

Revision and Errata List
AISC Steel Construction Manual, 13th Edition
February 3, 2009

The following list represents technical corrections that have been made in the second printing of the 13th Edition *Steel Construction Manual*. Editorial corrections that have been reported to AISC are not reflected in this list, but have been included in the second printing of the *Manual*.

- Page(s)** **Item**
- 1-3 The beginning of the last sentence at the bottom of the page should be changed from “When the listed value is shaded...” to “When the listed value is footnoted...”
- 1-9 The 3rd bulleted item at the top of the page should read, “Forged steel structural hardware items, ... are covered in Part 15”
- 1-10 For W44×262, the detailing value of b_f should be listed as 15¾ in., rather than 1¾ in.
- 1-14 For W27×258, change the detailing value of t_w from 1½ in. to 1 in. and change $t_w/2$ from 1 in. to ½ in.
- 1-41 On the first line, replace L8×8×⅛ with L8×8×1⅛.
- 1-45 Replace the first L3×2½×⅜ listed with L3×2½×⅜.
- 1-74 Replace the second shape listed as HSS 12×6×5/8 with HSS 12×6×3/8.
- 1-95 The 12th line of the page should include the shape designator HSS7.625 before ×0.375, with a blank line above.
- 1-108 The r_x values listed should be replaced with

Table 1-16							
2C Shapes							
Shape	r_x	Shape	r_x	Shape	r_x	Shape	r_x
	in.		in.		in.		in.
2C15x50	5.24	2C10x20	3.66	2C7x14.7	2.51	2C4x7.2	1.47
2C15x40	5.44	2C10x15.3	3.87	2C7x12.2	2.60	2C4x5.4	1.56
2C15x33.9	5.63	2C9x20	3.22	2C7x9.8	2.72	2C4x4.5	1.63
2C12x30	4.29	2C9x15	3.40	2C6x13	2.13	2C3x6	1.08
2C12x25	4.43	2C9x13.4	3.49	2C6x10.5	2.22	2C3x5	1.12
2C12x20.7	4.61	2C8x18.7	2.82	2C6x8.2	2.34	2C3x4.1	1.17
2C10x30	3.42	2C8x13.7	2.99	2C5x9	1.83	2C3x3.5	1.20
2C10x25	3.52	2C8x11.5	3.11	2C5x6.7	1.95		

- 1-109 and 1-110 The r_x values shown should be replaced with

Table 1-17							
2MC Shapes							
Shape	r_x	Shape	r_x	Shape	r_x	Shape	r_x
	in.		in.		in.		in.
2MC18x58	6.29	2MC12x40	4.46	2MC10x6.5	3.43	2MC6x18	2.37
2MC18x51.9	6.40	2MC12x35	4.59	2MC9x25.4	3.43	2MC6x15.3	2.38
2MC18x45.8	6.56	2MC12x31	4.71	2MC9x23.9	3.48	2MC6x16.3	2.33
2MC18x42.7	6.65	2MC12x10.6	4.23	2MC8x22.8	3.09	2MC6x15.1	2.37
2MC13x50	4.62	2MC10x41.1	3.60	2MC8x21.4	3.13	2MC6x12	2.30
2MC13x40	4.82	2MC10x33.6	3.75	2MC8x20	3.05	2MC6x7	2.34
2MC13x35	4.95	2MC10x28.5	3.88	2MC8x18.7	3.09	2MC6x6.5	2.38
2MC13x31.8	5.06	2MC10x25	3.87	2MC8x8.5	3.05	2MC4x13.8	1.48
2MC12x50	4.28	2MC10x22	3.98	2MC7x22.7	2.67	2MC3x7.1	1.14
2MC12x45	4.36	2MC10x8.4	3.61	2MC7x19.1	2.77		

2-12 In the first sentence in the first paragraph under the heading, Simplified Determination of Required Strength, “Table 2-2-1” should read “Table 2-1.”

3-4 The equation for L'_p in Figure 3-1 should be changed to

$$L'_p = L_p + (L_r - L_p) \frac{(M_p - M'_p)}{(M_p - M_r)}$$

3-27 The 4th paragraph should read, “The uniform load constant, $\phi_b W_c$ or W_c/Ω (kip-ft), divided by the span length, L (ft), provides the maximum total uniform load (kips) for a braced simple-span beam bent about the strong axis.”

3-54 The values of maximum total uniform load for a span of 46 ft should be replaced with the following, from left to right: 95.9, 144, 85.0, 128, 74.6, 112, 69.4, 104, 62.5, 93.9.

3-55 The values of maximum total uniform load for a W21×57 at a span of 46 ft should be replaced with the following: 56.0 (ASD), 84.1 (LRFD).

3-117 The W21×93 shape label that crosses the $L_b = 16$ axis (bold line) should read W24×84.

3-124 In the ASD column, the value of 188 shown between 184 and 176 should read 180.

3-152 In the LRFD column, the value of 7.00 should be 7.50.

3-210 The uniform load moment should be listed in terms of wl^2 , not wl_2 .

3-214 Case 11. M_x when $a < x < (l - b)$ should equal $R_1 x - P_1(x - a)$.

4-7 In the last sentence of the second paragraph, “0.75+” should be “0.75t.”

4-321 and 4-322 For $F_y = 36$ ksi and $Kl/r \geq 134$, the ASD values of F_{cr}/Ω_c should match those listed for $F_y = 42$ ksi.

4-321 and 4-322 For $F_y = 35$ ksi and $Kl/r \geq 138$, the ASD values of F_{cr}/Ω_c should match those listed for $F_y = 42$ ksi.

5-38 The shape HSS4×4×¼ was mistakenly omitted from Table 5-5. The values should be shown as follows:

Shape	Gross Area, A_g in ²	$A_e = 0.75A_g$ in ²	Yielding		Rupture	
			kips		kips	
			ASD	LRFD	ASD	LRFD
		P_n/Ω_t	$\phi_t P_n$	P_n/Ω_t	$\phi_t P_n$	
HSS4×4×¼	3.37	2.53	92.8	140	73.4	110

7-24 thru 7-27 The following errors occurred in Table 7-3 and Table 7-4
 Under the column “Hole Type” all listings of “SSLT” should read “OVS/SSL”
 Under the column “Hole Type” all listings of “LSLT” should read “LSL”.
 In the definitions shown near the bottom of these pages, in place of definitions for SSLT and LSLT, the following should appear:

SSL = Short-Slotted Hole
LSL = Long Slotted Hole
OVS = Oversized Hole

- 7-26 and 7-27 In Table 7-4, the value of Ω_v , stated in the bottom left corner, should be 1.76 rather than 1.75.
- 7-54 The graphic on this page should show only 2 vertical rows of bolts on an 8-in. gage loaded at 60 degrees, similarly to that shown on page 7-55 for an angle of 75 degrees.
- 7-66 The graphic on this page should show only 3 vertical rows of bolts on a 6-in. gage loaded at 60 degrees, similarly to that shown on page 7-67 for an angle of 75 degrees.
- 7-80 For A325 and A490 bolts, the value of Height, H , for a 1½-in. bolt diameter should read $1\frac{5}{16}$ in place of the value $\frac{5}{16}$ that is shown.

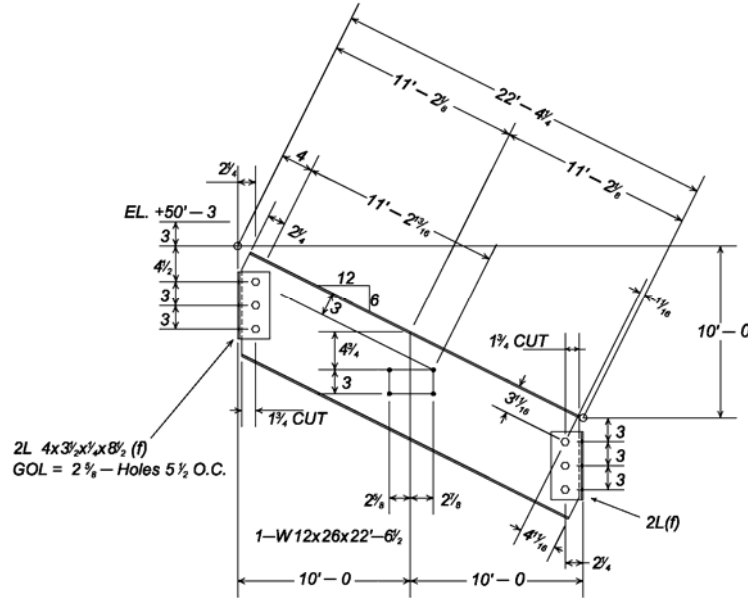
For A563 nuts, the values of Height, H , for 1¾ and 1½-in. bolt diameter should read $1\frac{11}{32}$ and $1\frac{15}{32}$, respectively, in place of the values $1\frac{11}{16}$ and $1\frac{11}{32}$ that are shown.
- 8-8 Near the bottom of the page “ l = length, in.” should read “ l = length, in.”
- 8-34 At the bottom of Table 8-2, the Notes to Prequalified Welded Joints should be called out sequentially by the numbers 1 through 12 in place of the letter designations shown.
In the third note, replace “Section 2.27.5” with “Section 2.17.2”.
In the sixth note, delete “LRFD”.
In the Seventh note, replace “T1” with “T₁” in two places.
In the ninth note, replace “Note E” with “Note 6”.
- 8-43 For Joint Designation TC-U4a-GF the second Root Opening, R , is equal to $\frac{3}{8}$ rather than the value of $\frac{3}{16}$ that is shown.
- 8-66 thru 8-113 In the header of Tables 8-4 through 8-11, The coefficient C_1 should be defined as follows:
$$C_1 = \text{electrode strength coefficient from Table 8-3 (1.0 for E70XX electrodes)}$$
- 8-66 thru 8-113 In the header of Tables 8-4 through 8-11, in the LRFD equation for l_{min} the symbol Ω should be omitted from the numerator. The correct equation for the LRFD version of l_{min} is
$$l_{min} = \frac{P_u}{\phi C C_1 D}$$
.
- 10-11 In the first full paragraph, second sentence, replace the reference to “Table 8-9” with a reference to “Table 8-8”.
- 10-12 In the second paragraph, second sentence, replace the reference to “Table 8-9” with a reference to “Table 8-8”.
- 10-89 The Connection Types “from Figure 10-7a”, located at the bottom half of the page, noted as A, B, and C should be listed as D, E, and F.
- 10-103 In the variable definitions under Design Check 2, the definition of coefficient C' should read as follows:
$$C' = \text{coefficient from Part 7 for the moment-only case....}$$
- 10-103 Under Design Check 2, in Exceptions a and b, replace “ $L_{eh} \leq 2d_b$ ” with “ $L_{eh} \geq 2d_b$ ”.

10-105 thru
10-109,
10-114 thru
10-117

In the “-” footnote, replace “ $d_b/2$ ” with “ $d_b/2 + 1/16$ in.”

10-154

Figure 10-42 should be replaced with the following:



10-164

For the case of $30^\circ < \theta \leq 45^\circ$ the arrow side and other side weld sizes should be switched. For the case of $\theta = 45^\circ$ the value of $2/3$ under “S” should be $3/8$.

10-165

For the case of $17^\circ < \theta \leq 22^\circ$, replace “ $\leq 3 5/8$ ” with “ $> 3 5/8, \leq 4 7/8$ ”. For the case of $22^\circ < \theta \leq 45^\circ$ the arrow side and other side weld sizes should be switched.

14-22

For Case I-A, “shims $2 1/2 \times 1 1/8$ ” should read, “shims $2 1/2 \times 1/8$ ”
Case I-C, “...minus $1/8$ -in., whichever...” should read, “...minus $1/8$ or $3/16$ in., whichever...”

14-23

The variables d_u and g_u (from left to right), were cut off at the top of the graphic for Case 1-A.

14-38 and 14-39

In the caption to each figure, replace “partial-joint-penetration” with “complete-joint-penetration”.

16.1-4

The correct title for ASTM Specification A992/A992M-04 is *Standard Specification for Structural Steel Shapes*.

16.1-7

In each user note, replace “J2.7” with “J2.6”.

16.1-47

In the second user note, third line, replace “ $F_y \leq 50$ ksi” with “ $F_y = 50$ ksi”.

16.1-55

In the user note, third line, replace “ $F_y \leq 50$ ksi” with “ $F_y = 50$ ksi”.

16.1-65

In the user note, third line, replace “ $F_y \leq 50$ ksi” with “ $F_y = 50$ ksi”.

16.1-66

In the user note, third line, replace “ $F_y \leq 50$ ksi” with “ $F_y = 50$ ksi”.

- 16.1-78 In Section I1.3, third line, replace “I3.2d(2)” with “I3.2d(3)”.
- 16.1-286 Seven lines from the bottom, replace “ ϕ of 0.90” with “ ϕ of 1.00”.
- 16.1-315 In the next to last line on the page, replace “Equation I3-5” with “Equation I3-3”.
- 16.1-316 In the eighth line, replace “I3-4” with “I3-3”.
- 16.1-320 In the sixth line of the third full paragraph, replace “Equation I2-2” with “Equation I2-4”.
In the next to last sentence of the third paragraph, replace “Equations I2-6 and I2-7” with “Equations I2-2 or I2-3”.
- 16.1-321 In the first line, replace “Equation E2-6” with “Equation I2-2”.
In the second line, replace “Equation E2-7” with “Equation I2-3”.
- 16.1-353 In the third and fourth lines, replace “Chapter F” with “Chapter E”.
- 17-32 The third footnote should have the callout “c” shown.