HOOK, COG AND BEND DETAILS FOR REINFORCING BARS
(Except Stirrups, Ligatures or Ties)

Standard Hook and Cog Dimensions for Reinforcing Bars

<table>
<thead>
<tr>
<th>A</th>
<th>10</th>
<th>12</th>
<th>16</th>
<th>20</th>
<th>24</th>
<th>28</th>
<th>32</th>
<th>36</th>
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<td>50</td>
<td>60</td>
<td>80</td>
<td>100</td>
<td>120</td>
<td>140</td>
<td>160</td>
<td>180</td>
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<td>Le</td>
<td>105</td>
<td>115</td>
<td>130</td>
<td>150</td>
<td>180</td>
<td>210</td>
<td>240</td>
<td>270</td>
<td>300</td>
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<td>Lh</td>
<td>150</td>
<td>170</td>
<td>200</td>
<td>240</td>
<td>290</td>
<td>340</td>
<td>380</td>
<td>440</td>
<td>500</td>
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</tbody>
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NOTES:

1. SCOPE: This drawing is to detail standard bar shapes used by TKR and also the hooks, cogs and bends to be used.
   This Standard Drawing was developed in accordance with AS 1180.5.
   Hooks, cogs and bend details shown in this drawing do not apply to the following:
   a. Structural elements built with slip form construction
   b. epoxy coated or galvanised bars, either before or after bending
   c. bars that are subsequently straightened or reformed
   d. Banded bars
      e. Stainless steel reinforcement
      f. Welds, cogs and bends for any of the above shall be project specific design in accordance with AS 1180.5.
      Refer Standard Drawing 1044 for hipped slope lengths and general steel reinforcement information.

2. REINFORCING STEEL shall be in accordance with WRT371 and AS/NZS 4671.
   Deformed bars Grade 250S4.
   Rounds bars Grade R500N.
   All reinforcing steel shall be WRAC certified.

3. BAR SIZES DIMENSIONS denoted by A in the details on this drawing are those
   Included A, B, C, E, F, G, H, I shown on Drawings 2 to 4 of the Standard Drawing.

4. F - UNSTEADY Hook shall be used for capping of bars unless shown otherwise in the Steel Schedule.
   Measurements or bars are taken from the intersection of the bars along the value faces of this line.

5. WELDING of reinforcement shall only be used when prior approval of the Project
   Administrator has been obtained and shall be carried out in accordance with WRT371.
   Welding symbols to AS 1101.3.
   Welding of bars up to AS/NZS 1554.3.
   All welds, except location tack welds, shall be SF category.
   Tank welding for fabrication purposes to AS/NZS 1554.3.
   Welding shall not be carried out within 150 from any hot face portion of the bar.
   Welding consumables shall be controlled hydrogen type U400 to AS/NZS 1444.4 or THER to AS/NZS 17682-8
   or THER to AS/NZS 17682-8 or WRAC to AS/NZS ISO 17682-8.

6. DIMENSIONS are in millimeters.

REFERENCES DOCUMENTS:
Departmental Standard Drawings
1044 Reinforcing Steel - Lap Lengths

Departmental Specifications:
WRT371 Reinforcing Steel