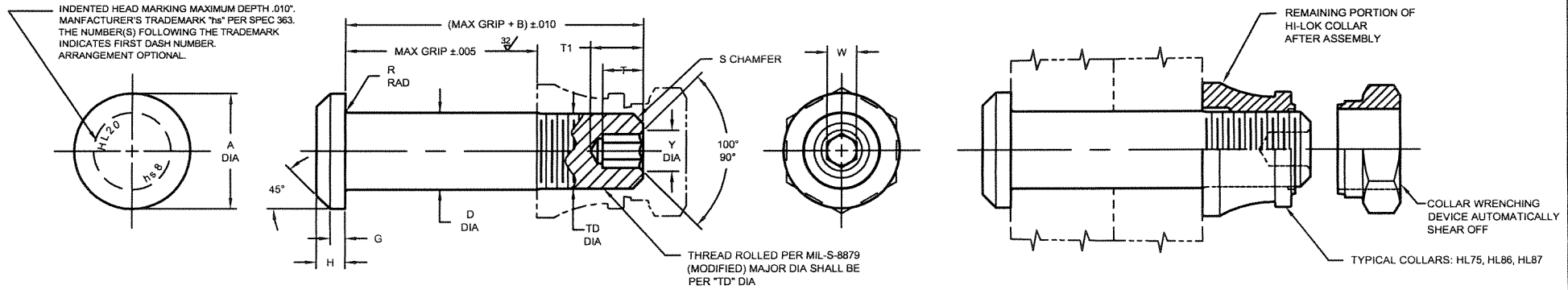


STANDARDS COMMITTEE FOR HI-LOK® PRODUCTS

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

HI-SHEAR CORPORATION, U.S.A. (Patent Holder) CAGE No. 73197 a LISI AEROSPACE Company	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 (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® PIN

HI-LOK PIN® 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 .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 .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 .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 .240	.180 .160	14,600	9,200
12	3/8	.555 .530	.545	.3140 .3130	.3080 .3040	.065 .060	.140 .130	.030 .020	3/64" x 45°	7/16-20UNJF-3A Modified	.1582 .1582	.200 .180	.275 .275	.253 .233	21,000	14,000
14	7/16	.627 .592	.635	.4370 .4360	.4310 .4260	.075 .075	.160 .150	.030 .020	3/64" x 45°	7/16-20UNJF-3A Modified	.1930 .1895	.230 .210	.315 .315	.289 .269	28,600	18,900
16	1/2	.752 .717	.685	.4995 .4985	.4930 .4880	.085 .085	.188 .178	.030 .020	3/64" x 45°	1/2-20UNJF-3A Modified	.2242 .2207	.260 .240	.360 .360	.289 .269	37,300	25,600
18	9/16	.877 .842	.770	.5615 .5605	.5550 .5500	.125 .125	.210 .200	.040 .025	1/16" x 45°	9/16-18UNJF-3A Modified	.2555 .2520	.290 .270	.400 .400	.326 .306	47,200	32,400
20	5/8	.953 .918	.825	.6240 .6230	.6180 .6120	.140 .140	.238 .228	.040 .025	1/16" x 45°	5/8-18UNJF-3A Modified	.2555 .2520	.330 .305	.440 .440	.326 .306	58,300	41,000
24	3/4	1.150 1.110	1.050	.7490 .7480	.7430 .7370	.200 .200	.335 .320	.045 .030	1/16" x 45°	3/4-16UNJF-3A Modified	.3185 .3150	.395 .365	.520 .520	.398 .378	83,900	59,500
28	7/8	1.330 1.290	1.210	.8740 .8730	.8680 .8610	.250 .250	.385 .370	.050 .035	5/64" x 45°	7/8-14UNJF-3A Modified	.3820 .3780	.400 .370	.560 .560	.451 .451	114,000	81,500
32	1	1.510 1.470	1.390	.9990 .9980	.9930 .9860	.300 .300	.435 .420	.060 .045	5/64" x 45°	1-12UNJF-3A Modified	.5100 .5040	.520 .490	.715 .715	.598 .598	149,000	106,000

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

HEAD
ON
SHEET 1 OF 2

HL20

JFO-STD/HLPIN

"Hi-Lok" and "HL" are internationally registered trademark of Hi-Shear Corporation		
DRAWN Ric	DATE 3-11-63	TITLE HI-LOK® PIN PROTRUDING TENSION ALLOY STEEL 1/16 GRIP VARIATION
APPROVED Cessna	DATE 3-13-63	DRAWING NUMBER HL20
REVISION (23)	DATE 10-16-02	

STANDARDS COMMITTEE FOR HI-LOK[®] PRODUCTS

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

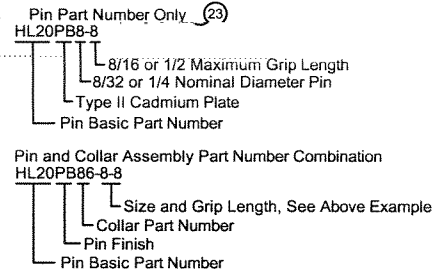
HI-SHEAR CORPORATION, U.S.A. (Patent Holder) CAGE No. 73197
 a LISI AEROSPACE Company
 AIR INDUSTRIES CO., INC., U.S.A. (Licensee - U.S.A & Canada) CAGE No. 06725
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 SPS TECHNOLOGIES, U.S.A. (Licensee) CAGE No. 56878
 FAIRCHILD Aerospace Fastener Division (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.

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:**



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.

DRAWING NUMBER

HL20

Sheet 2 of 2

HL20