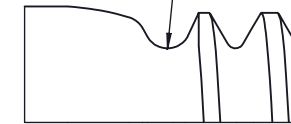


HI-LITE™ PIN AND COLLAR AFTER ASSEMBLY

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

FIRST DASH NO.	PIN NOM DIA	A DIA	B REF	D DIA		TD DIA	F REF	H	R RAD	Z MAX	S CHAMFER REF	THREAD MODIFIED	SOCKET			DOUBLE SHEAR POUNDS MINIMUM	TENSION POUNDS MINIMUM
				WITHOUT COATING OR SOLID FILM	WITH COATING OR SOLID FILM								W HEX	T DEPTH	Y DIA		
5	5/32	.3304 .3256	.280	.1635 .1630	.1635 .1625	.1595 .1570	.004	.0700 .0680	.025 .015	.012	1/32 x 45°	.1640-32 UNJC-3A	.0801 .0791	.100 .080	8	5,280	2,940
6	3/16	.3813 .3765	.290	.1895 .1890	.1895 .1885	.1840 .1810	.005	.0805 .0785	.030 .020	.015	1/32 x 45°	.1900-32 UNJF-3A	.0806 .0791	.100 .080	.119 .104	7,060	4,350
8	1/4	.5066 .5018	.320	.2495 .2490	.2495 .2485	.2440 .2410	.006	.1080 .1060	.030 .020	.015	1/32 x 45°	.2500-28 UNJF-3A	.0967 .0947	.110 .090	.142 .122	12,260	7,750
10	5/16	.6335 .6287	.380	.3120 .3115	.3120 .3110	.3060 .3020	.007	.1350 .1330	.040 .030	.015	3/64 x 45°	.3125-24 UNJF-3A	.1295 .1270	.130 .110	.180 .160	19,160	12,300
12	3/8	.7604 .7556	.420	.3745 .3740	.3745 .3735	.3680 .3640	.008	.1620 .1600	.040 .030	.015	3/64 x 45°	.3700-24 UNJF-3A	.1617 .1582	.160 .140	.217 .197	27,600	19,100
14	7/16	.8884 .8812	.500	.4370 .4365	.4370 .4360	.4310 .4260	.009	.1895 .1865	.050 .040	.022	3/64 x 45°	.4375-20 UNJF-3A	.1930 .1895	.190 .170	.253 .233	37,500	25,800
16	1/2	1.0139 1.0068	.600	.4995 .4990	.4995 .4985	.4930 .4880	.010	.2160 .2130	.050 .040	.022	3/64 x 45°	.5000-20 UNJF-3A	.2242 .2207	.220 .200	.289 .269	49,100	34,300
18	9/16	1.1408 1.1337	.700	.5615 .5610	.5615 .5605	.5550 .5500	.010	.2430 .2400	.050 .040	.022	1/16 x 45°	.5625-18 UNJF-3A	.2555 .2520	.260 .240	.326 .306	62,100	43,500
20	5/8	1.2723 1.2651	.780	.6240 .6235	.6240 .6230	.6180 .6120	.010	.2720 .2690	.050 .040	.025	1/16 x 45°	.6250-18 UNJF-3A	.2555 .2520	.260 .240	.326 .306	76,700	54,600
24	3/4	1.5308 1.5236	1.020	.7490 .7485	.7490 .7480	.7430 .7370	.012	.3280 .3250	.050 .040	.025	1/16 x 45°	.7500-16 UNJF-3A	.3185 .3150	.330 .300	.398 .378	110,400	79,200
28	7/8	1.7845 1.7773	1.160	.8740 .8735	.8740 .8730	.8680 .8610	.014	.3820 .3790	.050 .040	.025	5/64 x 45°	.8750-14 UNJF-3A	.3820 .3780	.400 .370	.471 .451	150,300	117,000
32	1	2.0405 2.0310	1.305	.9990 .9985	.9990 .9980	.9930 .9860	.014	.4370 .4330	.050 .040	.025	5/64 x 45°	1.000-12 UNJF-3A	.5100 .5040	.520 .490	.618 .598	196,300	143,000

THIS AREA OF SPECIAL CONFIGURATION  
AND COLD WORKING TO MEET PHYSICAL  
REQUIREMENTS



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 DEPT. 104	DATE 1994-03-11	TITLE HI-LITE™ PIN	
APPROVED E.E.B.	DATE 1994-03-16	100° FLUSH MS24694 TENSION HEAD NICKEL BASE ALLOY (INCONEL 718) 1/16 GRIP VARIATION	
REVISION 15	DATE A.CHAE 2022-09-29	DRAWING NUMBER <b>HST59</b>	

- 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 Curved or flat edge manufacturer's option.
  - 8 Evidence of broken edge across points.
  - 9 Broach petals removed.
  - 10 Use HST159 for oversize replacement.
  - 11 After February, 21st of 2015, HI-KOTE™ 1 aluminum pigmented coating per Hi-Shear Spec. 294 will be replaced by REACH compliant HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294 on fasteners coated in the UK and European Union.

**MATERIAL:** Nickel base alloy per AMS5662.

**HEAT TREAT:** 125,000 psi shear minimum.

- 15 **FINISH:** HST59-( )-( ) = Passivate per AMS2700, Method 1, Type 8, Class 1, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 15 11 HST59AC( )-( ) = HI-KOTE™ 1 or HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294, with color code green on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 15 11 HST59AG( )-( ) = HI-KOTE™ 1 or HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294, and with color code orange on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 15 11 HST59AP( )-( ) = 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.
- 15 11 HST59AY( )-( ) = HI-KOTE™ 1 or HI-KOTE™ 1 NC aluminum pigmented coating on threads only per Hi-Shear Spec. 294.
- HST59DU( )-( ) = Solid film lube per AS5272, Type 1.
- 15 11 HST59GD( )-( ) = HI-KOTE™ 1 or HI-KOTE™ 1 NC aluminum pigmented coating on threads only per Hi-Shear Spec. 294, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 15 11 HST59GM( )-( ) = 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.
- 9 HST59MA( )-( ) = Solid film lube per Kalgard RA.
- HST59TB( )-( ) = HI-KOTE™ 2 solid film lube per Hi-Shear Spec.292, and cetyl alcohol lube per Hi-Shear Spec 305.
- HST59TP( )-( ) = HI-KOTE™ 2 solid film lube per Hi-Shear Spec.292 with color orange on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HST59NKJ( )-( ) = 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.
- HST59NKL( )-( ) = 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.
- HST59HK( )-( ) = HI-KOTE™ 4 NC aluminum coating per Hi-Shear Spec. 397
- 15 HST59NAP( )-( ) = HI-KOTE™ 1 NC aluminum coating per Hi-Shear Spec. 294, and cetyl alcohol lube per Hi-Shear Spec. 305.

**SPECIFICATION:** HI-LITE™ Product Specification 380.

**CODE:** First dash number indicates nominal diameter in 1/32nds.  
 Second dash number indicates maximum grip in 1/16ths.  
 See Finish note for explanation of code letters.

**HOW TO ORDER  
 EXAMPLE:**

Pin Part Number  
 HST59AP8-8

8/16 or 1/2 Maximum Grip Length  
 8/32 or 1/4 Nominal Diameter Pin  
 Finish Code  
 Pin Basic Part Number