GUIDE FOR

BUCKLING AND ULTIMATE STRENGTH ASSESSMENT FOR OFFSHORE STRUCTURES APRIL 2004

CORRIGENDA/EDITORIALS – 1 June 2006
CORRIGENDA/EDITORIALS – 11 June 2007
CORRIGENDA/EDITORIALS – 22 October 2008
CORRIGENDA/EDITORIALS – 1 July 2010
CORRIGENDA/EDITORIALS – 1 July 2011
CORRIGENDA/EDITORIALS – 11 March 2013
CORRIGENDA/EDITORIALS – 1 February 2014
CORRIGENDA/EDITORIALS – 1 January 2017
CORRIGENDA/EDITORIALS – 20 August 2018

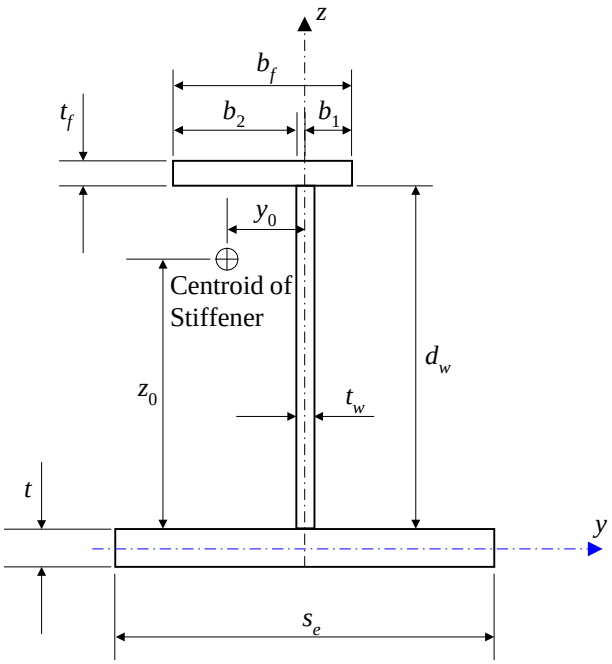
Page No.	Paragraph	Comments
Foreword		
iii	Foreword	In fourth bullet, "*Guide for Building and Classing Floating Production Installations*" to read "*Rules for Building and Classing Floating Production Installations*".
iii	Foreword	In first paragraph following bullets, "Rules and Guides" to read "Rules".

Section 1 Introduction		
1	1/5	In last paragraph, "ABS *Guide for Shipbuilding and Repair Quality Standard for Hull Structures During Construction*" to read "IACS Recommendation No. 47 "Shipbuilding and Repair Quality Standard"".
2	1/9	In first paragraph, "ABS *Guide for Building and Classing Floating Production Installations* (*FPI Guide*)" to read "ABS *Rules for Building and Classing Floating Production Installations* (*FPI Rules*)".
2	1/9	In fifth paragraph, "*FPI Guide*" to read "*FPI Rules*".
2	1/11	In second paragraph, "*FPI Guide*" to read "*FPI Rules*".

Section 2 Individual Structural Members		
8	2/Table 1	In row 5, add definition of d_{cs} under Geometrical Parameters "d_{cs} = Distance of shear center to centroid".
8	2/Table 1	In row 5, under Properties, equation for I_o to read "$I_o = I_y + I_z + A\,d_{cs}^2$ ".
8	2/Table 1	In row 6, add definition of d_{cs} under Geometrical Parameters "d_{cs} = Distance of shear center to centroid".
8	2/Table 1	In row 6, under Properties, equation for I_o to read "$I_o = I_y + I_z + A\,d_{cs}^2$ ".
9	2/Table 1	In row 7, add definition of d_{cs} under Geometrical Parameters "d_{cs} = Distance of shear center to centroid".
9	2/Table 1	In row 7, under Properties, equation for I_o to read "$I_o = I_y + I_z + A\,d_{cs}^2$ ".

Page No.	Paragraph	Comments
Section 2	**Individual Structural Members**	
13	2/Figure 2	Add Note as follows: "*Note:* These alignment charts or nomographs are based on the following assumptions: 1 Behavior is purely elastic. 2 All members have constant cross section. 3 All joints are rigid. 4 For columns in frames with sidesway prevented, rotations at opposite ends of the restraining beams are equal in magnitude and opposite in direction, producing single curvature bending. 5 For columns in frames with sidesway permitted, rotations at opposite ends of the restraining beams are equal in magnitude and direction, producing reverse curvature bending 6 The stiffness parameter $L\ (P/EI\ )^{1/2}$ of all columns is equal. 7 Joint restraint is distributed to the column above and below the joint in proportion to EI/L for the two columns. 8 All columns buckle simultaneously. 9 No significant axial compression force exists in the restraining beams. Adjustments are required when these assumptions are violated and the alignment charts are still to be used. Reference is made to ANSI/AISC 360-05, Commentary C2."
13	2/3.5	First sentence to read, "A member subjected to bending moment…".
17	2/7.1	Delete definition of σ_t.
17	2/7.1	Definition of σ_{tc} to read "σ_{tc} = calculated axial tensile stress…".
19	2/9.1	In last line, "$D/t \le E/(4.5\sigma_0)$" to read "$D/t > E/(4.5\sigma_0)$".
20	2/9.3	In last line, "$D/t \le E/(4.5\sigma_0)$" to read "$D/t > E/(4.5\sigma_0)$".
20	2/9.5	In last line, "$D/t \le E/(4.5\sigma_0)$" to read "$D/t > E/(4.5\sigma_0)$".

Section 3	**Plates, Stiffened Panels and Corrugated Panels**	
23	3/1	In second paragraph, "*FPI Guide*" to read "*FPI Rules*".
23	3/1	In second paragraph, "Chapter 4, Section 2 of the *FPI Rules*" to read "Section 5A-3-4 of the *FPI Rules*".

Page No.	Paragraph	Comments
Section 3	**Plates, Stiffened Panels and Corrugated Panels**	
24	3/Figure 2	Revise *y*-axis as follows: 
27	3/3	Reference "3/3.5" to read "3/3.3 and 3/3.5".
28	3/3.1.1	In definition of τ_0, delete "critical".
37	3/5.5	Renumber Subparagraphs 5.3.1 and 5.3.2 as 5.5.1 and 5.5.2, respectively.
40	3/7.9	Renumber Subparagraphs 7.5.1, 7.5.2 and 7.5.3 as 7.9.1, 7.9.2, and 7.9.3, respectively.
41	3/9.3	In both equations, "/t^3" to read "ℓt^3".
43	3/11.3	In definition of k_c, equation to read "$[7.65 - 0.26(c/a)^2]^2$".
43	3/11.3	Definition of C_m, to read "C_m = bending moment factor determined by rational analysis, which may be taken as 1.5 for a panel whose ends are simply supported".
43	3/11.3	Definition of a, c to read "a, c = width of the compressed flange and web plating, respectively, as defined in Section 3, Figure 4".
44	3/11.5	In definition of τ_G, equation to read: "$\begin{cases} \tau_E & \text{if} \quad \tau_E \le P_r\tau_0 \\ \tau_0\left[1 - P_r\left(1 - P_r\right)\dfrac{\tau_0}{\tau_E}\right] & \text{if} \quad \tau_E > P_r\tau_0 \end{cases}$".
44	3/11.5	In definition of σ_{Ex}, equation to read "$k_x\pi^2(D_xD_y)^{1/2}/(t_xB^2)$".
44	3/11.5	In definition of σ_{Ey}, equation to read "$k_y\pi^2(D_xD_y)^{1/2}/(tL^2)$".
44	3/11.5	In definition of τ_E, equation to read "$k_S\pi^2D_x^{3/4}D_y^{1/4}/(tL^2)$".
44	3/11.5	In definition of k_x, "for $L/B \ge 1$" to read "$L/B \ge 0.5176(D_x/D_y)^{1/4}$" and "for $L/B < 1$" to read "$L/B < 0.5176(D_x/D_y)^{1/4}$".

Page No.	Paragraph	Comments
Section 3	**Plates, Stiffened Panels and Corrugated Panels**	
44	3/11.5	In definition of k_y, "for $B/L \geq 1$" to read "$B/L \geq 0.5176(D_y/D_x)^{1/4}$" and "for $B/L < 1$" to read "$B/L < 0.5176(D_y/D_x)^{1/4}$".
45	3/11.5	In definition of D_y, equation to read "$\frac{Et^3}{12(1-\nu^2)}\frac{s}{a+b+2c}$".
45	3/13	Reference "Section 3, Table 1" to read "Section 3, Figure 8".
46	3/13.1.1	In definition of I_w, first term of equation to read "$\frac{t_p^3 s_e}{12}$".
46	3/13.1.1	In definition of SM_w, equation to read "$\frac{I_w}{(0.5t + d_w + t_f) - z_{wp}}$".
46	3/13.3	In definition of z_0, "A_s" to read "A".

Section 4	**Cylindrical Shells**	
51	4/3.3	In definition of ρ_{xR}, equation to read: "$\begin{cases} 0.75 + 0.003z\left(1 - \frac{r}{300t}\right) & \text{for } z < 1 \\ 0.75 - 0.142(z-1)^{0.4} + 0.003z\left(1 - \frac{r}{300t}\right) & \text{for } 1 \leq z < 20 \\ 0.35 - 0.0002\frac{r}{t} & \text{for } 20 \leq z \end{cases}$".
52	4/3.7	In third line, cross reference "4/15.1" to read "Subsection 4/15".
55	4/5.5	In definition of n, "$p_{CE\theta P}$" to read "$q_{CE\theta P}$".
56	4/7.1	In definition of s_{em}, equations to read: "$\left(\frac{1.05}{\lambda_m} - \frac{0.28}{\lambda_m^2}\right)s$ for $\lambda_m > 0.53$ s for $\lambda_m \leq 0.53$".
57	4/7.3	In definition of I_{se}, "z_{st}" to read "z_{st}^2".
57	4/7.5	Equation to read "$\sigma_{C\theta B} = (\sigma_{C\theta R} + \sigma_{sp}) \leq K_p$".
57	4/7.5	Equation to read "$\sigma_{C\theta B} = (\sigma_{C\theta R} + \sigma_{sp})K_p \leq \sigma_0$".
60	4/11	Revise first paragraph to read "A cylindrical shell subjected to axial compression, or bending moment or both; with or without external pressure, is to be designed to resist beam-column buckling. Beam-column buckling is to be assessed if:".
61	4/11	In definition of σ_{Cx}, second equation to read: "$\frac{A_e}{A}\sigma_{CxB}\left[0.5\varphi_B\left(\frac{\sigma_\theta}{\sigma_{C\theta B}}\right) + \sqrt{1 - (1 - 0.25\varphi_R^2)\left(\frac{\sigma_\theta}{\sigma_{C\theta B}}\right)^2}\right]$".
61	4/11	After definition of σ_θ, add definition of A as follows: "A = cross sectional area as defined in 4/7.1".

Page No.	Paragraph	Comments
Section 4	**Cylindrical Shells**	
61	4/11	After definition of σ_θ, add definition of A_e as follows: "A_e = effective cross sectional area as defined in 4/7.1".
61	4/13.1	Equation to read: "$\sigma_x = \sigma_a + \sigma_b$".
62	4/13.3	In definition of $\sigma_{\theta R}$, equation to read: "$\frac{q(r+0.5t)}{t}\frac{r}{r_F}K_{\theta R}$".
62	4/13.3	Definition of k to read: "N_xN_θ for lateral pressure $N_xN_\theta + 0.5$ for hydrostatic pressure"
62	4/13.3	In definition of k, "N_xN_θ" to read "N_x/N_θ" (2 places).
62	4/13.3	After definition of q, add definition of N_x as follows: "N_x = axial load per unit length, N/cm (kg/cm, lbf/in)".
62	4/13.3	Definition of N_x to read "N_x = axial load per unit length, excluding the capped-end actions due to hydrostatic pressure, N/cm (kg/cm, lbf/in)".
62	4/13.3	After definition of q, add definition of N_θ as follows: "N_θ = circumferential load per unit length, N/cm (kg/cm, lbf/in)".
Section 5	**Tubular Joints**	
66	5/1.7	In first bullet, "the Bureau" to read "ABS".
66	5/1.7	In second bullet, "the Bureau" to read "ABS".