

C.P.Sparks. Marine Riser Mechanics. 2nd Edition. Chapter Errata

Required corrections highlighted in **yellow**

Chapter & Page	Place on page	Comment
2 – 23	Figure 2 - 4	Shear Forces F , and associated arrows , should be grey, on both Figures, to indicate they are identical (cf. Moments)
4 – 64	4 lines above Eq. (4.18)	Should read: and at the outer surface, $\sigma_{cm} + \sigma_{cbe} = \sigma_p + \tau_e$
4 – 67	2 lines above page end	2 nd Equation “ $\sigma_p = 100,056$ ” should be removed
5 – 73	4 lines above Eq. (5.6)	v_i and v_e should be written: \bar{v}_i and \bar{v}_e
5 – 75	6 lines above page end	$v_i \geq 0.5$ should be written: $\bar{v}_i \geq 0.5$
5 – 77	Line above Eq. (5.10)	should read: internal pressure p_i reaches
5 – 82	2 lines above Eq. (5.26)	Should read: The effective tension T_{cm} at the mid-point ...
9 – 128	4 lines above Eq. (9.10)	Letter ‘j’ should be subscript to ‘ α ’ to read: α_j
10 – 139	Above Eq. (10.11)	Should read: ... given in appendix G (see equation [G.21]).
10 – 185	10 lines above page end	Should read: .. resonant frequencies ($\omega_n L/c = n\pi$), for which...
15 – 220	Below Eq. (15.24)	Should read: Therefore $z_x(\sqrt{T_t} - \sqrt{T_b}) = (z_t - z_b)\sqrt{T_x}$, hence
	Below Eq. (15.27)	should read: Thus, from equations (15.25) and (15.27),
15 – 226	Eq. (15.54)	Far right denominator should read: $\sqrt{T'_k T'_{k+1}}$
15 – 234	Above Eq. (15.65)	Sentence should end: from lower end, and subscripts t and b refer to top and bottom ends of the particular segment:
15 – 235	5 lines below Eq. (15.67)	Should read: segment, $(z_t - z''_b)_{top} = n\pi$, which
16 – 251	First bullet point	Letter ‘L’ should be subscript, to read $(p_c A_c)_L$
17 – 258	Figure 17 – 1a)	Arrow should point angle ϕ between curve and vertical
17 – 261	Equation (17.6)	Should read: $2F_h \sin\left(\frac{\delta\theta}{2}\right) = \frac{w_r}{\sin\phi} 2r \sin\left(\frac{\delta\theta}{2}\right)$
17 – 264	Fig. 17 – 4b)	Upper grey expression should read: $M_r - \delta M_r/2$ central equation should read : $\delta s/2 = r\delta\theta/(2\sin\phi)$ Lower grey expression should read: $M_r + \delta M_r/2$
17 – 265	Above Eq. (17.20)	should end: ... from figure 17 – 4b, equation (17.19) leads to:
18 – 268	Eq. (18.5)	Should read: $F_s \sin\phi_R - P \sin^2\phi_R + F_h \sin\phi_R \cos\phi_R = 0$
	Eq. (18.9)	Should be spaced: $a = EI \cos\phi_R$; $b = Pr$; $c = w_r r \cos\phi_R$
18 – 270	3 lines above Eq. (18.20)	2 nd Line should read: through distance (δs) along its
18 – 276	3 lines above Eq. (18.36)	Line should end: and also assumes $p^2 \gg 4\pi^2 r^2$.

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Chapter & Page	Place on page	Comment
19 – 290	5 lines below Eq. (19.31)	should read: ...the horizontal force (F_{hp}) for the
19 – 299	12 lines above page end	should read: ... defined by the axes through the contact point
20 – 306	1 st paragraph	1 st sentence should end: ... angle ϕ_v at the VBR (where subscript ‘v’ now implies VBR parameters).
20 – 313	Line below Eq. (20.17)	Should read: ... determined, equation (20.17) can be used....
20 – 316	Table 20-4.	2 nd column heading should read: BOP deflection ratio
20 – 320	Fig. 20-7 d)	Upper 20% of ‘curve’ should be black, dashed , (cf. Fig. 20-1c)

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Appendix & Page	Place on page	Comment
C – 344	2 lines below Eq. (C.2)	Should read: ... and u is the instantaneous velocity ...
K – 392	Eq. (K.4)	Should read: $\frac{C_r^2}{2} = \frac{2}{r^2} \left[\frac{\phi^4 - \phi_R^4}{4} - \frac{\phi_R^2 \phi^2 - \phi_R^4}{2} \right] = \frac{2}{r^2} \left[\frac{\phi_R^4 - 2\phi_R^2 \phi^2 + \phi^4}{4} \right]$
	Line below Eq. (K.6)	Should begin: Equation (K.6) can be integrated
L – 398	Fig. L-2b)	Label M_{hp} missing from below ‘lower moment arrow’ <i>Note that Fig. L-2 should be identical to Fig. 19-3.</i>
L – 400	Eq. (L.11)	Should read: $\phi_P = - \left(\frac{dx}{dz} \right)_{z=b} = \beta_f \frac{M_{rP}}{Pf}$
L – 402	2 lines above Eq. (L.25)	Should read: ... follows by symmetry that $M_{hp} = M_{ha}$. Then ...
L – 403	Table L-1, Line 3,	‘pinned-end case’ should read: $\left[\frac{1}{\beta_f} \right] Pf \phi_P$
L – 404	Table L-2, Line 1	Formula should read: $\left[\frac{(1-Q)\alpha_f}{\beta_f} \right] \frac{\phi_P}{\phi_R}$
O – 421	Table O-1, ‘Expression’ column	Line 1 should read: $P = \frac{2EI}{r^2} \sin^2 \phi_R \cos \phi_R - \frac{M_a}{r} \sin \phi_R$
		Line 3, should read: $F_s = \frac{EI}{r^2} \sin^3 \phi_R \cos \phi_R - \frac{M_a}{r} \sin^2 \phi_R$
	Table O-2, ‘Moment’ column	Line 2 should read: Component about pipe axis (M_a)
		Line 3 should read: Component about vertical axis (M_v)