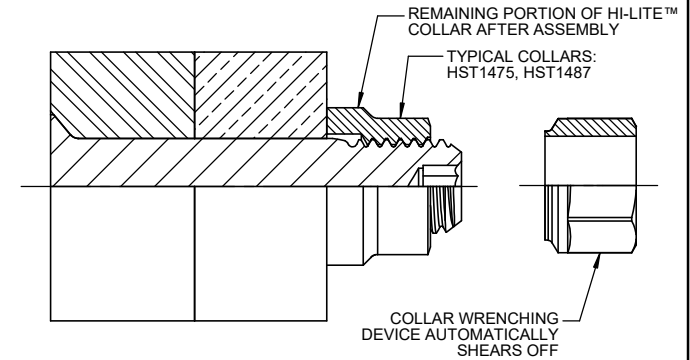


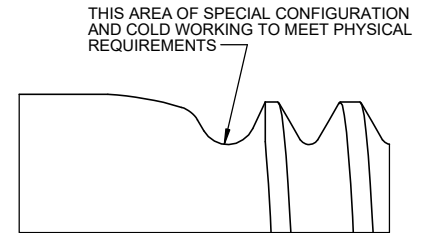
HI-LITE™ PIN



HI-LITE™ PIN AND COLLAR AFTER ASSEMBLY

7																		1																	
FIRST DASH NO.	PIN NOM DIA	A DIA	B REF	D DIA		TD DIA	F	H	R RAD	Z MAX	S CHAMFER REF	THREAD MODIFIED	SOCKET				DOUBLE SHEAR POUNDS MINIMUM	TENSION POUNDS MINIMUM																	
				WITHOUT COATING OR SOLID FILM	AFTER COATING OR SOLID FILM								W HEX	T DEPTH MIN	T1 DEPTH MAX	Y DIA																			
5						NOTE: USE HST113()6-()																													
6	7/32	.3813 .3765	.300	.2182 .2177	.2182 .2172	.1840 .1810	.005	.0684 .0664	.030 .020	.015	1/32 x 37°	.1900-32 UNJF-3A	.0806 .0791	.080	.135	.119 .104	7,100	3,180																	
8	9/32	.5066 .5018	.330	.2807 .2802	.2807 .2797	.2440 .2410	.006	.0948 .0928	.030 .020	.015	1/32 x 37°	.2500-28 UNJF-3A	.0967 .0947	.090	.160	.142 .122	11,800	5,820																	
10	11/32	.6335 .6287	.390	.3432 .3427	.3432 .3422	.3060 .3020	.007	.1218 .1198	.040 .030	.015	3/64 x 37°	.3125-24 UNJF-3A	.1295 .1270	.110	.200	.180 .160	17,600	9,200																	
12	13/32	.7604 .7556	.430	.4057 .4052	.4057 .4047	.3680 .3640	.008	.1488 .1468	.040 .030	.015	3/64 x 37°	.3750-24 UNJF-3A	.1617 .1582	.140	.235	.217 .197	24,600	14,000																	
14	15/32	.8884 .8812	.510	.4682 .4677	.4682 .4672	.4310 .4260	.009	.1763 .1733	.050 .040	.022	3/64 x 37°	.4375-20 UNJF-3A	.1930 .1895	.150	.246	.253 .233	32,700	18,900																	
16	17/32	1.0139 1.0068	.610	.5307 .5302	.5307 .5297	.4930 .4880	.010	.2027 .1997	.050 .040	.022	3/64 x 37°	.5000-20 UNJF-3A	.2242 .2207	.170	.275	.289 .269	42,000	25,600																	
18	19/32	1.1408 1.1337	.710	.5927 .5922	.5927 .5917	.5550 .5500	.010	.2300 .2270	.050 .040	.025	1/16 x 37°	.5625-18 UNJF-3A	.2555 .2520	.200	.329	.326 .306	52,400	32,400																	
20	21/32	1.2723 1.2651	.790	.6552 .6547	.6552 .6542	.6180 .6120	.010	.2589 .2559	.050 .040	.025	1/16 x 37°	.6250-18 UNJF-3A	.2555 .2520	.210	.339	.326 .306	64,100	41,000																	
24	25/32	1.5308 1.5236	1.030	.7802 .7797	.7802 .7792	.7430 .7370	.012	.3149 .3119	.050 .040	.025	1/16 x 37°	.7500-16 UNJF-3A	.3185 .3150	.290	.452	.398 .378	90,900	59,500																	
28	29/32	1.7845 1.7773	1.170	.9052 .9047	.9052 .9042	.8680 .8610	.014	.3689 .3656	.050 .040	.025	5/64 x 37°	.8750-14 UNJF-3A	.3820 .3780	.340	.525	.471 .451	122,000	81,500																	
32	1-1/32	2.0405 2.0310	1.315	1.0302 1.0297	1.0302 1.0292	.9930 .9860	.014	.4239 .4199	.050 .040	.025	5/64 x 37°	1.0000-12 UNJF-3A	.5100 .5040	.460	.682	.618 .598	158,000	106,000																	

SEE COLLAR STANDARDS FOR COLLAR STRENGTHS. LOWER STRENGTH (PIN OR COLLAR) DETERMINES SYSTEM STRENGTH.



VIEW A
HI-LITE™ THREAD TRANSITION AREA
SEE SPECIFICATION FOR INSPECTION

"HI-LITE", "HST", AND "HI-KOTE", ARE TRADEMARKS OF HI-SHEAR CORPORATION			
DRAWN BY J.OBISPO	DATE 1992-01-07	TITLE HI-LITE™ PIN 100° FLUSH MS24694 TENSION HEAD TITANIUM 1/16 GRIP VARIATION, 1/32 OVERSIZE	
APPROVED A.BROWN	DATE 1992-01-16	DRAWING NUMBER HST413	
REVISION 14	DATE K. PHAM 2022-05-10	1 OF 2	

- GENERAL NOTES:**
- 1 Head edge out of roundness shall not exceed "F".
 2. Concentricity: Conical surface of head to "D" diameter within .003 FIM.
 3. "H" is dimensioned from maximum "D" diameter.
 4. Dimensions are in inches and to be met after finish.
 5. Surface texture per ASME B46.1.
 6. Hole preparation per NAS618.
 - 7 Maximum "D" diameter may be increased by .0002 to allow for solid film or aluminum coating application.
 - 8 Curved or flat edge manufacturer's option.
 - 9 Broach petals removed.
 10. Oversize replacement for HST13 and HST113.
 - 14 11 After February, 21st of 2015, HI-KOTE™ 1 aluminum pigmented coating will be replaced by REACH compliant HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294 on fasteners coated in UK and European Union.
 - 12 After September 30th of 2015, HI-KOTE™ 4 coating per HS397 will be replaced by HI-KOTE™ 4 NC coating per HS397.

MATERIAL: 6AL-4V titanium alloy per AMS4928 or AMS4967.

HEAT TREAT: 160,000 psi tensile minimum (95,000 psi shear minimum for sizes up to 3/4; 90,000 psi shear minimum for 7/8 and larger).

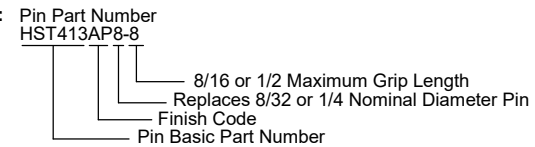
- FINISH:**
- HST413(-)(-) = Cetyl alcohol lube per Hi-Shear Spec. 305.
 HST413AB(-)(-) = I.V.D. aluminum coating per BAC5315 with conversion coating (.0003-.0006 thick) per MIL-DTL-5541, Class 1A and cetyl alcohol lube per Hi-Shear Spec. 305.
- 14 11 HST413AG(-)(-) = HI-KOTE™ 1 or HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294, with color orange on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 14 11 HST413AP(-)(-) = HI-KOTE™ 1 or HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 14 11 HST413AZ(-)(-) = HI-KOTE™ 1 or HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294, with color black on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HST413BJ(-)(-) = I.V.D. aluminum coating per MIL-DTL-83488, Type II, Class 3, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 9 HST413CT(-)(-) = Color orange on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 14 11 HST413GD(-)(-) = HI-KOTE™ 1 or HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294 on threads only, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 14 11 HST413GM(-)(-) = HI-KOTE™ 1 or HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294 on threads (no overspray on the shank is allowed) and top of head only (.005 max overspray on the head bearing surface permissible) with color white on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 12 HST413HK(-)(-) = HI-KOTE™ 4 NC aluminum coating per Hi-Shear Spec. 397.
- 9 HST413K(-)(-) = Solid film lube per "Lubeco™ 905". "LUBECO" is a trademark of Lubeco Incorporated.
- 9 HST413MA(-)(-) = Solid film lube per "KalGard™ RA". "KALGARD" is a trademark of Metal Improvement Company.
- HST413RP(-)(-) = Phosphate fluoride treat with color orange on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HST413RS(-)(-) = Phosphate fluoride treat, solid film lube per AS5272, Type I, and color orange on thread end.
- HST413RV(-)(-) = Phosphate fluoride treat, HI-KOTE™ 2 solid film lube per Hi-Shear Spec. 292, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 14 11 HST413SU(-)(-) = HI-KOTE™ 1 or HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294, with color light blue on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HST413TB(-)(-) = HI-KOTE™ 2 solid film lube per Hi-Shear Spec. 292, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 14 HST413UV(-)(-) = Anodize per Hi-Shear Spec. 306, Type II, HI-KOTE™ 2 solid film lube per Hi-Shear Spec. 292, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 14 HST413VF(-)(-) = Anodize per Hi-Shear Spec. 306, Type I, color blue, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 14 HST413WF(-)(-) = Anodize per Hi-Shear Spec. 306, Type I, color blue, with color black on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HST413YW(-)(-) = HI-KOTE™ 2 solid film lube per Hi-Shear Spec. 292 on thread only, with color white on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HST413NKJ(-)(-) = HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294, with color silver on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.

- HST413NKK(-)(-) = Sulfuric acid anodizing per ISO8080 and HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294 on threads only, with color silver on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HST413NKL(-)(-) = HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294 on threads only, with color silver on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HST413NAP(-)(-) = HI-KOTE™ 1 NC aluminum coating per Hi-Shear Spec. 294, Cetyl alcohol lube per Hi-Shear Spec. 305

SPECIFICATION: HI-LITE™ Product Specification 380.

CODE: First dash number indicates nominal diameter in 1/32nds of the pin which HST413 oversize pin replaces.
 Second dash number indicates maximum grip in 1/16ths.
 See Finish note for explanation of code letters.

**HOW TO ORDER
 EXAMPLE:**



HST413

DRAWING NUMBER

HST413

2 OF 2