in way of break by three strakes of plating increased in thickness 7/16 for 20 ft and butt straps 16 thicker & treble riveted, and main deck stringers extend 7 frame spaces abaft break and raised deck 4 spaces before. Bridge deck frames to stringer, beams 4 1/2 x 3 x 6/16, stringer 20 x 5/16 angle 2 1/2 x 2 1/2 x 7/16, tie plates 6 x 7/16, plating 7/16, deck fir 2 3/8. Forecastle (break) frames to top height; beams 5 x 7/16 angle 2 1/2 x 2 1/2 x 7/16, stringer 26 x 7/16, angle 3 1/2 x 3 x 7/16 tie plate 6 x 7/16, plating 7/16, deck 3" fir. Water ballast tanks in fore & after holds side plates 6/16 angles on de 3 x 3 x 6/16, knee plates 6/16, web plates 6/16, angles to de 2 1/4 x 2 1/4 x 7/16 top of tanks 5/16.

State if one, two, or three, decked vessel, or if spar, or running decked; and the lengths of poop, forecabin, or raised quarter deck; and the length of double, or part double bottom.  
20ft 38ft Fore tank 5.9 feet After 4.2

How are the surfaces preserved from oxidation? Inside Cement in tanks, paint elsewhere Outside Paint

Our opinion this Vessel should be Classed 90 A 1

The amount of the Entry Fee ... £ 5 : 0 : 0 is received by me, J. M. G. T. G.  
 Special ... £ 23 : 19 : 0 16<sup>th</sup> May 1876  
 Certificate ...

(Travelling Expenses, if any, £ \_\_\_\_\_).

Committee's Minute 23<sup>rd</sup> May 1876

Character assigned 90 A 1

By Testing (Reading) J. M. G. T. G.  
 Certificate assigned J. M. G. T. G.

double bottom 107 ft date 10<sup>th</sup> Feb 1876

This vessel appears eligible to be classed as recommended by Lloyd's Register 90 A 1. J. M. G. T. G. 1876

Character assigned 90 A 1