



307A

GRADE MARK

| THREAD DATA | | |
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| Size: 3/4 | Threads per in.: 10 | Series Designation: UNC |
| Thread Class or Type: 2A Plated (3A GO/ 2A NOGO) | Major Diameter: 0.7500 - 0.7353 | Pitch and Functional Dia.: 0.6850 - 0.6773 |
| Tensile Stress Area: 0.3345 | Standard: ASME B1.1 - 2019 | |
| DIMENSIONAL DATA | | |
| Type: Hex Bolts | Standard: ASME B18.2.1-2012 | Nominal Diameter: 0.75 |
| E - Body Diameter : 0.768 - 0.729 | F - Width Across Flats: 1.125 - 1.088 | G - Width Across Corners: 1.299 - 1.240 |
| R - Fillet Radius: 0.060 - 0.020 | H - Head Height: 0.524 - 0.455 | L_T - Thread Length for Screw Length 6 in. or less: 1.750 |
| Point Type: Non-pointed | LG max./LB min.: 0.00/0.00 (Fully Threaded) | L - Length: 2-1/4 |
| Length Tolerance: +0.08/-0.10 | | |
| PHYSICAL REQUIREMENTS | | |
| Nominal: 0.75 | Standard: ASTM A307A-2014e1 | Typical Materials: low carbon steel, 1006 through 1022 |
| Hardness: HRB 69 - 100 | Tensile Load, Min. (lbf): 20,040 | Yield PSI, 2% Offset, Machined Specimen: 36,000 |
| Elongation, min. %, Machined Specimen: 18 | Tensile Strength, Min. (psi): 60,000 | Calculated Shear Load-BODY (ref.)(lbf): 12,024 |
| Calculated Shear Load-THREADS (ref.)(lbf): 10,020 | Straightness Factor: 0.014 | Calculated Pretension² (lbf) : 9,018 |
| Tightening Torque¹: 124 ft.lbf, 1,490 in.lbf, 168.4 Nm | | |
| FINISH DATA | | |
| Finish: Zinc & Clear, non-hexavalent/Cr(VI) free - .0001"/ 3Åµm | K factor (ref. DIN 946): 0.22 | Standard: ASTM F1941/F1941M-2016, Fe/Zn 3AN |

¹ These torque values are based on K factors determined using DIN 946, tightening tension of 75% of the yield strength, and the calculation formula T=KDP. These values are advisory only. The torque for assembling critical joints should be determined and/or verified through actual experimentation by the user. The IFI is not responsible for any losses or claims resulting from the use of these values.² Calculated Pretension is equal to 75% of the bolt's yield strength achieved when using the indicated Tightening Torque.