

## IRON SHIPS.

No. 3545 Survey held at Smørkøbing Date, First Survey 29<sup>th</sup> April 1840 Last Survey 16<sup>th</sup> Nov<sup>r</sup> 1840On the Screw Steam Ship "Elba" Master Andrew Nicoll

Tonnage under Tonnage Deck	408.95	ONE, OR TWO DECKED VESSELS.	THREE DECKED VESSELS.	Built at	<u>Smørkøbing</u>
Ditto of Spar Deck, or Awning Deck.	241.52	Half moulded breadth	12.6	When built	1840
Ditto of Poop, or Raised Qr. Dk.	✓	Depth from upper part of Keel to top of Upper Deck Beams (or as per Rule, Section 11).	13.1	Launched	13 <sup>th</sup> October 40
Ditto of Houses on Deck	12.14	Girth of Half Midship Frame (as per Rule)	22.6	By whom built	<u>John Scott &amp; Sons</u>
Ditto of Forecastle	✓	1st Number	483	Owners	<u>A. Scott &amp; Co.</u>
Gross Tonnage	692.61	Length	194.5	Port belonging to	<u>Leith</u>
Crew Space, as per Rule	24.6	2nd Number	953925	Destined Voyage	<u>Baltic</u>
Register Tonnage, in Beam	665.01	Depths to Length	14.02	Surveyed while Building, Afloat, or in Dry Dock	✓
Room	221.63	Breadths to Length	4.08		
Tonnage, as a	443.3				
out on the Beam					

Feet.	Inches.	Feet.	Inches.	Feet.	Inches.	Horse.	N <sup>o</sup> . of Decks.
194	6	25	22	18	4	65	One

s of Ship per Register, length, 194.5 breadth, 25.35 depth, 14.02

	Inches in Ship.	Inches required per Rule.	Inches in Ship.	Inches required per Rule.	Inches in Ship.	Inches required per Rule.
Keel, iron, depth and thickness	(Plates)					
Do. Centre through plate, depth and thickness	4 x 28	6 3/4 x 28				
Stem, if bar iron, moulding and thickness	6 3/4 x 4 1/4	6 3/4 x 4 1/4				
Stern-post do. do. do.	22	(Class 22A)				
Distance of Frames from moulding edge to moulding edge, all fore and aft						
Frames, size of Angle Iron, for 1/2 length amidships	3 22 6	3 22 6				
Do. for 1/2 at each end	3 22 6	3 22 6				
Reversed Frames, size of Angle Iron	2 1/2 2 1/2 5	2 1/2 2 1/2 5				
Floors, depth and thickness of Floor Plate at mid line for half the length amidships	18	18				
Do. at the ends	6 1/2	5				
Do. do. at Bilge Keelson	36	36				
Do. height extended at the Bilges						
Beams, Three Decked, Spar, or Awning Decked (No. 43) single or double Angle Iron, Plate or Tee Bulb Iron	5	5				
Single or double Angle Iron on Upper edge	2 1/2 2 1/2 5	2 1/2 2 1/2 5				
Average space	4 1/4	4 1/4				
Beams, Upper or Middle Deck (No. 40) single or double Angle Iron, Plate or Tee Bulb Iron	6 1/2	6 1/2				
Single or double Angle Iron, on Upper Edge	2 1/2 2 1/2 5	2 1/2 2 1/2 5				
Average space	4 1/4	4 1/4				
Beams, Lower Deck or Orlop (No. 4) single or double Angle Iron, Plate or Tee Bulb Iron	✓	✓				
Single or double Angle Iron on Upper Edge	✓	✓				
Average space	✓	✓				
Keelson Centre line, single or double plates, or Intercoastal, size of Plates	23	23				
Do. Bulb Plate to Intercoastal Keelson	6 1/2	6 1/2				
Do. Size of Angle Irons	4 3 6	4 3 6				
Do. Side Intercoastal Keelson, size of Plates	18	18				
Do. Angle Irons on tops of Floors	4 3 6	4 3 6				
Do. Bilge Keelson, Bulb Iron	6 1/2	6 1/2				
Do. do. Angle Irons	4 3 6	4 3 6				
Do. Side Stringers (No. 4) size of Angle Irons	4 3 6	4 3 6				

Transoms, material Spar or, if none, in what manner compensated for.Knight-heads Spar Hawse Timbers IronWindlass Spar Patent Pall Bitt IronThe Frames extend in one length from Keel to Gunwale & to lower part of rounded Gunwale

The Reverse Angle Irons on the floors extend across the middle line to Main Deck Gunwale

On all the Frames and to Side Stringer on the other.Keelsons. Are the various lengths of Plates and Angle Irons properly connected? Yes And are their butts properly shifted? Yes

Plates, Garboard, double or Riveted to Keel, double or at upper edge, with Rivets (3/4 in.) diameter, averaging (3 1/2 ins.) from centre to centre.

Do. Edges from Garboards to upper part of Bilge, worked Clencher, double or single Riveted; with Rivets (5/8 in.) diameter, averaging (2 1/4 ins.) from centre to centre.

Do. Butts from Keel to turn of Bilge, worked carvel with butt straps to strakes (2 1/4 in.) thick, double or single Riveted; with Rivets (5/8 in.) diameter averaging (2 1/4 ins.) from centre to centre. Do the Butt Straps lay over and Rivet through the lands of the strakes above or below? No

Do. Edges from bilge to sheerstrake, worked carvel with a lining piece (1/2 in.) thick, or clencher, double or single riveted; with rivets (5/8 in.) diameter, averaging (2 1/4 ins.) from centre to centre.

Do. Edges of Sheerstrake, double or single Riveted. At upper edge Single riveted At lower edge Double riveted

Do. Butts from Bilge to Planksheers, worked Carvel with Butt Straps (2 1/4 in.) thick, double or single Riveted; with Rivets (5/8 in.) diameter, averaging (2 1/4 ins.) from centre to centre. Breadth of laps in double Riveting (1 1/2 ins) Breadth of laps in single Riveting (2 1/2 ins)

Butt Straps of Keelsons, Stringer and Tie Plates, double or single Riveted?

Planksheer, how secured to the plating of the sides, Explain by Sketch, Rounded form of Gunwale (See Section)

Waterway " " planksheer and to the Beams if necessary.

Beams of the various Decks, how secured to the sides? Welded Knee Plates No. of Breasthooks, Seven Crutches, FourWhat description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? BestManufacturer's name or trade mark, Frames & Beams - Hawks Crawshaw & Son. Plates - Hawthorn & Co.

We certify that the above is a correct description of the several particulars therein given.

Builder's Signature, John Scott & Sons Surveyor's Signature, Edward R. ...



Workmanship. Are the butts of plating planed or otherwise fitted? Planed 84947m  
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  
Do the fillings between the ribs and plates fill in solid with single pieces? or are they in short lengths of various thicknesses? Yes  
Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? Yes and are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? Yes  
Are there any rivets which either break into or have been put through the seams or butts of the plating? None

Her Masts, Bowsprit, Yards, &c., are in good condition, and sufficient in size and length. If they are of Iron or Steel give the 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 Fore Mast 59ft 1/4 dia. Main 65ft 1/4 dia. Mizzen 51ft 1/2 dia.

N <sup>o</sup> .	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	N <sup>o</sup> .	Weight. Ex. Stock.	Test as per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
1	Fore Sails,	Chain .....	210	1 3/4	25 1/10	136	25 1/10	Bowers ....	1	13.0.20	14.19.1.14	12.0.0	13
1	Fore Top Sails,	(State Machine where Tested, and name of Superintendent).	1					(State Machine where Tested, and name of Superintendent).	1	13.0.14	14.17.0.21		
1	Fore Topmast Stay Sails	Hempen Stream Cable	90	6 1/2				Stream ....	1	10.1.14	12.6.2.4	10.0.23	
1	Main Sails,	Hawser .....	45	7 1/8		136				5.0.19		5.0.0	
1	Main Top Sails,	Towlines ...	90	4 1/2		7		Kedges ....	1	2.3.0		2.2.0	
	and others, for a single test	Warp .....								1.1.20		1.1.0	
		All of good quality.											

Her Standing and Running Rigging Wire & Hempen sufficient in size and good in quality. She has One Long Boat and Two others

The present state of the Windlass is efficient. Capstan Steam and Rudder efficient. Pumps 4 of Iron

Engine Room Skylights.—How constructed? Iron Cannings 30' deep How secured in ordinary weather? Bolted to Angle Iron Quadrants

What arrangements are there for deadlights in such for bad weather? Portable Deadlights fitted

Coal Bunker Openings.—How constructed? Iron Pipes How are lids secured? Shops Padlocks How high above deck? Six inches

Scuppers, &c.—What arrangements are there beyond the scuppers on deck, for clearing upper deck of water, in case of a sea coming on board? Side Ports two feet square

Cargo Hatchways.—How formed? Iron framed State size 14' 8" x 9' 0" at Auning Deck 4' 8" x 9' 0" at Main Deck

If of extraordinary size, state how framed and secured? Framed with Bull-Beam & Double Angle Irons (see Section) (Deck)

What arrangement for shifting beams? Two Shifting Beams fastened with Screws Both the Ends at Main Deck & Shipping

Hatches, themselves, whether strong and efficient? Yes Main Hatchways.—State size 14' 8" x 9' 0" at Auning Deck 18' 6" x 9' 0" at Main Deck

Order for Special Survey No. 186 DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought 29th April 1870  
Date 29th April 1870 Surveys held 2nd. On the plating during the progress of riveting 29th April 1870  
Order for Ordinary Survey No. — while building 3rd. When the beams were in and fastened, and before the decks were laid 29th April 1870  
Date — as per 4th. When the ship was complete, and before the plating was finally coated or cemented 16th November 1870  
No. 114 in builder's yard. Section 18. 5th. After the ship was launched and equipped

General Remarks, Visits.—29th April, 31st May, 6th & 24th June, 15th & 29th July, 10th August, 2nd, 14th & 26th September, 10th & 19th October, & 16th November 1870.—

This Vessel is in length 4.08 breadths, and 14.02 depths, and is fitted with the additional longitudinal strength submitted to, and approved by the Committee in letter dated 26th April 1870. One edge of Outside plating marked S on Section is Single riveted only, but this the Committee indicated in letter dated 10th September 1870. would not prejudice the Vessel's claims to the contemplated class. Otherwise she is in all respects in accordance with the Rules and Section submitted.— The Vessel is constructed with an Auning Deck all fore and aft. all the Main Frames are extended to the lower part of the rounded Cumwale for one sixth the length at each end, and in midships alternately to the same height, with Ports and Scuppers at the sides at Main Deck.— Main Deck is of Iron, amidships it is covered with Wood for cabin accommodation, and at both ends it is battened and cemented, for the purpose of carrying battle, having Ventilators passing through the Auning Deck, and in height eighteen inches above the Deck, and fitted with Bell-mouth covers. A Water Ballast Tank (11 feet long) and in depth from Keel to Main Deck, is framed between two thwartship Bulkheads.

In what manner are the surfaces preserved from oxidation? Inside Cemented in Paint & Tar Outside Four Coats of Paint, & One of Tallow for Bottoms.  
I am of opinion this Vessel should be Classed 90 A. I.

The amount of the Entry Fee .....£ 5 : 0 : 0 is received by me,  
Travelling Expenses Special .....£ 33 : 5 : 0  
(if any) Certificate .....£ 0 : 0 : 0  
11th Nov 1870 £ 38 : 5 : 0

Committee's Minute 2nd December 1870 Character assigned 90 A. I.  
12/3/83 ME A+CP causing deck and I am of opinion she is eligible for 1870 Classification as recommended above  
This Auning Decked S.S. apper to have been built as heron desc in accordance with the Rules and Section applied, the latter submitted previously to the Committee and she is eligible for Classification as recommended above