



307A

GRADE MARK

THREAD DATA		
Size: 5/8	Threads per in.: 11	Series Designation: UNC
Thread Class or Type: 2A Plated (3A GO/ 2A NOGO)	Major Diameter: 0.6250 - 0.6112	Pitch and Functional Dia.: 0.5660 - 0.5588
Tensile Stress Area: 0.2260	Standard: ASME B1.1 - 2019	
DIMENSIONAL DATA		
Type: Hex Bolts	Standard: ASME B18.2.1-2012	Nominal Diameter: 0.625
E - Body Diameter : 0.642 - 0.605	F - Width Across Flats: 0.938 - 0.906	G - Width Across Corners: 1.083 - 1.033
R - Fillet Radius: 0.060 - 0.020	H - Head Height: 0.444 - 0.378	L_T - Thread Length for Screw Length 6 in. or less: 1.500
Point Type: Non-pointed	LG max./LB min.: 0.00/0.00 (Fully Threaded)	L - Length: 1-3/4
Length Tolerance: +0.06/-0.08		
PHYSICAL REQUIREMENTS		
Nominal: 0.625	Standard: ASTM A307A-2014e1	Typical Materials: low carbon steel, 1006 through 1022
Hardness: HRB 69 - 100	Tensile Load, Min. (lbf): 13,560	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): 8,136
Calculated Shear Load-THREADS (ref.)(lbf): 6,780	Straightness Factor: N/A	Calculated Pretension² (lbf) : 6,102
Tightening Torque¹: 70 ft.lbf, 839 in.lbf, 94.8 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.