

IRON SHIP.

No. 529 Survey held at Dunbarton Date, First Survey 14th May Last Survey 21st Dec 1877

On the Ship 'Maraval' Master R Ramsay

TONNAGE under Tonnage Deck 1176.90 ONE, OR TWO DECKED, ~~THREE DECKED~~ VESSEL.

~~Ditto of Third Spar or Awning Deck~~ HALF BREADTH (moulded) 14.00 Feet

~~Ditto of Poop, Raised Q. Deck~~ DEPTH from upper part of Keel to top of Upper Deck Beams 23.45

~~Ditto of Houses on Deck~~ GIRTH of Half Midship Frame (as per Rule) 35.45

~~Ditto of Forecastle~~ 1st NUMBER 27.09

~~Tonnage~~ 1st NUMBER, if ~~THREE DECKED VESSEL~~ 27.09

~~Deck Space~~ LENGTH 225 [deduct 7 feet]

~~Engine Room~~ 2nd NUMBER 17345

~~as out on beam~~ PROPORTIONS—Breadths to Length 6.29

Depths to Length—Upper Deck to Keel 9.59

Main Deck ditto

Built at Dunbarton

When built 1877 Launched 24th Sept

By whom built A. McMillan & Son

Owners W^m Kenneth

Port belonging to Glasgow

Destined Voyage Ind. Bombay

Surveyed while Building, Afloat, or in Dry Dock.

LENGTH deck as rule	Feet. <u>225</u>	Inches.	BREADTH—Moulded	Feet. <u>35.70</u>	Inches.	DEPTH top of Floors to Upper Deck Beams	Feet. <u>21.45</u>	Inches.	Power of Engines	Horse.	N ^o . of Decks with flat laid	<u>2</u>
											N ^o . of Tiers of Beams	<u>2</u>

ons of Ship per Register, length, 225.1 breadth, 36.15 depth, 21.15

	Inches in Ship			Inches per Rule		
	Inches	16ths	Inches	16ths	Inches	16ths
KEEL, depth and thickness	9	2 1/2	9	2 1/2	9	2 1/2
STEM, moulding and thickness	8 1/2	2 1/2	8 1/2	2 1/2	8 1/2	2 1/2
STERN-POST for Rudder do. do.	8 1/2	2 1/2	8 1/2	2 1/2	8 1/2	2 1/2
Distance of Frames from moulding edge to moulding edge, all fore and aft	23		24		24	
FRAMES, Angle Iron, for 1/2 length amidships	5	3	5	3	5	3
Do. for 1/4 at each end	5	3	5	3	5	3
REVERSED FRAMES, Angle Iron	3 1/2	3	3 1/2	3	3 1/2	3
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	24	9	24	9	24	9
thickness at the ends of vessel	12	7	12	7	12	7
depth at 1/4 the half-bdth. as per Rule	12	7	12	7	12	7
height extended at the Bilges	12	7	12	7	12	7
BEAMS, Upper, Spar, or Awning Deck	8 1/2	0	8 1/2	0	8 1/2	0
Single or double Ang. Iron, Plate or Tee Bulb Iron	8 1/2	0	8 1/2	0	8 1/2	0
Single or double Angle Iron on Upper edge	3	3	3	3	3	3
Average space	46		40		40	
BEAMS, Main, or Middle Deck	8 1/2	0	8 1/2	0	8 1/2	0
Single or double Ang. Iron, Plate or Tee Bulb Iron	8 1/2	0	8 1/2	0	8 1/2	0
Single or double Angle Iron, on Upper Edge	3	3	3	3	3	3
Average space	46		40		40	
BEAMS, Lower Deck, Hold, or Orlop	8 1/2	0	8 1/2	0	8 1/2	0
Single or double Ang. Iron, Plate or Tee Bulb Iron	8 1/2	0	8 1/2	0	8 1/2	0
Single or double Angle Iron on Upper Edge	3	3	3	3	3	3
Average space	46		40		40	
SONS Centre line, single or double plate, box, or Intercostal Plates	1 1/2	12	1 1/2	12	1 1/2	12
Rider Plate	1 1/2	12	1 1/2	12	1 1/2	12
Bulb Plate to Intercostal Keelson	5	4	5	4	5	4
Angle Irons	5	4	5	4	5	4
Double Angle Iron Side Keelson	5	4	5	4	5	4
Side Intercostal Plate	5	4	5	4	5	4
do. Angle Irons	5	4	5	4	5	4
Attached to outside plating with angle iron	3 1/2	3	3 1/2	3	3 1/2	3
EDGE Angle Irons	5	4	5	4	5	4
do. Bulb Iron	5	4	5	4	5	4
do. Intercostal plates riveted to plating for length	5	4	5	4	5	4
BILGE STRINGER Angle Irons	5	4	5	4	5	4
Intercostal plates riveted to plating for length	5	4	5	4	5	4
SIDE STRINGER Angle Irons	5	4	5	4	5	4

	Inches. In Ship.	16ths. In Ship.	Inches. per Rule	16ths. per Rule
Flat Keel Plates, breadth and thickness	36	11	36	11
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges	36	11	36	11
of doubling at Bilge, or increased thickness, and length applied	11	38	11	38
fm up. part of Bilge to lr. edge of Sh'rstrake	10		10	
Main Sheerstrake, breadth and thickness	42	12	42	12
of doubling at Sh'rstrake, & length applied from Ma. to Up. or Spar Dk. Sh'rstrake	42	12	42	12
Up. or Spar Dk. Sh'rstrake, breadth & thickness	16 1/2	9 1/2	16 1/2	9 1/2
Butt Straps to outside plating, breadth & thickness	16 1/2	9 1/2	16 1/2	9 1/2
Lengths of Plating	6	frames		
Shifts of Plating, and Stringers	2	frames		
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	44	10	44	10
Angle Iron on ditto	5	4	5	4
Tie Plates fore and aft, outside Hatchways	13	10	13	10
Diagonal Tie Plates on Beams No. of Pairs, 2	13	10	13	10
Planksheer material and scantling				
Waterways do. do.				
Flat of Upper Deck do. do.	4		4	
How fastened to Beams				
Stringer Plate on ends of Main or Middle Deck				
Beam 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				
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	32	9	32	9
Is the Stringer Plate attached to the outside plating?	Yes			
Angle Irons on ditto, No.	4	4	4	4
Stringer or Tie Plates, outside Hatchways	13	9	13	9
Flat of Lower Deck	3		3	
Ceiling betwixt Decks, thickness and material	2 1/2	PP	2 1/2	
in hold do. do.				
Main piece of Rudder, diameter at head	6		6	
do. at heel	3		3	
Can the Rudder be unshipped afloat?	Yes			
Bulkheads No. 1 Thickness of				7.6
Height up				Upper deck
How secured to sides of ship				Double frame
Size of Vertical Angle Irons	3 1/2	3	3 1/2	3
and distance apart				30 ins.
Are the outside Plates doubled two spaces of Frames in length?	Yes			

Transoms, material. Knight-heads. Hawse Timbers. Wood checks

Windlass Iron Patent Pall Bitt

The FRAMES extend in one length from Keel to Gunwale Riveted through plates with 70 1/2 in. Rivets, about 3 1/2 apart.

The REVERSED ANGLE IRONS on floors and frames extend from middle line to upper deck fore and aft 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 1/2 in. diameter, averaging 3 1/2 ins. from centre to centre.

Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 70 3/4 in. diameter, averaging 3 1/2 ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 70 3/4 in. diameter averaging 3 1/2 ins. from centre to centre.

Butts of Three Strakes at Bilge for half length, treble riveted with Butt Straps 7/16 thicker than the plates they connect.

Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 70 3/4 in. diameter, averaging 3 1/2 ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 70 3/4 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 half leng amidships. Butts of Upper or Spar Sheerstrake, treble riveted length amidships.

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

Breadth of laps of plating in double riveting 5 1/2 Breadth of laps of plating in single riveting

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Part treble Herest double

Waterway, how secured to Beams Butt straps (Explain by Sketch, if necessary.)

Beams of the various Decks, how secured to the sides? Faced bracket knees No. of Breasthooks, two Crutches, four

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

Manufacturer's name or trade mark, Cast Steel Cyderdale

The above is a correct description.

Builder's Signature, A. McMillan Son Surveyor's Signature, A. McMillan

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



WORKMANSHIP. Are the butts of plating planed or otherwise? *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? *They do*
 Are the fillings between the ribs and plates solid single pieces? *They are*
 Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? *They do*
 Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? *They are*
 Do any rivets break into or through the seams or butts of the plating? *Very few*

19500 Dra

Masts, Bowsprit, Yards, &c., are *now* 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 Main lower yards 79' x 19" 655 lbs. 2 plates in section butts
Fore Mast 31' x 29" 30 plates in section butts
Main Mast 31' x 29" Butts lapped and treble riveted. Iron in lower yard 65' x 15" 545 lbs. lapped and treble riveted
Mizen 46' x 27" edges double riveted
Bowsprit 13. 22' 9" x 20" 3 angle irons in each for Brand of iron Clydesdale, tested as per rule
white bench 4 x 3 x 7 1/2

No.	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS.		Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.		
								No.	Weight. Ex. Stock.					
2	Fore Sails,	Chain	270	5'	82 1/2	590	1 1/2	82 1/2	1645	32.3	20	30 16-2-7	33	30 1/2
	Fore Top Sails,													
Note	Fore Topmast Stay Sails	Hmpn Strm Cbl	90	1 1/2	90	10	10	13.2.7	1597	29.2.23	20.0.3.0	27.1	13	30 1/2
	Main Sails,													
and	Main Top Sails,	Warp	6.5	1 1/2	4 1/2	4 1/2	4 1/2	6.2.14	Stream	6.2.14	6.2.14	6 1/2	6 1/2	6 1/2
	and													

Standing and Running Rigging *Wire & Blocks* sufficient in size and *good* in quality. She has *4* Long Boats and The Windlass is *Iron Patent* Capstans *3* and Rudder *Good* Puraps *Good* 7" Copper chamber

Engine Room Skylights. How constructed? *How secured in ordinary 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? *4 Scuppers. 4 Ports and 2 Drains.*

Cargo Hatchways.—How formed? *Iron Cornings*

State size Main Hatch *15' 4" x 11' 6"* Forehatch *7' 6" x 6'* Quarter hatch *7' 6" x 6'*

If of extraordinary size, state how framed and secured? *Shifting beams of hull and angle irons in main hatch*

What arrangement for shifting beams?

Hatches, If strong and efficient? *Steel hatches*

Order for Special Survey No.	Date	1st.	2nd.	3rd.	4th.	5th.
1288	April 1877	On the several parts of the frame, when in place, and before the plating was wrought	On the plating during the process of riveting	When the beams were in and fastened, and before the decks were laid...	When the ship was complete, and before the plating was finally coated or cemented..	After the ship was launched and equipped
		May 14. 17. 25. 31. June 5. 8. 12. 14. 22. 28	July 5. 9. 23. 26. 30. Aug 2. 6. 13. 16. 20. 23. 29	Sept 3. 6. 17. 20. 28. Oct 4. 8. 11. 15. 18. 21		

General Remarks (State quality of workmanship, &c.) *The Workmanship is good. She is built in accordance with the accompanying approved Section and Secretarial Letter of 5th April 1877 but as the owner did not approve of the revised plan being reduced, as suggested by the builders they are retained of the full size required for the ordinary spacing.*

State if one, two, or three, decked vessel, or if open, on running deck, and the lengths of poop, forecastle, or raised quarter deck, and the length of double, or part double bottom.

How are the surfaces preserved from oxidation? Inside *Cement and Paint* Outside *Paint*

I am of opinion this Vessel should be Classed **100 A*

The amount of the Entry Fee ... £ 5 : : : is received by me, *£ 22 1/2*

Special ... £ 56 : 9 : 6 October 1877

Committee's Minute 20th October, 1877.

Character assigned *100 A*

