






















































































































Rec'd 12/12/90
vey 13 Dec 18

On the Screw Steamer "VIRGO" Master

<p>                          </p>	<p>                          </p>	<p>                          </p>	<p>                          </p>	<p>                  </p>
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Length on deck as per Rule,	Feet. 249	Inches.	Moulded Breadth,	Feet. 30	Inches. 1	Depths from top of Floors to Upper and Main Deck Beams, as per Rule	Feet. 16	Inches. 10	Power of Engines,	Horse. 260	N ^o . of Decks, <i>Two</i>	N ^o . of Tiers of Beams <i>Two</i>
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Dimensions of Ship per Register, length, 250 breadth, 30.2 depth, 16.65				Inches required per Rule.			
				Inches required per Rule.	Inches required per Rule.	Inches required per Rule.	Inches required per Rule.
				Inches required per Rule.	Inches required per Rule.	Inches required per Rule.	Inches required per Rule.
Keel, if bar iron, depth and thickness	5 lengths.	Inches in Ship.	7 1/2" x 3"	9 x 2 1/2			
Do. if centre through plate, depth and thickness							
Stem, if bar iron, moulding and thickness			7 1/2 x 3"	8 x 2 1/2			
Stern-post do. do. do.			vide sketch	8 x 5			
Distance of Frames from moulding edge to moulding edge, all fore and aft			23"	(Class 190 A)			
Frames, size of Angle Iron, for 2/3 length amidships		Inches. In ship.	4"	3"	7/16	4	3
Do. for 1/2 at each end			4	3	3/8	4	3
Reversed Frames, size of Angle Iron			3"	3"	7/16	3	3
Floors, depth and thickness of Floor Plate at mid line for half the length amidships			19 1/2	12"	7/16	19 1/2	12
Do. at the ends			8 1/2	7/16	7/16	11	11
Do. do. do. at Bilge Keelson				7/16	7/16	11	11
Do. height extended at the Bilges	2 x mid depths			11/2		11/2	
Beams, Three Decked, Spar, or Awning Decked (No.) single or double Angle Iron, Plate or Tee Bulb Iron			7 1/2	7/16	7 1/2	7/16	7/16
Single or double Angle Iron on Upper edge			3 x 2 1/2	3/8	3	2 1/2	3/8
Average space			2 1/2	2 1/2	7/16		
Beams, Upper or Middle Deck (No. 46) single, or double Angle Iron, Plate or Tee Bulb Iron			3 x 10	7/16	3.10	7 1/2	7/16
Single or double Angle Iron, on Upper Edge			7 1/2	7/16	7 1/2	7/16	7/16
Average space			3	2 1/2	3/8	3	2 1/2
Beams, Lower Deck or Orlop (No. 31 x) single, or double Angle Iron, Plate or Tee Bulb Iron			7 1/2	7/16	7 1/2	7/16	7/16
Single or double Angle Iron on Upper Edge			3	2 1/2	3/8	3	2 1/2
Average space			3.10	7.8	3.10	7.8	7.8
Keelson Centre line, single or double plate, box, or Intercoastal, size of Plates			24 1/2	9/16	24	-	9/16
Do. Bulb Plate to Intercoastal Keelson			5 1/2	6 bar	12	7 1/2	7/16
Do. Size of Angle Irons			5	3 1/2	9/16	5	3 1/2
Do. Side Intercoastal Keelson, size of Plates			5	3 1/2	9/16	5	3 1/2
Do. Angle Irons on tops of Floors			5	3 1/2	9/16	5	3 1/2
Do. Bilge Keelson, Bulb Iron			7 1/2	6 bar	12	7 1/2	7/16
Do. do. Angle Irons			5	3 1/2	9/16	5	3 1/2
Do. Side Stringers (No. One) size of Angle Irons			5	3 1/2	9/16	5	3 1/2
Plates in Garboard Strakes, breadth and thickness			30"	11/16	30	11/16	11/16
Do. from Garboard to upper part of Bilges			5/8	5/8	5/8	5/8	5/8
Do. of doubling at Bilge, or increased thickness, and length applied	2 strake.		3/4	3/4	3/4	3/4	3/4
Do. from upper part of Bilge to lower edge of Sheerstrake			9/16	9/16	9/16	9/16	9/16
Do. Main Sheerstrake, breadth and thickness			30 1/2	3/4	30	3/4	3/4
Do. of d'bling at Sh'rstrake, & length applied			18 1/2	9/16	30	3/4	3/4
Do. from Main to Upper Deck Sheerstrake				9/16	30	3/4	3/4
Do. Up Deck Sh'rstrake, breadth and thickness				9/16	30	3/4	3/4
Butt Straps to outside plating, breadth & thickness			9 x 1/4	14 1/2	9 1/2	14 1/2	14 1/2
Lengths of Plating			9 x 1/4	14 1/2	9 1/2	14 1/2	14 1/2
Shifts of Plating, and Stringers	2 frame spaces		25 frame spaces				
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness							
Angle Iron on ditto							
Tie Plates (fore and aft), outside Hatchways							
Diagonal Tie Plates on Beams (No. of Pairs,)							
Planksheer material and scantling							
Waterways do. do.							
Flat of Deck do. do.							
How fastened to Beams							
Stringer Plate on ends of Main or Middle Deck							
Beams, breadth and thickness			4 1/2"	11/16	4 1/2 x 11/16	4 1/2 x 11/16	4 1/2 x 11/16
(Is the Stringer Plate attached to the outside plating?)			yes				
Angle Irons on ditto (No. One)	</						

Transoms, material plate iron or, if none, in what manner compensated for.

Knight-heads none Hawse Timbers none

Windlass Harbely Patent Pall Bitt Do. Size of Vertical Angle Irons, $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{4}$ and their distance apart, 30"

The Frames extend in one length from Center line to Main deck. Do. Are the outside Plates doubled two spaces of Frames in length? yes

The Reverse Angle Irons on the floors extend across the middle line

On all the Frames and to Mandick Strang on alternate frames above that except 29. The 33. which are

Keelsons. Are the various lengths of Plates and Angle Irons properly connected? well connected And are their butts properly shifted? well shifted

Plates, Garboard, double ~~on~~ *Keel* Riveted to Keel, double ~~on~~ *Chain* at upper edge, with Rivets ($\frac{3}{4}$ " in.) diameter, averaging ($\frac{3}{4}$ ins.) from centre to centre.

Do. Butts from Keel to turn of Bilge, worked carvel with butt straps to $\frac{7}{8}$ " thick, double riveted, with Rivets ($\frac{3}{4}$ in.) diameter, averaging ($3\frac{1}{4}$ ins.) from centre to centre.

diameter averaging ($3\frac{3}{8}$ ins.) from centre to centre. Do the Butt Straps lay over and Rivet through the ends of the strakes along 1, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832

Do. Edges from bilge to sheerstrake, worked ~~carvel~~ ^{chain} with a lining piece () thick, or clencher, double ^{or single} riveted: with rivets ($\frac{3}{4}$) in diameter ^{strokes}

averaging ($3\frac{1}{4}$ ins.) from centre to centre.

Do. Edges of Sheerstrake, double or single Riveted. At upper edge Single to Bulwarks &c At lower edge double Chain

from centre to centre. Breadth of lams in double Riveting ($\frac{1}{2}$ in.) ~~thick, double or single Riveted;~~ with Rivets ($\frac{3}{4}$ in.) diameter, averaging ($\frac{3}{8}$ ins.)

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? *double with 4 rivets*

Planksheer, how secured to the plating of the sides, (Explain by Sketch,) screw bolted bolt & nuts to beams

Waterway " " planksheer and to the Beams, if necessary. and plain bolts horizontally

Beams of the various Decks, how secured to the sides? Bracketed, riveted same as No. of Breasthooks, 5 Crutches, 8

Manufacturer's name or trade mark *Rich & Co. New York*

W. certify that the above is a true and correct copy of the original as the same appears in the records of the Court.

We certify that the above is a correct description of the several particulars therein given.

Builder's Signature: *James H. [illegible]*

For the Head of the [illegible] [illegible]

Witness & Signature, John W. Alexander Surveyor's Signature, John W. Alexander

Workmanship. Are the butts of plating planed or otherwise fitted? planed 8539 Iron
Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies? lay close
Do the fillings between the ribs and plates fill in solid with single pieces? or are they in short lengths of various thicknesses? solid pieces
Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? Conform fairly and are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? well countersunk & punched in rule
Are there any rivets which either break into or have been put through the seams or butts of the plating? in a few cases at Butts

Her Masts, Bowsprit, Yards, &c., are in _____ condition, and sufficient in size and length. If they are of Iron or Steel give the 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 Lx 70 ft by 18" dia 13 1/2" at top in 2 Segs 3/8" x 5/16" platy double rivetted laps & double triple riv Butts
Main Mast Lx 64 1/2 ft by 17" dia 10" at top in 2 Segs 3/8" x 5/16" platy double rivetted laps & double triple riv Butts

N ^o	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	N ^o .	Weight. Ex. Stock.	Test as per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
1	Fore Sails,	Chain	240	1 1/2" Stud	40.10.0.0	270	17 3/4 37.4.0.0	Bowers	3	18. 6. 18	19. 8. 3. 0	18. 0. 0	19. 0. 0. 0
	Fore Top Sails,	(State Machine where Tested, and name of Superintendent).	Type Public Test R Russell					(State Machine where Tested, and name of Superintendent).		18. 2. 20	19. 13. 0. 14	18. 0. 0	19. 0. 0. 0
1	Fore Topmast Stay Sails	Hempen Stream Cable	90	1 1/2" 16		15 1/2" 90 fathoms each		Type - R Russell		4. 0. 0	21. 12. 2. 0	15. 1. 6	16. 14. 0. 0
1	Main Sails,	Hawser	90	10				Stream		4. 0. 0	21. 12. 2. 0		
1	Main Top Sails,	Towlines ...	80	1 1/2" 16				Stream with ...		4. 2. 0	22. 0. 0. 0		
	and other in all	Warp	80	1 1/2" 16				Kedges		8. 3. 4		8. 0. 0	
		All of 1st quality.	180	5 1/2"						4. 2. 8		4. 0. 0	

Her Standing and Running Rigging Hemp sufficient in size and _____ in quality. She has Four Long Boats and 2 x 24 ft & 2 x 22 ft dingy of 18 ft

The present state of the Windlass is Good 2 Capstans 1st Munch and Rudder Good Pumps 4 deck

Engine Room Skylights. How constructed? 21" plate combined with 10" wood How secured in ordinary weather? erected in top of Bridge House deck

What arrangements are there for deadlights in such for bad weather? at such height from Gunwales & tarpaulings

Coal Bunker Openings. How constructed? flush deck Castings How are lids secured? flush How high above deck? flush

Scuppers, &c. What arrangements are there beyond the scuppers on deck, for clearing upper deck of water, in case of a sea coming on board? flush under Bridge deck

Cargo Hatchways. How formed? 4 1/2" iron plate combined with Bulk Bulbs State size 11 ft 4" x 8 ft 3" 11 ft 4" by 7 ft 1"

If of extraordinary size, state how framed and secured? ordinary size

What arrangement for shifting beams? none

Hatches, themselves, whether strong and efficient? efficient Main Hatchways. State size as above

Order for Special Survey No. 258 DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought May & June
Date 30-3-90 Surveys held 2nd. On the plating during the progress of riveting July August & Sept
Order for Ordinary Survey No. _____ while building 3rd. When the beams were in and fastened, and before the decks were laid put up with framing
Date _____ as per 4th. When the ship was complete, and before the plating was finally coated or cemented October
No. 46 in builder's yard. Section 18. 5th. After the ship was launched and equipped 9 11 16 18 19 22 23 24 29 13 57 10 13 15

General Remarks, This vessel is round sterned with full poop rounded at corners & plated outside with 5/16 plates Beams 5 x 3 1/2 x 9 1/2 ft Waterways Red Pine 10 x 3 1/2 Decks GP 5 1/2 x 3 Has also a Bridge House deck same outline & poop enclosing Engine & Boiler runways Copter other Central range of deck houses
has full Top Gallant forecassle 5/16 plated, Beams 5 x 3 1/2 x 9 1/2 ft Stringer plate 2 1/2 x 7 1/2
Waterways = Teak 10 x 3 1/2 Decks GP 4 1/2 x 3
Length of Poop to aft ft Stern post = 74 1/2 ft Bridge deck ext = 69 ft 3 1/2 ft Fore deck 61 1/2 ft in center
Colling plates 12 x 1/2 have been applied in each Bilge for 11 1/2 ft in length secured to double Angle irons 4 x 4 x 1/2 rivetted thro skin plating
Builders submit mid section tracing & Secretaries reply 4/4/70 stipulates
plates to be made 12/16" for 3/5" also vertical A/E in floor for keelson to be carried
round to depth of floor as shown in section dotted
2/4/70 Builders submit plan of Rudder desired Secretaries reply 8/4/70 proposal
disapproved except as regards the band above water on the principle proposed
28/4/70 Builders apply to be allowed to dispense with one out of the three strakes of
Bilge plates required to have Butt straps table rivetted & 1/16 thick than plates & Secretaries
reply 4/5/70 affirms the rule as stipulated
28/5/70 Builders submit a plan showing Compensation for L.D. Stinger in
way of Coal Bunkers & 1st Space & Secretaries reply 28/5/70 "Committee will not
object to proposal provided it be carried out satisfactorily

In what manner are the surfaces preserved from oxidation? Inside 3 Coats Red Lead & other Colors Outside 4 Coats Red Lead & other Colors
Bottom Cemented out to mid Bilge & 1/2" Black Varnish

I am of opinion this Vessel should be Classed 100 A

The amount of the Entry Fee £ 5 : - : - is received by me,

Travelling Expenses Special 95 3/4 £ 47 : 19 : -

(if any). Certificate £ 52 : 19 : -

Committee's Minute 20th Decr 1890

Character assigned 100 A

This vessel has been built under Special Survey in accordance with the Rules, and is hereby declared fit for service as recommended above.

Thomas Alexander