



FIRST DASH NO.	PIN NOM DIA	A DIA	A' DIA MIN	B REF	D DIA	TD DIA	F	H REF	M GAGE PROT.	R RAD Cold-Worked	V GAGE DIA	Z MAX	S CHAMFER REF	THREAD MODIFIED	SOCKET				DOUBLE SHEAR POUNDS MINIMUM	TENSION POUNDS MINIMUM	TENSION-TENSION FATIGUE POUNDS MAXIMUM
															W HEX	T DEPTH MIN	T1 DEPTH MAX	Y DIA			
5	5/32	.2827	.260	.280	.1635 .1625	.1595 .1570	.004	.049	.0330 .0298	.025 .015	.2028 .2026	.010	1/32 x 45°	.1640-32 UNJC-3A	.0801 .0791	.080	.135	[9]	4,560	1,850	620
6	3/16	.3277	.293	.290	.1895 .1885	.1840 .1810	.005	.056	.0295 .0263	.030 .020	.2560 .2558	.015	1/32 x 45°	.1900-32 UNJF-3A	.0806 .0791	.080	.135	.119 .104	6,125	2,600	910
8	1/4	.4283	.394	.320	.2495 .2485	.2440 .2410	.006	.074	.0227 .0195	.030 .020	.3732 .3730	.015	1/32 x 45°	.2500-28 UNJF-3A	.0967 .0947	.090	.160	.142 .122	10,600	5,000	1,750
10	5/16	.5361	.501	.380	.3120 .3110	.3060 .3020	.007	.092	.0234 .0198	.040 .030	.4791 .4789	.015	3/64 x 45°	.3125-24 UNJF-3A	.1295 .1270	.110	.200	.180 .160	16,600	7,500	2,625
12	3/8	.6415	.607	.420	.3745 .3735	.3680 .3640	.008	.110	.0295 .0259	.040 .030	.5698 .5696	.015	3/64 x 45°	.3750-24 UNJF-3A	.1617 .1582	.140	.235	.217 .197	23,900	11,000	3,850
14	7/16	.7425	.691	.485	.4370 .4360	.4310 .4260	.009	.126	.0347 .0307	.050 .040	.6582 .6580	.022	3/64 x 45°	.4375-20 UNJF-3A	.1930 .1895	.170	.275	.253 .233	32,500	14,300	5,000
16	1/2	.8423	.791	.525	.4995 .4985	.4930 .4880	.010	.142	.0504 .0464	.050 .040	.7200 .7198	.022	3/64 x 45°	.5000-20 UNJF-3A	.2242 .2207	.200	.315	.289 .269	42,400	19,800	6,930
18	9/16	.9300	.881	.600	.5615 .5605	.5550 .5500	.010	.153	.0533 .0485	.050 .040	.8012 .8010	.022	1/16 x 45°	.5625-18 UNJF-3A	.2555 .2520	.240	.365	.326 .306	53,700	24,600	8,600
20	5/8	1.0440	.995	.640	.6240 .6230	.6180 .6120	.010	.174	.0633 .0589	.050 .040	.8902 .8900	.022	1/16 x 45°	.6250-18 UNJF-3A	.2555 .2520	.240	.365	.326 .306	66,300	31,000	10,850
24	3/4	1.3000	1.251	.895	.7490 .7480	.7430 .7370	.012	.229	.0776 .0716	.050 .040	1.1124 1.1122	.022	1/16 x 45°	.7500-16 UNJF-3A	.3185 .3150	.300	.465	.398 .378	95,400	48,000	16,800
28	7/8	1.5091	1.461	1.000	.8740 .8730	.8680 .8610	.014	.263	.0694 .0622	.050 .040	1.3440 1.3438	.022	5/16 x 45°	.8750-14 UNJF-3A	.3820 .3780	.370	.608	.471 .451	129,000	65,000	22,750
32	1	1.7201	1.671	1.160	.9990 .9980	.9930 .9860	.014	.298	.0617 .0536	.050 .040	1.5732 1.5730	.022	5/16 x 45°	1.0000-12 UNJF-3A	.5100 .5040	.490	.770	.618 .598	168,500	85,000	29,750
36	1-1/8	1.9350	1.887	1.305	1.1240 1.1230	1.1170 1.1100	.015	.340	.0560 .0475	.060 .050	1.8026 1.8024	.022	5/16 x 45°	1.1250-12 UNJF-3A	.5725 .5765	.550	.850	.693 .673	214,000	109,500	38,000

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

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 D.P.S.	DATE 1983-02-18
APPROVED R. TING	DATE 1983-02-22
REVISION [14]	DATE K. TRAN 2017-12-04
TITLE HI-LITE™ PIN 100° FLUSH SPECIAL SHEAR HEAD ALLOY STEEL 1/16 GRIP VARIATION	
DRAWING NUMBER <b>HST803</b>	

- GENERAL NOTES:**
- 1 Head edge out of roundness shall not exceed "F".
  - 2. Concentricity: Conical surface of head to "D" diameter within .005 FIR.
  - 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. Recommended standard for hole preparation per NAS618.
  - 7 Fatigue test pins having grip equal two diameters or longer using these loads at R =0.1.
  - 8 Curved or flat edge manufacturer's option.
  - 9 Evidence of broken edge across points.
  - 10. Use HST823 for oversize replacement.

**MATERIAL:** 14 Alloy steel per AMS6415, AMS6484, AMS6349, AMS6382, AMS6322, AMS6325 or AMS6327.

**HEAT TREAT:** 14 108,000 psi shear minimum (180,000-200,000 psi tensile per AMS-H-6875).

- FINISH:** 14 HST803-( )-( ) = Cadmium plate per AMS-QQ-P-416, Type II, Class 2, with color code black on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 14 HST803BJ-( )-( ) = I.V.D. aluminum coating per MIL-DTL-83488, Type II, Class 3, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 14 HST803CE-( )-( ) = I.V.D. aluminum coating per MIL-DTL-83488, Type II (.00015-.00045 thick ) with color black on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 14 HST803CG( )-( ) = Cadmium plate per AMS-QQ-P-416, Type II, Class 2, with color green on thread end, 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**  
14 **EXAMPLE:**

Pin Part Number  
HST803CG-8-8  
└─ 8/16 or 1/2 Maximum Grip Length  
└─ 8/32 or 1/4 Nominal Diameter Pin  
└─ Finish Code  
└─ Pin Basic Part Number

Pin and Collar Assembly Part Number Combination  
HST80379-8-8  
└─ Size and grip length, see above example  
└─ Collar Part Number  
└─ Pin Part Number

HST803

DRAWING NUMBER

**HST803**

2 OF 2