Theory of Machines and Mechanisms, 4th ed.
J.J. Uicker, Jr., G.R. Pennock, and J.E. Shigley
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Corrigenda
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Page Correction

39  Line 6. The reference which now reads “Section 3.17,” should read “Section 3.20,”.

120 Line 19. The date which now reads “1893” should read “1883”.

122 Line 2. The reference which now says "(see Chapter 18)", should say "(see Chapter 17)".

150 Figure 3.34. The shading of link 3 in this figure is very dark and masks readability of the
dimension to point D. The hidden dimension should read “50”.

165 Figure P3.46. The figure should show a label “B” for the center of the pin on link 5.

196 Line 19. The third line of Section 4.9 now has a reference to “Eq. (c) of Section 3.9.”
This should read “Eq. (e) of Section 3.9.”

236 Problem 4.47; line 4. There is no Fig. P4.47. This line should read “illustrated in the
figure. …” Since this problem already refers to Problem 3.8, it will then implicitly refer
to Fig. P3.8 on page 158.

270 Figure P5.1. The caption for Fig.P5.1 should include two dimensions as follows:
“\(X_B = 100, Y_B = 25\).”

270 Problem 5.7. The dimension which now reads ‘\(R_{AO_2} = R_{AO_3} = 0.3\) m’ should read
“\(R_{AO_2} = R_{BO_4} = 0.3\) m”.

271 Figure P5.7. In the caption for this figure, the dimension which now reads
‘\(R_{AO_2} = R_{AO_3} = 0.3\) m” should read “\(R_{AO_2} = R_{BO_4} = 0.3\) m”.

322 Line 22. The final equation of Example 6.6 should read as two equations as follows:
\[
\cos \phi = \left( \frac{-1.250 \text{ mm}/\text{rad}}{54.141 \text{ mm}/\text{rad}} \right) \sin 30^\circ + \left( \frac{54.127 \text{ mm}/\text{rad}}{54.141 \text{ mm}/\text{rad}} \right) \cos 30^\circ; \quad \phi = 28.68^\circ. \quad \text{Ans.}
\]
Figure 7.21a. The point of tangency of the pressure line and the base circle, at the intersection with the radius now shown, should have a bold dot and should be labelled point \( A \). In Figure 7.21b, the points now labelled \( A \) and \( C \) should be labelled \( A' \) and \( C' \), respectively.

Example 7.3. The first line of this example contains an improper symbol. It now reads \( \varphi = 20^\circ \). It should read \( \phi = 20^\circ \).

Problem 9.20; line 2. The end of this line should read “(see Fig. 1.12c).”

Lines 3-4. The paragraph starting on the last two lines of this page now reads “The orthocenter of a triangle is defined as …” That sentence should read as follows: “The orthocenter of a triangle is defined as the point of intersection of the lines drawn through the vertices of the triangle and perpendicular to the opposite sides.”

Footnote. The reference to Fig. 1.19b in this footnote should refer to Fig. 1.24b.

Problem 10.6; line 3. The word which now reads “radio” should read “ratio”.

Problem 13.4; line 3. The end of this line should refer to “Fig. P13.4a”.

Figure P13.4. The figure caption should include the dimension \( R_{DO_4} = 7 \) in.

Problem 13.5; line 2. The reference to “Fig. P13.4” should read “Fig. P13.4b”.

Problem 13.26, line 2. The reference to “Problem 13.4” should read “Problem 13.5”.

Equation (14.85). This equation is missing the factor \( \frac{1}{2} \); it should read \( U_s = yk \left( r_s - r_0 \right)^2 \).

Problem 14.7, line 4. The dimension which now reads “\( R_{DO_4} \)” should read “\( R_{DO_4} \)”.

Problem 14.7, line 11. The data which now reads “\( \alpha_4 = 712 \text{ rad/s}^2 \text{ cw} \)” should read “\( \alpha_4 = 172 \text{ rad/s}^2 \text{ cw} \)”.

Problem 14.27, Line 6. The word “contact” should read “contacts”.

Problem 14.28, line 8. The acceleration which now reads “\( \dot{\mathbf{a}}_{G_2} = -0.35 \mathbf{j} \text{ m/s}^2 \)” should have units of “m/s\(^2\)”.

Problem 14.28, line 11. The kinematic coefficient which now reads “\( \theta'' = -380 \text{ rad/m} \)” should have units of “rad/m\(^2\)”.

Eq. (17.20). The last term in this equation should read “\( D \sin \theta \)”, not “\( D \sin \theta' \)”.
Problem 13.17, part (c). The result which now reads “$\mathbf{F}_{13} = 2 \ 250 \text{ lb} \angle 315^\circ$” should read “$\mathbf{F}_{13} = 2 \ 250 \text{ lb} \angle 135^\circ$”.

Problem 14.29, part (iii). The anser to this part should read $P = -733.93 \text{ N}$.