## **Porteous Fastener Company**

## **Product Information Sheet**

## Carriage Bolt, Inch Series, Grade 5



PFC Product Category: 00105

Typical Material: Medium Carbon Steel

Material and Mechanical Properties: Purchased to meet SAE J429 Grade 5.

➤ Dimensions: ASME B18.5, Round Head Square Neck Bolt, Rolled Threads

Full thread to 6 inches in length.

Normally available in sizes 1/4 through 3/4.

Zinc Plating: Purchased to meet ASTM F1941 FeZn3A

Typical Hardness: HRC 25-34 on sizes ¼ to 1 inch

➤ Tensile Strength: 120,000 PSI Minimum on sizes ¼ to 1 inch

| Tensile Strength - NC Threads |         |        |  |  |
|-------------------------------|---------|--------|--|--|
| Size                          | PSI     | Pounds |  |  |
| 1/4-20                        | 120,000 | 3800   |  |  |
| 5/16-18                       | 120,000 | 6300   |  |  |
| 3/8-16                        | 120,000 | 9300   |  |  |
| 7/16-14                       | 120,000 | 12,800 |  |  |
| 1/2-13                        | 120,000 | 17,000 |  |  |
| 9/16-12                       | 120,000 | 21,800 |  |  |
| 5/8-11                        | 120,000 | 27,100 |  |  |
| 3/4-10                        | 120,000 | 40,100 |  |  |
| 7/8-9                         | 120,000 | 55,400 |  |  |
| 1-8                           | 120,000 | 72,700 |  |  |

| Length Tolerances - Carriage Bolts |                     |             |             |             |  |
|------------------------------------|---------------------|-------------|-------------|-------------|--|
| LASS                               | Nominal Size        |             |             |             |  |
| Nominal                            |                     |             |             |             |  |
| Length                             | #10 to 3/8          | 7/16 & 1/2  | 9/16 to 3/4 | 7/8 to 1    |  |
|                                    | Tolerance on Length |             |             |             |  |
| Up to &                            |                     |             |             |             |  |
| incl 1"                            | +0.02/-0.03         | +0.02/-0.03 | +0.02/-0.03 |             |  |
| Over 1" to 2 1/2", incl.           | +0.02/-0.04         | +0.04/-0.05 | +0.06/-0.08 | +0.08/-0.10 |  |
| Over 2<br>1/2" to 4",<br>incl.     | +0.04/-0.06         | +0.06/-0.08 | +0.08/-0.10 | +0.10/-0.14 |  |
| Over 4" to 6", incl.               | +0.06/-0.10         | +0.08/-0.10 | +0.10/-0.10 | +0.12/-0.16 |  |
| Over 6"                            | +0.10/-0.18         | +0.12/-0.18 | +0.14/-0.18 | +0.16/-0.20 |  |