

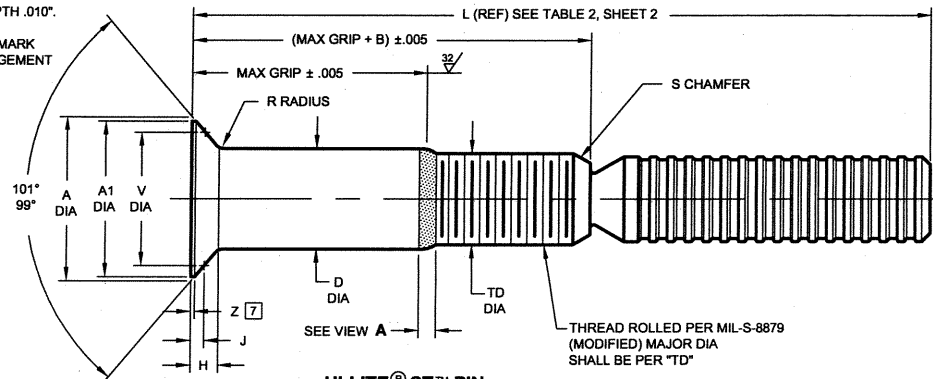
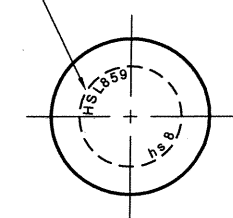
hi-shear
CORPORATION

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HI-SHEAR CORPORATION, U.S.A. (Patent Holder) CAGE No. 73197
a LI-SI AEROSPACE Company
AIR INDUSTRIES CO., INC., U.S.A. (Licensee - U.S.A. & Canada) CAGE No. 06725
SPS TECHNOLOGIES, U.S.A. (Licensee) CAGE No. 56678
FAIRCHILD - SIMMONDS S.A. France (Licensee) CAGE No. 92215

BLANC AERO INDUSTRIES UK LIMITED (Licensee) CAGE No. 0LB68
a LI-SI AEROSPACE Company
BLANC AERO S.A. France (Licensee - ECC Countries)
a LI-SI AEROSPACE Company
TOKYO SCREW COMPANY, Japan (Licensee - Japan)

INDENTED HEAD MARKING MAXIMUM DEPTH .010".
"hs" INDICATES HI-SHEAR TRADEMARK.
THE NUMBER(S) FOLLOWING THE TRADEMARK
INDICATES FIRST DASH NUMBER, ARRANGEMENT
OPTIONAL.



HI-LITE® ST™ PIN

TABLE 1

FIRST DASH NO.	PIN NOM DIA	A DIA	A1 DIA MIN	B REF	D DIA	F	TD DIA	H REF	J GAGE PROT.	R RAD	V GAGE DIA	Z MAX	S CHAMFER REF	THREAD	DOUBLE SHEAR POUNDS MINIMUM	TENSION POUNDS MINIMUM	TENSION-TENSION FATIGUE POUNDS MAXIMUM
5						NOTE: USE HSL755-6(-)											
6	7/32	.3277	.2963	.300	.2182 .2172	.005	.1840 .1810	.044	.0295 .0263	.030 .020	.2560 .2558	.015	1/32" x 37°	10-32UNJF-3A Modified	7,100	2,400	900
8	9/32	.4283	.3969	.330	.2807 .2797	.006	.2440 .2410	.060	.0227 .0195	.030 .020	.3732 .3730	.015	1/32" x 37°	1/4-28UNJF-3A Modified	11,800	4,500	1,575
10	11/32	.5361	.5047	.390	.3432 .3422	.007	.3060 .3020	.079	.0234 .0198	.040 .030	.4791 .4789	.015	3/64" x 37°	5/16-24UNJF-3A Modified	17,600	6,850	2,397
12	13/32	.6415	.6101	.430	.4057 .4047	.008	.3680 .3640	.097	.0295 .0259	.040 .030	.5698 .5696	.015	3/64" x 37°	3/8-24UNJF-3A Modified	24,600	10,200	3,570
14	15/32	.7425	.6941	.495	.4682 .4672	.009	.4310 .4260	.114	.0347 .0307	.050 .040	.6582 .6580	.022	3/64" x 37°	7/16-20UNJF-3A Modified	32,700	13,100	4,585
16	17/32	.8423	.7939	.535	.5307 .5297	.010	.4930 .4880	.128	.0504 .0464	.050 .040	.7200 .7198	.022	3/64" x 37°	1/2-20UNJF-3A Modified	42,000	18,000	6,300

GENERAL NOTES:

- Head edge out of roundness shall not exceed "F".
- Concentricity: Conical surface of head to "D" diameter within .005 FIM.
- "H" is dimensioned from maximum "D" diameter.
- Dimensions to be met after finish.
- Surface texture per ANSI B46.1.
- Hole preparation per NAS618.
- Curved or flat edge manufacturer's option.
- Fatigue test required on pins having grip length equal to two diameters or longer. Use maximum load rate per table. Minimum load rate is 10% of maximum load.
- This HI-Lite ST pin is to be used in combination with a HI-Lite ST collar.
- This HI-Lite ST pin is to be used in interference fit holes only.

MATERIAL:
HEAT TREAT:

6AL-4V titanium alloy per AMS4928 or AMS4967.
95,000 psi shear minimum.

FINISH:

- HSL859-(-)(-) = Surface coating per Hi-Shear Spec. 306, Type I, color blue, with color black on thread end and cetyl alcohol lube per Hi-Shear Spec. 305.
- HSL859CE(-)(-) = 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.
- HSL859CF(-)(-) = I.V.D. aluminum coating per MIL-DTL-83488, Type II (.00015-.00045 thick), with color black on thread end.
- HSL859KN(-)(-) = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294, with color white on thread end.
- HSL859RP(-)(-) = Phosphate fluoride treat with color orange on thread end and cetyl alcohol lube per Hi-Shear Spec. 305.

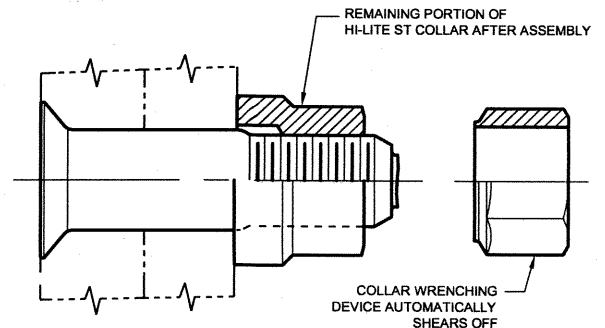
SPECIFICATION: HI-Lite Product Specification 380-2, except as noted [8]

CODE:

First dash number indicates nominal diameter in 1/32nds of pin which HSL859 oversize pin replaces.
Second dash number indicates maximum grip in 1/16ths.
See "Finish" note for explanation of code letters.

**HOW TO ORDER
EXAMPLE:**

Pin Part Number Only
HSL859CE8-8
8/16 or 1/2 Maximum Grip Length
8/32 or 1/4 Nominal Diameter Pin
Finish
Pin Part Number



HI-LITE® ST™ PIN AND COLLAR AFTER ASSEMBLY

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

U.S. Patents 4,326,825; 4,485,510 and 4,957,401.
Other U.S. and international patents pending.
"Hi-Lite" and "HST" are registered trademarks and "Hi-Lite ST" is a trademark of Hi-Shear Corporation.

DRAWN	DATE	TITLE
J.F. Obispo	5-16-95	HI-LITE® ST™ PIN
APPROVED	DATE	
J. Rausch	5-23-95	100° FLUSH SPECIAL SHEAR HEAD BREAK STEM, INTERFERENCE FIT TITANIUM 1/16" GRIP VARIATION, 1/32" OVERSIZE
REVISION	DATE	DRAWING NUMBER
1	JFO 6-24-04	HSL859

Sheet 1 of 2

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TABLE 2

SECOND DASH NUMBER	L (REF)						
		-6 DIA.	-8 DIA.	-10 DIA.	-12 DIA.	-14 DIA.	-16 DIA.
1		-	-	-	-	-	-
2		.945	.927	-	-	-	-
3		1.070	1.052	1.160	-	-	-
4		1.195	1.177	1.285	1.265	-	-
5		1.320	1.302	1.410	1.390	1.500	-
6		1.445	1.427	1.535	1.515	1.625	1.610
7		1.570	1.552	1.660	1.640	1.750	1.735
8		1.695	1.677	1.785	1.765	1.875	1.860
9		1.820	1.802	1.910	1.890	2.000	1.985
10		1.945	1.927	2.035	2.015	2.125	2.110
11		2.070	2.052	2.160	2.140	2.250	2.235
12		2.195	2.177	2.285	2.265	2.375	2.360
13		2.320	2.302	2.410	2.390	2.500	2.485
14		2.445	2.427	2.535	2.515	2.625	2.610
15		2.570	2.552	2.660	2.640	2.750	2.735
16		2.695	2.677	2.785	2.765	2.875	2.860
17		2.820	2.802	2.910	2.890	3.000	2.985
18		2.945	2.927	3.035	3.015	3.125	3.110
19		3.070	3.052	3.160	3.140	3.250	3.235
20		3.195	3.177	3.285	3.265	3.375	3.360
21		3.320	3.302	3.410	3.390	3.500	3.485
22		3.445	3.427	3.535	3.515	3.625	3.610
23		3.570	3.552	3.660	3.640	3.750	3.735
24		3.695	3.677	3.785	3.765	3.875	3.860
25		-	-	3.910	3.890	4.000	3.985
26		-	-	4.035	4.015	4.125	4.110
27		-	-	4.160	4.140	4.250	4.235
28		-	-	4.285	4.265	4.375	4.360
29		-	-	-	-	4.500	4.485
30		-	-	-	-	4.625	4.610
31		-	-	-	-	4.750	4.735
32		-	-	-	-	4.875	4.860

DRAWING NUMBER

HSL859

Sheet 2 of 2