S. S. No. 412

Copy of M.S. as Built

Midship Section

Dims. 345'-0" x 49'-9" Ex. x 49'-7" Mld. x 28'-5" Mld. to Spar Deck.

To Class 100 A.1. ✠ at Lloyd's Spar Deck Rule.

Scale 1/2" = one Foot.

LLOYD'S REGISTER OF SHIPPING
SURVEYORS OFFICE
-2 MAR. 93
GREENOCK.

RUSSELL & CO.
SHIPBUILDERS
PORT GLASGOW
19 MAR 1895
14/10/97

Received 21/3/95

Bridge 72'-0"

12" Camber.

Tie Plate 12" x 7/20"

Deck 5" x 3" P.P.

Stringer 40" x 9/20"
Butts Lapped & D.R.

8" x 3" x 7/20" B.A. 4'-0" Apart.

3½" x 3½" x 7/20"
3" Solid Cope.

7/20" at Poop, Bridge & H'Le.
Butts Lapped & D.R.

3" Hollow Cope
Solid in way of Erections.

9/20" Bulwark
7/20" at Poop, Bridge & H'Le.

Pillars 2¾"

Forecastle 36'-0"

Beams 8½" x 3" x 13/20" B.A. 4'-0" apart.
Stringer 30" x 7/20". Tie 12" x 7/20"
" Angle 3" x 3" x 7/20"
Deck 5" x 3" Pitch Pine

Poop 20'-0"

Beams 7" x 3" x 9/20" B.A. 2'-0" apart.
Stringer 30" x 7/20"
" Angle 3" x 3" x 7/20"
Deck 5/20" Steel

Stringer 54" x 9/20" for ½ ℄
41" x 9/20" at ends. Butts Double Strapped.
for ½ ℄ Butts Lapped & D.R. at ends.
increased 2/20" for 3/5ths ℄.

Iron deck 7/16" for ½ ℄ 9/16" at ends.
Butts D.R. for ½ ℄. I.R. at ends. Lapped.

3½" x 3½" x 7/20"

12" Camber.

Bulb 9½" x 9/20" Angles 3½" x 3½" x 7/20"

Short Beams in way of Cargo & E. & B. Hatches 8" x 3" x 7/20" B.A.

Beams at ends of Hatchways 11½" x 10/20" Bulb. Single Angle 5½" x 3½" x 9/20"

4" x 4" x 9-8/20"
41" x 7/20" for ½ ℄ 7/20" at Ends.
Increased 4/20" for 3/4ths ℄.
Doubled at ends of Bridge.
Butts Straps Double & 3.R. fore & aft.
6" Lap.

Equipment Numeral

½ Beam	24·79	
½ Girth to Spar Dk.	50·64	
Depth	29·42	
	104·85	
	343	
	35963·55	
Erections	1622·85	
	37586·40	

Numerals.

½ Beam	22·79	
½ Girth	42·68	
Depth	21·46	
	88·93	= 1st No.
	343	
	30502·99	= 2nd No.

Proportions.

Beam to Length.	6·91
Depth " " to Spar Deck	11·65
" " " " Main "	13·98

6 extra Rev. Frames carried to Spar Dk. in way of Bridge and all in 28 ℄ Hatchways.

Alt. Rev. Frames.

57" x 7/20" fore & aft.
Butts Lapped & D.R.
Increased 2/20" for ½ ℄
N.

5¼" Lap.

Pillars 2¾"

2nd. Pillars 2¾" for 3/4ths ℄

Steel Deck 7/20" for ½ ℄ 6/20" at ends.
Butts Lapped & D.R. for ½ ℄. I.R. at ends.

54" x 10/20" for ½ ℄. 41" x 8/20" at ends.
Butts Lapped & D.R. fore & aft.

4" x 4" x 9-8/20"
46" x 13/20" for ½ ℄ 9/20" at ends.
Butts Lapped & D.R.
M.

5¼" Lap.

12" Camber.

Equipment.

1 Bower anchor		40 Cwts. Ex. Stock.	
1 " "		38 " " "	
1 " "		36 " " "	
1 Stream "		12 " " "	
1 Kedge "		6 " " "	
270 Fms.	2¾" Stud Chain Cable	513-2-14	
90 "	13/16" Stream Chain	65-0-16	if Stud link or 1½" Wire.
120 "	13" Towline or 4½" Steel Wire.		
90 "	10" " " 3¼" " "		
90 "	9" " " 3" " "		

9" x 3" x 13/20" B.A. 2'-0" Apart 11/20" Where less than 3/4ths ℄ Beam.

Tee 6" x 4" x 11/20"

Tee 6" x 4" x 11/20"

Beams at ends of Hatchways 12" x 10/20" Single Angle 5½" x 3½" x 9/20"

Alt. Rev. Frames Iron Keels 1/16th Thicker

54" x 13/20" for ½ ℄ 9/20" at ends.
Butts Lapped & D.R.
L.

5¼" Lap.

Plate 12" x 10-9/20
Angles 6½" x 4½" x 11-10/20
Angle 6½" x 4½" x 12-11/20

22"

7" x 3½" x 9-8/20"
46" x 13/20" for ½ ℄ 9/20" at ends.
Butts Lapped & D.R.
K.

5¼" Lap.

Plate 18" x 10-9/20
Angles 6½" x 4½" x 11-10/20
Angle 6½" x 4½" x 12-11/20

22"

Alt. Frames, Engine Room only.

54" x 13/20" for ½ ℄. 9/20" at ends.
Butts Lapped & D.R.
J.

7" x 3½" x 9-8/20"

5¼" Lap.

44" x 13/20" for ½ ℄. 9/20" at ends.
Butts Lapped & D.R.
H.

5¼" Lap.

Plate Keel 36" x 17/20" for 3/5ths ℄ 13/20" at ends. Stem 11" x 2¾". Sternpost 11" x 6½"
Propellor Post connected to Deck Plating Rudder 9" at Head. 4½" at Pintles. 7" x 4½" at Keel if com. Rudder.
Frames 5" x 3½" x 9/20" for 3/5ths ℄. 7/20" at ends. 5½" x 3½" x 9/20" in Peaks. 24" Apart.
Reverse Frames 6½" x 3½" x 8/20" for 3/5ths ℄ 7/20" at ends, to Spar & Main Decks Alternately
All to Spar Dk. abaft after peak bulkhead. Alty. to Forecastle 4" x 3½" x 9/20" in peaks
Double in E. & B. Space from margin plate to margin plate.
Bulkheads, lower half 7/20" upper half 6/20". Stiffs 3½" x 3½" x 9/20", 30" apart Vertically.
and Bracketed to Tank top. 4" x 3½" x 9/20" between main & Spar Decks.
Horizontal Stiffs. 8½" x 3" x 13/20" B.A. Where over 40'-0" Broad & to collision Bulkhead
Funnel 7/20". Stiffs. 4" x 3½" x 9/20", 4'-0" apart. 3'-0" below hatches. 9/20" plating at do.
After Roods of plating to be same thickness as ℄.
Boss plates & plates above & below same, 2/20" thicker than ℄.
All butts of shell to have 3 complete rows of rivets.
Rivets in shell & stringer butts 3½ Diars. Cr. to Cr.
Rivets in frames & Rev. Do. & Frames & shell plating 7 Diars.
Rivets in Stem & Sternpost 1⅛" Spaced 5⅝" Cr. to Cr.
Rivets in Butts & Edges of inner bottom plating 4 Diars. Cr. to Cr.

Reverse frames 6½" x 3½" x 8-7/20"
3"
Frames 6" x 3½" x 8-7/20"
8½"

Pillars 4"

2nd. Pillars 4" for 3/4ths ℄.

1/16 for ½ ℄ 9/20" at ends.
11/20" in Boiler room
Butts 2.R. fore & aft.
4½" Lap.

11/20" in Engine Space
9/20" " Boiler "
8-7/20" " Holds.
Butts 2.R. fore & aft.
4½" Lap.

11/20" in Engine Space
9/20" " Boiler "
8-7/20" " Holds.
Butts 2.R.
4½" Lap.

2½" Lap.

9/20" in Engine Space.
9/20" " Boiler "
8-7/20" " Holds.
Butts 2.R.
2½" Lap.

9/20" in Engine Space.
9/20" " Boiler "
8-7/20" " Holds.
Butts 2.R.
2½" Lap.

Ceiling 2½"

4" x 4" x 9-8/20". 10/20" in Boiler Room

4½" x 11/20" for ½ ℄ 8/20" at ends.
11/20" in Boiler Room.
Butts Lapped & D.R.

6½" x 4½" x 9-8/20"

5" x 5" x 10/20" for ½ ℄ Single
11/20" in Boiler Room
2½" x 3½" x 8/20" at ends.
4 - 3½"

10 Rivets in each flange of 5" angles

Int. 3/20
9/20" in Boiler room
7'-11"

9/20" in part of Engine room only.

3½" x 3½" x 9/20"
9/20" in Boiler room

Floors 8/20" 9/20" in Boiler room

Int. 8/20"
9/20" in Boiler room

15'-1"

3½" x 3½" x 8-7/20"

3½" x 3½" x 9/20"
9/20" in Boiler room

Margin Plate 28" x 8/20
9/20" in boiler room
Butts Lapped & D.R.

Bracket 8/20"

Extra Iron 3½" x 3½" x 7/20"

Tee 6" x 4" x 9/20"
Bulb plate 9" x 9/20"

5¼" Lap.

54" x 13/20" for ½ ℄ 9/20" at ends.
Butts Lapped & D.R.
G.

7" x 3½" x 9-8/20"
46" x 13/20" for ½ ℄ 9/20" at ends.
Butts Lapped & D.R.
F.

36" x 17/20" for 3/5ths ℄ 13/20" ends.
Straps 3R. 7/20" thicker
for 3/4ths ℄ 2/20" at ends.
doubled for ½ ℄. 13-12/20

36" x 9/20" for ½ ℄
12/20" at ends.
Butts Lapped & D.R.
A.

46" x 9/20" for ½ ℄
9/20" at ends.
Butts Lapped & D.R.
B.

54" x 9/20" for ½ ℄
9/20" at ends.
Butts Lapped & D.R.
C.

46" x 13/20" for ½ ℄
9/20" at ends.
Butts Lapped & D.R.
D.

54" x 13/20" for ½ ℄.
9/20" at ends.
Butts Lapped & D.R.
E.

5¼" Lap.

5¼" Lap.

5¼" Lap.

5¼" Lap.

Plating in way of Double Bottom reduced 1/20 where 11/20 or over.

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Midship Section

Russell & Co No 412

SS "Boveric"

Greenock Report No 11941

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