



# Parts Manual

Mfg. No: 020423-2  
3,000 PSI Troy-Bilt



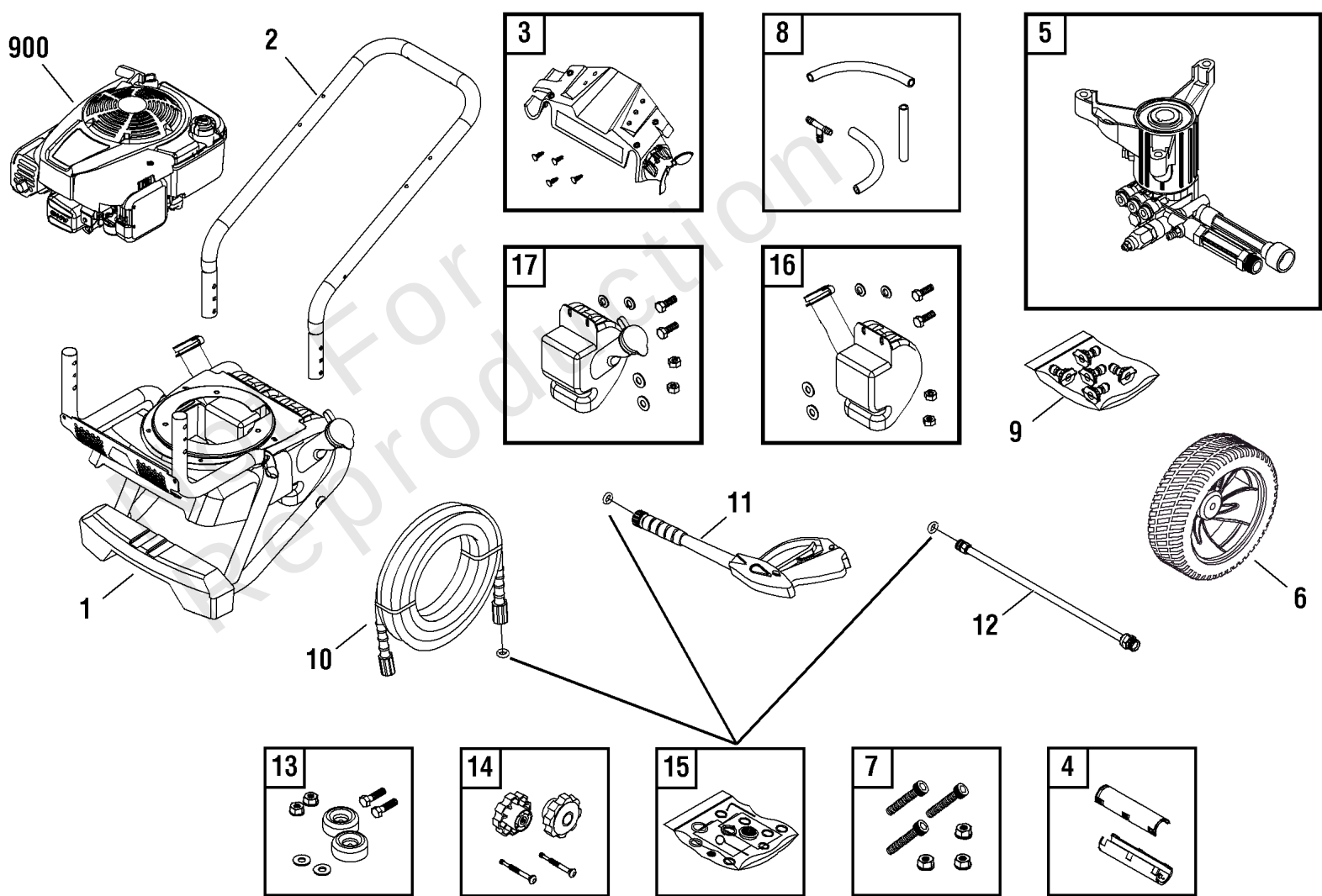
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**Main Unit (314577)**

Note: Unless noted otherwise, use the standard torque specifications

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## Main Unit (314577)

| REF NO | PART NO    | QTY | DESCRIPTION                              |
|--------|------------|-----|------------------------------------------|
| 1      | 312100GS   |     | BASE                                     |
| 2      | 310628BWGS |     | HANDLE                                   |
| 3      | 310857GS   |     | BILLBOARD                                |
| --     | 195964GS   |     | KIT, Tree Clips                          |
| 4      | 311969GS   |     | GRIP                                     |
| 5      | 317991GS   |     | PUMP                                     |
| 6      | 313837GS   |     | WHEEL                                    |
| 7      | 315139GS   |     | KIT, Hardware, Pump Mounting             |
| 8      | 208728GS   |     | HOSE, Chemical                           |
| 9      | 314076GS   |     | KIT, QC Nozzles                          |
| --     | 195983AAGS |     | NOZZLE-QC RED                            |
| --     | 195983QGS  |     | NOZZLE, QC Green                         |
| --     | 195983RGS  |     | NOZZLE, QC White                         |
| --     | 195983APGS |     | NOZZLE, QC Cyan                          |
| --     | 195983AQGS |     | NOZZLE, QC Magenta                       |
| 10     | 311528GS   |     | HOSE                                     |
| 11     | 209094GS   |     | GUN                                      |
| 12     | 200595GS   |     | EXTENSION, QC                            |
| 13     | 192310GS   |     | MOUNT, Vibration                         |
| 14     | 312099GS   |     | KIT, Hardware, Handle                    |
| 15     | 196002GS   |     | KIT, O-Ring                              |
| 16     | 310821GS   |     | TANK, Chemical                           |
| --     | 310806GS   |     | CAP, Chemical Tank                       |
| --     | 310333GS   |     | KIT, Fuel Valve                          |
| 17     | 310820GS   |     | TANK, Chemical                           |
| --     | 310805GS   |     | CAP, Chemical Tank                       |
| --     | 310333GS   |     | KIT, Fuel Valve                          |
| 900    | -----      |     | * ENGINE                                 |
| --     | 313606GS   |     | MANUAL, Operator's<br>-(Not Illustrated) |
| --     | 199272GS   |     | OIL BOTTLE<br>-(Not Illustrated)         |
| --     | 23139GS    |     | KEY<br>-(Not Illustrated)                |
| --     | A1040DGS   |     | HOSE, Chemical<br>-(Not Illustrated)     |
| --     | 310983GS   |     | DECAL, Unit<br>-(Not Illustrated)        |
| --     | 311281GS   |     | DECAL, Tank<br>-(Not Illustrated)        |
| --     | 310865GS   |     | DECAL, Shroud<br>-(Not Illustrated)      |
| --     | 208538GS   |     | DECAL, Spark<br>-(Not Illustrated)       |
| --     | 313837GS   |     | AXLE<br>-(Not Illustrated)               |
| --     | 194256GS   |     | TAG, Warning<br>-(Not Illustrated)       |
| --     | 315543GS   |     | PUSHNUT<br>-(Not Illustrated)            |
| --     | 6039       |     | PUMP SAVER<br>-(Optional Accessory)      |

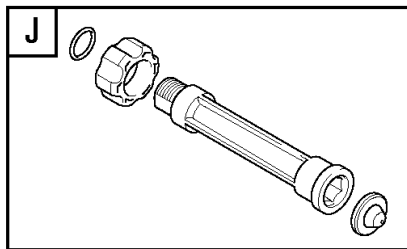
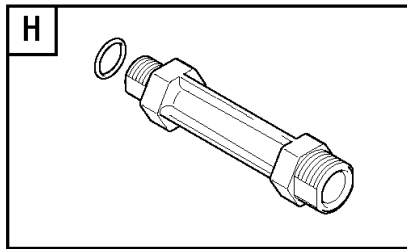
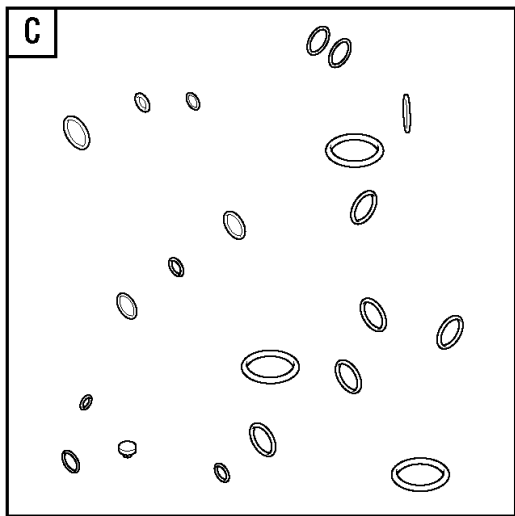
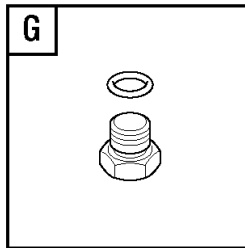
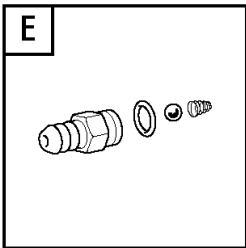
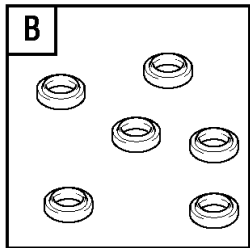
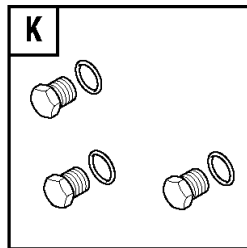
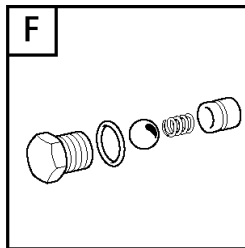
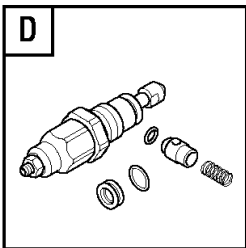
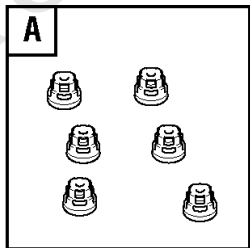
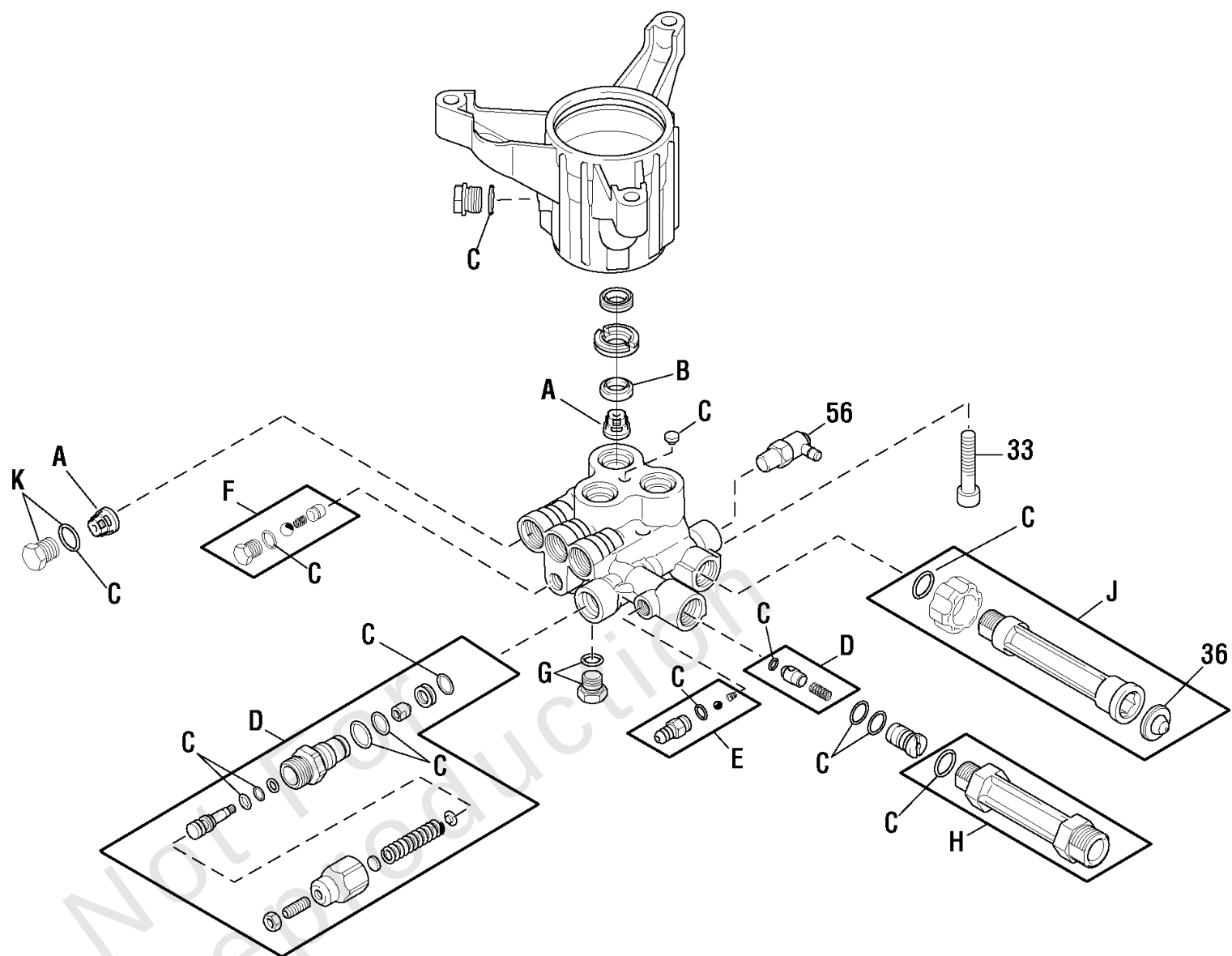
### Footnotes:

\*Contact Engine Manufacturer for parts and service.

**Pump (316934)**

Note: Unless noted otherwise, use the standard torque specifications

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## ***Pump (316934)***

| REF NO | PART NO  | QTY | DESCRIPTION                         |
|--------|----------|-----|-------------------------------------|
| 33     | 204087GS |     | SCREW                               |
| 36     | B2384GS  |     | FILTER, Garden Hose                 |
| 56     | 208673GS |     | VALVE, Thermal Relief               |
| A      | 204082GS |     | * KIT, Check Valve                  |
| B      | 204084GS |     | * KIT, Water Seal                   |
| C      | 317789GS |     | * KIT, O-Ring                       |
| D      | 706610   |     | * KIT, Unloader                     |
| E      | 317787GS |     | * KIT, Chemical Injection           |
| F      | 317788GS |     | * KIT, Easy Start                   |
| G      | 200350GS |     | * SCREW, Grub                       |
| H      | 201497GS |     | * FITTING                           |
| J      | 201496GS |     | * KIT, Water Inlet                  |
| K      | 317056GS |     | * KIT, Plug                         |
| --     | 6039     |     | PUMP SAVER<br>-(Optional Accessory) |

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**Footnotes:**

\* Service Kit includes all parts shown in box.

# Hardware Identification & Torque Specifications

| Torque Specification Chart                             |                                                                                                |      |                                                                                                |      |                                                                                                 |      |                                                                                                 |      |
|--------------------------------------------------------|------------------------------------------------------------------------------------------------|------|------------------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------------------|------|
| FOR STANDARD METRIC MACHINE HARDWARE (Tolerance ± 20%) |                                                                                                |      |                                                                                                |      |                                                                                                 |      |                                                                                                 |      |
| Property Class                                         | <br>Class 5.6 |      | <br>Class 8.8 |      | <br>Class 10.9 |      | <br>Class 12.9 |      |
| Size Of Hardware                                       | in/lbs<br>ft/lbs                                                                               | Nm.  | in/lbs<br>ft/lbs                                                                               | Nm.  | in/lbs<br>ft/lbs                                                                                | Nm.  | in/lbs<br>ft/lbs                                                                                | Nm.  |
| M3                                                     | 5.88                                                                                           | .56  | 13.44                                                                                          | 1.28 | 19.2                                                                                            | 1.80 | 22.92                                                                                           | 2.15 |
| M4                                                     | 13.44                                                                                          | 1.28 | 30.72                                                                                          | 2.90 | 43.44                                                                                           | 4.10 | 52.56                                                                                           | 4.95 |
| M5                                                     | 26.4                                                                                           | 2.50 | 60.96                                                                                          | 5.75 | 5.97                                                                                            | 8.10 | 7.15                                                                                            | 9.7  |
| M6                                                     | 44.64                                                                                          | 4.3  | 7.3                                                                                            | 9.9  | 10.3                                                                                            | 14   | 12.1                                                                                            | 16.5 |
| M7                                                     | 5.2                                                                                            | 7.1  | 12.1                                                                                           | 16.5 | 16.9                                                                                            | 23   | 19.9                                                                                            | 27   |
| M8                                                     | 7.7                                                                                            | 10.5 | 17.7                                                                                           | 24   | 25                                                                                              | 34   | 29                                                                                              | 40   |
| M10                                                    | 15                                                                                             | 21   | 35                                                                                             | 48   | 50                                                                                              | 67   | 59                                                                                              | 81   |
| M12                                                    | 26                                                                                             | 36   | 61                                                                                             | 83   | 86.2                                                                                            | 117  | 103                                                                                             | 140  |
| M14                                                    | 42                                                                                             | 58   | 101                                                                                            | 132  | 136                                                                                             | 185  | 162                                                                                             | 220  |
| M16                                                    | 64                                                                                             | 88   | 147                                                                                            | 200  | 210                                                                                             | 285  | 250                                                                                             | 340  |
| M18                                                    | 89                                                                                             | 121  | 202                                                                                            | 275  | 287                                                                                             | 390  | 346                                                                                             | 470  |
| M20                                                    | 126                                                                                            | 171  | 290                                                                                            | 390  | 405                                                                                             | 550  | 486                                                                                             | 660  |
| M22                                                    | 169                                                                                            | 230  | 390                                                                                            | 530  | 559                                                                                             | 745  | 656                                                                                             | 890  |
| M24                                                    | 217                                                                                            | 295  | 497                                                                                            | 375  | 708                                                                                             | 960  | 840                                                                                             | 1140 |
| M27                                                    | 320                                                                                            | 435  | 733                                                                                            | 995  | 1032                                                                                            | 1400 | 1239                                                                                            | 1680 |
| M30                                                    | 435                                                                                            | 590  | 995                                                                                            | 1350 | 1401                                                                                            | 1900 | 1681                                                                                            | 2280 |
| M33                                                    | 590                                                                                            | 800  | 1349                                                                                           | 1830 | 1902                                                                                            | 2580 | 2278                                                                                            | 3090 |
| M36                                                    | 759                                                                                            | 1030 | 1740                                                                                           | 2360 | 2441                                                                                            | 3310 | 2935                                                                                            | 3980 |
| M39                                                    | 988                                                                                            | 1340 | 2249                                                                                           | 3050 | 3163                                                                                            | 4290 | 3798                                                                                            | 5150 |

The guides and ruler furnished below are designed to help you select the appropriate hardware.



## Standard Hardware Sizing

When a washer or nut is identified as 1/2" (M8), this is the *Nominal size*, meaning the *inside diameter* is 1/2 inch (8mm metric thread diameter); if a second number is present it represents the *threads per inch* (distance between threads).

When bolt or capscrew is identified as 1/2 - 16 x 2" (M8 - 1.25 x 50), this means the *Nominal size*, or body diameter is 1/2 inch (8mm metric thread diameter), the second number, 16, represents the *threads per inch*, (*distance between threads*). The final number is the body length of the bolt or screw, 2 inches (50mm).

| Torque Specification Chart                      |                                                                                                    |       |                                                                                                    |       |                                                                                                    |         |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------------------------|---------|
| FOR STANDARD MACHINE HARDWARE (Tolerance ± 20%) |                                                                                                    |       |                                                                                                    |       |                                                                                                    |         |
| Hardware Grade                                  | <br>SAE Grade 2 |       | <br>SAE Grade 5 |       | <br>SAE Grade 8 |         |
| Size Of Hardware                                | in/lbs<br>ft/lbs                                                                                   | Nm.   | in/lbs<br>ft/lbs                                                                                   | Nm.   | in/lbs<br>ft/lbs                                                                                   | Nm.     |
| 8-32                                            | 19                                                                                                 | 2.1   | 30                                                                                                 | 3.4   | 41                                                                                                 | 4.6     |
| 8-36                                            | 20                                                                                                 | 2.3   | 31                                                                                                 | 3.5   | 43                                                                                                 | 4.9     |
| 10-24                                           | 27                                                                                                 | 3.1   | 43                                                                                                 | 4.9   | 60                                                                                                 | 6.8     |
| 10-32                                           | 31                                                                                                 | 3.5   | 49                                                                                                 | 5.5   | 68                                                                                                 | 7.7     |
| 1/4-20                                          | 66                                                                                                 | 7.6   | 8                                                                                                  | 10.9  | 12                                                                                                 | 16.3    |
| 1/4-28                                          | 76                                                                                                 | 8.6   | 10                                                                                                 | 13.6  | 14                                                                                                 | 19.0    |
| 5/16-18                                         | 11                                                                                                 | 15.0  | 17                                                                                                 | 23.1  | 25                                                                                                 | 34.0    |
| 5/16-24                                         | 12                                                                                                 | 16.3  | 19                                                                                                 | 25.8  | 29                                                                                                 | 34.0    |
| 3/8-16                                          | 20                                                                                                 | 27.2  | 30                                                                                                 | 40.8  | 45                                                                                                 | 61.2    |
| 3/8-24                                          | 23                                                                                                 | 31.3  | 35                                                                                                 | 47.6  | 50                                                                                                 | 68.0    |
| 7/16-14                                         | 30                                                                                                 | 40.8  | 50                                                                                                 | 68.0  | 70                                                                                                 | 95.2    |
| 7/16-20                                         | 35                                                                                                 | 47.6  | 55                                                                                                 | 74.8  | 80                                                                                                 | 108.8   |
| 1/2-13                                          | 50                                                                                                 | 68.0  | 75                                                                                                 | 102.0 | 110                                                                                                | 149.6   |
| 1/2-20                                          | 55                                                                                                 | 74.8  | 90                                                                                                 | 122.4 | 120                                                                                                | 163.2   |
| 9/16-12                                         | 65                                                                                                 | 88.4  | 110                                                                                                | 149.6 | 150                                                                                                | 204.0   |
| 9/16-18                                         | 75                                                                                                 | 102.0 | 120                                                                                                | 163.2 | 170                                                                                                | 231.2   |
| 5/8-11                                          | 90                                                                                                 | 122.4 | 150                                                                                                | 204.0 | 220                                                                                                | 299.2   |
| 5/8-18                                          | 100                                                                                                | 136   | 180                                                                                                | 244.8 | 240                                                                                                | 326.4   |
| 3/4-10                                          | 160                                                                                                | 217.6 | 260                                                                                                | 353.6 | 386                                                                                                | 525.0   |
| 3/4-16                                          | 180                                                                                                | 244.8 | 300                                                                                                | 408.0 | 420                                                                                                | 571.2   |
| 7/8-9                                           | 140                                                                                                | 190.4 | 400                                                                                                | 544.0 | 600                                                                                                | 816.0   |
| 7/8-14                                          | 155                                                                                                | 210.8 | 440                                                                                                | 598.4 | 660                                                                                                | 897.6   |
| 1-8                                             | 220                                                                                                | 299.2 | 580                                                                                                | 788.8 | 900                                                                                                | 1,244.0 |
| 1-12                                            | 240                                                                                                | 326.4 | 640                                                                                                | 870.4 | 1,000                                                                                              | 1,360.0 |

## NOTES

- These torque values are to be used for all hardware excluding: locknuts, self-tapping screws, thread forming screws, sheet metal screws and socket head setscrews.
- Recommended seating torque values for locknuts:
  - for prevailing torque locknuts - use 65% of grade 5 torques.
  - for flange whizlock nuts and screws - use 135% of grade 5 torques.
- Unless otherwise noted on assembly drawings, all torque values must meet this specification.

## Common Hardware Types



## Wrench & Fastener Size Guide

|                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |  |
| 1/4" Bolt or Nut<br>Wrench—7/16"                                                      | 5/16" Bolt or Nut<br>Wrench—1/2"                                                      | 3/8" Bolt or Nut<br>Wrench—9/16"                                                      | 7/16" Bolt or Nut<br>Wrench (Bolt)—5/8"<br>Wrench (Nut)—11/16"                        | 1/2" Bolt or Nut<br>Wrench—3/4"                                                       |
| M6 Bolt or Nut<br>Wrench—10mm                                                         | M8 Bolt or Nut<br>Wrench—13mm                                                         | M10 Bolt or Nut<br>Wrench—17mm                                                        | M12 Bolt or Nut<br>Wrench—19mm                                                        | M14 Bolt or Nut<br>Wrench—22mm                                                        |

