American Welding Society

Errata Notice for the AWS *Welding Handbook*, 10th Edition, Volume 1
Published in 2018
(Last updated: November 14th, 2023)

The following errata have been identified:

• Page *vii*, Table of Contents, Chapter 4 title: Replace "115" with 132"

• Page 60, Equation 2.1: delete "000" before heat

• Page 67: Replace "29 mm,^{3} with "29 mm^3,"

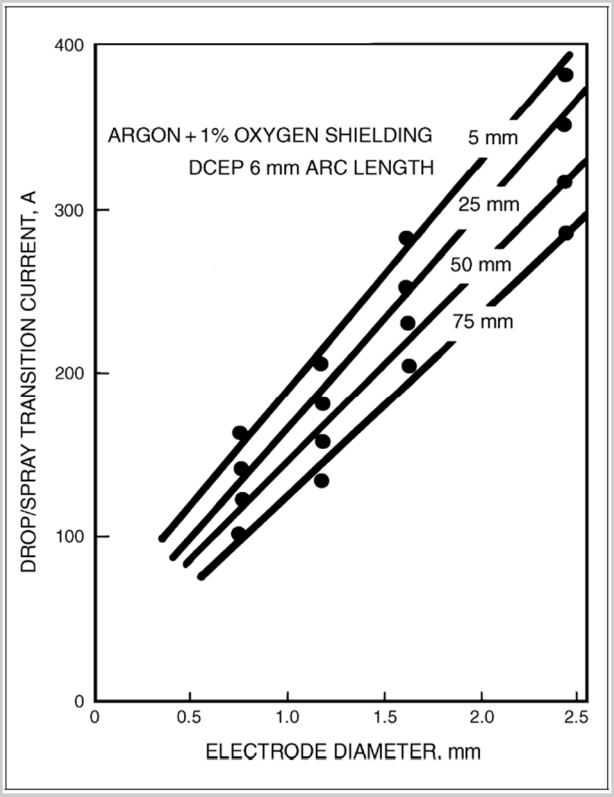
• Page 69, Equation: Replace "1.5$0_2$" with 1.5O_2"

• Page 70: Replace "Combining Equations 2.16 and 2.17" with "Combining Equations 2.17 and 2.18"

• Page 77: Close the parenthesis. Sentence will now read as:
(Reactive thermal conductivity results from the recombination of monatomic hydrogen or nitrogen into diatomic hydrogen or nitrogen in these temperature ranges. As the hydrogen or nitrogen recombines it releases its heat of dissociation. While not illustrated in the figures, carbon dioxide also exhibits reactive thermal conductivity due to the dissociation of carbon dioxide into carbon monoxide plus oxygen, and the recombination of these into carbon dioxide.)

• Page 80: Replace "Figures 2.15 and 2.16" with "Figures 2.14 and 2.15"

• Page 83: Replace Figure 2.20—Effect of Electrode Extension and Diameter on Transition Current of Steel Filler Metals with the following figure:



• Page 91: Replace “are” with “arc” and insert a period at the end of the sentence:
Self-regulation of arc length occurs because small arc length variations cause small arc current fluctuations that adjust the electrode melt-off rate to eliminate the arc length variations.

• Page 117, Equation 3.16: Replace “k = Thermal conductivity of the melt, W/(m K);” with k = Thermal conductivity of the metal, W/(m K);”

• Page 118: Replace “Maragoni” with “Marangoni”

• Page 141, Figure 4.13: Replace “TTC” with “TTT” and “CTT” with CCT”

• Page 187, Figure 5.6: Delete “Spot” from title as there is no detail for spot welds.
New title is “Schematic of CJP, PJP, Fillet, and Slot Welds”

• Page 231: Replace “Figure 5.63(A), (B), (C), and (D)” with “Figures 5.65(A), (B), (C), and (D)”

• Page 231: Replace “Figure 5.63(B), (C), (E), and (F)” with “Figure 5.65(B), (C), (E), and (F)”

• Page 246, equation 5.19: Replace all instances of “f_t” with “f_r”

• Page 254: Replace “Limitations on the AISC/D1.1/D14.1 Model” with “Limitations on the AISC/D1.1/D14.4 Model”

• Page 263: Replace “Figure 5.81(A), 5.80(B), and 5.80(C),” with “Figure 5.81(A), 5.81(B), and 5.81(C),”

• Page 268: Replace “[see Figure 5.84(B)],” with “[see Figure 5.85(B)],”

• Page 279: Replace “80 ksi (380 MPa)” with “80 ksi (550 MPa)”

• Page 279: Replace “because” with “before”
Will now read as: Although metallurgists have been aware of CGIs existence before the early 1930s, commercial use was not prevalent until the late 1990s.

• Page 315, Figure 6.33: Replace “(AT FAYING SERVICE)” with “(AT FAYING SURFACE)”

• Page 355: Replace “Figure 7.25(B) and Figure 25(C)” with “Figure 7.25(B) and Figure 7.25(C)”

• Page 365: Replace “±1.5 mm (±0.75 mm)” with “±0.03 in. (±0.75 mm)”

• Page 371: Replace “Figure 7.32” with “Figure 7.39”

• Page 372: Replace “Equation 7.13” with “Equation 7.12”

• Page 374: Replace “Figure 7.41” with “Figure 7.42”

• Page 383: Replace “The value of C in Equation 7.29” with “The value of C in Equation 7.33”

• Page 383: Replace “the amount of distortion, d,” with the amount of distortion, δ,”

• Page 387, Figure 7.51 title: Replace “Filler Metal Weight, t,” with “Filler Metal Weight, w,”

• Page 388: Replace “The trend of residual stress prediction agrees with the results shown in Figure 7.56.” with “The trend of residual stress prediction agrees with the results shown in Figure 7.57.”

• Page 391, Equation 7.37: Replace “*Q*” with “*q*”

• Page 397: Replace “3methods” “methods”

• Page 446, Equation 8.28: Replace “AC = AR ×AC ×TST” with “AC = ACR × AR ×TST”

• Page 476: Delete the second comma. Sentence will now read as:
Unless weld joint finding or tracking is employed, weld position has three major influences:
weld wire position repeatability, fixture repeatability, and part-to-part repeatability.

• Page 491: delete duplicate “due to.” Sentence will now read as:
Manually having to carry a heavy gun while climbing and bending around components of the part can cause physical stress due to repetitive motion and difficulty reaching some areas.

• Page 538: Replace “then” with “than.” Sentence will now read as:
Open-loop sensors are less expensive than closed–loop sensors.

• Page 601: Replace “resistively” with “resistivity.” Sentence will now read as:
The size difference is greater for closely spaced welds, welds in metals having low electrical resistivity, and welds in thick sheets.

• Page 633: Replace “AWS C1.1M/C.1.” with “AWS C1.1M/C1.1.”

• Page 674: Delete year editions from both instances of AWS B4.0. Sentence will now read as:
Details of the test procedure and sectioning locations are described in *Standard Methods for Mechanical Testing of Welds*, AWS B4.0.

• Page 740: Replace “compliments” with “complements.” Sentence will now read as:
Metallographic examination complements NDE methods.

• Page 788: Delete second instance of “Senior” from sentence. Will now read as:
The American Welding Society conducts examinations to certify Senior Welding Inspectors (SCWIs), Certified Welding Inspectors (CWIs), and Certified Associate Welding Inspectors (CAWIs) in accordance with *Specification for AWS Certification of Welding Inspectors*, AWS QC1.

• Page 805: Replace “D.16” with “D1.6.” Sentence will now read as:
AWS publishes approximately 74 Standard Welding Procedure Specifications (SWPS) that are permitted to be used in lieu of preparing and qualifying Welding Procedure Specifications (WPS) under various codes including AWS D1.1, D1.3, D1.6, B2.1, and ASME Section IX.

• Page 805: Replace “AWB” with “AWS”

• Page 854: Replace “(JSA)” with “(JHA)”

• Page 865: Replace “CRF” with “CFR.”