



**TORQUE FOR SPECIFIED LUBRICANTS ( IN FT.LBS ) TEL 484-951-6628**

| Nut<br>A.T.F.<br>(in.) | Bolt<br>Size<br>(in.) | Molybden um<br>Disulfide<br>f=0.060 | Molybden um Lead<br>Oxide & Graphite<br>f=0.85 | Copper &<br>Graphite<br>f=0.110 | Nickel<br>Graphite<br>f=0.117 | API S A2<br>f=0.117 | Machine<br>Oil<br>f=0.150 | Dry Steel<br>f=0.400 |
|------------------------|-----------------------|-------------------------------------|--|---------------------------------|-------------------------------|---------------------|---------------------------|----------------------|
| 1 1/4"                 | 3/4"                  | 104                                 | 137  | 157                             | 171                           | 180                 | 224                       | 559                  |
| 1 7/16"                | 7/8"                  | 165                                 | 218  | 250                             | 272                           | 287                 | 358                       | 893                  |
| 1 5/8"                 | 1"                    | 245                                 | 325  | 373                             | 405                           | 427                 | 533                       | 1332                 |
| 1 13/16"               | 1 1/8"                | 351                                 | 468  | 538                             | 585                           | 618                 | 772                       | 1994                 |
| 2"                     | 1 1/4"                | 483                                 | 647  | 746                             | 811                           | 858                 | 1075                      | 2720                 |
| 2 3/16"                | 1 3/8"                | 644                                 | 867  | 1000                            | 1090                          | 1152                | 1447                      | 3678                 |
| 2 3/8"                 | 1 1/2"                | 837                                 | 1131   | 1307                            | 1425                          | 1507                | 1896                      | 4837                 |
| 2 9/16"                | 1 5/8"                | 1071                                | 1453   | 1682                            | 1834                          | 1941                | 2445                      | 6260                 |
| 2 3/4"                 | 1 3/4"                | 1338                                | 1820   | 2109                            | 2301                          | 2436                | 3072                      | 7888                 |
| 2 15/16"               | 1 7/8"                | 1646                                | 2244   | 2602                            | 2841                          | 3009                | 3798                      | 9775                 |
| 3 1/8"                 | 2"                    | 1997                                | 2729   | 3167                            | 3460                          | 3665                | 4630                      | 11942                |
| 3 5/16"                | 2 1/8"                | 2395                                | 3279   | 3809                            | 4162                          | 4409                | 5575                      | 14408                |
| 3 1/2"                 | 2 1/4"                | 2843                                | 3898   | 4531                            | 4953                          | 5248                | 6641                      | 17191                |
| 3 11/16"               | 2 3/8"                | 3343                                | 4590   | 5339                            | 5838                          | 6187                | 7834                      | 20310                |
| 3 7/8"                 | 2 1/2"                | 3898                                | 5360   | 6238                            | 6823                          | 7232                | 9162                      | 23786                |
| 4 1/4"                 | 2 3/4"                | 4691                                | 6467   | 7533                            | 8244                          | 8741                | 11085                     | 28846                |
| 4 5/8"                 | 3"                    | 6087                                | 8410   | 9803                            | 10732                         | 11382               | 14447                     | 37670                |
| 5"                     | 3 1/4"                | 7735                                | 10705  | 12488                           | 13676                         | 14507               | 18428                     | 48129                |
| 5 3/8"                 | 3 1/2"                | 9656                                | 13385  | 15622                           | 17113                         | 18157               | 23079                     | 60365                |
| 5 3/4"                 | 3 3/4"                | 11871                               | 16477  | 19241                           | 21084                         | 22373               | 28453                     | 74516                |
| 6 1/8"                 | 4"                    | 14401                               | 20012  | 23379                           | 25624                         | 27195               | 34604                     | 90720                |
| 6 1/2"                 | 4 1/4"                | 13631                               | 18963  | 22162                           | 24295                         | 25788               | 32826                     | 86146                |

**RECOMMENDED TORQUE FOR B-7 BOLTS (A-193) BASED ON 50% YIELD  
REFER TO MANUFACTURE SPECS OR ENGINEERING DEPT**