

IRON SHIP.

(Received at London Office, ...)

NOV 15 1886

No. 2554 Survey held at Southampton Date, First Survey 28th May Last Survey 29th Oct 1886

On the 3 masted Sailing Ship "Cortex" (22 masts)

TONNAGE under Tonnage Deck	2139.89	ONE, OR TWO DECKED, THREE DECKED VESSEL,
Ditto of Third, Spar, or Awning Deck.	-	SPAR, OR AWNING DECKED VESSEL.
Ditto of Poop, or Raised Qr. Dk.	110.86	Half Breadth (moulded) 19.84
Ditto of Houses on Deck	43.62	Depth from upper part of Keel to top of Upper Deck Beams 24.08
Ditto of Forecastle	-	Girth of Half Midship Frame (as per Rule) 42.33
Gross Tonnage	2294.34	1st Number 89.28
Less Crew Space	55.56	1st Number, if a 3-Decked Vessel .. deduct 7 feet 268.45
Less Engine Room	-	Length 339.94
Register Tonnage as out on Beam	2238.81	2nd Number 539.94
		Proportions— Breadths to Length 6.4
		Depths to Length—Upper Deck to Keel 9.9
		Main Deck ditto

Muster Johnston Sharp
 Built at Woolston.
 When built 1886. Launched Sept. 11th 86.
 By whom built Messrs Oswald Morris & Co
 Owners Sir George Petrie
 Residence ...
 Port belonging to London.
 Destined Voyage Bombay via Cardiff & London.
 If Surveyed while Building, Afloat, or in Dry Dock.
 While building afloat in Dry Dock.

LENGTH on deck as per Rule ...	Feet. 268	Inches. 9	BREADTH—Moulded... ..	Feet. 39	Inches. 9	DEPTH top of Floors to Upper Deck Beams	Feet. 24	Inches. 4 1/2	Power of Engines	Horse. ...	No. of Decks with flat laid 2	No. of Tiers of Beams 2
Dimensions of Ship per Register, length, 284.0 breadth, 40.05 depth, 24.25, moulded depth 26.5												
KEEL, depth and thickness	10	2 3/4	10	2 3/4	10	2 3/4	10	2 3/4				
STEM, moulding and thickness	10	2 3/4	10	2 3/4	10	2 3/4	10	2 3/4				
STERN-POST for Rudder do. do.	10	2 3/4	10	2 3/4	10	2 3/4	10	2 3/4				
" " for Propeller	-	-	-	-	-	-	-	-				
Distance of Frames from moulding edge to moulding edge, all fore and aft	24		24		24		24					
FRAMES, Angle Iron, for 1/2 length amidships	5 1/2	3 1/2	8	5 1/2	3 1/2	8	5 1/2	3 1/2	8			
Do. for 1/4 at each end	5 1/2	3 1/2	4	5 1/2	3 1/2	4	5 1/2	3 1/2	4			
REVERSED FRAMES, Angle Iron	3 1/2	3 1/2	8	3 1/2	3 1/2	8	3 1/2	3 1/2	8			
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	3 1/2	9	26	3 1/2	9	26	3 1/2	9	26			
" thickness at the ends of vessel	17	8	13	17	8	13	17	8	13			
" depth at 3/4 the half-bdth. as per Rule	5 ft 9 ins.	4 ft 4 ins.	5 ft 9 ins.	4 ft 4 ins.	5 ft 9 ins.	4 ft 4 ins.	5 ft 9 ins.	4 ft 4 ins.	5 ft 9 ins.			
BEAMS, Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	9 1/2	9	9 1/2	9	9 1/2	9	9 1/2	9	9 1/2			
Single or double Angle Iron on Upper edge	3 1/2	3 1/2	4	3 1/2	3 1/2	4	3 1/2	3 1/2	4			
Average space	48 ins.	48 ins.	48 ins.	48 ins.	48 ins.	48 ins.	48 ins.	48 ins.	48 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	10 1/2	9	10 1/2	9	10 1/2	9	10 1/2	9	10 1/2			
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	3 1/2	3 1/2	4	3 1/2	3 1/2	4	3 1/2	3 1/2	4			
Single or double Angle Iron on Upper Edge	48 ins.	48 ins.	48 ins.	48 ins.	48 ins.	48 ins.	48 ins.	48 ins.	48 ins.			
Average space	-	-	-	-	-	-	-	-	-			
BEAMS, Hold, or Orlop	-	-	-	-	-	-	-	-	-			
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	-	-	-	-	-	-	-	-	-			
Single or double Angle Iron on Upper Edge	-	-	-	-	-	-	-	-	-			
Average space	-	-	-	-	-	-	-	-	-			
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates	19	13	19	13	19	13	19	13	19			
" Rider Plate	13	13	13	13	13	13	13	13	13			
" Bulb Plate to Intercoastal Keelson	6	4	9	6	4	9	6	4	9			
" Double Angle Iron Side Keelson	6	4	9	6	4	9	6	4	9			
" Side Intercoastal Plate	-	9	-	9	-	9	-	9	-			
" do. Angle Irons	3 1/2	3 1/2	8	3 1/2	3 1/2	8	3 1/2	3 1/2	8			
Attached to outside plating with angle iron	6	4	9	6	4	9	6	4	9			
BILGE Angle Irons	6	4	9	6	4	9	6	4	9			
" do. Bulb Iron	-	-	-	-	-	-	-	-	-			
" do. Intercoastal plates riveted to plating for length	6	4	9	6	4	9	6	4	9			
BILGE STRINGER Angle Irons	9 1/2	9	9 1/2	9	9 1/2	9	9 1/2	9	9 1/2			
Intercoastal plates riveted to plating for length	-	9	-	9	-	9	-	9	-			
SIDE STRINGER Angle Irons	6	4	10	6	4	10	6	4	10			
The FRAMES extend in one length from Keel to gunwale	9	10	9	10	9	10	9	10	9			

The REVERSED ANGLE IRONS on floors and frames extend across middle line to gunwale 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 1/8 in. diameter, averaging 5 1/2 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 3/4 ins. from centre to centre.

" Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 3 1/2 ins. from centre to centre.

" Butts of all Strakes at Bilge for 1/2 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 3/4 ins. from cr. to cr.

" Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 in. diameter, averaging 3 1/2 ins. from cr. to cr.

" Edges of Main Sheerstrake, double or single riveted. Upper Sheerstrake, double or single riveted.

" Butts of Main Sheerstrake, treble riveted for 1/2 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted - length amidships.

" Butts of Main Stringer Plate, treble riveted for 1/2 length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for - length.

" Breadth of laps of plating in double riveting 5 1/4 Breadth of laps of plating in single riveting -

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? *as reqd*. No. of Breasthooks, *4* Crutches, *4*.

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? *Good.*

Manufacturer's name or trade mark, *Frames and keel frames, Borman Long & Co; Floor, Owners West Stockton & West Hartlepool Iron Co; Keelsons, angles, beams, Stockton & Co; Stringers, West Hartlepool Iron Co; Outside plating, Ronesfield Iron Co, and Stockton & Co.*

The above is a correct description.

Builder's Signature, *Wm. H. H. H.* Surveyor's Signature, *Wm. H. H. H.*

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

Workmanship. Are the butts of plating planed or otherwise fitted? *planed where possible*
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? *In a few cases at the butts only.*

Masts, Bowsprit, Yards, &c., are *Iron & 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. yes and tested as required.*
State also Length and Diameter of Lower Masts and Bowsprit

Fore mast. Set Length. 93-5; partner 33x7/16; Heel 24x7/16; Hounds 26x7/16; Head 21 1/2 x 6 1/16; 4 angles 4x3x5/16; 3 plates.
Main " " " 92-9 " 32x8/16 " 23x7/16 " 25x7/16 " 21x6/16; 4 angles 4x3x7/16; "
Mizen " " " 85-5 " 30x8/16 " 22x6/16 " 23x6/16 " 19 1/2 x 6 1/16; 3 angles 3 1/2 x 3 1/16; "
Bowsprit (Spike) 4 1/2 Hds to Rotating Hook 23 ft " 30x8/16 " 24x7/16; Rotating Hook 17x6/16 4 " 4 1/2 x 3 1/16; 2 " 4 "

NUMBER & LETTER for EQUIPMENT		CABLES, &c.		Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested and Superintendent, also Number of Certificate.	ANCHORS.	No.	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Machine where Tested and Superintendent, also Number of Certificate.
N ^o .	SAILS.	Chain	15389	134 1/2	2 1/2	104.2-0-0	270 fms	Reston, Lewis	Bower	21392	41.1.2	36.14.2.21	40.0-0	Reston, Lewis
one	Fore Sails,	Iron Stream Chain	15390	135 1/2	"	46-10-0-0	270 fms	Reston, Lewis	Anchors	21391	40.0-34	35.12.3-0	40.0-0	Reston, Lewis
full	Fore Top Sails,	or Steel Wire	15391	100	1 1/2	34.2-2-0	100-1 1/2	Reston, Lewis	(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendent.)	21400	35.0-0	32.7-2-0	34.0-0	Reston, Lewis
full	Fore Topmast Stay Sails,	or Hempen Strm Cable	15392	90	4 1/4	22-15-0-0	90-4	Reston, Lewis	Stream	21390	11.3-26	13.17-2-0	12-0-0	Reston, Lewis
full	Main Sails,	Hawser	90	11		35-0-0-0	90-11	Reston, Lewis	Anchor	21388	6.0-2	8.7-2-0	6.0-0	Reston, Lewis
full	Main Top Sails, and	Warp	90	4			90-4	Reston, Lewis	Kedge	21404	3.0-3	5.12-0-21	3.0-0	Reston, Lewis
		quality	good	90	6 and others				2nd Kedge.					

Standing and Running Rigging *pure & cheap* sufficient in size and *good* in quality. She has *2* Long Boats and *3* other boats.
The Windlass is *(Harfield's)* efficient Capstan and Rudder *efficient* Pumps *efficient*
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? *Two pairs of freeing ports between fore-castle and poop. Size 2'-6" x 1'-10".*
Cargo Hatchways.—How formed? *By deep plate Comings riveted to beams and carlings.*
State size Main Hatch *15-10 x 11-10* Forehatch *7-11 x 5-11* Quarterhatch *8-0 x 6-0* A H. *12-0 x 8-0*
If of extraordinary size, state how framed and secured? *In main hatch full depth web plate and 3 strong fore-castles.*
What arrangement for shifting beams? *double angles on Comings.*
Hatches, If strong and efficient? *yes and solid. 2 1/2" inches.*

Order for Special Survey No. <i>242</i>	Date <i>10th Aug 1886</i>	Order for Ordinary Survey No. <i>✓</i>	Date <i>✓</i>	No. <i>210</i> in builder's yard.	State dates of letters respecting this case <i>See 2nd Letters dated 15th and 26th May 1886.</i>
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			

General Remarks (State quality of workmanship, &c.) *Workmanship and Materials good.*
This three masted iron sailing ship has been built in accordance with the Rules and the tracing submitted and approved by the Committee.
The Committee's requirements as contained in their letters above referred to have been complied with.
The outside plating excepting garboards is treble riveted, and the butt straps, increased 1/8 of an inch for at least 1/2 length amidships; and of the remaining strakes they are increased 1/16 of an inch for same length.

(BH 2 (6 post 45 ft.) (on 24 39 ft.)
State if one, two, or three decked vessel, or if open, or covering-decked, and the lengths of poop, bridge, fore-castle, or raised quarter-deck. (If double bottom, state particulars on separate form.)
How are the surfaces preserved from oxidation? Inside *Cemented to keels and coated with paint above.* Outside *Coated with paint.*
I am of opinion this Vessel should be Classed **100 A1.*
The amount of the Entry Fee£ *5* : - : - received by me, *J. L. Dinneth*
Special£ *80* : *19* : *6* 13th Nov 1886
Freight£ *4* : *4* : - Total £ *90.3.6*
(to be sent as per margin). Certificate...
(Travelling Expenses, if any, £ *✓*).
Committee's Minute
Character assigned *100 A1*
2 Decks
FRIDAY NOV 19 1886
J. L. Dinneth
Surveyor to Lloyd's Register of British and Foreign Shipping.
100 A1 as recommended
2 Decks
19/11/86