~~IRON~~ ~~OR~~ STEEL SHIP. (Received at London Office, JUNE 1890) 94

Date of writing Report — Port of Middlesbrough

No. 94 Survey held at Middlesbrough Date, First Survey Jany 8th 1890 Last Survey June 12th 1890

On the Steel Screw Steamer TANDIL — Rig Schooner 2 masts

TONNAGE under Tonnage Deck	1641.47
between Tonnage Dk. and 3rd, 4th, Spar or Awning Dk. Light air.	8.42
of Poop	66.01
of Raised Qr. Dk. ~~or Break~~	90.60
of Bridge House	306.73
of Houses on Deck	8.42
of excess of Hatchways	22.73
of Forecastle	45.87
Gross Tonnage	2188.21
Crew Space 64.05 / Master R 17.09	81.14
Engine Room	700.29
Register Tonnage as cut on Beam	1406.84

~~ONE~~, ~~OR~~ TWO DECKED, ~~THREE DECKED~~ VESSEL, ~~SPAR, OR AWNING DECKED VESSEL.~~

	Feet.
Half Breadth (moulded)	19.42
Depth from upper part of Keel to top of Upper Deck Beams	22.08
Girth of Half Midship Frame (as per Rule)	37.87
1st Number	79.37
1st Number, if a 3-Decked Vessel .. deduct 7 feet	✓
Length	275.5
2nd Number	21866
Proportions— Breadths to Length	7.09
Depths to Length— Upper Deck to Keel	12.47
Main Deck ditto	

Master Owen

Year of appointment (1) As master in service of owner of present vessel:—18 (2) As master of this vessel 18

Built at Middlesbrough

When built 1889. 90 Launched Apr. 17th 90

By whom built Raylton Dixon & Co

Owners A. Holland & Co

Managers The Buenos Ayres Great Southern Ry Co (Limd)

(If desired to be entered in Reg. Book.)

Residence London

Port belonging to London

Destined Voyage River Plate

If Surveyed while Building, Afloat, ~~or in Dry Dock~~.

LENGTH on deck as per Rule Feet 275 Inches 6 — BREADTH—Moulded Feet 38 Inches 10 — DEPTH top of Floors to Upper Deck Beams Feet 20 Inches 1; Do. do. Main Deck Beams — Power of Engines Horse 200 — No. of Decks with flat laid 1 — No. of Tiers of Beams 1 + webs

Dimensions of Ship per Register, length 277.0 breadth 39.0 depth 18.2 — Moulded depth 21.3

	Inches in Ship.			Inches per Rule.		
~~KEEL, depth and thickness~~						
STEM, moulding and thickness	10 × 2¾			10 × 2¾		
STERN-POST for Rudder do. do.						
" for Propeller	10 × 6			10 × 6		
Distance of Frames from moulding edge to moulding edge, all fore and aft	24			24 (Class 100 A)		
	Inches. In Ship	Inches. In Ship	20ths In Ship	Inches per Rule	Inches per Rule	20ths per Rule
FRAMES, Angle ~~Iron~~, for ½ length amidships	5	3	8	5	3	8
Do. for ¼ at each end	5	3	7	5	3	7
REVERSED FRAMES, Angle ~~Iron~~	3½	3	8	3½	3	8
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	24		10	24		10
" thickness at the ends of vessel			9-8			9-8
" depth at ¾ the half-bdth. as per Rule	18			12		
" height extended at the Bilges	as per plans					
BEAMS, Upper, ~~Spar, or Awning~~ Deck; Single ~~or d'ble~~ Ang. ~~Iron, Plate or Tee~~ Bulb ~~Iron~~; ~~Single or double Angle Iron on Upper edge~~	6½	3	9	6½	3	9
Average space	24			24		
~~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—Single or d'ble Ang. Iron, Plate or Tee Bulb Iron; Single or double Angle Iron on Upper Edge; Average space~~						
BEAMS, Hold, ~~or Orlop~~ under RQD; ~~Single or d'ble Ang. Iron, Plate or~~ Tee Bulb ~~Iron~~; ~~Single or double Angle Iron on Upper Edge~~	9	5¼	9	9	5¼	9
Average space	see elevation					
KEELSONS Centre line, single ~~or double~~ plate, ~~box, or Intercostal~~, Plates	21		10	21		10
" Rider Plate						
" ~~Bulb Plate to~~ Intercostal ~~Keelson~~ Plate			13			9
" Angle ~~Irons~~	6	4	9	6	4	9
" ~~Double Angle Iron Side Keelson~~						
" ~~Side Intercostal Plate~~						
" ~~do. Angle Irons~~						
" Attached to outside plating with angle ~~iron~~	6	4	9	6	4	9
~~BILGE Angle Irons; do. Bulb Iron; do. Intercostal plates riveted to plating for length~~						
BILGE STRINGER Angle Irons; Intercostal plates riveted to plating for length; SIDE STRINGER Angle Irons	Web frames intercostal stringers as per approved plans					

	Inches. In Ship.	20ths in Ship.	Inches. per Rule	20ths per Rule
Flat Keel Plates, breadth and thickness	36	16	36	16
PLATES in Garboard Strakes, br'dth & thickness	36	12	36	12
" From Garboard to ~~upper~~ lower part of Bilges		10		10
" Of d'bling at Bilge, or increased thickness, and length applied		✓		
" From ~~up.~~ lower prt of Bilge to lr. edge of Sh'rstrake		11		11
" Main Sheerstrake, breadth and thickness	42	15	42	15
" Of d'bling at Sh'stk. & lng. applied at Bridge fr.		11		11
" ~~From Mn. to Upr. or Spar Dk. Sh'strake~~	1 strake above, at Breaks			
~~Upr. or Spar Dk. Sh'strake, brdth & thickn's~~				
Butt Straps to outside plating, breadth & thickness	19-9¾	19-11	19-9¾	19-11
Lengths of Plating	7 spaces of frames			
Shifts of Plating, and Stringers	as per rule			
Gunwale Plate on ends of ~~Awning, Spar, or~~ Upper Deck Beams, breadth and thickness	39	10	39	10
Angle ~~Iron~~ on ditto 2 in Bridge	4×4	9	4×4	9
~~Tie Plates fore and aft, outside Hatchways~~ in well	4½×4½	9	4½×4½	9
~~Diagonal Tie Plates on Beams No. of Pairs~~				
Flat of Up., ~~Spar, or Awning~~ Dk.* steel under Bridge				
How fastened to Beams riveted — Iron in well	7/16		7/16	
~~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~~				
~~Flat of Middle Deck* do. do.~~				
~~How fastened to Beams~~				
Stringer Plates on ends of ~~Lower Deck~~, Hold ~~or Orlop~~ Beams under RQD	37	9	37	9
Is the Stringer Plate attached to the outside plating?	Yes			
Angle ~~Irons~~ on ditto, No. 2	4×4	9	4×4	9
~~Stringer or Tie Plates, outside Hatchways~~				
~~Flat of Lower Deck*~~				
Ceiling betwixt Decks, thickness and material	2½ Pine			
" in hold do. do.	2½		2½	
Main piece of Rudder, diameter at head	7¾		7¾	
do. at heel	5⅞ 3¾		3¾	
Can the Rudder be unshipped afloat?	Yes			

Bulkheads No. 4 No. per Rule 4

" Thickness of 7/20 to 6/20

" Height up Main and Quarter decks

" How secured to sides of ship double frames

" Size of Vertical Angles ~~Irons~~ 5 × 3 × 8/20 and distance apart 30 ins.

" Are the outside Plates doubled two spaces of Frames in length? Yes

* If Iron Deck, state if whole or part, and if wood deck, is laid thereon. — State clearly where plating is of alternate thickness, as distinguished from diminished thickness at ends of vessel.

The FRAMES extend in one length from bilge keelson, & bilge to top height — Riveted through plates with ⅞ in. Rivets, about 6¾ apart.

The REVERSED ANGLE ~~IRONS~~ on floors and frames extend across middle line to bilges, bilges to Main deck & top ... and to Hold beams & Qr. deck alternately, two per plan.

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 in. diameter, averaging ins. from centre to centre.~~

" Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets ⅞ in. diameter, averaging 3½ ins. from centre to centre.

" Butts from Keel to turn of Bilge, worked lapped ~~carvel~~, treble ~~double~~ riveted; with rivets ⅞ in. diameter averaging 3⅝ ins. from centre to centre.

" Butts of all Strakes ~~at Bilge~~ for ½ length, treble riveted with Butt Straps 3/20 thicker than the plates they connect. unless lapped

" Edges from Bilge to Main Sheerstrake, worked clencher, double ~~or single~~ riveted; with rivets ⅞ in. diameter, averaging 3½ ins. from cr. to cr.

" Butts from Bilge to Main Sheerstrake, worked carvel, treble ~~double~~ riveted; with rivets ⅞ in. diameter, averaging 3⅝ 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 ½ length amidships. ~~Butts of Upper or Spar Sheerstrake, treble riveted length amidships.~~

" Butts of Main Stringer Plate, treble riveted for ½ length amidships. ~~Butts of Upper or Spar Stringer Plate, treble riveted for length.~~

" Breadth of laps of plating in double riveting 6 diam. Breadth of laps of plating in single riveting ✓

Butt Straps of Keelsons, Stringer ~~and Tie~~ Plates, treble, double ~~or single~~ Riveted? — No. of Breasthooks 3 — Crutches, deep floors

What description of ~~Iron~~ Steel is used for Frames, Beams, Keelsons, ~~Tie~~, and Stringer Plates, Outside Plating, &c.? Siemens Martin

Manufacturer's name or trade mark, Consett, Bolckow V & Co. Moor, West Hpl. St. Co. Dorman Long & Co.

The above is a correct description.

Builder's Signature, RAYLTON DIXON & CO. R. Dixon — Surveyor's Signature, H. M. Williams

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

ROBERT EDMUND TAYLOR & SON, Commercial and General Steam Printers, 19, Old Street, Goswell Road, London, E.C.

Workmanship. Are the butts of plating planed or otherwise fitted? Planed

Do the edges of the carvel work and of the butts fay 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 Iron & P. 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~~

Fore Mast 77'6" x 23" diam 6/16 plates } Made in 2 plates in the round seams single
Main " 71'6" x 20" " " } rivetted, butts 3ble rivetted. plates tested.
Iron made by Bowesfield Iron Co.

Number for Equipment 24328
Letter for do. S

SAILS	CABLES, &c.	Fathoms.	Inches.	Test per Certificate. Tons.	Fathoms & Inches per Rule.	Machine where Tested and Superintendent, also Name of Chain Maker.
Fore Sails,	8350	271½	1 13/16	59⅛	270.1 13/16	Riv. Wear. Com
Fore Top Sails,	G. Hartshorne & Co Maker					J. Hartness
Fore Topmast Stay Sails,	Calip correct					Supt.
One suit Main Sails,	Iron Stream Chain ~~or Steel Wire~~	75¾	1⅛	22¾	75.1⅛	
Main Top Sails,	~~Hempen Str'm Cable~~	90	4	33	90.4	Test certifs produced
and quality good	TOWLINE— ~~Hemp or~~ Steel Wire	90	3	18	90.9½	
	Hawser	2.90	2¼	9½	90.7½	
	Warp	2.90 / 90	5½ / 9			

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.
27887	43.1.8	38.3.0.14	32 cwt	Netherton
27968	37.0.21	33.18.3.0	40.0.0	D G Lewis
27971	33.3.23	31.12.2.0	34.0.0	Supt
Hartshornes Stockless Ct. Stl. Hds Cdl			91.1.0	Drop & test
Hartshorne & Co Makers 25%			22.3.7	certificate
Collective Weights	114.1.24		114.0.7	produced
Stream	10.3.0	12.13.0.14	10.2.0	Riv. Wear Com
Kedge	5.2.14	7.18.1.21	5.7.0	J. Hartness
2nd Kedge	2.3.0	5.5.0.0	2.2.0	Supt

Standing and Running Rigging Wire & hemp sufficient in size and good in quality. She has 2 ~~Life~~ Boats and 2 others

The Windlass is Iron, Steam Capstan ✓ and Rudder Iron Pumps Copper

Engine Room Skylights.—How constructed? Plate coamings &c How secured in ordinary weather? } Plate flaps, thick com. glass lights
What arrangements for deadlights in bad weather?

Coal Bunker Openings.—How constructed? Plate coamings How are lids secured? Cleats & battens Height above deck? 35 + 18

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? In well 2 ports 33" x 29" each side 13½" up. On Quarter dk. 4 ports. 36" x 15" + 3 scuppers each side.

Cargo Hatchways.—How formed? Plate Coamings. No1. 48" high. cent. 30" high **Hatches,** If strong and efficient? 3" solid pine

State size No1 ~~Main~~ Hatch 15'10" x 12'0" No2. 23'11" x 14" ~~Forehatch~~ No3 5'10" x 9'0" No4 21'11" ~~Quarterhatch~~ x 14'0" No5 17'10" x 14'0"

If of extraordinary size, state how framed and secured... Nos 1 & 5, 1 web beam 3 fore & after. Nos 2 & 4. 2 webs, 3 fore & after. No3 1 fore & after. ~~What arrangement for shifting beams~~?

Order for Special Survey No. 1408
Date Nov. 6th 1889
Order for Ordinary Survey No. ✓
Date ✓
No. 319 in builder's yard.

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 } Built under Special Survey.
2nd. On the plating during the process of riveting
3rd. When the beams were in and fastened, and before the decks were laid.... } 1st visit Jany 8th 1890
4th. When the ship was complete, and before the plating was finally coated or cemented.. }
5th. After the ship was launched and equipped last visit June 12th 1890 Total No. of Visits 5

State dates of letters respecting this case Oct. 24th - Novr 4th - Dec 6th - 12th - 21st 89 Jany 27th Feby 4th 1890 P.

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

The freeboard has been marked on the vessel in accordance with the Secy telegram of June 11th 90. as follows. From top of iron main deck. Summer 1'8½", Winter 2'0", Allowance for fresh water 4½". The freeboard to be recorded in the Register Book

RAYLTON DIXON & CO.
[signature]

How are the surfaces preserved from oxidation? Inside Builders own make Black Enamel Cement } Paint above Outside Paint

Particulars for Record in R.B.—Length of Poop 27 ft., R.Q.D. 66 ft, Bridge Dk., 126 ft., F'castle 34 ft.; No. of Dks. (excluding spar, awn, &c.) 1

Material of dks Iron & Stl ~~If spar, awn. dk., &c.~~ Material of spar, awn. dk., &c. ✓ ; No. of tiers of beams (with and without dks. laid) 1 fwd 2 aft

Official No. 98111 ; Signal Letters

If double bottom, state particulars on separate form.

I am of opinion this Vessel should be Classed + 100 A1 Steel

The amount of the Entry Fee ......£ 5 : : is received by me, } R.H.D.
Special ......£ 48 : 2 : 19. 6 1890

(to be sent as per margin). Certificate ... : :
Travelling Expenses, if any, £ —).

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

TUES 24 JUNE 1890

Committee's Minute

Character assigned + Lml 5/90 AXCP

100 A1 Steel
1 dk pt stl & pt Iron & web frames "Well dk"
Record Freeboard

It is submitted that this vessel appears eligible to be Classed 100 A1 (Steel) as recommended — 1 Dk (pt Steel & pt Iron) Web frames H.R. (particulars appended) "Well Dk"