To the Members of CEN/TC250/SC3

Eurocode 3: Design of Steel Structures

Ref: CEN/TC/250/SC3
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FINAL VERSION
Corrigendum to EN 1993-1-8
Eurocode 3: Design of steel structures
-Part 1-8: Design of joints

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27th November 2008

FINALISED Corrigendum to:
EN1993-1- 8: Design of joints

<table>
<thead>
<tr>
<th>Clause</th>
<th>Add or Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1(1)</td>
<td>change &quot;..., S355 and S460&quot; into &quot;..., S355, S420, S450 and S460&quot;</td>
</tr>
<tr>
<td>1.5(3)</td>
<td>add to the list: &quot;hz is the distance between centres of gravity of the effective width parts of a rectangular section beam connected to a I or H section column&quot;</td>
</tr>
<tr>
<td>1.5(6)</td>
<td>add to the list: &quot;\lambda_{ov,lim} is the overlap for which shear between braces and chord face may become critical&quot;</td>
</tr>
<tr>
<td>3.4.2 Table 3.2</td>
<td>for Category C in 2nd column (criteria) 3rd line: change &quot;F_{v,Ed} \leq N_{net,Rd}&quot; into &quot;\sum F_{v,Ed} \leq N_{net,Rd}&quot;</td>
</tr>
<tr>
<td>3.5(1) Table 3.3</td>
<td>change text of note 1) in Table 3.3: &quot;...exposed members and;&quot; into &quot;...exposed members (the limiting values are given in the table) and;&quot; change text of note 2) in Table 3.3: &quot;...to prevent corrosion.&quot; into &quot;...to prevent corrosion (the limiting values are given in the table).&quot;</td>
</tr>
<tr>
<td>3.6.1(1) Table 3.4</td>
<td>3rd row 2nd column, in the formula for F_{b,Rd} change &quot;a_b&quot; into &quot;a_b&quot; change &quot;for edge bolts k_1 is the smallest of 2,8 \frac{\rho_2}{d_o} - 1,7 or 2,5&quot; into &quot;for edge bolts k_1 is the smallest of 2,8 \frac{\rho_2}{d_o} - 1,7 , 1,4 \frac{P_2}{d_o} - 1,7 and 2,5&quot;</td>
</tr>
<tr>
<td>3.6.1(5)</td>
<td>change &quot;... is greater or equal ..&quot; into &quot;... is less than or equal to ...&quot;</td>
</tr>
<tr>
<td>3.6.2.2(2)</td>
<td>change &quot;... of the bolt as obtained...&quot; into &quot;...of the bolt or a group of bolts as obtained...&quot;</td>
</tr>
<tr>
<td>3.9.1(1)</td>
<td>change equation number &quot;(3.6)&quot; into (3.6a) and add an equation &quot;F_{s,Rd,ser} = \frac{k_n \mu}{\sqrt{\gamma_{f,M3,ser}}} F_{p,C}&quot; with equation number &quot;(3.6b)&quot;</td>
</tr>
<tr>
<td>3.9.1(1)</td>
<td>change &quot;...the friction surfaces&quot; into &quot;...the friction planes&quot;</td>
</tr>
<tr>
<td>3.13.2(1) Table 3.10</td>
<td>in the 6th row of the table: change &quot;f_y is the lower of the design strengths...&quot; into &quot;f_y is the lower of the yield strengths...&quot;</td>
</tr>
<tr>
<td>3.13.2(3) eqn (3.15)</td>
<td>change &quot;F_{Ed,ser}&quot; into &quot;F_{b,Ed,ser}&quot; , also in the explanation of the parameters</td>
</tr>
<tr>
<td>3.13.2(3) eqn (3.16)</td>
<td>change &quot;h_{Ed}&quot; into &quot;h_{Ed,rd}&quot;</td>
</tr>
<tr>
<td>4.5.1(1)</td>
<td>change &quot;The effective length of the fillet weld l ...&quot; into &quot;The effective length of the fillet weld leff ...&quot;</td>
</tr>
<tr>
<td>4.7.3(1)</td>
<td>change the reference to &quot;Figure 4.6(a)&quot; into &quot;Figure 4.6&quot;</td>
</tr>
</tbody>
</table>

4.14 Table 4.2 | add a NOTE to the table: "NOTE: Cold formed hollow sections according to EN 10.219 which do not satisfy the limits given in Table 4.2 can be assumed to satisfy these limits if these sections have a thickness not exceeding 12,5 mm and are Al-killed with a quality J2H, K2H, MH, MLH, NH or NLH and further satisfy C \leq 0,18\%, P \leq 0,020\% and S \leq 0,012\%. In other cases welding is only permitted within a distance of 5t from the corners if it can be shown by tests that welding is permitted for that particular application."
5.1.5(3) add a third bullet "- the eccentricity is within the limits specified in 5.1.5(5)"

5.1.5(7) in first sentence change "...and the compression chord members." into "...and the members."

<table>
<thead>
<tr>
<th>Table 5.3</th>
<th>Eccentricity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>Not if 5.1.5(5) is satisfied</td>
</tr>
</tbody>
</table>

change in this part of the table the cells with "No" into "Not if 5.1.5(3) and (5) are satisfied"
change in the lowest cell "...5.1.5(5)..." into "...5.1.5(3) and (5)..."

6.1.3(2) basic joint component of (10) Bolts in tension, the reference to "6.4.7" for the rotation capacity should be changed into "6.4.2"

6.2.2(5) delete "either" in the 2nd line;
change "..., or,..." into "... and ..." in the 3rd line;
change ",...see 6.2.2(7), is sufficient..." into ",...see 6.2.2(7), added up is sufficient..." in the 4th line.

6.2.2(7) eqn 6.2 change "γ_{Mb}" into "γ_{M2}"
change "\(\alpha_{n}\)" into "\(\alpha_{nb}\)"

6.2.8 change "The design shear resistance \(F_{v,rd}\) of a column base plate..." into
"The design shear resistance \(F_{v,rd}\) between a column base plate and a grout layer..."

Table 6.2 change the formula for \(L_n^*\) into \(L_n^* = \frac{8.8m^2A_n}{\sum l_{ef}^t t_f^t}\) and add to the list \(n_b\) is the number of bolt rows (with 2 bolts per row)

6.2.5.2 NOTE change "The effective length and the effective width..." into
"The values for the effective length and the effective width..."
change "...are notional lengths..." into "...are notional values for these lengths..."

6.2.6.1(1) change "...d / t_w \leq 69\varepsilon" into "...d / t_w \leq 69\varepsilon"

6.2.6.4.1(2) Change title of the Figure 6.8 into
"Figure 6.8: Definitions of e, c_1, e_{min}, r_c and m" In Figure 6.8 and Figure 6.9 the parameter \(c_1\) needs to be indicated.

6.2.6.3 NOTE change the reference to "...4.10(4) and 4.10(6)." into "...4.10."

6.2.6.11(2) change "not be taken into consideration." into
"...not be taken into consideration when determining the thickness of the base plate.
Prying forces should be taken into account when determining the anchor bolts"

6.2.7.1(14) change "...to transmit 25%..." into "...to transmit at least 25%..."

6.2.7.2(7) 2nd line: delete "given by 6.2.7.2(6)"

6.2.7.2(8) 2nd line: delete "given by 6.2.7.2(6)"

6.2.7.2(10) The direction of the moments in the left hand side lower figure have to be changed to
the same direction as in the right hand side the lower figure.
6.2.8.1(5) change "- Frictional design resistance at the joint between the base plate and its support.
- The design shear resistance of the anchor bolts." into
"- Frictional design resistance at the joint between the base plate and its support added up with the design shear resistance of the anchor bolts."

6.3.4(1) change "...the sum of the stiffness coefficients..." into
"...the inverse of the sum of the inverses..." 2x

6.4.2(1) change "...d / t_u ≤ 69ε. " into "...d_seq / t_u ≤ 69ε."

6.4.2(2) add to the clarification of the parameters in eqn. (6.32):
"d is the nominal diameter of the bolt
f_ab is the ultimate tensile strength of the bolt material"

7.1.2(2) change "...for the condition of pure bending." into "...for the condition of axial compression."

7.1.2(6) add to the text:
"If the overlap exceeds λ_{ov,lim}=60% in case the hidden seam of the overlapped brace is not welded or λ_{ov,lim}=80% in case the hidden seam of the overlapped brace is welded or if the braces are rectangular sections with h_i < b_i and/or h_j < b_j, the connection between the braces and the chord face should be checked for shear."

7.4.1(3) change "...all the criteria given in..." into
"...all the failure modes given in...

7.4.2 eqn. (7.3) should read: 
$$\frac{N_{i,Ed}}{N_{i,Rd}} + \frac{M_{q,i,Ed}}{M_{q,i,Rd}} + \frac{|M_{q,i,Ed}|}{M_{q,i,Rd}} \leq 1,0$$

Table 7.1 change the table into:

<table>
<thead>
<tr>
<th>Diameter ratio</th>
<th>0.2 ≤ d_i/d_0 ≤ 1.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chords</td>
<td>tension</td>
</tr>
<tr>
<td></td>
<td>10 ≤ d_i/t_0 ≤ 50 (generally), but: 10 ≤ d_i/t_0 ≤ 40 (for X joints)</td>
</tr>
<tr>
<td></td>
<td>compression</td>
</tr>
<tr>
<td></td>
<td>Class 1 or 2 and 10 ≤ d_i/t_0 ≤ 50 (generally), but: 10 ≤ d_i/t_0 ≤ 40 (for X joints)</td>
</tr>
<tr>
<td>Braces</td>
<td>tension</td>
</tr>
<tr>
<td></td>
<td>d_i/t_i ≤ 50</td>
</tr>
<tr>
<td></td>
<td>compression</td>
</tr>
<tr>
<td></td>
<td>Class 1 or 2</td>
</tr>
<tr>
<td>Overlap</td>
<td></td>
</tr>
<tr>
<td></td>
<td>25% ≤ λ_{ov} ≤ λ_{ov,lim}, see 7.1.2 (6)</td>
</tr>
<tr>
<td>Gap</td>
<td></td>
</tr>
<tr>
<td></td>
<td>g ≥ t_1 + t_2</td>
</tr>
</tbody>
</table>

Table 7.2 Punching shear failure - K, N and KT gap joints and all T, Y and X joints [i = 1, 2 or 3]
change "...-K,..." into "...for K,..." and change "...all T,..." into "...T,..." resulting in the following text:
Punching shear failure for K, N and KT gap joints and T, Y and X joints [i=1,2 or 3]

Table 7.3 change index "i" into "1" in entire table
Table 7.4

I or H sections: \[ \sigma_{\text{max}} t_i = \left( \frac{N_{\text{ed}}}{A} + M_{\text{ed}}/W_\theta \right) t_i \leq 2t_0\left( f_{y0}/\sqrt{3} \right)/\gamma_{MS} \]
RHS sections: \[ \sigma_{\text{max}} t_i = \left( \frac{N_{\text{ed}}}{A} + M_{\text{ed}}/W_\theta \right) t_i \leq t_0\left( f_{y0}/\sqrt{3} \right)/\gamma_{MS} \]

change the content of the box into
"I or H sections with \( \eta > 2 \) (for axial compression and out-of-plane bending) and RHS sections: \[ \sigma_{\text{max}} t_i = \left( \frac{N_{\text{ed}}}{A} + M_{\text{ed}}/W_\theta \right) t_i \leq 2t_0\left( f_{y0}/\sqrt{3} \right)/\gamma_{MS} \]
All other cases: \[ \sigma_{\text{max}} t_i = \left( \frac{N_{\text{ed}}}{A} + M_{\text{ed}}/W_\theta \right) t_i \leq 2t_0\left( f_{y0}/\sqrt{3} \right)/\gamma_{MS} "

Table 7.4
change in the formulae for punching shear:
"\( N_{\text{ed}}, A, M_{\text{ed}} \) and \( W_\theta \) into \( N_{\text{ed},1}, A_1, M_{\text{ed},1} \) and \( W_{\theta,1} \)"

Table 7.4
Add in the 7th row: "where \( t_1 \) is the flange or wall thickness of the transverse I-, H-, or RHS section"

7.5.1(3)
change "...all the criteria given in..." into
"...all the failure modes given in..."

Table 7.6
Member 1 is always in compression and member 2 is always in tension.

change "Member 1 is always..." into "Members 1 and 3 are here...
change "member 2 is always..." into "member 2 is here"
change arrow for \( N_3 \) to express compression

Table 7.7
in the top right hand side figure and in the bottom right hand side figure change "\( \phi \)" into "\( \varphi \)"

Table 7.8
change "class 2" into "class 1 or 2"

Table 7.8
change in note 1) "\( g/b_0 > t_1 + t_2 \)" into "\( g > t_1 + t_2 \)"

Table 7.8
\[ \lambda_{ov} \geq 25\% \]
but \( \lambda_{ov} \leq 100\% \)
and \( b_i/b_j \geq 0.75 \)

change 1st line into: "25\% \leq \lambda_{ov} \leq \lambda_{ov,lim.} 2)"
delete 2nd line
change 3rd line into "\( b_i/b_j \leq 0.75 \)"

Table 7.8
1) If \( g/b_0 > 1.5(1-\beta) \) and \( g/b_0 > t_1 + b_i \) treat the joint as two separate Y or \( Y \) joints.
2) The overlap may be increased to enable the toe of the overlapped brace to be welded to the chord.

replace the text of 2) into
\( \lambda_{ov,lim.} = 60\% \) if the hidden seam is not welded and 80\% if the hidden seam is welded. If the overlap exceeds \( \lambda_{ov,lim.} \) or if the braces are rectangular sections with \( b_i < b_j \) and/or \( b_i < b_j \), the connection between the braces and chord face has to be checked for shear."
7.5.2.1(4) delete the reference to Table 7.10

Table 7.10

In the drawing for the K and N overlap joints *i) the indices "i" and "j" need to be switched. The overlapping brace should have index "i" and the overlapped brace should have index "j" to be consistent with the remark *

Table 7.10

Add to the text under *) after the last sentence: "See also Table 7.8."

Table 7.10

<table>
<thead>
<tr>
<th>K and N overlap joints *</th>
<th>Brace failure</th>
<th>25% ≤ λwc ≤ 50%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( N_{li,da} = \frac{f_{yt}}{\gamma_{M5}} \left( b_{ef} + b_{ew} + \frac{\lambda_{wc}}{50} (2h_i - 4t_i) \right) )</td>
<td>( f_{yt} )</td>
</tr>
</tbody>
</table>

in the formula change "\( \frac{\lambda_{wc}}{50} (2h_i - 4t_i) \)" into "\( 2h_i \frac{\lambda_{wc}}{50} - 4t_i \)"

Table 7.10

change index "i" into "1" in entire table

Table 7.11

change "\( b_{c,p} = \frac{10}{b_o/t_0} \)" into "\( b_{c,p} = \frac{10}{b_o} \)"

Table 7.11

Chord side wall buckling 1)  \( \beta = 1,0 \) 2)

\[
N_{li,da} = \frac{f_{yt}}{\sin \theta_i} \left( \frac{2h_i}{\sin \theta_i} + 10t_o \right) \gamma_{M5}
\]

change in the formula "\( f_{yt}t_0 \)" into "\( k_{p}f_{yt} \)"

Table 7.11

1) For X joints with \( \theta < 90° \) use the smaller of this value and the design shear resistance of the chord side walls given for K and N gap joints in Table 7.12.

change in the 1st line of 1) "For X joints with \( \theta < 90° \) use the..." into "For X joints with \( \cos \theta_1 > h_1/h_0 \) use the..."

Table 7.12

change "\( b_{c,p} = \frac{10}{b_o/t_0} \)" into "\( b_{c,p} = \frac{10}{b_o} \)"

Table 7.12

\( A_c = 2h_o + \alpha b_h h_0 \)

For a square or rectangular brace member:

\[
\alpha = \frac{1}{\sqrt{1 + \frac{4g^2}{3b_o^2}}}
\]

where \( g \) is the gap, see Figure 1.3(a).

For a circular brace member: \( \alpha = 0 \)

in the last line change "For circular brace members: \( \alpha = 0 \)" into "For circular brace members: \( \alpha = 0 \)"

Table 7.12

For circular braces, multiply the above resistances by \( \pi/4 \), replace \( b_1 \) and \( h_1 \) by \( d_1 \) and replace \( b_2 \) and \( h_2 \) by \( d_2 \).

change "...h2 by d2." into "...h2 by d2, except for chord shear."
Table 7.13

<table>
<thead>
<tr>
<th>Brace failure ([i = 1])</th>
</tr>
</thead>
<tbody>
<tr>
<td>(N_{i, Rd} = f_{y} t_{i} b_{eff} \gamma_{M5} )</td>
</tr>
</tbody>
</table>

change "Brace failure \([i=1]\)" into "Chord face failure \(\beta \leq 0,85\)"

change formula for \(N_{1, Rd}\) into "\(N_{1, Rd} = k_{n} f_{y} t_{0}^{2} \frac{2 + 2.8 \beta}{\sqrt{1 - 0.9 \beta}} \gamma_{M5}\)"

Table 7.13

<table>
<thead>
<tr>
<th>Chord side wall crushing when (b_{i} \geq b_{0} - 2t_{0})</th>
</tr>
</thead>
<tbody>
<tr>
<td>(N_{i, Rd} = f_{y} t_{0} (2 t_{i} + 10 t_{0}) \gamma_{M5} / \gamma_{M5})</td>
</tr>
</tbody>
</table>

change in the formula "\(f_{y} t_{0}\)" into "\(k_{n} f_{y} t_{0}\)"

Table 7.13

<table>
<thead>
<tr>
<th>Chord face failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>(N_{1, Rd} = \frac{k_{n} f_{y} t_{0}^{2}}{1 - t_{i} / b_{0}} \left(2 h_{1} / b_{0} + 4 \sqrt{1 - t_{i} / b_{0}}\right) \gamma_{M5})</td>
</tr>
</tbody>
</table>

Delete term "\((1-t_{i}/b_{0})\)" in the denominator of the formula

Table 7.13

As a conservative approximation, if \(\eta \geq 2 \sqrt{1 - \beta}\), \(N_{i, Rd}\) for an I or H section may be assumed to be equal to the design resistance of two transverse plates of similar dimensions to the flanges of the I or H section, determined as specified above.

If \(\eta < 2 \sqrt{1 - \beta}\), a linear interpolation between one and two plates should be made.

\(M_{y,1,Rd} = N_{1, Rd} (h_{1} - t_{i})\)

Add after last equation:

"\(N_{1, Rd}\) is the capacity of one flange; \(\beta\) is the ratio of the width of the flange of the I or H brace section and the width of the RHS chord"

Table 7.14

change in the Moment Resistance in case of brace failure:

\(M_{y,1,Rd} = f_{y} \left(W_{pl1} - (1 - b_{eff} / b_{i}) b_{i} h_{1} t_{i}\right) / \gamma_{M5}\)

into:

\(M_{y,1,Rd} = f_{y} \left(W_{pl1} - (1 - b_{eff} / b_{i}) b_{i} (h_{1} - t_{i}) t_{i}\right) / \gamma_{M5}\)

Table 7.14

change in rows 4, 6, 10, 14, the limits "0,85 \(\leq \beta \leq 1,0\)" into "0,85 < \(\beta \leq 1,0\)"

7.6(2) change "...the design criteria covered in..." into "...the failure modes covered in..."

7.6(3) change "...all the criteria given in..." into
"...all the failure modes given in...

<table>
<thead>
<tr>
<th>Table 7.17</th>
<th>change index &quot;i&quot; into &quot;1&quot; in entire table</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \frac{t_p}{\sin \theta} \geq \frac{h_i}{\sin \theta} + \sqrt{b_p (b_p - b_i)} )</td>
</tr>
<tr>
<td></td>
<td>( \geq 1.5h_i / \sin \theta_i ) and ( b_p \geq b_0 - 2t_0 )</td>
</tr>
<tr>
<td></td>
<td>( N_{RA} = \frac{f_p^2 f_{jz}}{(1 - b_i / b_p) \sin \theta} ) \ldots</td>
</tr>
<tr>
<td></td>
<td>( \ldots \frac{2b / b_p + 4(1 - b_i / b_p)}{\sin \theta} / \gamma_{wt} )</td>
</tr>
</tbody>
</table>

above "and" delete "\( \geq 1.5h_i / \sin \theta_i \)"

below "
and \( b_p \geq b_0 - 2t_0 \),

add "\( t_p \geq 2t_i \)"

<table>
<thead>
<tr>
<th>Table 7.17</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \frac{t_p}{\sin \theta} \geq \frac{h_i}{\sin \theta} + \sqrt{b_p (b_p - b_i)} )</td>
</tr>
<tr>
<td></td>
<td>( \geq 1.5h_i / \sin \theta_i ) and ( b_p \geq b_0 - 2t_0 )</td>
</tr>
</tbody>
</table>
|         | Take \( N_{RA} \) as the value of \( N_{RA} \) for a T, X or Y joint from Table 7.11, but with \( b_i = 1.0 \) and \( \gamma_i \) replaced by \( \gamma_p \) for chord face failure, brace failure and punching shear only.

above "and" delete "\( \geq 1.5h_i / \sin \theta_i \)"

below "
and \( b_p \geq b_0 - 2t_0 \),

add "\( t_p \geq 2t_i \)"
Table 7.17

\[ t_p \geq 1.5 h_i / \sin \theta_i \]

Take \( N_{x,2B} \) as the value of \( N_{x,2A} \) for a T, X or Y joint from Table 7.11, but with \( \theta_i \) replaced by \( \theta_i + 90^\circ \) for chord side wall buckling failure and chord side wall shear failure only.

Table 7.18

The 3rd box for the design of K, N joints reinforced with a pair of side plates, change "t_0" into "\( t_p \)"
change also "b_0" into "b_p" and "f_0" by "f_p"

Table 7.19

change "\( \phi \)" into "\( \phi \)" in two figures
change in the right hand side figure for XX joints "N_i" into "N_i1"

Table 7.20

change everywhere except in 2nd column for X: "Class 1" into: "Class 1 or 2"
Add for overlap joints: "25% \( \leq \lambda_{ov} \leq \lambda_{ov,lim.} \)"
with note:
" 1) \( \lambda_{ov,lim.} = 60\% \) if the hidden seam is not welded and 80\% if the hidden seam is welded. If the overlap exceeds \( \lambda_{ov,lim.} \) or if the braces are rectangular sections with \( h_i < b_i \) and/or \( h_j < b_j \), the connection between the braces and chord face has to be checked for shear."

Table 7.21

change in the 6th box on the right hand side "0.75 < b_1/b_2 < 1.33" into "0.75 \( \leq b_1/b_2 \leq 1.33 \)"

Table 7.21

change in the formulae for brace failure in K and N overlap joints "h_i - 2t_i" in the 1st equation into "2h_i \( \lambda_{ov} \) - 4t_i" and in the 2nd equation into "2h_i - 4t_i"

Table 7.21

change the whole box into "

\[ p_{eff} = t_w + 2r + 7t_f f_{y0} / f_{yi} \]

but for T, Y, X joints and for K and N gap joints:
\[ p_{eff} \leq b_i + h_i - 2t_i \]

but for K and N overlap joints:
\[ p_{eff} \leq b_i \]
Table 7.21 change in 7th box from above (2nd column) "sin θ_j" into "sin θ_i" and change "N_i,Rd" into "N_1,Rd"

Table 7.21 change in the 8th box on the left hand side of the table in the formula for α in case of RHS brace: 
\[ \alpha = \frac{1}{\sqrt{(1 + 4g^2/(3r_j^2))}} \]

Table 7.21 6th row from above on the right hand side change "Chord web stability" into "Chord web yielding"

Table 7.21 For CFS braces multiply the above resistances for brace failure by x4 and replace both b_i and h_i by d_i and both b_j and h_j by d_j change "...h2 by d2." into "...h2 by d2, except for chord shear."

Table 7.21 Add to the text under * after the last sentence: "See also Table 7.20."

7.6(8) change "...design bracing failure..." into "...design brace failure..."

Table 7.22 Change "b_eff" into "p_eff" (4x) and change "b_eff ≤ b_i" into 
p_eff ≤ b_i+h_1-2t_1"

Table 7.22 Chord web stability 
\[ M_{p1,Rd} = 0.5f_{y,i}b_ih_i/\gamma_M5 \]

change "h_1" into "(h_1-t_1)"

Table 7.22 Brace failure 
\[ M_{p1,Rd} = f_{y,i}b_eff(h_1-t_1)/\gamma_M5 \]

change "(h_1-t_1)" into "h_1"

Figure 7.7 in the text below the right hand side figure change "Bracing effective..." into "Brace effective..."

Table 7.23 in 3rd column change "class 1" into "class 1 or 2"

Table 7.23 in 6th column change "class 2" into "class 1 or 2"

Table 7.23 25% ≤ \lambda_{ov} < 100% 
\[ \beta \geq 0.75 \]

change "25% ≤ \lambda_{ov} < 100%" into "25% ≤ \lambda_{ov} ≤ \lambda_{ov,lim}"

Table 7.23 \[ \beta^* = \frac{b_i}{b_0^*} \]
\[ b_0^* = b_0 - 2(r_w + r_y) \]

1) This condition only apply when \( \beta \leq 0.85 \).

add a second note:
2) \( \lambda_{ov,lim} = 60\% \) if the hidden seam is not welded and 80% if the hidden seam is welded. If the overlap exceeds \( \lambda_{ov,lim} \) or if the braces are rectangular sections with \( h_i < b_i \) and/or \( h_j < b_j \), the connection between the braces and chord face has to be checked.
for shear."

Table 7.24

<table>
<thead>
<tr>
<th>K and N overlap joints (x)</th>
<th>Brace failure (25% \leq \lambda_{ov} &lt; 50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(N_{ov,e} = f_{y}\frac{t}{4}(b_{ov} + b_{ov} + (2h - 4t_{i})\lambda_{ov} / 50))</td>
<td>(\gamma_{s} )</td>
</tr>
</tbody>
</table>

in the formula change "\( \cdot (2h_{i} - 4t_{i})\lambda_{ov} / 50\) " into "\( 2h_{i} \frac{\lambda_{ov}}{50} - 4t_{i}\) "

Table 7.24

| For CHS braces except the chord failure, multiply the above resistances by \(\pi/4\) and replace both \(b_{2}\) and \(b_{1}\) by \(d_{1}\) as well as \(b_{2}\) and \(b_{2}\) by \(d_{2}\). |

change "...except the chord failure,..." into "...except for the chord shear,..."