

IRON SHIP. 16131

No. 13475

No. 13475 Survey held at *S. Shields* Date, First Survey *25 Aug 1875* Last Survey *20 Nov 1876*

On the *Paddle Steamer "Flying Fish"* Master *Griffiths*

TONNAGE under Tonnage Deck	301.45	ONE, OR TWO DECKED, THREE DECKED VESSEL.	
Ditto of Third, Spar, or Lower Deck		SPAR, OR AWNING DECKED VESSEL.	
Ditto of Poop, or Raised Or. Dk.		HALF BREADTH (moulded)	12.0
Ditto of Houses on Deck	6.57	DEPTH from upper part of Keel to top of Upper Deck Beams	13.6
Ditto of Forecastle		GIRTH of Half-ship Frame (as per Rule)	22.4
Gross Tonnage	308.02	1st NUMBER	48
Less Crew Space	44.14	1st NUMBER, THREE DECKED VESSEL [deduct 7 feet]	
263.88		LENGTH	154
Less Engine Room	172.35	2nd NUMBER	7392
Register Tonnage as out on Beam	91.53	PROPORTIONS—Breadths to Length	6.4
		Depths to Length—Upper Deck to Keel	11.3
		Main Deck ditto	

Built at *South Shields*
 When built *1876* Launched *5th Feb 76.*
 By whom built *J. Readhead & Co.*
 Owners *Messall & Co.*
 Port belonging to *Liverpool*
 Destined Voyage *Liverpool*
 Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule	Feet. Inches.	BREADTH—Moulded	Feet. Inches.	DEPTH top of Floors to Upper Deck Beams Do. do. Main Deck Beams	Feet. Inches.	Power of Engines	Horse.	Nº. of Decks with flat laid	Nº. of Tiers of Beams
154 0		24 0		12 6		180		one	one

Dimensions of Ship per Register, length, *154.9* breadth, *24.35* depth, *12.5*

	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	6 x 2	6 x 2
STEM, moulding and thickness	6 x 2	6 x 2
STERN-POST for Rudder do. do.	6 x 2	6 x 2
for Propeller	21	21
Distance of Frames from moulding edge to moulding edge, all fore and aft	21	21
FRAMES, Angle Iron, for $\frac{1}{2}$ length amidships	3 1/2 2 1/2 5/16	3 1/2 2 1/2 5/16
Do. for $\frac{1}{4}$ at each end	2 1/2 2 1/2 5/16	2 1/2 2 1/2 5/16
REVERSED FRAMES, Angle Iron	12 5/16	12 5/16
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	15 5/16	15 5/16
thickness at the ends of vessel	5 3 6/16	5 3 6/16
depth at $\frac{1}{4}$ the half-bdth. as per Rule	42	42
height extended at the Bilges	42	42
BEAMS, Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	4 3 7/16	4 3 7/16
Single or double Angle Iron on Upper edge	42	42
Average space	42	42
BEAMS, Main, or Middle Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	4 3 7/16	4 3 7/16
Single or double Angle Iron on Upper edge	42	42
Average space	42	42
BEAMS, Lower Deck, Hold, or Orlop Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	4 3 7/16	4 3 7/16
Single or double Angle Iron on Upper edge	42	42
Average space	42	42
KEELSONS Centre line, single or double plate, box, or intercostal, Plates	4 3 7/16	4 3 7/16
" Rider Plate	4 3 7/16	4 3 7/16
" Bulb Plate to Intercostal Keelson	4 3 7/16	4 3 7/16
" Angle Irons	4 3 7/16	4 3 7/16
" Double Angle Iron Side Keelson	4 3 7/16	4 3 7/16
" Side Intercostal Plate	4 3 7/16	4 3 7/16
" do. Angle Irons	4 3 7/16	4 3 7/16
" Attached to outside plating with angle iron	4 3 7/16	4 3 7/16
BILGE Angle Irons	4 3 7/16	4 3 7/16
" do. Bulb Iron	4 3 7/16	4 3 7/16
" do. Intercostal plates riveted to plating for length	4 3 7/16	4 3 7/16
BILGE STRINGER Angle Irons	4 3 7/16	4 3 7/16
Intercostal plates riveted to plating for length	4 3 7/16	4 3 7/16
SIDE STRINGER Angle Irons	4 3 7/16	4 3 7/16

	Inches in Ship.	16ths in Ship.	Inches per Rule.	16ths per Rule.
Flat Keel Plates, breadth and thickness	30	8/16	30	8/16
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied	6/16		6/16	
fin up. part of Bilge to lr. edge of Sh'rstrake	6/16		6/16	
Main Sheerstrake, breadth and thickness of doubling at Sh'rstrake, & length applied from Mn. to Upr. or Spar Dk. Sh'rstrake.	36	8/16	36	8/16
Up. or Spar Dk Sh'rstrake, brdth & thickness	36	8/16	36	8/16
Butt Straps to outside plating, breadth & thickness	9 1/4	5 8	9 1/4	5 8
Lengths of Plating	8-9	5 5/16	8-9	5 5/16
Shifts of Plating, and Stringers	3-4		3-4	
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	18	6/16	18	6/16
Angle Iron on ditto	3.3	5/16	3.3	5/16
Tie Plates fore and aft, outside Hatchways	6	6/16	6	6/16
Diagonal Tie Plates on Beams No. of Pairs, Planksheer material and scantling	3		3	
Waterways do. do.	3		3	
Flat of Upper Deck do. do.	3 1/2	5/16	3 1/2	5/16
How fastened to Beams	3		3	
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness	3		3	
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				
Waterways materials and scantlings				
Flat of Middle Deck do. do.				
How fastened to Beams				
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams				
Is the Stringer Plate attached to the outside plating?				
Angle Irons on ditto, No.				
Stringer or Tie Plates, outside Hatchways				
Flat of Lower Deck				
Ceiling between Decks, thickness and material				
in hold do. do.				
Main piece of Rudder, diameter at head				
do. at heel				
Can the Rudder be unshipped afloat?				
Bulkheads No. 3 Thickness of				
Height up				
How secured to sides of ship				
Size of Vertical Angle Irons				
Are the outside Plates doubled two spaces of Frames in length?				

Transoms, material. Knight-heads. Hawse Timbers. *Iron*
 Windlass *Eng Oak* Pall Bitt *Oak*

The FRAMES extend in one length from *Keel* to *Gunwale* Riveted through plates with *5/8* in. Rivets, about *5* apart.
 The REVERSED ANGLE IRONS on floors and frames extend *from middle line to Gunwale and doublets* and to *Bilge cleats* 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 *5/16* in. diameter, averaging *5* ins. from centre to centre.
 Edges of Garboards and to upper part of Bilge, worked clencher, *double* riveted; with rivets *5/8* in. diameter, averaging *2 1/2* ins. from centre to centre.
 Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets *5/8* in. diameter averaging *2 1/2* ins. from centre to centre.
 Butts of Strakes at Bilge for length, treble riveted with Butt Straps *thicker than the plates they connect.*
 Edges from bilge to Main Sheerstrake, worked clencher, *double* or single riveted; with rivets *5/8* in. diameter, averaging *2 1/8* ins. from cr. to cr.
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets *5/8* in. diameter, averaging *2 1/8* ins. from cr. to cr.
 Edges of Main Sheerstrake, *double* or single riveted. Upper Sheerstrake, *double* or single riveted.
 Butts of Main Sheerstrake, *double* riveted for *all* length amidships. Butts of Upper or Spar Sheerstrake, treble riveted *length* amidships.
 Butts of Main Stringer Plate, *double* riveted for *all* length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for *length*.
 Breadth of laps of plating in double riveting *6 times* Breadth of laps of plating in single riveting *3 1/2 times*

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? *Treble & Double*
 Waterway, how secured to Beams *nut & screw bolts* (Explain by Sketch, if necessary.)
 Beams of the various Decks, how secured to the sides? *Bracket knees riveted to frame* No. of Breasthooks, *3* Crutches, *3*
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? *Store Iron works for plates*
 Manufacturer's name or trade mark, *Ampley & Hopkins & Gilman*
 The above is a correct description.
 Builder's Signature, *John Readhead & Co.* Surveyor's Signature, *T. Mowbray*
 Surveyor to Lloyd's Register of British and Foreign Shipping.

Workmanship.

Are the butts of plating planed or otherwise fitted?

Planed

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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 all 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

Good Masts

NUMBER for EQUIPMENT 7392

N ^o .	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	Weight req'd per Rule.	Test req'd per Rule.
		Chain	120	1 1/8	15 1/4	16.5 1/2	18	Bowers	1	8.1.20	10 9/16	7.1.0	9 3/20
	Fore Sails,			13. 8.	30 1/2				1	8.0.6	10 3/16	7.1.0	
one	Fore Top Sails,	(State Machine where Tested, Date, & name of Superintendent.)	L.P.H.	L.H.	R. Burrell	Sup 5							
full	Fore Topmast Stay Sails		7	2 1/2	7 1/2								
Suit	Main Sails,	Hmpn Strm Cbl	90	11		90 7 1/2							
	Main Top Sails,	Hawser ...	90	4		90 7 1/2		Stream				2.3.0	
and		Towlines ...	90	4				Kedges				1.1.0	
		Warp ...	90	4									
		quality good											

Standing and Running Rigging Wire & Hemp sufficient in size and good in quality. She has one Life Boat and one other

The Windlass is Good Capstan Good and Rudder Good Pumps Good

Engine Room Skylights. How constructed? Iron casing How secured in ordinary weather? under bridge

What arrangements for deadlights in bad weather? Thick Glass.

Coal Bunker Openings. How constructed? Iron casing How are lids secured? by iron bar Height above deck? flush

Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? Scuppers on each side.

Cargo Hatchways. How formed? of Iron

State size Main Hatch Forehatch 6-0 x 4-0 Quarterhatch 6-0 x 4-0

If of extraordinary size, state how framed and secured?

What arrangement for shifting beams?

Hatches, If strong and efficient? Yes.

Order for Special Survey No. 109	1st. On the several parts of the frame, when in place, and before the plating was wrought	Built under special survey.
Date 20 Sep 1875	2nd. On the plating during the process of riveting	1875 Aug 25. 31. Sep 7. 15. 20. 28. Oct 4. 12. 19.
Order for Ordinary Survey No. —	3rd. When the beams were in and fastened, and before the decks were laid...	21. Nov. 1875. 15. 19. 26. Dec. 3. 7. 14. 20. 29. 1876
Date —	4th. When the ship was complete, and before the plating was finally coated or cemented..	Jan 11. 18. 24. 26. Feb 2. 9. 10. 17. 24. March 1. 9.
No. 110 in builder's yard.	5th. After the ship was launched and equipped	13. 15. 17. 23. 30.

General Remarks (State quality of workmanship, &c.) This vessel has been built in accordance with the appended approved midship section, and the Committee's letter of 3rd Aug 1875. the workmanship is very good, and she is in our opinion eligible for the class recommended. You will observe that the Chains are shorter, but thicker than req'd by the Rules, the lower anchors are heavier, but neither a stream nor kedge anchor have been supplied, under these circumstances the Fig 1 is left for the consideration of the Committee, observing that she is to be classed for Inf purposes only.

State if one, two, or three, decked vessel, or if spar, or awning decked; and the lengths of poop, forecabin, or raised quarter deck, and the length of double, or part double bottom.

How are the surfaces preserved from oxidation? Inside Cement & paint. Outside red lead & paint

I am of opinion this Vessel should be Classed A for Inf purposes

The amount of the Entry Fee ... £ 3 : - : - is received by me,

Special ... £ 13 : 4 : - 1876

Certificate ... - : - : -

(Travelling Expenses, if any, £ - - -)

Committee's Minute

Character assigned

18 April 1876

A for Inf purposes
J. Moverly
1876/76