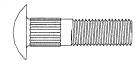


Earnest Technical Bulletin

Ribbed Neck Carriage Bolt

Grade 5, Zinc Plated







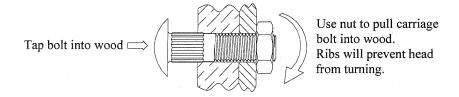
Earnest Machine Products line of Ribbed Neck Carriage Bolts are through hardened to a Rockwell Hardness of Rc 25/34. The threads are cold rolled and the Ribs (serrations on neck) are full formed. The high hardness provides greater wear resistance to the head and better toughness as compared to standard (or "slick head") carriage bolts. The high strength (120,000 psi min Tensile Strength) resists bending that causes slick head carriage bolts to be difficult to remove without torch cutting them out.

Earnest's Carriage Bolts are plated with Zinc and a Clear Chromate topcoat to provide resistance to corrosion.

Ribbed Neck Carriage Bolts are designed to be used in applications that are assembling wood, plastic, soft metals (aluminum, thin mild steel, etc) or composite materials together or to a steel frame. The added design features of a low profile head and a fastener that can be installed from the nut side of the assembly make this style fastener useful in many applications. The low profile head ensures that there is no interference with material or objects as they slide over the head of the product.

Popular uses included installing floor boards to the bed of trucks, installation of grain elevator buckets, wear resistant sheeting to conveyers or chutes and many more applications that require a low profile, high wear resistant fastener with excellent toughness.

Easy installation is achieved by initially tapping the head of the bolt into the material to be clamped. The nut can then be installed onto the protruding threads of the bolt. Tighten the nut to draw the carriage bolt into the material. The ribs will prevent the carriage bolt from turning during assembly.



Recommended Holes sizes for Ribbed Neck Carriage Bolts.

	Hole Size				
Bolt Size	Decimal	Drill Size			
1/4 - 20	.250 to .260	1/4 to G			
5/16 – 18	.312 to .323	5/16 to P			
3/8 - 16	.375 to .386	3/8 to W			

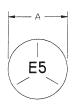
For soft materials (wood, plastic, etc) use the smallest hole sizes listed. For harder (mild steel, aluminum) or brittle materials (fiberglass, etc) use the largest hole size listed.

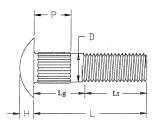


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	,			Head D	iameter	Н	ead			Rib	Grip	Thread
Part		Length L		A		Thic	Thickness Rib Length		ength	Diameter	Length	Length
Number	Size					H		P		0	Lg	Lt
		Nom	Tol	Max	Min	Max	Min	Max	Min	Min	Max	Min
218874	1/4 - 20	3/4	+.02/03	.594	.563	.145	.125	.281	.219	.274	.375	.375
218884	1/4 - 20	1	+.02/03	.594	.563	.145	.125	.438	.376	.274	.563	.437
218894	1/4 - 20	1 1/4	+.02/04	.594	.563	.145	.125	.625	.563	.274	.750	.500
218904	1/4 - 20	1 1/2	+.02/04	.594	.563	.145	.125	.625	.563	.274	.750	.750
218984	1/4 - 20	2	+.02/04	.594	.563	.145	.125	.625	.563	.274	1.250	.750
219034	5/16 – 18	1	+.02/03	.719	.688	.176	.156	.438	.376	.340	.562	.438
219044	5/16 – 18	1 1/4	+.02/04	.719	.688	.176	.156	.625	.563	.340	.750	.500
219054	5/16 – 18	1 1/2	+.02/04	.719	.688	.176	.156	.625	.563	.340	.750	.750
219084	5/16 – 18	1 3/4	+.02/04	.719	.688	.176	.156	.625	.563	.340	.875	.875
219104	5/16 – 18	2	+.02/04	.719	.688	.176	.156	.625	.563	.340	1.125	.875
219114	5/16 – 18	2 1/2	+.02/04	.719	.688	.176	.156	.625	.563	.340	1.625	.875
219204	3/8 – 16	1	+.02/04	.844	.782	.208	.188	.438	.376	.405	.562	.438
219214	3/8 – 16	1 1/4	+.02/04	.844	.782	.208	.188	.625	.563	.405	.750	.500
219344	3/8 – 16	1 1/2	+.02/04	.844	.782	.208	.188	.625	.563	.405	.750	.750
219374	3/8 – 16	1 3/4	+.02/04	.844	.782	.208	.188	.625	.563	.405	.750	1.000
219384	3/8 – 16	2	+.02/04	.844	.782	.208	.188	.625	.563	.405	1.000	1.000
219444	3/8 – 16	2 1/2	+.02/04	.844	.782	.208	.188	.625	.563	.405	1.500	1.000