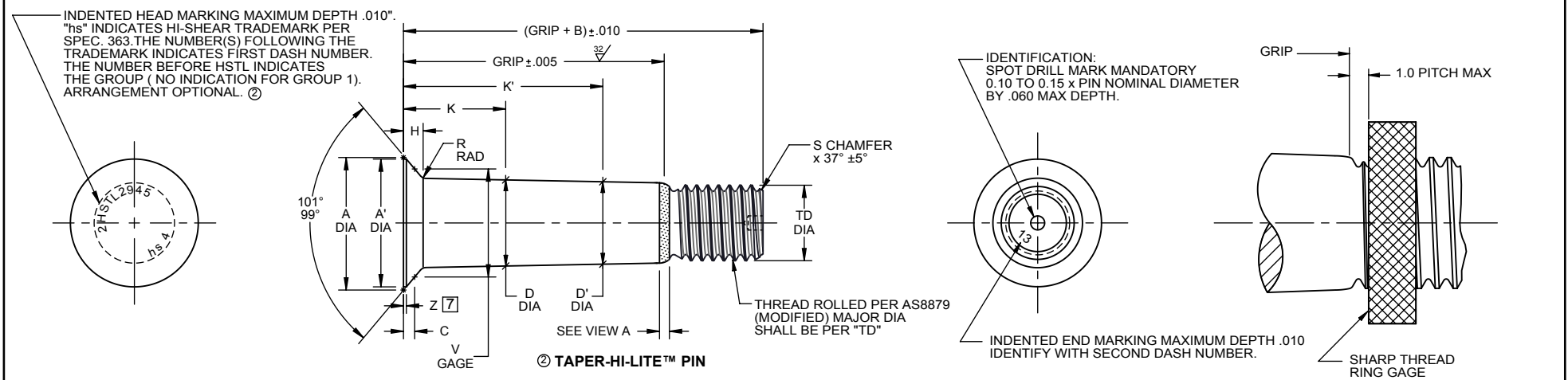
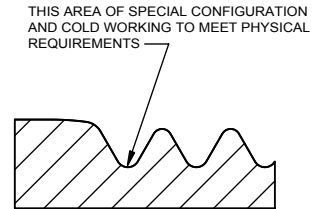




THREAD FUNCTIONALITY



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

① ② ③
 TABLE 1 ⑦

FIRST DASH NO.	PIN NOM DIA	GROUP NO.	A DIA MAX	A' DIA MIN	B (REF)	C		F	H MAX	K +.040 -.000	R RAD +.010 -.000	S MAX	V GAGE +.0002 -.0000	X	Y	Z MAX	THREAD	TD DIA	DOUBLE SHEAR POUNDS MINIMUM	TENSION POUNDS MINIMUM	TENSION-TENSION FATIGUE LBS. MAX.
						NOM	TOL.														
3	3/16	1	.344	.297	.290	.0330	±.0020	.007	.063	.0885	.020	.027	.2592	.002	.0045	.015	.1900-32 UNJF-3A	.1840 .1810	6125	3170	1100
		2	.356	.308		.0377															
		3	.366	.318		.0419															
		-	-	-		-															
4	1/4	1	.449	.400	.320	.0270	±.0023	.008	.079	.1075	.020	.031	.3776	.002	.0045	.015	.2500-28 UNJF-3A	.2440 .2410	10600	5800	2000
		2	.462	.413		.0326															
		3	.476	.426		.0381															
		4	.489	.439		.0435															
5	5/16	1	.550	.500	.380	.0266	±.0025	.009	.094	.1245	.030	.035	.4788	.002	.0045	.015	.3125-24 UNJF-3A	.3060 .3020	16600	8900	3100
		2	.564	.514		.0325															
		3	.578	.528		.0384															
		-	-	-		-															
6	3/8	1	.657	.605	.420	.0330	±.0028	.010	.112	.1415	.030	.035	.5696	.003	.0060	.015	.3750-24 UNJF-3A	.3680 .3640	23900	13300	4600
		2	.672	.620		.0393															
		3	.687	.635		.0456															
		4	.702	.649		.0516															
7	7/16	1	.772	.702	.485	.0438	±.0030	.011	.133	.1700	.040	.040	.6580	.004	.0060	.022	.4375-20 UNJF-3A	.4310 .4260	32500	17100	6000
		2	.790	.720		.0514															
		3	.808	.737		.0587															
		4	.826	.755		.0663															
8	1/2	1	.864	.792	.525	.0561	±.0033	.012	.144	.1790	.040	.040	.7198	.004	.0060	.022	.5000-20 UNJF-3A	.4930 .4880	42400	23000	8000
		2	.885	.813		.0649															
		3	.906	.833		.0735															
		4	.927	.853		.0821															
9	9/16	1	.978	.902	.600	.0326	±.0035	.014	.162	.2175	.060	.045	.8900	.005	.0060	.024	.5625-18 UNJF-3A	.5550 .5500	53700	29000	10100
		2	1.009	.932		.0454															
		3	1.040	.962		.0582															
		-	-	-		-															
10	5/8	1	1.090	1.008	.640	.0321	±.0038	.014	.181	.2175	.060	.045	1.0026	.005	.0060	.026	.6250-18 UNJF-3A	.6180 .6120	66300	36600	12800
		2	1.124	1.041		.0462															
		3	1.158	1.073		.0600															
		-	-	-		-															
12	3/4	1	1.358	1.260	.895	.0972	±.0040	.016	.239	.3050	.070	.045	1.1122	.005	.0060	.030	.7500-16 UNJF-3A	.7430 .7370	95400	63800	22300
		2	1.397	1.298		.1133															
		3	1.436	1.336		.1295															
		-	-	-		-															

② "TAPER-HI-LITE", AND "HI-KOTE", ARE TRADEMARKS OF LISI AEROSPACE

DRAWN BY J.F.OBISPO	DATE 2006-10-17	② TITLE TAPER-HI-LITE™ PIN 100° FLUSH SHEAR HEAD TAPER SHANK, ALLOY STEEL 1/16 GRIP VARIATION
APPROVED E.E.BEELES	DATE 2006-12-05	
REVISION ②	DATE F.CARINGELLA 2019-05-30	DRAWING NUMBER HSTL2945 1 OF 6

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②
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FIRST DASH NO.	PIN NOM DIA	GROUP NO.	A DIA MAX	A' DIA MIN	B (REF)	C		F	H MAX	K +.040 -.000	R RAD +.010 -.000	S MAX	V GAGE +.0002 -.0000	X	Y	Z MAX	THREAD	TD DIA	DOUBLE SHEAR POUNDS MINIMUM	TENSION POUNDS MINIMUM	TENSION FATIGUE LBS. MAX
						NOM	TOL.														
14	7/8	1	1.575	1.467	1.000	.0841	±.0045	.016	.273	.3205	.070	.050	1.3600	.006	.0080	.034	.8750-14 UNJF-3A	.8680 .8610	129000	85300	29800
		2	1.622	1.512		.1034															
		3	1.669	1.558		.1229															
		-	-	-		-															
16	1	1	1.7201	1.6714	1.160	.0570	±.0048	.016	.280	.3050	.070	.057	1.5730	.006	.0080	.038	1.0000-12 UNJF-3A	.9930 .9860	168500	100000	35000
		2	1.7722	1.7235		.0781															
		3	1.8242	1.7755		.0995															
		-	-	-		-															

②

[1] Head edge out of roundness shall not exceed F.

2. Concentricity: Conical surface of head to and taper shank at K to be within X values FIM.
Taper shank at K' and thread pitch diameter to be within Y values FIM.
3. H is dimensioned from maximum D diameter.
4. Dimensions are in inches and to be met after finish and prior to application of lubricant.
5. Surface texture per ASME B46.1.
6. Top of head to be flat to .0025 max convex. Concave condition not allowed.
7. Curved or flat edge manufacturer's option.
8. Use HSTL2946 for oversize replacement.
9. For -3 grip length the tolerance on "K" and "K'" is -.000/+.030, and for -4 grip length the tolerance on "K" and "K'" is -.000/+.035.

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

SPECIFICATION: HI-LITE™ Product Specification 414.②

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

② EXAMPLE:

Diagram illustrating the structure of a pin part number:

- 13/16 Maximum Grip Length
- 1/4 Nominal Diameter Pin
- Finish Code
- Pin Basic Part Number

DRAWING NUMBER

HSTL2945

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DRAWING NUMBER

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TABLE 2 (CONTINUED)

3/4"									
SECOND DASH NO.	D DIA	K' +.040 -.000	D' DIA	GROUP NO.	SECOND DASH NO.	D DIA	K' +.040 -.000	D' DIA	GROUP NO.
5		-	-				-	-	
6		-	-				-	-	
7		-	-				-	-	
8		.4425	.7847		65		4.0050	.7887	
9		.5050	.7834		66		4.0675	.7873	
10		.5675	.7821		67		4.1300	.7860	
11		.6300	.7808		68		4.1925	.7847	
12		.6925	.7795		69		4.2550	.7834	
13		.7550	.7782		70		4.3175	.7821	
14		.8175	.7769		71		4.3800	.7808	
15		.8800	.7756		72		4.4425	.7795	
16		.9425	.7743		73		4.5050	.7782	
17		1.0050	.7730		74		4.5675	.7769	
18	.7876	1.0675	.7717	1	75	.8657	4.6300	.7756	3
19		1.1300	.7704		76		4.6925	.7743	
20		1.1925	.7691		77		4.7550	.7730	
21		1.2550	.7678		78		4.8175	.7717	
22		1.3175	.7665		79		4.8800	.7704	
23		1.3800	.7652		80		4.9425	.7691	
24		1.4425	.7639		81		5.0050	.7678	
25		1.5050	.7626		82		5.0675	.7665	
26		1.5675	.7613		83		5.1300	.7652	
27		1.6300	.7600		84		5.1925	.7639	
28		1.6925	.7587		85		5.2550	.7626	
29		1.7550	.7574		86		5.3175	.7613	
30		1.8175	.7561		87		5.3800	.7600	
31		1.8800	.7939		88		5.4425	.7587	
32		1.9425	.7926		89		5.5050	.7574	
33		2.0050	.7913		90		5.5675	.7561	
34		2.0675	.7900						
35		2.1300	.7887						
36		2.1925	.7873						
37		2.2550	.7860						
38		2.3175	.7847						
39		2.3800	.7834						
40		2.4425	.7821						
41		2.5050	.7808						
42		2.5675	.7795						
43		2.6300	.7782						
44		2.6925	.7769						
45	.8266	2.7550	.7756	2					
46		2.8175	.7743						
47		2.8800	.7730						
48		2.9425	.7717						
49		3.0050	.7704						
50		3.0675	.7691						
51		3.1300	.7678						
52		3.1925	.7665						
53		3.2550	.7652						
54		3.3175	.7639						
55		3.3800	.7626						
56		3.4425	.7613						
57		3.5050	.7600						
58		3.5675	.7587						
59		3.6300	.7574						
60		3.6925	.7561						
61		3.7550	.7939						
62	.8657	3.8175	.7926	3					
63		3.8800	.7913						
64		3.9425	.7900						

7/8"									
SECOND DASH NO.	D DIA	K' +.040 -.000	D' DIA	GROUP NO.	SECOND DASH NO.	D DIA	K' +.040 -.000	D' DIA	GROUP NO.
5		-	-				-	-	
6		-	-				-	-	
7		-	-				-	-	
8		-	-				-	-	
9		.5050	.9178		65		4.0050	.8917	
10		.5675	.9165		66	.9684	4.0675	.8904	2
11		.6300	.9152		67		4.1300	.8891	
12		.6925	.9138		68		4.1925	.8878	
13		.7550	.9125		69		4.2550	.8865	
14		.8175	.9112		70		4.3175	.8852	
15		.8800	.9099		71		4.3800	.8839	
16		.9425	.9086		72		4.4425	.8826	
17		1.0050	.9073		73		4.5050	.9282	
18	.9216	1.0675	.9060	1	74		4.5675	.9269	
19		1.1300	.9047		75		4.6300	.9256	
20		1.1925	.9034		76		4.6925	.9243	
21		1.2550	.9021		77		4.7550	.9230	
22		1.3175	.9008		78		4.8175	.9217	
23		1.3800	.8995		79		4.8800	.9204	
24		1.4425	.8982		80		4.9425	.9191	
25		1.5050	.8969		81		5.0050	.9178	
26		1.5675	.8956		82		5.0675	.9165	
27		1.6300	.8943		83		5.1300	.9152	
28		1.6925	.8930		84		5.1925	.9138	
29		1.7550	.8917		85		5.2550	.9125	
30		1.8175	.8904		86		5.3175	.9112	
31		1.8800	.8891		87		5.3800	.9099	
32		1.9425	.8878		88		5.4425	.9086	
33		2.0050	.8865		89	1.0153	5.5050	.9073	3
34		2.0675	.8852		90		5.5675	.9060	
35		2.1300	.8839		91		5.6300	.9047	
36		2.1925	.8826		92		5.6925	.9034	
37		2.2550	.9282		93		5.7550	.9021	
38		2.3175	.9269		94		5.8175	.9008	
39		2.3800	.9256		95		5.8800	.8995	
40		2.4425	.9243		96		5.9425	.8982	
41		2.5050	.9230		97		6.0050	.8969	
42		2.5675	.9217		98		6.0675	.8956	
43		2.6300	.9204		99		6.1300	.8943	
44		2.6925	.9191		100		6.1925	.8930	
45		2.7550	.9178		101		6.2550	.8917	
46		2.8175	.9165		102		6.3175	.8904	
47		2.8800	.9152		103		6.3800	.8891	
48		2.9425	.9138		104		6.4425	.8878	
49		3.0050	.9125		105		6.5050	.8865	
50		3.0675	.9112		106		6.5675	.8852	
51	.9684	3.1300	.9099	2	107		6.6300	.8839	
52		3.1925	.9086		108		6.6925	.8826	
53		3.2550	.9073						
54		3.3175	.9060						
55		3.3800	.9047						
56		3.4425	.9034						
57		3.5050	.9021						
58		3.5675	.9008						
59		3.6300	.8995						
60		3.6925	.8982						
61		3.7550	.8969						
62		3.8175	.8956						
63		3.8800	.8943						
64		3.9425	.8930						

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DRAWING NUMBER

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TABLE 2 (CONTINUED)

1"									
SECOND DASH NO.	D DIA	K' +.040 -.000	D' DIA	GROUP NO.	SECOND DASH NO.	D DIA	K' +.040 -.000	D' DIA	GROUP NO.
5		-	-		-		-	-	
6		-	-		-		-	-	
7		-	-		-		-	-	
8		-	-		-		-	-	
9		-	-		65		4.0050	1.0280	
10		.5675	1.0476		66		4.0675	1.0267	
11		.6300	1.0463		67		4.1300	1.0254	
12		.6925	1.0450		68		4.1925	1.0241	
13		.7550	1.0437		69		4.2550	1.0228	
14		.8175	1.0424		70	1.1051	4.3175	1.0215	2
15		.8800	1.0411		71		4.3800	1.0202	
16		.9425	1.0397		72		4.4425	1.0189	
17	1.0530	1.0050	1.0384	1	73		4.5050	1.0176	
18		1.0675	1.0371		74		4.5675	1.0163	
19		1.1300	1.0358		75		4.6300	1.0150	
20		1.1925	1.0345		76		4.6925	1.0137	
21		1.2550	1.0332		77		4.7550	1.0124	
22		1.3175	1.0319		78		4.8175	1.0111	
23		1.3800	1.0306		79		4.8800	1.0098	
24		1.4425	1.0293		80		4.9425	1.0085	
25		1.5050	1.0280		81		5.0050	1.0593	
26		1.5675	1.0267		82		5.0675	1.0580	
27		1.6300	1.0254		83		5.1300	1.0567	
28		1.6925	1.0241		84		5.1925	1.0554	
29		1.7550	1.0228		85		5.2550	1.0541	
30		1.8175	1.0215		86		5.3175	1.0528	
31		1.8800	1.0202		87		5.3800	1.0515	
32		1.9425	1.0189		88		5.4425	1.0502	
33		2.0050	1.0176		89		5.5050	1.0489	
34		2.0675	1.0163		90		5.5675	1.0476	
35		2.1300	1.0150		91		5.6300	1.0463	
36		2.1925	1.0137		92		5.6925	1.0450	
37		2.2550	1.0124		93		5.7550	1.0437	
38		2.3175	1.0111		94		5.8175	1.0424	
39		2.3800	1.0098		95		5.8800	1.0411	
40		2.4425	1.0085		96		5.9425	1.0397	
41		2.5050	1.0593		97		6.0050	1.0384	
42		2.5675	1.0580		98		6.0675	1.0371	
43		2.6300	1.0567		99		6.1300	1.0358	
44		2.6925	1.0554		100		6.1925	1.0345	
45		2.7550	1.0541		101		6.2550	1.0332	
46		2.8175	1.0528		102	1.1571	6.3175	1.0319	3
47		2.8800	1.0515		103		6.3800	1.0306	
48		2.9425	1.0502		104		6.4425	1.0293	
49		3.0050	1.0489		105		6.5050	1.0280	
50		3.0675	1.0476		106		6.5675	1.0267	
51	1.1051	3.1300	1.0463	2	107		6.6300	1.0254	
52		3.1925	1.0450		108		6.6925	1.0241	
53		3.2550	1.0437		109		6.7550	1.0228	
54		3.3175	1.0424		110		6.8175	1.0215	
55		3.3800	1.0411		111		6.8800	1.0202	
56		3.4425	1.0397		112		6.9425	1.0189	
57		3.5050	1.0384		113		7.0050	1.0176	
58		3.5675	1.0371		114		7.0675	1.0163	
59		3.6300	1.0358		115		7.1300	1.0150	
60		3.6925	1.0345		116		7.1925	1.0137	
61		3.7550	1.0332		117		7.2550	1.0124	
62		3.8175	1.0319		118		7.3175	1.0111	
63		3.8800	1.0306		119		7.3800	1.0098	
64		3.9425	1.0293		120		7.4425	1.0085	

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