

J.R.BARBER, CONTACT MECHANICS

ERRATA — last updated August 18, 2026

- Page 10, line 9: ‘... exactly normal to the surface at Q ...’ should be replaced by ‘... exactly normal to the surface of body 2, ...’
- Page 19: The last two lines of equation (2.19) should read

$$\begin{aligned} p(x, y) &> 0 & (x, y) &\in \mathcal{A} \\ &= 0 & (x, y) &\notin \mathcal{A} . \end{aligned} \quad (2.19)$$

[The inequality and equality signs are interchanged].

- Page 114: Equation (7.14) should read

$$\frac{du_z}{dx} = -\frac{2P}{\pi E^* x} + \frac{2\beta Q_x \delta(x)}{E^*} , \quad (7.14)$$

[‘ Q_x ’ replacing ‘ Q ’].

- Page 173: Equation (9.10) should read

$$\frac{du_x}{dx} = f \frac{du_z}{dx} \quad \text{and hence} \quad h(x) = f [g_0(x) - g(x)] \quad (9.10)$$

[‘ du_z/dx ’ replacing ‘ du_z/dz ’].

- Page 223: Last line before equation (11.3). $\psi = 87.46$ deg should read $\psi = 84.83$ deg.
- Page 227: ‘(Ahn and Barber, 2008)’ should read ‘Ahn and Barber (2008)’.
- Page 266: Equations (13.9–13.12) should read

$$u(z) = \frac{F(z^3 - 3a^2z + 2a^3)}{6EI} - \frac{w_0(z^4 - 4a^3z + 3a^4)}{24EI} , \quad (13.9)$$

$$\Omega = -Fu(0) + w_0 \int_0^a u(z) dz = -\frac{F^2 a^3}{3EI} + \frac{Fw_0 a^4}{4EI} - \frac{w_0^2 a^5}{20EI} . \quad (13.10)$$

$$U = \frac{1}{2EI} \int_0^a [M_{AB}(z)]^2 dz = \frac{F^2 a^3}{6EI} - \frac{Fw_0 a^4}{8EI} + \frac{w_0^2 a^5}{40EI} \quad (13.11)$$

$$\Pi = U + \Omega + \Gamma = -\frac{F^2 a^3}{6EI} + \frac{Fw_0 a^4}{8EI} - \frac{w_0^2 a^5}{40EI} + \Delta\gamma a . \quad (13.12)$$

- Page 380, Equation (16.157)₂ should read

$$\frac{d\bar{p}}{d\Delta} = \bar{p} \left/ \frac{dU}{d\bar{p}} \right.$$

- Page 393, Problem 16.14, $P_S(\omega) = C\omega^{-2-H}$ should read $P_S(\omega) = C\omega^{-2-2H}$.
- Page 543: Just after equation (A.1) (x, y, y) should be replaced by (x, y, z)