

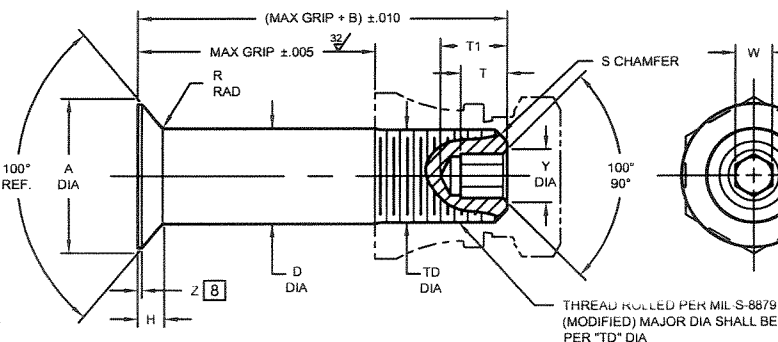
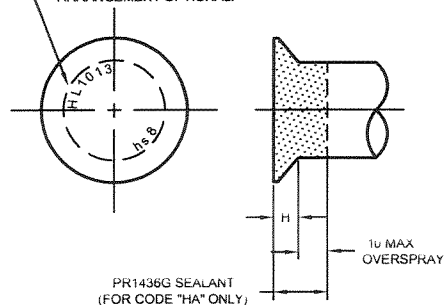
STANDARDS COMMITTEE FOR HI-LOK® PRODUCTS

2600 SKYPARK DRIVE, TORRANCE, CALIFORNIA 90509 U.S.A.

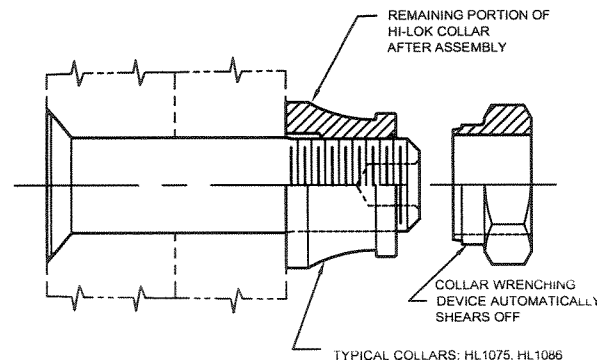
HI-SHEAR CORPORATION, U.S.A. (Patent Holder) CAGE No. 73197
a LISI AEROSPACE Company
AIR INDUSTRIES CO., INC., U.S.A. (Licensee - U.S.A. & Canada) CAGE No. 06725
HUCK INTERNATIONAL, INC., U.S.A. (Licensee) CAGE No. 97928
SPS TECHNOLOGIES, U.S.A. (Licensee) CAGE No. 56878
FAIRCHILD Aerospace Fastener Division (Licensee) CAGE No. 92215
WEST COAST AEROSPACE INC., U.S.A. (Licensee) CAGE No. 60516
(Pins & Steel Collars)

BLANC AERO INDUSTRIES UK LIMITED (Licensee) CAGE No. 0LB68
a LISI AEROSPACE Company
HUCK S.A. France (Licensee - ECC Countries)
BLANC AERO S.A. France (Licensee - ECC Countries)
a LISI 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-LOK® PIN



HI-LOK® PIN AND COLLAR AFTER ASSEMBLY

FIRST DASH NO.	PIN NOM DIA	A DIA	B REF	D DIA		TD DIA	F	H	R RAD	Z MAX	S CHAMFER REF	THREAD	SOCKET				DOUBLE SHEAR POUNDS MINIMUM	TENSION POUNDS MINIMUM
				WITHOUT COATING	WITH COATING								W HEX	T DEPTH	T1 DEPTH MAX	Y DIA		
5	5/32	.3304 .3256	.312	.1635 .1630	.1635 .1625	.1595 .1570	.004	.0700 .0680	.025 .015	.010	1/32" x 45°	8-32UNJC-3A Modified	.0801 .0791	.100 .080	.140	7	4,010	2,180
6	3/16	.3813 .3765	.325	.1895 .1890	.1895 .1885	.1840 .1810	.005	.0805 .0785	.030 .020	.015	1/32" x 45°	10-32UNJF-3A Modified	.0806 .0791	.100 .080	.140	.119 .104	5,380	3,180
8	1/4	.5066 .5018	.395	.2495 .2490	.2495 .2485	.2440 .2410	.006	.1080 .1060	.030 .020	.015	1/32" x 45°	1/4-28UNJF-3A Modified	.0967 .0947	.110 .090	.160	.142 .122	9,300	5,820
10	5/16	.6335 .6287	.500	.3120 .3115	.3120 .3110	.3060 .3020	.007	.1350 .1330	.040 .030	.015	3/64" x 45°	5/16-24UNJF-3A Modified	.1295 .1270	.130 .110	.200	.180 .160	14,600	9,200
12	3/8	.7604 .7556	.545	.3745 .3740	.3745 .3735	.3680 .3640	.008	.1620 .1600	.040 .030	.015	3/64" x 45°	3/8-24UNJF-3A Modified	.1617 .1582	.160 .140	.235	.217 .197	21,000	14,000
14	7/16	.8884 .8812	.635	.4370 .4365	.4370 .4360	.4310 .4260	.009	.1895 .1865	.050 .040	.022	3/64" x 45°	7/16-20UNJF-3A Modified	.1930 .1895	.190 .170	.280	.253 .233	28,600	18,900
16	1/2	1.0139 1.0068	.685	.4995 .4990	.4995 .4985	.4930 .4880	.010	.2160 .2130	.050 .040	.022	3/64" x 45°	1/2-20UNJF-3A Modified	.2242 .2207	.220 .200	.320	.289 .269	37,300	25,600
18	9/16	1.1408 1.1337	.770	.5615 .5610	.5615 .5605	.5550 .5500	.010	.2430 .2400	.050 .040	.025	1/16" x 45°	9/16-18UNJF-3A Modified	.2555 .2520	.260 .240	.360	.326 .306	47,200	32,400
20	5/8	1.2723 1.2651	.825	.6240 .6235	.6240 .6230	.6180 .6120	.010	.2720 .2690	.050 .040	.025	1/16" x 45°	5/8-18UNJF-3A Modified	.2555 .2520	.260 .240	.400	.326 .306	58,300	41,000
24	3/4	1.5308 1.5236	1.050	.7490 .7485	.7490 .7480	.7430 .7370	.012	.3280 .3250	.050 .040	.025	1/16" x 45°	3/4-16UNJF-3A Modified	.3185 .3150	.330 .300	.425	.398 .378	83,900	59,500

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

** The Double Shear values shown
are based on cross sectional
area for nominal diameter pin.

- GENERAL NOTES:**
- Head edge out of roundness shall not exceed "F".
 - Concentricity: Conical surface of head to "D" diameter within .003 FIM.
 - "H" is dimensioned from maximum "D" diameter.
 - Dimensions to be met after finish.
 - Surface texture per ANSI B46.1.
 - Hole preparation per NAS618.
 - Evidence of broken edge across points.
 - Curved or flat edge manufacturer's option.
 - Use HL1023 for oversize replacement.
- MATERIAL:** 6Al-4V titanium alloy per AMS4928 or AMS4967.
- HEAT TREAT:** 160,000 psi tensile minimum (95,000 psi shear minimum).
- FINISH:**
- HL1013(-)(-) = Cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL1013VF(-)(-) = Surface coating per Hi-Shear Spec. 306, Type I, color blue, and cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL1013AZ(-)(-) = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294, with color black on the thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL1013HA(-)(-) = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294, with color black on the thread end, and apply precoat No. PR1436G sealant (.002-.005 thick), and cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL1013RA(-)(-) = Phosphate fluoride treat with color code red on the thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.

SPECIFICATION: Hi-Lok Product Specification 342.

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 Only
HL1013AZ8-8

8/16 or 1/2 Maximum Grip Length
8/32 or 1/4 Nominal Diameter Pin
Hi-Kote 1 and Cetyl Alcohol Lube Finish
Pin Basic Part Number

Pin and Collar Assembly Part Number Combination
HL1013AZ1086-8-8

Size and Grip Length, See Above Example
Collar Part Number
Pin Finish
Pin Basic Part Number

"Hi-Lok" and "HL" are internationally registered trademark of Hi-Shear Corporation.		TITLE HI-LOK® PIN 100° FLUSH MS24694 TENSION HEAD TITANIUM 1/16" GRIP VARIATION (SPECIAL APPLICATION)	
DRAWN VAN	DATE 11-2-73	APPROVED JGWilcox	DATE 11-2-73
REVISION (8)	DATE 10-31-02	DRAWING NUMBER HL1013	

SHEET 1 OF 1