

IRON SHIP.

No. 529 Survey held at Dunbarton Date, First Survey 14th May Last Survey 24th Decr 1877
 On the Ship 'Maraval' Master R Ramsay
 Tonnage under Tonnage Deck 1175.98 ONE, OR TWO DECKED, ~~THREE DECKED~~ VESSEL.
 Ditto of Third Space or Awning Deck SPAR, OR AWNING-DECKED VESSEL.
 Ditto of Poop, 10.35 HALF BREADTH (moulded) 17.00
 Ditto of Houses 10.94 DEPTH from upper part of Keel to top of Upper Deck Beams 23.45
 Ditto of Forecastle 33.77 GIRTH of Half Midship Frame (as per Rule) 35.45
 Tonnage 1309.54 1st NUMBER 44.09
 Gross Space 11.63.49.05 1st NUMBER, if ~~THREE DECKED VESSEL~~
 Engine Room 1257.41 LENGTH 225
 2nd NUMBER 17345
 PROPORTIONS—Breadths to Length 6.29
 Depths to Length—Upper Deck to Keel 9.59
 Main Deck ditto 9.59
 Built at Dunbarton
 When built 1877 Launched 24th Sept
 By whom built AM Millan & Son
 Owners W^m Kenneth
 Port belonging to Glasgow
 Destined Voyage Dumbarton
 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.	N ^o . of Decks with flat laid	N ^o . of Tiers of Beams
deck as	225		Moulded...	35	70	Deck Beams	21	45	Engines...		2	2
ons of Ship per Register, length,	225		breadth,	36	15	depth,	21	15				
KEEL, depth and thickness		Inches in Ship.			Inches per Rule.							
STEM, moulding and thickness		9 x 2 1/2			9 x 2 1/2							
STERN-POST for Rudder do. do.		8 1/2 x 2 1/2			8 1/2 x 2 1/2							
for Propeller		8 1/2 x 2 1/2			8 1/2 x 2 1/2							
Distance of Frames from moulding edge to		23			24							
moulding edge, all fore and aft					(Class 100A)							
FRAMES, Angle Iron, for 1/2 length amidships		5-3			5-3							
Do. for 1/2 at each end		5-3			5-3							
REVERSED FRAMES, Angle Iron		3 1/2-3			3 1/2-3							
FLOORS, depth and thickness of Floor Plate		24			24							
at mid line for half length amidships		9			9							
thickness at the ends of vessel		7			7							
depth at 1/2 the half-bdth. as per Rule		12			12							
height extended at the Bilges		12			12							
BEAMS, Upper, Spar, or Awning Deck		46			40							
Single or double Angle Iron, Plate or Tee Bulb Iron		3-3			3-3							
Single or double Angle Iron on Upper edge		46			40							
Average space												
BEAMS, Main, or Middle Deck		46			40							
Single or double Angle Iron, Plate or Tee Bulb Iron		3-3			3-3							
Single or double Angle Iron on Upper Edge		46			40							
Average space												
BEAMS, Lower Deck, Hold, or Orlop		46			40							
Single or double Angle Iron, Plate or Tee Bulb Iron		3-3			3-3							
Single or double Angle Iron on Upper Edge		46			40							
Average space												
SONS Centre line, single or double plate,		14 1/2			14 1/2							
box, or Intercoastal Plates		11 1/2			11 1/2							
Rider Plate		11 1/2			11 1/2							
Bulb Plate to Intercoastal Keelson		5-4			5-4							
Angle Irons		5-4			5-4							
Double Angle Iron Side Keelson		5-4			5-4							
Side Intercoastal Plate		5-4			5-4							
do. Angle Irons		5-4			5-4							
Attached to outside plating with angle iron		5-4			5-4							
ILGE Angle Irons		5-4			5-4							
do. Bulb Iron		5-4			5-4							
do. Intercoastal plates riveted to		5-4			5-4							
plating for length		5-4			5-4							
BILGE STRINGER Angle Irons		5-4			5-4							
Intercoastal plates riveted to plating for		5-4			5-4							
length		5-4			5-4							
SIDE STRINGER Angle Irons		5-4			5-4							
Transoms, material. Knight-heads. Hawse Timbers.		Wood checks										
Windlass		Iron Patent										
Pall Bitt												

The FRAMES extend in one length from Keel to Gunnwale Riveted through plates with 7/8 in. Rivets, about 5 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 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 5 1/4 ins. from centre to centre.
 Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 5 1/4 ins. from centre to centre.
 Butts of Three Strakes at Bilge for half length, treble riveted with Butt Straps 7/8 thicker than the plates they connect.
 Edges from bilge to Main Sheerstrake, worked clench, double single riveted; with rivets 7/8 in. diameter, averaging 5 1/4 ins. from cr. to cr.
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 in. diameter, averaging 5 1/4 ins. from cr. to cr.
 Edges of Main Sheerstrake, double single riveted. Upper Sheerstrake, double or single riveted.
 Butts of Main Sheerstrake, treble riveted for half length amidships. Butts of Upper or Spar Sheerstrake, treble riveted length amidships.
 Butts of Main Stringer Plate, treble riveted for half 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 5 1/2
 Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Don't treble Herest double
 Waterway, how secured to Beams Butter waterway (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, AM Millan & Son Surveyor's Signature, W. J. Millan
 IRON 474-0304 Surveyor to Lloyd's Register of British and Foreign Shipping.

workman. 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' 6 1/2" thick 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 inner iron yard 65' x 15' 5 1/2" 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 brush 4 x 3 x 7 1/2

NUMBER for EQUIPMENT		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.	W'ght req'd per Rule.	Test req'd per Rule.
N ^o .	SAILS.	CABLES, &c.										
2	Fore Sails,	Chain	270.5'	1 1/2"	82 1/2" 590	2 1/2" 1 1/2" 82 1/2" 590	Bowers	1645	32.3.20	30 16.2.7	33	30 16.2.7
	Fore Top Sails,											
	Fore Topmast Stay Sails	Hmpn Strm Cbl	90	1 1/2"	90. 1 1/2"	90. 1 1/2"						
	Main Sails,	Hawser ...		9 1/2"	10	10						
	Main Top Sails,	Towlines ...		6. 5. 1 1/2"	6	6						
	and	Warp ...		3 1/2" steel.			Stream		6.2.14		6 1/2	
		quality					Kedges		3.1.14		3 1/2	

Standing and Running Rigging *Wire & Hemp* sufficient in size and *good* in quality. She has *4* Long Boats and
The Windlass is *Iron Patent* Capstans *3* and Rudder *Good* Pumps *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 Drawings*

Cargo Hatchways.—How formed? *Iron Cornings*

State size Main Hatch *15' 4" x 11' 6"* Fore hatch *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? *Had hatches*

Order for Special Survey No. <i>1288</i>	1st. On the several parts of the frame, when in place, and before the plating was wrought	<i>May 14. 17. 25. 31. June 5. 12. 14. 22. 28</i>
Date <i>April 1/77</i>	2nd. On the plating during the process of riveting	<i>July 5. 9. 23. 26. 30. Aug 2. 13. 16. 20. 23. 29</i>
Order for Ordinary Survey No. <i>205</i>	3rd. When the beams were in and fastened, and before the decks were laid...	<i>Sept 3. 17. 24. 30. Oct 4. 11. 15. 18. 24</i>
Date <i>April 1/77</i>	4th. When the ship was complete, and before the plating was finally coated or cemented..	
No. <i>205</i> in builder's yard.	5th. After the ship was launched and equipped	

General Remarks (State quality of workmanship, &c.) *The Workmanship is good. She is built accordance with the accompanying approved section and section letter of 5th April 1877 but as the owner did not approve of the revised 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, fore-castle, 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, *22/7*

Special ... £ 56 : 9 : 6 *October 1877*

Certificate ... *Limit:*

(Trading Expenses, if any, £ 7 : 7 : 4)

Committee's Minute 26th October, 1877.

Character assigned *100A*

