

ERRATA

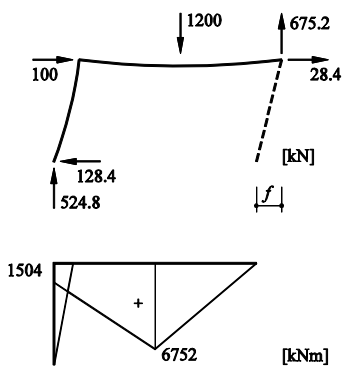
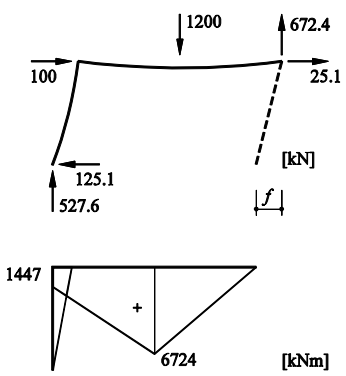
22.05.2016

Peter Marti

THEORY OF STRUCTURES FUNDAMENTALS, FRAMED STRUCTURES, PLATES AND SHELLS

1st Edition 2013 Ernst & Sohn GmbH & Co. KG.

Page	Location	Distance in cm from bottom	Wrong	Correct																								
Cover	Illustration	12.2	$Q = a^T \cdot k \cdot a \cdot V = K \cdot v$	$Q = a^T \cdot k \cdot a \cdot V = K \cdot V$																								
72	(6.11)	6.0	$\begin{Bmatrix} \varepsilon_n \\ \varepsilon_t \\ \frac{1}{2} \gamma_{tn} \end{Bmatrix} = \begin{bmatrix} \cos^2 \varphi & \sin^2 \varphi & \sin \varphi \cos \varphi \\ \sin^2 \varphi & \cos^2 \varphi & -\sin \varphi \cos \varphi \\ -\sin \varphi \cos \varphi & \sin \varphi \cos \varphi & \cos^2 \varphi - \sin^2 \varphi \end{bmatrix} \begin{Bmatrix} \varepsilon_x \\ \varepsilon_y \\ \frac{1}{2} \gamma_{xy} \end{Bmatrix}$	$\begin{Bmatrix} \varepsilon_n \\ \varepsilon_t \\ \frac{1}{2} \gamma_{tn} \end{Bmatrix} = \begin{bmatrix} \cos^2 \varphi & \sin^2 \varphi & 2 \sin \varphi \cos \varphi \\ \sin^2 \varphi & \cos^2 \varphi & -2 \sin \varphi \cos \varphi \\ -\sin \varphi \cos \varphi & \sin \varphi \cos \varphi & \cos^2 \varphi - \sin^2 \varphi \end{bmatrix} \begin{Bmatrix} \varepsilon_x \\ \varepsilon_y \\ \frac{1}{2} \gamma_{xy} \end{Bmatrix}$																								
116	(8.53)	23.9	$\sigma_{ij} = 2\mu\varepsilon_{ij} + \lambda\varepsilon_{ij}\varepsilon_{kk}$	$\sigma_{ij} = 2\mu\varepsilon_{ij} + \lambda\delta_{ij}\varepsilon_{kk}$																								
195	Formel	9.8	$\int \frac{S^2}{b^2 I_y^2} dA = \int_{-h/2}^{h/2} \frac{b^2 (h^2/4 - z^2)^2}{b^2 (bh^3/12)^2} b \, dz = \frac{6}{5bh}$	$\int \frac{S^2}{b^2 I_y^2} dA = \int_{-h/2}^{h/2} \frac{b^2 (h^2/4 - z^2)^2}{4b^2 (bh^3/12)^2} b \, dz = \frac{6}{5bh}$																								
214	Fig. 13.35	16.8	M_ω [kNm ²]	M_ω [MNm ²]																								
337	(18.68) ₄	10.6	$M_b = q_0 l^2 \cdot \left\{ \frac{1}{2(\lambda l)^2} - \frac{\cosh[\lambda(l-x)]}{\lambda l \sinh(\lambda l)} \right\}$	$M_b = q_0 l^2 \cdot \left\{ \frac{1}{(\lambda l)^2} - \frac{\cosh[\lambda(l-x)]}{\lambda l \sinh(\lambda l)} \right\}$																								
337	Example 18.12	7.8	57.6 m	33.8 m																								
337	Example 18.12	6.6 - 7.4	The fixity of the shear wall system at the top is relatively low. In the lower part of the wall, M_b and V_b are slightly larger than in the system without outrigger.	To be replaced by: In the lower part of the wall, M_b is slightly smaller and V_b is slightly larger than in the system without outrigger.																								
338	Fig. 18.39	18.1	M_b as well as the point of inflection at 57.6 m are wrong	See table below for M_b . In addition, the point of inflection is at 33.8 m																								
338	Tab. 18.3	row 4	<table><tr><td>M_b</td></tr><tr><td>16.0</td></tr><tr><td>14.6</td></tr><tr><td>10.3</td></tr><tr><td>2.5</td></tr><tr><td>-9.6</td></tr><tr><td>-27.2</td></tr><tr><td>-52.3</td></tr><tr><td>-87.7</td></tr><tr><td>-137.1</td></tr><tr><td>-206.1</td></tr><tr><td>MNm</td></tr></table>	M_b	16.0	14.6	10.3	2.5	-9.6	-27.2	-52.3	-87.7	-137.1	-206.1	MNm	<table><tr><td>M_b</td></tr><tr><td>57.6</td></tr><tr><td>56.3</td></tr><tr><td>51.9</td></tr><tr><td>44.1</td></tr><tr><td>32.1</td></tr><tr><td>14.5</td></tr><tr><td>-10.7</td></tr><tr><td>-46.0</td></tr><tr><td>-95.5</td></tr><tr><td>-164.5</td></tr><tr><td>MNm</td></tr></table>	M_b	57.6	56.3	51.9	44.1	32.1	14.5	-10.7	-46.0	-95.5	-164.5	MNm
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426	(21.25)	14.5	$M_z = \frac{b^3 f_y \tan^2 \alpha}{6}$	$M_z = \frac{b^3 f_y \tan \alpha}{6}$
426	(21.26) ₁	10.7	$(M_z/M_y \leq h/b)$	$(M_z/M_y \leq b/h)$
426	(21.26) ₂	9.2	$(M_z/M_y \geq h/b)$	$(M_z/M_y \geq b/h)$
461	Example 22.9	12.6 ff	$f_1 = \dots = 325 \text{ mm}$ and therefore the subsequent derivations	$f_1 = \dots = 289 \text{ mm}$ The subsequent derivations have to be adjusted.
462	Example 22.9 Fig. 22.9(d)	16.0 - 21.6	(d) 	(d) 
571	Example 24.21	23.3	$\frac{\pi}{3} \gamma^3 + 2\pi\alpha\gamma^2 + 4\alpha^2\gamma - \alpha(\beta - \alpha^2) = 0$	$\frac{\pi^2}{3} \gamma^3 + 2\pi\alpha\gamma^2 + 4\alpha^2\gamma - \alpha(\beta - \alpha^2) = 0$