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		
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	(Pins & Steel Collars)	

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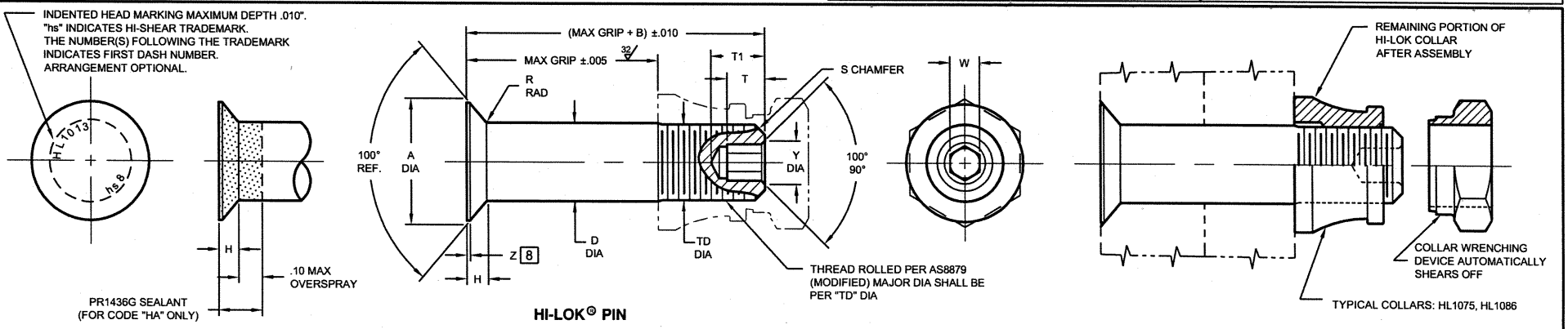

HI-LOK® PIN

HI-LOK® PIN AND COLLAR AFTER ASSEMBLY

FIRST DASH NO.	PIN NOM DIA	A DIA	B REF	D DIA WITHOUT COATING OR SOLID FILM LUBE	D DIA WITH COATING OR SOLID FILM LUBE	TD DIA	F [1]	H	R RAD	Z [8] MAX	S CHAMFER REF	THREAD	SOCKET W HEX	SOCKET T DEPTH	SOCKET T1 DEPTH MAX	SOCKET Y DIA	DOUBLE SHEAR POUNDS MINIMUM **	TENSION POUNDS MINIMUM
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 STRENGHT (PIN OR COLLAR) DETERMINES SYSTEM STRENGTH.

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

GENERAL NOTES:
1. [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 to be met after finish.
5. Surface texture per ANSI B46.1.
6. Hole preparation per NAS618.
7. [7] Evidence of broken edge across points.
8. [8] Curved or flat edge manufacturer's option.
9. 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.
- HL1013GM( )-( ) = Hi-Kote 1 aluminum 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.
- (11) HL1013HD( )-( ) = I.V.D. aluminum plating per BAC5315, with color code red on 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.

DRAWN	DATE	TITLE
VAN	11-2-73	**HI-LOK® PIN** 100° FLUSH MS24694 TENSION HEAD TITANIUM 1/16" GRIP VARIATION (SPECIAL APPLICATION)
APPROVED	DATE	
JGWilcox	11-2-73	
REVISION	DATE	DRAWING NUMBER
(11)	JO 4-18-2007	**HL1013** SHEET 1 OF 1

HL1013

JFO-STD/HLPIN