

SAE J429 Bolt Torque Tables

Below is a table of nominal torque settings in **Foot-Pounds** for all fasteners without required torque settings. Use the minimum grade torque values with screws fastened into steel plates without harden steel.

| Torque-Tension Relationships for SAE J429 Bolts Fine/Dry Thread (Listed in ft-lb) | | | |
|---|-------------|-------------|-------------|
| DIA | Grade 2 | Grade 5 | Grade 8 |
| 1/4--28 | 75 in-lbs | 115 in-lbs. | 163 in-lbs. |
| 5/16--24 | 150 in-lbs | 230 in-lbs | 325 in-lbs |
| 3/8--24 | 22.5 ft-lbs | 35 ft-lbs. | 50 ft-lbs. |
| 7/16--20 | 36 | 55 | 78 |
| 1/2--20 | 55 | 85 | 120 |
| 9/16--18 | 79 | 122 | 172 |
| 5/8--18 | 110 | 170 | 240 |
| 3/4--16 | 193 | 298 | 420 |
| 7/8--14 | 184 | 473 | 668 |
| 1--14 | N/A | 720 | 995 |
| 1-1/8--12 | N/A | 900 | 1444 |
| 1-1/4--12 | N/A | 1240 | 2012 |
| 1-3/8--12 | N/A | 1670 | 2712 |
| 1-1/2--12 | N/A | 2200 | 3557 |

1 in-lb = 0.1129 Nm

1 ft-lb = 1.356 Nm

| Tension relationships for Nyloc Fasteners (Listed in ft-lb) | | | |
|--|-------------|-------------|------------|
| DIA | Lubrication | Recommended | Max. Limit |
| 5/16--18 | NONE | 17 | 26 |
| | OILED | 12 | 18 |
| 3/8--16 | NONE | 34 | 53 |
| | OILED | 23 | 36 |
| 7/16--14 | NONE | 44 | 67 |
| | OILED | 30 | 46 |
| 1/2--13 | NONE | 83 | 128 |
| | OILED | 57 | 87 |
| 9/16--12 | NONE | 117 | 165 |
| | OILED | 73 | 112 |
| 5/8--11 | NONE | 201 | 309 |
| | OILED | 137 | 211 |
| 3/4--10 | NONE | 384 | 590 |
| | OILED | 262 | 403 |
| 7/8--9 | NONE | 572 | 880 |
| | OILED | 390 | 600 |
| 1--8 | NONE | 806 | 1240 |
| | OILED | 549 | 845 |
| 1 1/8--7 | NONE | 1050 | 1620 |
| | OILED | 715 | 1100 |
| 1 1/4--7 | NONE | 1525 | 2340 |
| | OILED | 1040 | 1600 |
| 1 3/8--7 | NONE | 2940 | 4530 |
| | OILED | 2000 | 3080 |
| 1 1/2--6 | NONE | 3870 | 5950 |
| | OILED | 2640 | 4060 |

1 in-lb = 0.1129 Nm

1 ft-lb = 1.356 Nm