

# IRON OR STEEL SHIP.

(Received at London Office, 13 JUNE 1890)

No. 91 Date of writing Report Middleborough Port of Middleborough  
 Survey held at Middleborough Date, First Survey October 8th 1889 Last Survey June 1890  
 On the Steel Screw Steamer **ELISA CERANA** Rig Schooner 2 pole masts

TONNAGE under Tonnage Deck 321.76  
 Do. between Tonnage Dk. and 3rd, 4th, Spar or Awning Dk.  
 Total under Upper Dk. 136.88  
 Do. of Poop 1.56  
 Do. of Raised Qr. Dk. or Break  
 Do. of Bridge House  
 Do. of Houses on Deck  
 Do. of excess of Hatchways  
 Do. of Forecastle  
 Gross Tonnage 460.20  
 Less Crew Space 27.59  
 Less Engine Room Register Tonnage 147.26  
 as out on Beam 285.35

ONE, ~~ONE~~ **TWO DECKED, THREE DECKED VESSEL, SPAR, OR AWNING DECKED VESSEL.**  
 Half Breadth (moulded) 28.6 Feet.  
 Depth from upper part of Keel to top of Upper Deck Beams  
 Girth of Half Midship Frame (as per Rule)  
 1st Number  
 1st Number, if a 3-Decked Vessel .. deduct 7 feet  
 Length  
 2nd Number  
 Proportions Breadths to Length  
 Depths to Length—Upper Deck to Keel  
 Main Deck ditto

Master M. Nab  
 Year of appointment  
 Built at Middleborough  
 When built 1889-90 Launched Feb. 4th 90  
 By whom built N. Harkness & Son  
 Owners A. Shanks & Son  
 Managers  
 (If desired to be entered in Reg. Book.)  
 Residence Arbroath  
 Port belonging to Arbroath  
 Destined Voyage River Plate  
 Surveyed while Building, Afloat, or in Dry Dock. On Slipway

LENGTH	Feet.	Inches.	BREADTH—	Feet.	Inches.	DEPTH	Feet.	Inches.	Power of Engines	Horse.	Nº. of Decks with flat laid	Nº. of Tiers of Beams
on deck as per Rule	189	0	Moulded	28	6	top of Floors to Upper Deck Beams	8	1			1	1
Dimensions of Ship per Register, length, <u>190.5</u> breadth, <u>28.6</u> depth, <u>8.2</u>												
<b>KEEL, depth and thickness</b> ... <u>6 x 12</u> <u>6 x 12</u> <b>STEM, moulding and thickness</b> ... <u>6 x 12</u> <u>6 x 12</u> <b>STERN-POST for Rudder do. do.</b> ... <u>21</u> <u>21</u> Distance of Frames from moulding edge to moulding edge, all fore and aft ... <b>FRAMES, Angle Iron, for length amidships</b> ... <u>3 22 5</u> <u>3 22 5</u> Do. for 1/2 length ... <u>22 22 5</u> <u>22 22 5</u> <b>REVERSED FRAMES, Angle Iron</b> ... <b>FLOORS, depth and thickness of Floor Plate</b> ... <u>12</u> <u>6</u> <u>12</u> <u>6</u> at mid line for half length amidships ... thickness at the ends of vessel ... depth at 3/4 the half-bdth. as per Rule ... height extended at the Bilges ... <u>Bracket ends as per plan</u> <b>BEAMS, Upper, Spar, or Awning Deck</b> ... Single or d'ble Ang. Iron, Plate or Tee Bulb Iron ... Single or double Angle Iron on Upper edge ... Average space ... <u>42</u> <u>42</u> <b>BEAMS, Main, or Middle Deck</b> ... Single or d'ble Ang. Iron, Plate or Tee Bulb Iron ... Single or double Angle Iron on Upper edge ... Average space ... <b>BEAMS, Lower Deck</b> ... Single or d'ble Ang. Iron, Plate or Tee Bulb Iron ... Single or double Angle Iron on Upper edge ... Average space ... <b>BEAMS, Hold, or Orlop</b> ... Single or d'ble Ang. Iron, Plate or Tee Bulb Iron ... Single or double Angle Iron on Upper edge ... Average space ... <b>KEELSONS</b> Centre line, single or double plate, box, or intercostal, Plates ... " Rider Plate ... " Bulb Plate to Intercostal Keelson ... " Angle Irons ... " Double Angle Iron Side Keelson ... " Side Intercostal Plate ... " do. Angle Irons ... " Attached to outside plating with angle iron ... <b>BILGE</b> Angle Irons ... " do. Bulb Iron ... " do. Intercostal plates riveted to plating for length ... <b>BILGE STRINGER</b> Angle Irons ... Intercostal plates riveted to plating for length ... <b>SIDE STRINGER</b> Angle Irons ... The <b>FRAMES</b> extend in one length from <u>Centre line</u> to <u>gunwale</u> The <b>REVERSED ANGLE IRONS</b> on floors and frames extend <u>across</u> middle line to <u>side stringer</u> and to <u>alternately</u> <b>KEELSONS.</b> Are the various lengths of Plates and Angle Irons properly connected? <u>Yes</u> And butts properly shifted? <u>Yes</u> <b>PLATING.</b> Garboard, double riveted to Keel, with rivets <u>3/4</u> in. diameter, averaging <u>3</u> ins. from centre to centre. Edges of Garboards and to upper part of Bilge, worked clench, double riveted; with rivets <u>3/4</u> in. diameter, averaging <u>3</u> ins. from centre to centre. Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets <u>3/4</u> in. diameter averaging <u>2 7/8</u> ins. from centre to centre. Butts of <u>all</u> Strakes at Bilge for <u>about 2</u> length, treble riveted with Butt Straps <u>20</u> thicker than the plates they connect. <u>unlapped</u> Edges from Bilge to Main Sheerstrake, worked clench, double or single riveted; with rivets <u>3/4</u> in. diameter, averaging <u>3</u> ins. from cr. to cr. Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets <u>3/4</u> in. diameter, averaging <u>2 7/8</u> ins. from cr. to cr. Edges of Main Sheerstrake, double or single riveted. <u>Upper Sheerstrake, double or single riveted</u> Butts of Main Sheerstrake, treble riveted for <u>1/2</u> length amidships. <u>Butts of Upper or Spar Sheerstrake, treble riveted</u> length amidships. Butts of Main Stringer Plate, treble riveted for <u>1/2</u> length amidships. <u>Butts of Upper or Spar Stringer Plate, treble riveted for</u> length. Breadth of laps of plating in double riveting <u>6 diam</u> Breadth of laps of plating in single riveting <u>3 1/2 diam</u> Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted <u>1</u> No. of Breasthooks, <u>2</u> Crutches, <u>dup. flms</u> What description of <u>Iron</u> is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? <u>Siemens Martin</u> Manufacturer's name or trade mark, <u>Bolckow Vaughan &amp; Co</u> The above is a correct description. Builder's Signature, <u>John Harrop</u> Surveyor's Signature, <u>N. M. Williams</u> Surveyor to Lloyd's Register of British and Foreign Shipping.												

State clearly where plating is of alternate thickness—as distinguished from distinguished thickness at ends of vessel.

\* If Iron Deck, state if whole or part, and if wood deck is laid thereon.



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

Masts, Bowsprit, Yards, &c., are Pitch 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 stumped with Maker's name.  
State also Length and Diameter of Lower Masts and Bowsprit

Fore Mast (to rigging) 43' x 12"  
Main " 37' x 10"  
Stepped on Main dk.  
No yards nor gaffs.

Number for Equip- ment	CABLES, &c.			Test per Certificate. Tons.	Fathoms & Inches per Rule.	Machine where Tested and Superintendent, also Name of Chain Maker.	ANCHORS. Number of Certificate (State if any and which Anchors are Stockless.)	Weight. Ex. Stock.	Test per Certificate	W'ght req'd per Rule.	Machine where Tested and Superintendent, also Name of Anchor Maker.
	Number of Certificate.	Fathoms.	Inches.								
Letter for do.	8117	165	1	18	165.1	Ri. Mean Com.	19600	8.2.0	10.12.2.0	8 1/2	Ri. Mean Com.
N. SAILS.	Lumsden & Co. Makers										
Fore Sails,	Caliph correct.										
Fore Top Sails,	do										
Fore Topping Stay Sails,	do										
Main Sails,	Lumsden & Co. Makers										
Main Top Sails, and quality	do										
Iron Stream Chain or Steel Wire ..	60	7/8	5 7/8	60. 7/8	do	do	Collective Weights	✓	✓	✓	do
Hempen Stream Cable	Chas. Link										
TOWLINE— Hempen Steel Wire.	90	2 1/2	Steel 12 1/2	Test Certificate	do	do	Stream .....	2.2.0	5.0.0.0	2.2.0	do
Hawser .....	2	7	do	do	do	do	Kedge .....	✓	✓	✓	do
Warp .....	do	do	do	do	do	do	2nd Kedge....	✓	✓	✓	do

Standing and Running Rigging Nick & hemp sufficient in size and good in quality. She has 1 Life Boat and one other

The Windlass is Iron Capstan ✓ and Rudder Iron Pumps Iron

Engine Room Skylights.—How constructed? On Shelter dk., of teak How secured in ordinary weather? 2 inch top with thick

What arrangements for deadlights in bad weather? glasses.

Coal Bunker Openings.—How constructed? Cast iron dk. rings. How are lids secured? Heavy cast tops Height above deck? flush

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? slipping into upper deck

Cargo Hatchway.—How formed? Plate coming Hatches, If strong and efficient? 22" solid pine

State size Main Hatch 17' 6" x 9' 10" Quarterhatches each 3' 6" x 3' 0"

If of extraordinary size, state how framed and secured... Main hatch 1 web beam 1 fore rafter What arrangement for shifting beams? do

Order for Special Survey No. 1400 Built under Special Survey  
Date Sept 24<sup>th</sup> 89 1<sup>st</sup> Visit October 8<sup>th</sup> 1889  
Order for Ordinary Survey No. ✓  
Date ✓ Last - 10 June 1890.  
No. 122 in builder's yard. State dates of letters respecting this case Sept 5<sup>th</sup> 20<sup>th</sup> Oct 4<sup>th</sup> 14<sup>th</sup> 24<sup>th</sup> Nov 7<sup>th</sup> 89. Feb 25<sup>th</sup> 28<sup>th</sup> 1890. Total No. of Visits 49

General Remarks (State quality of workmanship, &c.) Built under Special Survey, in accordance with the plans approved, & the rules for steel vessels. The workmanship and materials are good. Steel tested as per rule.

Five frames cut in after hold on each side to fit stern tubes, and compensated for by carrying the frames round the stern tubes by fitting a 3/4 inch steel plate outside and by a deep floor plate fitted to the aftermost cut frames and connected to a beam in the after hold

H. W. Leydell

How are the surfaces preserved from oxidation? Inside Portland Cement, paint above Outside Paint.

Particulars for Record in R.B.—Length of Poop ✓ ft., R.Q.D. ✓ ft., Bridge Dk., ✓ ft., F'castle ✓ ft.; No. of Dks. (excluding spar, awn, &c.) 1

Material of dks. P. Pine If spar, awn, dk., &c. ✓ Material of spar, awn, dk., &c. ✓; No. of tiers of beams (with and without dks. laid) 1

Official No. 67609; Signal Letters + A 1 Steel For River Purposes. If double bottom, state particulars on separate form.

I am of opinion this Vessel should be Classed + A 1 Steel For River Purposes.

The amount of the Entry Fee .....£ 2 : : is received by me, H. H. D.

Special .....£ 21 : 13 : 14-6 1890

(to be sent as per margin). Certificate ... : : FRI 20 JUNE 1890

Travelling Expenses, if any, £ .....  
Committee's Minute

Character assigned A 1 Steel For River Purposes

10k ft. Stk. 10k

+ Rmle

10k ft. Stk. 10k

10k ft. Stk. 10k

10k ft. Stk. 10k

10k ft. Stk. 10k

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

It is submitted that this vessel has been built in accordance with the rules of Lloyd's Register of British and Foreign Shipping.

and is hereby approved for service as a Classed A. 1 Steel For River Purposes

as per rules, and is hereby approved for service as a Classed A. 1 Steel For River Purposes

as per rules, and is hereby approved for service as a Classed A. 1 Steel For River Purposes

as per rules, and is hereby approved for service as a Classed A. 1 Steel For River Purposes

as per rules, and is hereby approved for service as a Classed A. 1 Steel For River Purposes

as per rules, and is hereby approved for service as a Classed A. 1 Steel For River Purposes

as per rules, and is hereby approved for service as a Classed A. 1 Steel For River Purposes