

# 9020 Excavator Service Manual

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# SECTION INDEX - GENERAL

## Section Title

## Section Number

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# Section 1001

## STANDARD TORQUE SPECIFICATIONS FOR 9000 SERIES EXCAVATORS



Bur 7-44790

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### TORQUE SPECIFICATIONS - DECIMAL HARDWARE

Use the torques in this chart when special torques are not given. These torques apply to fasteners with both UNC and UNF threads as received from suppliers, dry, or when lubricated with engine oil. Not applicable if special graphites, molydisulfide greases, or other extreme pressure lubricants are used.

| <b>Grade 5 Bolts, Nuts, and Studs</b>   |            |               |
|---|------------|---------------|
|  |            |               |
| Size  | Pound-Feet | Newton metres |
| 1/4 in  | 9-11       | 12-15         |
| 5/16 in   | 17-21      | 23-28         |
| 3/8 in  | 35-42      | 48-57         |
| 7/16 in   | 54-64      | 73-87         |
| 1/2 in  | 80-96      | 109-130       |
| 9/16 in   | 110-132    | 149-179       |
| 5/8 in  | 150-180    | 203-244       |
| 3/4 in  | 270-324    | 366-439       |
| 7/8 in  | 400-480    | 542-651       |
| 1.0 in  | 580-696    | 787-944       |
| 1-1/8 in  | 800-880    | 1085-1193     |
| 1-1/4 in  | 1120-1240  | 1519-1681     |
| 1-3/8 in  | 1460-1680  | 1980-2278     |
| 1-1/2 in  | 1940-2200  | 2631-2983     |

| <b>Grade 8 Bolts, Nuts, and Studs</b>  |            |               |
|--|------------|---------------|
|  |            |               |
| Size   | Pound-Feet | Newton metres |
| 1/4 in   | 12-15      | 16-20         |
| 5/16 in  | 24-29      | 33-39         |
| 3/8 in   | 45-54      | 61-73         |
| 7/16 in  | 70-84      | 95-114        |
| 1/2 in   | 110-132    | 149-179       |
| 9/16 in  | 160-192    | 217-260       |
| 5/8 in   | 220-264    | 298-358       |
| 3/4 in   | 380-456    | 515-618       |
| 7/8 in   | 600-720    | 814-976       |
| 1.0 in   | 900-1080   | 1220-1465     |
| 1-1/8 in   | 1280-1440  | 1736-1953     |
| 1-1/4 in   | 1820-2000  | 2468-2712     |
| 1-3/8 in   | 2380-2720  | 3227-3688     |
| 1-1/2 in   | 3160-3560  | 4285-4827     |

**NOTE:** Use thick nuts with Grade 8 bolts.

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