A6.5212 Shear stress on threads: \( \tau^N \)
- For bolt and tapping threads: \( \tau^N = 2N/(\pi.d_1.L'_e) \) with \( L'_e \leq L_e \).

A6.5213 Shear stress on the screw head: \( \tau^N \)
- \( \tau^N = N/(\pi.d_1.H) \)

A6.5214 Contact pressure: \( p^N \)
- between engaged threads: \( p^N = 4N.p/[\pi.(d^2 - D^2).L_a] \)
- under the head or nut if there is no washer: \( p^N = 4N/[\pi.(a^2 - D_p^2)] \)
- on assembled parts if there is a washer: \( p^N = 4N/[\pi.(a^2 - D'_p^2)] \)
with:
- \( a' = a + 2C \)
- \( D'_p \) the greater of the two values (\( D_p ; B \))

A6.5220 STRESSES INDUCED BY A BENDING MOMENT: \( M \)

A6.5221 Bending stress: \( \sigma^M \)
- on the thread root section: \( \sigma_n^M = \pm 32M / (\pi.d_n^3) \)
- on the smooth shank section: \( \sigma_l^M = \pm 32M / (\pi.d_l^3) \)

A6.5222 Shear stresses on the threads: \( \tau^M \)
- For bolt and tapping threads: \( \tau^M = 8M/(\pi.d^2.L'_e) \) avec \( L'_e \leq L_a \).

A6.5223 Shear stress on the screw head: \( \tau^M \)
- \( \tau^M = M/(\pi.d^2.H) \)

A6.5224 Contact pressure: \( p^M \)
- Between the engaged threads:
- under the head if there is no washer:
- on the assembled part if there is a washer:

with:
- \( a' \) equals the smaller of two values (\( a + 2C; A \))
- \( D'_p \) equals the greater of two values (\( D_p ; B \))

A6.5230 STRESSES INDUCED BY RESIDUAL TWISTING TORQUES \( C_r \) AND \( C_t \)

A6.5231 Thread root shear stress
- \( \tau^C_r = 16 C_r/(\pi.d_n^3) \)

A6.5232 Smooth shank shear stress
- \( \tau^C_l = 16 C_l/(\pi.d_l^3) \)

A6.5233 Head shear stress
- \( \tau^C_h = 16 C_h/(\pi.d_h^3) \)