## Washers

Fender Washers

| Fender Washers |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bolt Size | Inside Diameter ( $\pm .010$ ) | Outside Diameter ( $\pm .010$ ) | Thickness |  | $\begin{gathered} \text { Approximate } \\ \text { Number in } \\ 20 \text { Pounds (Steel) } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Approximate } \\ \text { Number in } \\ 50 \text { Pounds (Steel) } \end{gathered}$ |
|  |  |  | Max | Min |  |  |
| 10 | . 219 | . 688 | . 080 | . 036 |  | 9530 * |
| 10 | . 219 | . 750 | . 080 | . 036 |  | 8000 |
| 10 | . 219 | . 875 | . 080 | . 036 |  | 5000 |
| 10 | . 219 | 1.000 | . 084 | . 036 |  | 3500 |
| 10 | . 219 | 1.250 | . 084 | . 036 |  | 2145 |
| 10 | . 219 | 1.500 | . 080 | . 051 |  | 1760 * |
| 10 | . 219 | 2.000 | . 080 | . 051 |  | 796 |
| 1/4 | . 281 | 1.000 | . 132 | . 036 | 1500 | 3750 |
| 1/4 | . 281 | 1.250 | . 132 | . 036 | 921 | 2300 |
| 1/4 | . 281 | 1.500 | . 132 | . 036 | 620 | 1550 |
| 1/4 | . 281 | 1.750 | . 080 | . 036 |  | 1100 |
| 1/4 | . 281 | 2.000 | . 080 | . 036 |  | 810 |
| 5/16 | . 344 | 1.000 | . 080 | . 036 |  | 4670 * |
| 5/16 | . 344 | 1.250 | . 132 | . 036 | 960 | 2400 |
| 5/16 | . 344 | 1.500 | . 132 | . 036 | 640 | 1600 |
| 5/16 | . 344 | 2.000 | . 080 | . 036 | 328 | 820 |
| 5/16 | . 344 | 2.500 | . 080 | . 036 | 200 | 500 |
| 3/8 | . 406 | 1.250 | . 132 | . 036 | 1200 | 2350 |
| 3/8 | . 406 | 1.500 | . 132 | . 036 |  | 1650 |
| 3/8 | . 406 or . 422 | 1.750 | . 132 | . 051 | 458 | 1130 |
| 3/8 | . 422 | 2.000 | . 080 | . 051 | 380 | 1000 |
| 3/8 | . 422 | 2.500 | . 080 | . 051 | 267 | 512 |
| 1/2 | . 531 | 1.250 | . 080 | . 051 | 1436 | 3000 |
| 1/2 | . 531 | 1.500 | . 080 | . 051 | 793 | 2000 |
| 1/2 | . 531 | 1.750 | . 080 | . 051 | 458 | 1145 |
| 1/2 | . 531 | 2.000 | . 132 | . 051 | 380 | 950 |
| 1/2 | . 531 | 2.500 | . 080 | . 051 | 267 | 668 |
| 1/2 | . 531 | 3.000 | . 080 | . 051 | 142 | 355 |
| 5/8 | . 688 | 1.250 | . 084 | . 074 |  | 3590 * |
| 5/8 | . 688 | 2.000 | . 080 | . 051 |  | 1015 |
| 5/8 | . 688 | 3.000 | . 080 | . 051 |  | 365 |
| 3/4 | . 812 | 2.000 ( $\pm .015$ ) | . 080 | . 051 | , | 1155 * |
| $7 / 8$ | . 938 | 2.500 ( $\pm .015$ ) | . 118 | . 101 |  | 715* |

*Represents a count based on stainless steel washers.

| Description | A flat washer with significantly more surface area than a USS or SAE washer. They are also made from a thinner gauge metal than most flat washers. |  |
| :---: | :---: | :---: |
| Applications/ Advantages | Used where an extra wide bearing surface is required. Originally designed for auto body repair work, they are also used in sheet metal, plumbing, and electrical work. Also used to attach signs to posts, to install drywall and wood paneling. |  |
|  | Steel | Stainless |
| Material | Washers shall be punched from hot-rolled, hot-rolled and pickled or cold-rolled steel, or shall be machined from bar stock or tubing, or may be forged at the manufacturer's option. | 18-8 or 316 Stainless steel |
| Plating | Fender washers are usually provided zinc plated or with no finish. | Parts are usually supplied with no additional finish. |

