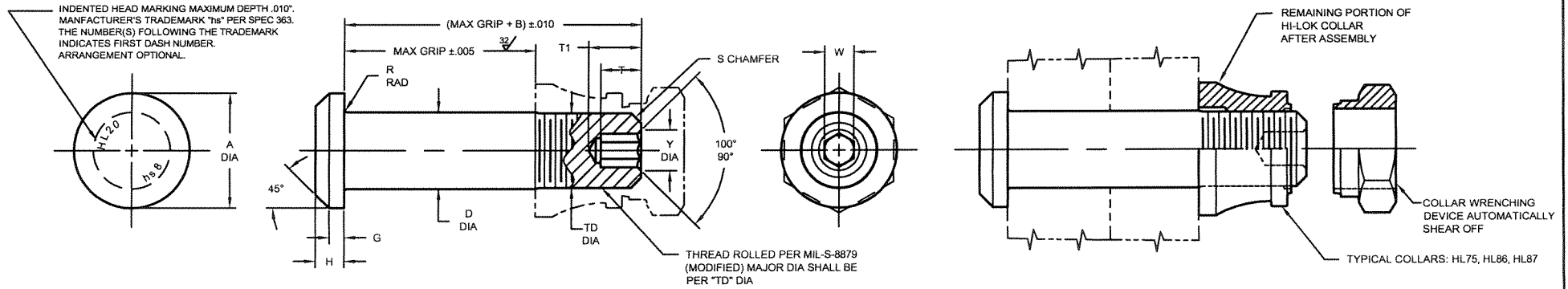


# STANDARDS COMMITTEE FOR HI-LOK<sup>®</sup> PRODUCTS

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

HI-SHEAR CORPORATION, U.S.A. (Patent Holder) CAGE No. 73197 a LISI AEROSPACE Company	BLANC AERO INDUSTRIES UK LIMITED (Licensee) CAGE No. OLB68 a LISI AEROSPACE Company
AIR INDUSTRIES CO., INC., U.S.A. (Licensee - U.S.A. & Canada) CAGE No. 06725	HUCK S.A. France (Licensee - ECC Countries)
HUCK INTERNATIONAL, INC., U.S.A. (Licensee) CAGE No. 97928	BLANC AERO S.A. France (Licensee - ECC Countries)
SPS TECHNOLOGIES, U.S.A. (Licensee) CAGE No. 56878	a LISI AEROSPACE Company
FAIRCHILD Aerospace Fastener Division (Licensee) CAGE No. 92215	TOKYO SCREW COMPANY, Japan (Licensee - Japan)
WEST COAST AEROSPACE INC., U.S.A. (Licensee) CAGE No. 60516 (Pins & Steel Collars)	



HI-LOK<sup>®</sup> PIN

HI-LOK PIN<sup>®</sup> AND COLLAR AFTER ASSEMBLY

FIRST DASH NO.	PIN NOM DIA	A DIA	B REF	D DIA	TD DIA	G REF	H	R RAD	S CHAMFER REF	THREAD	SOCKET				DOUBLE SHEAR POUNDS MINIMUM	TENSION POUNDS MINIMUM
											W HEX	T DEPTH	T1 DEPTH MAX	Y DIA		
5	5/32	.322 .306	.312	.1635 .1625	.1595 .1570	.030	.065 .055	.025 .015	1/32" x 45°	8-32UNJC-3A Modified	.0801 .0791	.135 .115	.165	6	4,010	2,180
6	3/16	.377 .357	.325	.1895 .1885	.1840 .1810	.035	.074 .064	.025 .015	1/32" x 45°	10-32UNJF-3A Modified	.0806 .0791	.135 .115	.175	.119 .104	5,380	3,180
8	1/4	.440 .415	.395	.2495 .2485	.2440 .2410	.045	.090 .077	.025 .015	1/32" x 45°	1/4-28UNJF-3A Modified	.0967 .0947	.150 .130	.200	.142 .122	9,300	5,820
10	5/16	.502 .472	.500	.3120 .3110	.3060 .3020	.055	.112 .098	.030 .020	3/64" x 45°	5/16-24UNJF-3A Modified	.1295 .1270	.170 .150	.240	.180 .160	14,600	9,200
12	3/8	.565 .530	.545	.3745 .3735	.3680 .3640	.065	.140 .130	.030 .020	3/64" x 45°	3/8-24UNJF-3A Modified	.1617 .1582	.200 .180	.275	.217 .197	21,000	14,000
14	7/16	.627 .592	.635	.4370 .4360	.4310 .4260	.075	.160 .150	.030 .020	3/64" x 45°	7/16-20UNJF-3A Modified	.1930 .1895	.230 .210	.315	.253 .233	28,600	18,900
16	1/2	.752 .717	.685	.4995 .4985	.4930 .4880	.085	.188 .178	.030 .020	3/64" x 45°	1/2-20UNJF-3A Modified	.2242 .2207	.260 .240	.360	.289 .269	37,300	25,600
18	9/16	.877 .842	.770	.5615 .5605	.5550 .5500	.125	.210 .200	.040 .025	1/16" x 45°	9/16-18UNJF-3A Modified	.2555 .2520	.290 .270	.400	.326 .306	47,200	32,400
20	5/8	.953 .918	.825	.6240 .6230	.6180 .6120	.140	.238 .228	.040 .025	1/16" x 45°	5/8-18UNJF-3A Modified	.2555 .2520	.330 .305	.440	.326 .306	58,300	41,000
24	3/4	1.150 1.110	1.050	.7490 .7480	.7430 .7370	.200	.335 .320	.045 .030	1/16" x 45°	3/4-16UNJF-3A Modified	.3185 .3150	.395 .365	.520	.398 .378	83,900	59,500
28	7/8	1.330 1.290	1.210	.8740 .8730	.8680 .8610	.250	.385 .370	.050 .035	5/64" x 45°	7/8-14UNJF-3A Modified	.3820 .3780	.400 .370	.560	.471 .451	114,000	81,500
32	1	1.510 1.470	1.390	.9990 .9980	.9930 .9860	.300	.435 .420	.060 .045	5/64" x 45°	1-12UNJF-3A Modified	.5100 .5040	.520 .490	.715	.618 .598	149,000	106,000

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

HL20

JFO-STD/HLPIN

"Hi-Lok" and "HL" are internationally registered trademark of Hi-Shear Corporation.		
DRAWN Ric	DATE 3-11-63	TITLE <b>HI-LOK<sup>®</sup> PIN PROTRUDING TENSION HEAD ALLOY STEEL 1/16 GRIP VARIATION</b>
APPROVED Cessna	DATE 3-13-63	
REVISION (23)	DATE J.F.O. 10-16-02	DRAWING NUMBER <b>HL20</b>
		SHEET 1 OF 2

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# STANDARDS COMMITTEE FOR HI-LOK<sup>®</sup> 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)

HI-SHEAR FASTENERS EUROPE, LTD., U.K. (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)

- GENERAL NOTES:**
1. Concentricity: "A" to "D" diameter within .010 FIM.
  2. Dimensions to be met after finish.
  3. Surface texture per ANSI B46.1.
  4. Hole preparation per NAS618.
  5. Non-lubed pins must be used with sealant or lubed collars.
  6. Evidence of broken edge across points.
  7. Use HL64 for oversize replacement.

**MATERIAL:** Alloy steel per AMS6415, AMS6349 or AMS-S-6049.

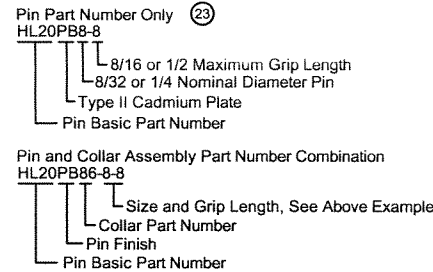
**HEAT TREAT:** 160,000 - 180,000 psi tensile per AMS-H-6875.

- 23 **FINISH:**
- HL20-( )-( ) = Cadmium plate per AMS-QQ-P-416, Type I, Class 2, and cetyl alcohol lube per Hi-Shear Spec. 305.
  - HL20N( )-( ) = Diffused nickel-cadmium plate per AMS2416, and cetyl alcohol lube per Hi-Shear Spec. 305.
  - HL20PB( )-( ) = Cadmium plate per AMS-QQ-P-416, Type II, Class 2, and cetyl alcohol lube per Hi-Shear Spec. 305.
  - 5 HL20PN( )-( ) = Cadmium plate per AMS-QQ-P-416, Type II, Class 2.
  - HL20RB( )-( ) = Cadmium plate per AMS-QQ-P-416, Type II, Class 2, color violet to purple, 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:**



DRAWING NUMBER

**HL20**

Sheet 2 of 2

HL20