



Stress distribution in plate with a circular hole (From: Eschenauer, H. & Schnell. W. Elastizitaetstheorie I, BI Wissenschaftsverlag, 1986)

$$\sigma \longleftrightarrow \tau; \quad \sigma_0 = T$$

Note that the hoop stress at the hole is three times larger than the stress applied at infinity. In engineering applications this is expressed as a ‘stress intensity factor’.