



HI-LOK™ PIN AND COLLAR AFTER ASSEMBLY

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

FIRST DASH NO.	PIN NOM DIA	A DIA	B REF	D DIA	TD DIA	F REF	H	R RAD	Z MAX	S CHAMFER REF	THREAD MODIFIED	SOCKET			DOUBLE SHEAR POUNDS MINIMUM	TENSION POUNDS MINIMUM
												W HEX	T DEPTH	Y DIA		
5	5/32	.2612 .2564	.312	.1635 .1625	.1595 .1570	.004	.0410 .0390	.025 .015	.010	1/32 x 45°	.1640-32 UNJC-3A	.0801 .0791	.135 .115	[7]	4,010	1,290
6	3/16	.3016 .2966	.325	.1895 .1885	.1840 .1810	.005	.0470 .0450	.030 .020	.015	1/32 x 45°	.1900-32 UNJF-3A	.0806 .0791	.135 .115	.119 .104	5,380	2,000
8	1/4	.3948 .3898	.395	.2495 .2485	.2440 .2410	.006	.0610 .0590	.030 .020	.015	1/32 x 45°	.2500-28 UNJF-3A	.0967 .0947	.150 .130	.142 .122	9,300	3,700
10	5/16	.4739 .4689	.500	.3120 .3110	.3060 .3020	.007	.0680 .0660	.040 .030	.015	3/64 x 45°	.3125-24 UNJF-3A	.1295 .1270	.170 .150	.180 .160	14,600	5,000
12	3/8	.5604 .5554	.545	.3745 .3735	.3680 .3640	.008	.0780 .0760	.040 .030	.015	3/64 x 45°	.3750-24 UNJF-3A	.1617 .1582	.200 .180	.217 .197	21,000	7,200
14	7/16	.6680 .6620	.635	.4370 .4360	.4310 .4260	.009	.0969 .0944	.040 .030	.022	3/64 x 45°	.4375-20 UNJF-3A	.1930 .1895	.230 .210	.253 .233	28,600	10,000
16	1/2	.7540 .7480	.685	.4995 .4985	.4930 .4880	.010	.1068 .1043	.050 .040	.022	3/64 x 45°	.5000-20 UNJF-3A	.2242 .2207	.260 .240	.289 .269	37,300	13,500
18	9/16	.8380 .8310	.770	.5615 .5605	.5550 .5500	.010	.1160 .1130	.050 .040	.022	1/16 x 45°	.5625-18 UNJF-3A	.2555 .2520	.290 .270	.326 .306	47,200	17,000
20	5/8	.9250 .9180	.825	.6240 .6230	.6180 .6120	.010	.1260 .1230	.050 .040	.025	1/16 x 45°	.6250-18 UNJF-3A	.2555 .2520	.330 .305	.326 .306	58,300	21,000
24	3/4	1.0970 1.0850	1.050	.7490 .7480	.7430 .7370	.012	.1460 .1410	.050 .040	.030	1/16 x 45°	.7500-16 UNJF-3A	.3185 .3150	.395 .365	.398 .378	83,900	30,700
28	7/8	1.3197 1.3030	1.210	.8740 .8730	.8680 .8610	.014	.1870 .1800	.050 .040	.035	5/64 x 45°	.8750-14 UNJF-3A	.3820 .3780	.455 .425	.471 .451	114,000	42,000
32	1	1.5186 1.4995	1.390	.9990 .9980	.9930 .9860	.014	.2180 .2100	.050 .040	.035	5/64 x 45°	1.0000-12 UNJF-3A	.5100 .5040	.580 .550	.618 .598	149,000	55,000

"HI-LOK", "HL", AND "HI-KOTE",  
 ARE TRADEMARKS OF HI-SHEAR CORPORATION

DRAWN BY  
 J.F.OBISPO  
 J.C.S.

DATE  
 2015-01-20  
 1962-07-19

APPROVED  
 CESSNA

DATE  
 1962-07-29

REVISION  
 (31)

DATE  
 A.CHAE  
 2020-09-17

TITLE  
**HI-LOK™ PIN**  
**100° FLUSH SHEAR HEAD**  
**ALLOY STEEL**  
**1/16 GRIP VARIATION**

DRAWING NUMBER  
**HL19**

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**GENERAL NOTES:**

- [1] Head edge out of roundness shall not exceed "F".
2. Concentricity: Conical surface of head to "D" diameter within .005 FIM.
3. Dimensions are in inches and to be met after finish.
4. Surface texture per ASME B46.1.
5. Hole preparation per NAS618.
6. "H" is dimensioned from maximum "D" diameter.
- [7] Evidence of broken edge across points.
- [8] Non-lubed pins must be used with lubed collars or wet sealant.
- [9] Curved or flat edge manufacturer's option.
10. Use HL63 for oversize replacement.

**MATERIAL:** Alloy steel per AMS6415, AMS6349 or AMS6382, AMS6322.

③ **HEAT TREAT:** 95,000 psi shear minimum (160,000 - 180,000 psi tensile per AMS2759).

**FINISH:**

HL19-( )-( ) = Cadmium plate per AMS-QQ-P-416, Type I, Class 2, and cetyl alcohol lube per Hi-Shear Spec. 305.

HL19PB( )-( ) = Cadmium plate per AMS-QQ-P-416, Type II, Class 2, and cetyl alcohol lube per per Hi-Shear Spec. 305.

[8] HL19PN( )-( ) = Cadmium plate per AMS-QQ-P-416, Type II, Class 2.

HL19TF( )-( ) = Cadmium plate per AMS-QQ-P-416, Type III, Class 2, and HI-KOTE™ 2 solid film lube per Hi-Shear Spec. 292.

**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  
 HL19PB8-8

8/16 or 1/2 Maximum Grip Length

8/32 or 1/4 Nominal Diameter Pin

Finish Code

Pin Basic Part Number

HL19

DRAWING NUMBER

**HL19**

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