

# Steel IRON SHIP.

20533

TUESDAY 9 AUGUST 1887

No. 20533 Survey held at Newcastle Date, First Survey 11<sup>th</sup> March Last Survey 24<sup>th</sup> July 1887

On the *Scow Ship "Starling" Schooner Rig*

**TONNAGE** under Tonnage Deck 699.25  
 Ditto of Third, Spar, or Awning Deck 9.49  
 Ditto of Poop, or Raised Or. Dk. 43.89  
 Ditto of Houses on Deck 12.60  
 Ditto of Forecastle 25.56  
 Gross Tonnage 791.69  
 Less Crew Space 34.84  
 Less Engine Room 253.05  
 Register Tonnage as cut on Beam 503.70

**ONE, OR TWO DECKED, THREE DECKED VESSEL, SPAR, OR AWNING-DECKED VESSEL.**  
 Half Breadth (moulded) 15.00  
 Depth from upper part of Keel to top of Upper Deck Beams 16.45  
 Girth of Half Midship Frame (as per Rule) 28.40  
 1st Number 59.85  
 1st Number, if a 3-Decked Vessel deduct 7 feet  
 Length 208.83  
 2nd Number 12498  
 Proportions— Breadths to Length 6.96  
 Depths to Length— Upper Deck to Keel 12.69  
 Main Deck ditto

Master *not appointed*  
 Built at *London*  
 When built 1887 Launched 18 June 1887  
 By whom built *Palmer's Co.*  
 Owners *General Steam Navigation Co.*  
 Residence *London*  
 Port belonging to *London*  
 Destined Voyage *London*  
 If Surveyed while Building, Afloat, or in Dry Dock.

LENGTH	Feet.	Inches.	BREADTH—	Feet.	Inches.	DEPTH top of Floors to Upper	Feet.	Inches.	Power of	Horse.	Nº. of Decks with flat laid	Nº. of Tiers of Beams
on deck as per Rule	208	10	Moulded	30	0	Deck Beams	15	0	Engines	120	One	Two
						Do. do. Main Deck Beams						
Dimensions of Ship per Register, length, 210.0 breadth, 30.15 depth, 14.75 Moulded depth 15.10												
KEEL, depth and thickness	8 x 2 3/8		8 x 2 3/8		8 x 2 3/8		8 x 2 3/8		8 x 2 3/8		8 x 2 3/8	
STEM, moulding and thickness	7 x 2 3/8		7 x 2 3/8		7 x 2 3/8		7 x 2 3/8		7 x 2 3/8		7 x 2 3/8	
STERN-POST for Rudder do. do.	7 x 4 3/4		7 x 4 3/4		7 x 4 3/4		7 x 4 3/4		7 x 4 3/4		7 x 4 3/4	
" " for Propeller	22 ins		22 ins		22 ins		22 ins		22 ins		22 ins	
Distance of Frames from moulding edge to moulding edge, all fore and aft	22 ins		22 ins		22 ins		22 ins		22 ins		22 ins	
FRAMES, Angle Iron, for 1/2 length amidships	3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2	
Do. for 1/2 at each end	3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2	
REVERSED FRAMES, Angle Iron	3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2	
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	17 1/2 x 7		17 1/2 x 7		17 1/2 x 7		17 1/2 x 7		17 1/2 x 7		17 1/2 x 7	
thickness at the ends of vessel	6		6		6		6		6		6	
depth at 1/2 the half-bdth. as per Rule	9		9		9		9		9		9	
height extended at the Bilges	2 1/2		2 1/2		2 1/2		2 1/2		2 1/2		2 1/2	
BEAMS, Upper, Spar, or Awning Deck	7 x 7		7 x 7		7 x 7		7 x 7		7 x 7		7 x 7	
Single Angle Iron, Plate or Tee Bulb Iron	3 x 3		3 x 3		3 x 3		3 x 3		3 x 3		3 x 3	
Double Angle Iron on Upper edge	3 x 3		3 x 3		3 x 3		3 x 3		3 x 3		3 x 3	
Average space	alternate frames		alternate frames		alternate frames		alternate frames		alternate frames		alternate frames	
BEAMS, Main, or Middle Deck	7 x 7		7 x 7		7 x 7		7 x 7		7 x 7		7 x 7	
Single Angle Iron, Plate or Tee Bulb Iron	3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2	
Double Angle Iron on Upper edge	3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2	
Average space	alternate frames		alternate frames		alternate frames		alternate frames		alternate frames		alternate frames	
BEAMS, Lower Deck	7 x 7		7 x 7		7 x 7		7 x 7		7 x 7		7 x 7	
Single Angle Iron, Plate or Tee Bulb Iron	3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2	
Double Angle Iron on Upper edge	3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2	
Average space	alternate frames		alternate frames		alternate frames		alternate frames		alternate frames		alternate frames	
BEAMS, Hold, or Orlop	8 1/2 x 8		8 1/2 x 8		8 1/2 x 8		8 1/2 x 8		8 1/2 x 8		8 1/2 x 8	
Single Angle Iron, Plate or Tee Bulb Iron	4 x 3		4 x 3		4 x 3		4 x 3		4 x 3		4 x 3	
Double Angle Iron on Upper edge	4 x 3		4 x 3		4 x 3		4 x 3		4 x 3		4 x 3	
Average space	as per profile		as per profile		as per profile		as per profile		as per profile		as per profile	
BEAMS, Centre line, single or double plate, box, or Intercoastal, Plates	13 x 10		13 x 10		13 x 10		13 x 10		13 x 10		13 x 10	
Rider Plate	9 3/4 x 10		9 3/4 x 10		9 3/4 x 10		9 3/4 x 10		9 3/4 x 10		9 3/4 x 10	
Bulb Plate to Intercoastal Keelson	4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2	
Angle Irons	4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2	
Double Angle Iron Side Keelson	4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2	
Side Intercoastal Plate	4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2	
do. Angle Irons	4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2	
Attached to outside plating with angle iron	4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2	
BEAMS, Angle Irons	4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2	
do. Bulb Iron	3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2		3 1/2 x 3 1/2	
do. Intercoastal plates riveted to plating for length	4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2	
BEAMS, STRINGER Angle Irons	4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2	
Intercoastal plates riveted to plating for length	4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2	
BEAMS, STRINGER Angle Irons	4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2		4 1/2 x 3 1/2	

FRAMES extend in one length from *Keel* to *gunwale* Riveted through plates with *3/4* in. Rivets, about *6* apart.

REVERSED ANGLE IRONS on floors and frames extend *near* middle line to *Lower deck* and to *gunwale* alternately

BEAMS. Are the various lengths of Plates and Angle Irons properly connected? *Yes* And butts properly shifted? *Yes*

ING. Garboard, double riveted to Keel, with rivets *1* in. diameter, averaging *4 3/4* 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 1/4* ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets *3/4* in. diameter averaging *2 5/8* ins. from centre to centre.

Butts of *2* Strakes at Bilge for *1/2* length, treble riveted with Butt Straps *2 20* thicker than the plates they connect.

Bilges 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 *2 5/8* ins. from cr. to cr.

Edges of Main 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 *4 1/2* Breadth of laps of plating in single riveting *nil*

Plates of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? *throughout* No. of Breasthooks, *5* Crutches, *39*

Description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? *Palmer's Co.*

Manufacturer's name or trade mark, *Palmer's Co.*

Signature, *James Gibson* Surveyor's Signature, *James Gibson* Surveyor to Lloyd's Register of British and Foreign Shipping.



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 very well*  
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 *of Steel & 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 67' 0" long x 20" dia.; Mainmast 60' 0" x 18" dia. at deck; Seams double rivetted and the Butt straps 1/16 thicker than the plates they connect & beebie rivetted; Plates 1/20 & 1/20 in thickness doubled at Partners. Makers of the Steel, Palmers & Co.*

NUMBER for EQUIPMENT 13903		Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Supnt.	ANCHORS.	N <sup>o</sup> .	Weight. Ex. Stock.	Test per Certificate.	Wt. req'd per Rule.	Machine where Tested & Supnt.
SAILS.							Bower Anchors	1	18.0.6	19.2.0.20	18.0.0	
CABLES, &c.							(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendent.)	1	17.2.13	18.14.1.14		
Fore Sails,	Chain	120	1 1/16	55 1/8	1 1/16							
	(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendent.)	120	1 1/16	37 1/8	1 1/16							
Fore Top Sails,	Iron Stream Chain	60	1 5/16	23 7/16	1 5/16			1	15.2.9	17.0.3.20	15.1.10	
	or Steel Wire			15 9/16								
Fore Topmast Stay Sails,	or Hempen Strm Cable	90	4	Steel wire	9 1/2							
	Towline, Hemp.	90	3 1/2	Steel wire								
Main Sails,	or Steel Wire	90	7 1/2		7 1/2		Stream Anchor	1	6.2.18	9.0.0.06	2.0	
	Hawser	90	5 1/2		5 1/2		Kedge	1	3.1.20	5.18.3.03	1.0	
Main Top Sails,	Warp	120	4 1/2				2nd Kedge	1	1.2.0	3.18.3.01	2.0	
and	quality good											

Standing and Running Rigg *wire & hemp* sufficient in size and *good* in quality. She has *1* *Long* Boat and *2* *others*  
The Windlass is *good* Capstan *good* and Rudder *good* Pumps *metal & good*  
Engine Room Skylights. How constructed? *on iron casing on Poop* How secured in ordinary weather? *with thumb Screws*  
What arrangements for deadlights in bad weather? *Solid Teak shutters & thick circular glass*  
Coal Bunker Openings. How constructed? *Circular* How are lids secured? *with studs* Height above deck? *flush with deck*  
Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? *2 ports & 1 scupper on each side*  
Cargo Hatchways. How formed? *Iron plate comings & Headledges*  
State size Main Hatch *25' 10" x 11' 0"* Forehatch *14' 8 1/2" x 10' 0"* Quarterhatch *22' 8" x 11' 0"*  
If of extraordinary size, state how framed and secured?  
What arrangement for shifting beams? *Deep web plates and 3 fore & afters to each*  
Hatches, If strong and efficient? *3 in solid*

Order for Special Survey No. *1874*  
Date *11th Feb 1897*  
Order for Ordinary Survey No. *582*  
Date *✓*  
No. *582* in builder's yard.  
State dates of letters respecting this case *3rd Feb, 18th Dec, 28 April, 3 May & 11 June 1897*  
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.  
*1887 March 11. 14. 16. 17. 19. 23. 25. 28. 31. April 5. 6. 12. 15. 18. 22. 25. 29. May 2. 3. 12. 16. 17. 19. 23. 24. 25. 27. June 1. 3. 6. 8. 10. 13. 16. 23. 28. July 5. 9. 14. 18. 21. 25. 27.*

General Remarks (State quality of workmanship, &c.) *This Vessel has been built of steel and in accordance with the rules and approved tracings of Midships section, Profile, deck Plan & constructed with a long full Poop 160 feet in length and Top-gall fore-castle 28' 7" in length; A water-tall tank in the after hold extending from the After Bulkhead aft, and over the fore hold extending from the collision Bulkhead aft for about 34 ft; these tanks including after Peak have been tested to a head of water not less in height than the load line of the vessel and proved very satisfactory.*

The main deck flat is of wood and the Beams as shown on the deck plan and plated over in way of long hatchway and Engine & Boiler spaces. The workmanship and materials are of a good description throughout

State if one, two, or three decked vessel, or if spar, or awning 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 *Portland Cement to upper* Outside *3 coats of paint*  
I am of opinion this Vessel should be Classed *100 A.T.*

The amount of the Entry Fee .....£ 3 : - : -  
Special .....£ 37 : 14 : -  
(To be sent as per margin). Certificate *gratis* : - : -  
(Travelling Expenses, if any, £ .....)  
Committee's Minute  
Character assigned *100 A 1 Steel*  
*LAOC*  
*FRIDAY 12 AUGUST 1897*  
*18*  
*James Libby*  
Surveyor to Lloyd's Register of British and Foreign Shipping  
*It is submitted that the vessel appears to be classed 100 A 1 Steel as recommended 1 BK, 2 BK Beams*  
*D.B. Particulars appended*  
*Lloyd's Register*  
*Foundation*