

U.S. BOLT TORQUE SPECIFICATIONS

Torque in pounds-foot

| Bolt Dia. | Thread per inch | 2 | | 5 | | 7 | | 8 | | Socket head cap screw | Socket head cap screw |
|-----------|-----------------|-----|-------|-----|-------|-----|-------|-----|-------|-----------------------|-----------------------|
| | | Dry | Oiled | Dry | Oiled | Dry | Oiled | Dry | Oiled | Dry | Oiled |
| 1/4 | 20 | 4 | 3 | 8 | 6 | 10 | 8 | 12 | 9 | 14 | 11 |
| 1/4 | 28 | 6 | 4 | 10 | 7 | 12 | 9 | 14 | 10 | 16 | 13 |
| 5/16 | 18 | 9 | 7 | 17 | 13 | 21 | 16 | 25 | 18 | 29 | 23 |
| 5/16 | 24 | 12 | 9 | 19 | 14 | 24 | 18 | 29 | 20 | 33 | 26 |
| 3/8 | 16 | 16 | 12 | 30 | 23 | 40 | 30 | 45 | 35 | 49 | 39 |
| 3/8 | 24 | 22 | 16 | 35 | 25 | 45 | 35 | 50 | 40 | 54 | 44 |
| 7/16 | 14 | 24 | 17 | 50 | 35 | 60 | 45 | 70 | 55 | 76 | 61 |
| 7/16 | 20 | 34 | 26 | 55 | 40 | 70 | 50 | 80 | 60 | 85 | 68 |
| 1/2 | 13 | 38 | 31 | 75 | 55 | 95 | 70 | 110 | 80 | 113 | 90 |
| 1/2 | 20 | 52 | 42 | 90 | 65 | 100 | 80 | 120 | 90 | 126 | 100 |
| 9/16 | 12 | 52 | 42 | 110 | 80 | 135 | 100 | 150 | 110 | 163 | 130 |
| 9/16 | 18 | 71 | 57 | 120 | 90 | 150 | 110 | 170 | 130 | 181 | 144 |
| 5/8 | 11 | 98 | 78 | 150 | 110 | 190 | 140 | 220 | 170 | 230 | 184 |
| 5/8 | 18 | 115 | 93 | 180 | 130 | 210 | 160 | 240 | 180 | 255 | 204 |
| 3/4 | 10 | 157 | 121 | 260 | 200 | 320 | 240 | 380 | 280 | 400 | 320 |
| 3/4 | 16 | 180 | 133 | 300 | 220 | 360 | 280 | 420 | 320 | 440 | 350 |
| 7/8 | 9 | 210 | 160 | 430 | 320 | 520 | 400 | 600 | 460 | 640 | 510 |
| 7/8 | 14 | 230 | 177 | 470 | 360 | 580 | 440 | 660 | 500 | 700 | 560 |
| 1 | 8 | 320 | 240 | 640 | 480 | 800 | 600 | 900 | 680 | 980 | 780 |
| 1 | 12 | 350 | 265 | 710 | 530 | 860 | 666 | 990 | 740 | 1060 | 845 |

BOLT TORQUE FACTORS

| LUBRICANT OR PLATING | TORQUE CHANGES |
|---------------------------------|--------------------------|
| Oil | Reduce torque 15% to 25% |
| Dry Film (Teflon or moly based) | Reduce torque 50% |
| Dry Wax (Cetyl alcohol) | Reduce torque 50% |
| Chrome plating | No change |
| Cadmium plating | Reduce torque 25% |
| Zinc plating | Reduce torque 15% |