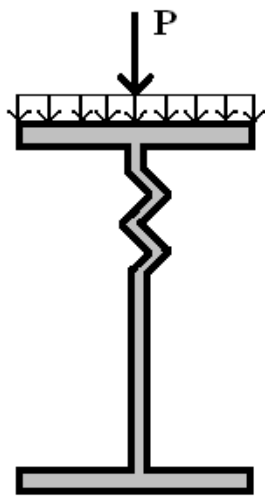


WEB CRIPPLING

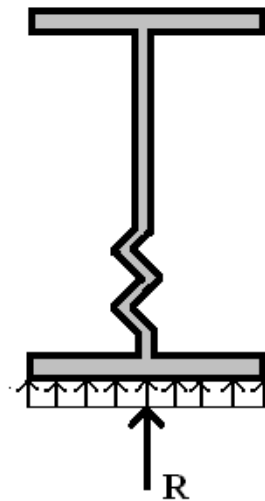
Web crippling causes local crushing failure of web due to large bearing stresses under reactions at supports or concentrated loads. This occurs due to stress concentration

because of the bottle neck condition at the junction between flanges and web. It is due to

the large localized bearing stress caused by the transfer of compression from relatively wide flange to narrow and thin web. Web crippling is the crushing failure of the metal at the junction of flange and web. Web crippling causes local buckling of web at the junction of web and flange.



Under Concentrated Load



Under Support

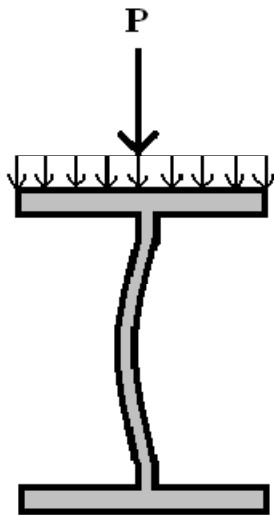
WEB CRIPPLING OF BEAMS

For safety against web crippling, the resisting force shall be greater than the reaction or the concentrated load.

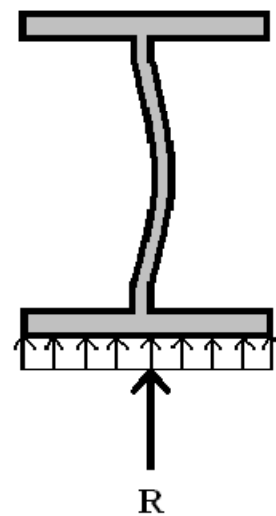
WEB BUCKLING

The web of the beam is thin and can buckle under reactions and concentrated

loads with the web behaving like a short column fixed at the flanges. The unsupported length between the fillet lines for I sections and the vertical distance between the flanges or flange angles in built up sections can buckle due to reactions or concentrated loads. This is called web buckling.



Under Concentrated Load



Under Support

WEB BUCKLING OF BEAMS

For safety against web buckling, the resisting force shall be greater than the reaction or the concentrated load.