$F_y$ = 36 ksi
$F_u$ = 58 ksi

# Table 5-8
# Available Strength in Axial Tension
## Double Angles

2L12–2L8

| Shape | Gross Area, $A_g$ | $A_e$ = 0.75$A_g$ | Yielding kips | | Rupture kips | |
|---|---|---|---|---|---|---|
| | | | $P_n/\Omega_t$ | $\phi_t P_n$ | $P_n/\Omega_t$ | $\phi_t P_n$ |
| | in.² | in.² | ASD | LRFD | ASD | LRFD |
| 2L12×12×1 3/8 | 62.2 | 46.7 | 1340 | 2020 | 1350 | 2030 |
| ×1 1/4 | 56.8 | 42.6 | 1220 | 1840 | 1240 | 1850 |
| ×1 1/8 | 51.6 | 38.7 | 1110 | 1670 | 1120 | 1680 |
| ×1 | 46.0 | 34.5 | 992 | 1490 | 1000 | 1500 |
| 2L10×10×1 3/8 | 51.2 | 38.4 | 1100 | 1660 | 1110 | 1670 |
| ×1 1/4 | 46.8 | 35.1 | 1010 | 1520 | 1020 | 1530 |
| ×1 1/8 | 42.6 | 32.0 | 918 | 1380 | 928 | 1390 |
| ×1 | 38.0 | 28.5 | 819 | 1230 | 827 | 1240 |
| ×7/8 | 33.6 | 25.2 | 724 | 1090 | 731 | 1100 |
| ×3/4 | 29.0 | 21.8 | 625 | 940 | 632 | 948 |
| 2L8×8×1 1/8 | 33.6 | 25.2 | 724 | 1090 | 731 | 1100 |
| ×1 | 30.2 | 22.7 | 651 | 978 | 658 | 987 |
| ×7/8 | 26.6 | 20.0 | 573 | 862 | 580 | 870 |
| ×3/4 | 23.0 | 17.3 | 496 | 745 | 502 | 753 |
| ×5/8 | 19.4 | 14.6 | 418 | 629 | 423 | 635 |
| ×9/16 | 17.5 | 13.1 | 377 | 567 | 380 | 570 |
| ×1/2 | 15.7 | 11.8 | 338 | 509 | 342 | 513 |
| 2L8×6×1 | 26.2 | 19.7 | 565 | 849 | 571 | 857 |
| ×7/8 | 23.0 | 17.3 | 496 | 745 | 502 | 753 |
| ×3/4 | 20.0 | 15.0 | 431 | 648 | 435 | 653 |
| ×5/8 | 16.8 | 12.6 | 362 | 544 | 365 | 548 |
| ×9/16 | 15.2 | 11.4 | 328 | 492 | 331 | 496 |
| ×1/2 | 13.6 | 10.2 | 293 | 441 | 296 | 444 |
| ×7/16 | 12.0 | 9.00 | 259 | 389 | 261 | 392 |
| 2L8×4×1 | 22.2 | 16.7 | 479 | 719 | 484 | 726 |
| ×7/8 | 19.6 | 14.7 | 423 | 635 | 426 | 639 |
| ×3/4 | 17.0 | 12.8 | 366 | 551 | 371 | 557 |
| ×5/8 | 14.3 | 10.7 | 308 | 463 | 310 | 465 |
| ×9/16 | 13.0 | 9.75 | 280 | 421 | 283 | 424 |
| ×1/2 | 11.6 | 8.70 | 250 | 376 | 252 | 378 |
| ×7/16 | 10.2 | 7.65 | 220 | 330 | 222 | 333 |

| Limit State | ASD | LRFD |
|---|---|---|
| Yielding | $\Omega_t = 1.67$ | $\phi_t = 0.90$ |
| Rupture | $\Omega_t = 2.00$ | $\phi_t = 0.75$ |

Note: Tensile rupture on the effective net area will control over tensile yielding on the gross area unless the tension member is selected so that an end connection can be configured with $A_e \geq 0.745A_g$.

2L7–2L5

## Table 5-8 (continued)
# Available Strength in Axial Tension
## Double Angles

$F_y$ = 36 ksi
$F_u$ = 58 ksi

| Shape | Gross Area, $A_g$ | $A_e$ = 0.75$A_g$ | Yielding kips $P_n/\Omega_t$ | Yielding kips $\phi_t P_n$ | Rupture kips $P_n/\Omega_t$ | Rupture kips $\phi_t P_n$ |
|---|---|---|---|---|---|---|
| | in.² | in.² | ASD | LRFD | ASD | LRFD |
| 2L7×4×3/4 | 15.5 | 11.6 | 334 | 502 | 336 | 505 |
| ×5/8 | 13.0 | 9.75 | 280 | 421 | 283 | 424 |
| ×1/2 | 10.5 | 7.88 | 226 | 340 | 229 | 343 |
| ×7/16 | 9.26 | 6.95 | 200 | 300 | 202 | 302 |
| ×3/8 | 8.00 | 6.00 | 172 | 259 | 174 | 261 |
| 2L6×6×1 | 22.0 | 16.5 | 474 | 713 | 479 | 718 |
| ×7/8 | 19.5 | 14.6 | 420 | 632 | 423 | 635 |
| ×3/4 | 16.9 | 12.7 | 364 | 548 | 368 | 552 |
| ×5/8 | 14.3 | 10.7 | 308 | 463 | 310 | 465 |
| ×9/16 | 12.9 | 9.68 | 278 | 418 | 281 | 421 |
| ×1/2 | 11.5 | 8.63 | 248 | 373 | 250 | 375 |
| ×7/16 | 10.2 | 7.65 | 220 | 330 | 222 | 333 |
| ×3/8 | 8.76 | 6.57 | 189 | 284 | 191 | 286 |
| ×5/16 | 7.34 | 5.51 | 158 | 238 | 160 | 240 |
| 2L6×4×7/8 | 16.0 | 12.0 | 345 | 518 | 348 | 522 |
| ×3/4 | 13.9 | 10.4 | 300 | 450 | 302 | 452 |
| ×5/8 | 11.7 | 8.78 | 252 | 379 | 255 | 382 |
| ×9/16 | 10.6 | 7.95 | 229 | 343 | 231 | 346 |
| ×1/2 | 9.50 | 7.13 | 205 | 308 | 207 | 310 |
| ×7/16 | 8.36 | 6.27 | 180 | 271 | 182 | 273 |
| ×3/8 | 7.22 | 5.42 | 156 | 234 | 157 | 236 |
| ×5/16 | 6.06 | 4.55 | 131 | 196 | 132 | 198 |
| 2L6×3 1/2×1/2 | 9.00 | 6.75 | 194 | 292 | 196 | 294 |
| ×3/8 | 6.88 | 5.16 | 148 | 223 | 150 | 224 |
| ×5/16 | 5.78 | 4.34 | 125 | 187 | 126 | 189 |
| 2L5×5×7/8 | 16.0 | 12.0 | 345 | 518 | 348 | 522 |
| ×3/4 | 14.0 | 10.5 | 302 | 454 | 305 | 457 |
| ×5/8 | 11.8 | 8.85 | 254 | 382 | 257 | 385 |
| ×1/2 | 9.58 | 7.19 | 207 | 310 | 209 | 313 |
| ×7/16 | 8.44 | 6.33 | 182 | 273 | 184 | 275 |
| ×3/8 | 7.30 | 5.48 | 157 | 237 | 159 | 238 |
| ×5/16 | 6.14 | 4.61 | 132 | 199 | 134 | 201 |

| Limit State | ASD | LRFD |
|---|---|---|
| Yielding | $\Omega_t = 1.67$ | $\phi_t = 0.90$ |
| Rupture | $\Omega_t = 2.00$ | $\phi_t = 0.75$ |

Note: Tensile rupture on the effective net area will control over tensile yielding on the gross area unless the tension member is selected so that an end connection can be configured with $A_e \geq 0.745A_g$.