Table 1A

Section I; Section III, Division 1, Classes 2 and 3;\* Section VIII, Division 1; and Section XII Maximum Allowable Stress Values, *S*, for Ferrous Materials

(\*See Maximum Temperature Limits for Restrictions on Class)

**Min. Tensile**

**Min. Yield**

**Applicability and Max. Temperature Limits (NP = Not Permitted)**

**External**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Line**  **No.** | **Strength,**  **MPa** | **Strength,**  **MPa** | **I** | **(SPT = Supports**  **III** | **Only)**  **VIII-1** | **XII** | **Pressure**  **Chart No.** | **Notes** |
| 1 | 275 | 140 | NP | NP | 343 | NP | CS–6 | … |
| 2 | 275 | 140 | NP | NP | 343 | NP | CS–6 | … |
| 3 | 310 | 155 | NP | 343 (Cl. 3 only) | 482 | 343 | CS–6 | G10, G22, T10 |
| 4 | 310 | 165 | NP | 149 (Cl. 3 only) | NP | NP | CS–1 | W12 |
| 5 | … | … | … | … | … | … | … | … |
| 6 | 310 | 165 | 482 | 371 | 482 | 343 | CS–1 | G10, T2 |
| 7 | 310 | 165 | NP | 371 | NP | NP | CS–1 | S6, W10, W12 |
| 8 | 310 | 170 | NP | NP | 482 | 343 | CS–1 | G10, T2 |
| 9 | 325 | 180 | 538 | NP | NP | NP | CS–1 | G4, G10, S1, T2, W13 |
| 10 | 325 | 180 | 538 | NP | 538 | 343 | CS–1 | G3, G10, G24, S1, T2, W6 |
| 11 | 325 | 180 | NP | NP | 482 | 343 | CS–1 | G10, T2 |
| 12 | 325 | 180 | 538 | NP | 538 | 343 | CS–1 | G10, S1, T2 |
| 13 | 325 | 180 | NP | NP | 538 | 343 | CS–1 | G24, T2, W6 |
| 14 | 325 | 180 | NP | NP | 538 | 343 | CS–1 | G10, T2 |
| 15 | 325 | 180 | NP | NP | 538 | 343 | CS–1 | G24, T2, W6 |
| 16 | 330 | 205 | 482 | NP | NP | NP | CS–2 | G3, G10, S1, T2 |
| 17 | 330 | 205 | 482 | 149 (Cl. 3 only) | NP | NP | CS–2 | G10, S1, T2, W12, W13 |
| 18 | 330 | 205 | NP | NP | 482 | 343 | CS–2 | G24, T2, W6 |
| 19 | 330 | 205 | 399 | NP | NP | NP | CS–2 | G2, G10, S10, T2, W15 |
| 20 | 330 | 205 | 482 | 149 (Cl. 3 only) | NP | NP | CS–2 | G10, S1, T2 |
| 21 | 330 | 205 | NP | 371 (SPT) | 482 | 343 | CS–2 | G10, T2 |
| 22 | 330 | 205 | 538 | 371 | 538 | 343 | CS–2 | G10, S1, T1 |
| 23 | 330 | 205 | NP | NP | 482 | 343 | CS–2 | G24, T2, W6 |
| 24 | 330 | 205 | 538 | NP | NP | NP | CS–2 | G10, S1, T1 |
| 25 | 330 | 205 | NP | 149 (Cl. 3 only) | NP | NP | CS–2 | … |
| 26 | 330 | 205 | NP | NP | 454 | 343 | CS–2 | G24, T2, W6 |
| 27 | 345 | 170 | NP | 343 (Cl. 3 only) | NP | NP | CS–1 | … |
| 28 | 345 | 170 | 454 | 371 (SPT) | 482 | 343 | CS–1 | G10, G15, G22, S1, T2 |
| 29 | 345 | 185 | NP | 149 (Cl. 3 only) | NP | NP | CS–1 | W12 |
| 30 | … | … | … | … | … | … | … | … |
| 31 | 345 | 185 | 482 | NP | NP | NP | CS–1 | G10, S1, T1 |
| 32 | 345 | 185 | NP | 371 | 482 | 343 | CS–1 | G10, T1 |
| 33 | 345 | 185 | NP | 371 | NP | NP | CS–1 | S6, T1, W10, W12 |
| 34 | 345 | 205 | NP | NP | 482 | 343 | CS–2 | G10, T1 |
| 35 | 350 | 215 | NP | NP | 204 | NP | CS–2 | G10 |
| 36 | 360 | 215 | NP | NP | 371 | NP | CS–2 | T11 |
| 37 | 360 | 215 | 538 | NP | 538 | NP | CS–2 | G10, S1, T2, W14 |
| 38 | 360 | 225 | NP | NP | 204 | NP | CS–2 | G10 |
| 39 | 360 | 225 | 538 | NP | 538 | NP | CS–2 | G10, S1, T2, W14 |
| 40 | 360 | 235 | 538 | NP | 538 | NP | CS–2 | G10, S1, T2, W14 |
| 41 | 365 | 250 | NP | NP | 316 | 316 | CS–2 | … |
| 42 | 370 | 235 | NP | NP | 204 | NP | CS–2 | G10 |
| 43 | 380 | 275 | NP | NP | 316 | 316 | CS–2 | … |
| 44 | 380 | 310 | NP | NP | 316 | 316 | CS–3 | … |
| 45 | 380 | 190 | 454 | 371 (SPT) | 482 | 343 | CS–1 | G10, G15, G22, S1, T2 |