CHANNELS

CARBUILDING AND SHIPBUILDING

PROPERTIES FOR DESIGNING

Nominal Size	Weight per Foot	Area of Section	Depth of Section	Width of Flange	Web Thickness	AXIS X-X I	AXIS X-X S	AXIS X-X r	AXIS Y-Y I	AXIS Y-Y S	AXIS Y-Y r
In.	Lb.	In.²	In.	In.	In.	In.⁴	In.³	In.	In.⁴	In.³	In.
‡15 x 4	75.0	22.06	15.00	4.491	1.116	584.0	77.9	5.14	25.9	7.6	[illegible]
	69.1	20.32	15.00	4.375	1.000	551.5	73.5	5.21	23.9	7.2	[illegible]
	65.9	19.38	15.00	4.312	.937	533.9	71.2	5.25	22.9	7.0	[illegible]
	62.8	18.47	15.00	4.251	.876	516.8	68.9	5.29	21.9	6.8	[illegible]
	59.6	17.53	15.00	4.188	.813	499.1	66.6	5.34	20.9	6.6	[illegible]
	56.4	16.59	15.00	4.126	.751	481.5	64.2	5.39	19.9	6.4	[illegible]
	53.2	15.65	15.00	4.063	.688	463.8	61.8	5.44	19.0	6.2	[illegible]
	50.0	14.71	15.00	4.000	.625	446.2	59.5	5.51	18.0	6.0	[illegible]
13 x 4	50.0	14.66	13.00	4.412	.787	312.9	48.1	4.62	16.7	4.9	[illegible]
	45.0	13.18	13.00	4.298	.673	292.0	44.9	4.71	15.3	4.6	[illegible]
	40.0	11.71	13.00	4.185	.560	271.4	41.7	4.82	13.9	4.3	[illegible]
	37.0	10.82	13.00	4.117	.492	258.9	39.8	4.89	13.0	4.2	[illegible]
	35.0	10.24	13.00	4.072	.447	250.7	38.6	4.95	12.5	4.0	[illegible]
	31.8	9.30	13.00	4.000	.375	237.5	36.5	5.05	11.6	3.9	[illegible]
12 x 4	50.0	14.64	12.00	4.135	.835	268.1	44.7	4.28	17.8	5.8	[illegible]
	48.6	14.22	12.00	4.100	.800	263.0	43.8	4.30	17.3	5.7	[illegible]
	46.6	13.62	12.00	4.050	.750	255.8	42.6	4.33	16.6	5.5	[illegible]
	44.5	13.02	12.00	4.000	.700	248.6	41.4	4.37	16.0	5.4	[illegible]
	40.0	11.70	12.00	3.890	.590	232.8	38.8	4.46	14.5	5.1	[illegible]
	35.0	10.23	12.00	3.767	.467	215.1	35.8	4.59	12.9	4.8	[illegible]
12 x 3½	41.1	12.00	12.00	3.700	.700	217.8	36.3	4.26	11.3	4.0	[illegible]
	37.0	10.80	12.00	3.600	.600	203.4	33.9	4.34	10.3	3.8	[illegible]
	32.9	9.60	12.00	3.500	.500	189.0	31.5	4.44	9.4	3.6	[illegible]
	30.9	9.00	12.00	3.450	.450	181.8	30.3	4.50	8.9	3.5	[illegible]
10 x 3½	35.1	10.23	10.00	3.700	.675	133.6	26.7	3.61	10.4	3.8	[illegible]
	31.7	9.23	10.00	3.600	.575	125.2	25.0	3.69	9.5	3.6	[illegible]
	28.3	8.23	10.00	3.500	.475	116.9	23.4	3.77	8.6	3.4	[illegible]
	26.6	7.73	10.00	3.450	.425	112.7	22.5	3.82	8.1	3.3	[illegible]
	24.9	7.23	10.00	3.400	.375	108.6	21.7	3.88	7.6	3.2	[illegible]
9 x 3½	31.6	9.21	9.00	3.700	.650	99.4	22.1	3.29	9.7	3.6	[illegible]
	28.5	8.31	9.00	3.600	.550	93.4	20.7	3.35	8.8	3.4	[illegible]
	25.4	7.41	9.00	3.500	.450	87.3	19.4	3.43	8.0	3.2	[illegible]
	23.9	6.96	9.00	3.450	.400	84.3	18.7	3.48	7.5	3.4	[illegible]
8 x 3½	28.2	8.23	8.00	3.700	.625	71.8	18.0	2.95	9.0	3.4	[illegible]
	25.5	7.43	8.00	3.600	.525	67.6	16.9	3.02	8.2	3.2	[illegible]
	22.8	6.63	8.00	3.500	.425	63.3	15.8	3.09	7.4	3.0	[illegible]
	21.4	6.23	8.00	3.450	.375	61.2	15.3	3.13	6.9	2.9	[illegible]

‡Rolled by The Phoenix Iron Co.
For complete list of Carbuilding and Shipbuilding Channels, see catalogs of the various mills.
See page 10 for method of designation.

CHANNELS

CARBUILDING AND SHIPBUILDING

DIMENSIONS FOR DETAILING

Flange Width	Flange Mean Thickness	Web Thickness	Web Half Thickness	Distance a	Distance T	Distance k	Distance g_1	Distance c	Grip	Max. Flange Rivet	Usual Gage g
In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
[illegible]	13/16	1 1/8	9/16	3 3/8	11 3/4	1 5/8	2 3/4	1 3/16	13/16	1	2 3/4
[illegible]	13/16	1	1/2	3 3/8	11 3/4	1 5/8	2 3/4	1 1/16	13/16	1	2 3/4
[illegible]	13/16	15/16	1/2	3 3/8	11 3/4	1 5/8	2 3/4	1	13/16	1	2 3/4
[illegible]	13/16	7/8	7/16	3 3/8	11 3/4	1 5/8	2 3/4	15/16	13/16	1	2 3/4
[illegible]	13/16	13/16	7/16	3 3/8	11 3/4	1 5/8	2 3/4	7/8	13/16	1	2 1/2
[illegible]	13/16	3/4	3/8	3 3/8	11 3/4	1 5/8	2 3/4	13/16	13/16	1	2 1/2
[illegible]	13/16	11/16	3/8	3 3/8	11 3/4	1 5/8	2 3/4	3/4	13/16	1	2 1/2
[illegible]	13/16	5/8	5/16	3 3/8	11 3/4	1 5/8	2 3/4	11/16	13/16	1	2 1/2
[illegible]	5/8	13/16	7/16	3 5/8	10 3/8	1 5/16	2 3/4	7/8	5/8	1	2 1/2
[illegible]	5/8	11/16	3/8	3 5/8	10 3/8	1 5/16	2 3/4	3/4	5/8	1	2 1/2
[illegible]	5/8	9/16	5/16	3 5/8	10 3/8	1 5/16	2 3/4	5/8	9/16	1	2 1/2
[illegible]	5/8	1/2	1/4	3 5/8	10 3/8	1 5/16	2 3/4	9/16	9/16	1	2 1/2
[illegible]	5/8	7/16	1/4	3 5/8	10 3/8	1 5/16	2 3/4	1/2	9/16	1	2 1/2
[illegible]	5/8	3/8	3/16	3 5/8	10 3/8	1 5/16	2 3/4	7/16	9/16	1	2 1/2
[illegible]	11/16	7/8	7/16	3 3/8	9 1/2	1 1/4	2 1/2	15/16	11/16	1	2 1/2
[illegible]	11/16	13/16	7/16	3 3/8	9 1/2	1 1/4	2 1/2	7/8	11/16	1	2 1/2
[illegible]	11/16	3/4	3/8	3 3/8	9 1/2	1 1/4	2 1/2	13/16	11/16	1	2 1/2
[illegible]	11/16	11/16	3/8	3 3/8	9 1/2	1 1/4	2 1/2	3/4	11/16	1	2 1/2
[illegible]	11/16	5/8	5/16	3 3/8	9 1/2	1 1/4	2 1/2	11/16	11/16	1	2 1/2
[illegible]	11/16	1/2	1/4	3 3/8	9 1/2	1 1/4	2 1/2	9/16	11/16	1	2 1/2
[illegible]	5/8	11/16	3/8	3	9 1/2	1 1/4	2 1/2	3/4	5/8	7/8	2 1/4
[illegible]	5/8	5/8	5/16	3	9 1/2	1 1/4	2 1/2	11/16	5/8	7/8	2 1/4
[illegible]	5/8	1/2	1/4	3	9 1/2	1 1/4	2 1/2	9/16	9/16	7/8	2 1/4
[illegible]	5/8	7/16	1/4	3	9 1/2	1 1/4	2 1/2	1/2	9/16	7/8	2 1/4
[illegible]	9/16	11/16	3/8	3	7 5/8	1 3/16	2 1/2	3/4	9/16	7/8	2
[illegible]	9/16	9/16	5/16	3	7 5/8	1 3/16	2 1/2	5/8	9/16	7/8	2
[illegible]	9/16	1/2	1/4	3	7 5/8	1 3/16	2 1/2	9/16	9/16	7/8	2
[illegible]	9/16	7/16	1/4	3	7 5/8	1 3/16	2 1/2	1/2	9/16	7/8	2
[illegible]	9/16	3/8	3/16	3	7 5/8	1 3/16	2 1/2	7/16	9/16	7/8	2
[illegible]	9/16	11/16	5/16	3	6 3/4	1 1/8	2 1/2	3/4	9/16	7/8	2
[illegible]	9/16	9/16	5/16	3	6 3/4	1 1/8	2 1/2	5/8	9/16	7/8	2
[illegible]	9/16	7/16	1/4	3	6 3/4	1 1/8	2 1/2	1/2	9/16	7/8	2
[illegible]	9/16	7/16	3/16	3	6 3/4	1 1/8	2 1/2	1/2	9/16	7/8	2
[illegible]	1/2	5/8	5/16	3 1/8	5 7/8	1 1/16	2 1/4	11/16	1/2	7/8	2
[illegible]	1/2	9/16	1/4	3 1/8	5 7/8	1 1/16	2 1/4	5/8	1/2	7/8	2
[illegible]	1/2	7/16	1/4	3 1/8	5 7/8	1 1/16	2 1/4	1/2	1/2	7/8	2
[illegible]	1/2	3/8	3/16	3 1/8	5 7/8	1 1/16	2 1/4	7/16	1/2	7/8	2

... Iron Co.
... 1¼", to nearest ¼".