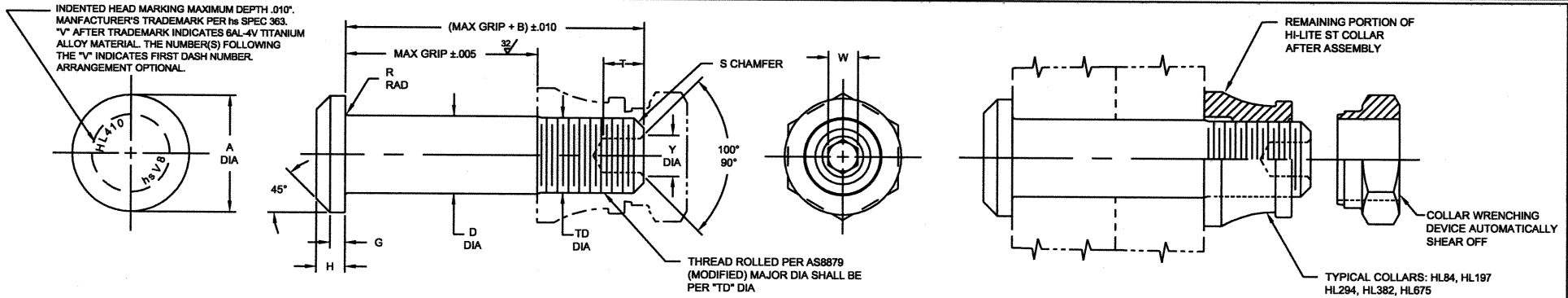


HI-SHEAR CORPORATION, U.S.A. (Patent Holder) CAGE No. 73197	HI-SHEAR FASTENERS EUROPE, LTD., U.K. (Licensee) CAGE No. 0LB68
a LISI AEROSPACE Company	a LISI AEROSPACE Company
AIR INDUSTRIES CO., INC., U.S.A. (Licensee - U.S.A. & Canada) CAGE No. 06725	HUCK S.A. France (Licensee - ECC Countries)
HUCK INTERNATIONAL, 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® 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
				WITHOUT COATING OR SOLID FILM	WITH COATING OR SOLID FILM							W HEX	T DEPTH	Y DIA		
5																
NOTE: USE HL110V-6()																
6	7/32	.315 .295	.325	.2182 .2177	.2182 .2172	.1840 .1810	.025	.055 .045	.025 .015	1/32" x 37°	10-32UNJF-3A Modified	.0806 .0791	.135 .115	.119 .104	7,100	2,500
8	9/32	.412 .387	.395	.2807 .2802	.2807 .2797	.2440 .2410	.030	.069 .059	.025 .015	1/32" x 37°	1/4-28UNJF-3A Modified	.0967 .0947	.150 .130	.142 .122	11,800	4,300
10	11/32	.505 .475	.500	.3432 .3427	.3432 .3422	.3060 .3020	.035	.078 .068	.030 .020	3/64" x 37°	5/16-24UNJF-3A Modified	.1295 .1270	.170 .150	.180 .160	17,600	6,300
12	13/32	.600 .565	.545	.4057 .4052	.4057 .4047	.3680 .3640	.040	.088 .078	.030 .020	3/64" x 37°	3/8-24UNJF-3A Modified	.1617 .1582	.200 .180	.217 .197	24,600	8,700
14	15/32	.676 .641	.635	.4682 .4677	.4682 .4672	.4310 .4260	.045	.105 .093	.030 .020	3/64" x 37°	7/16-20UNJF-3A Modified	.1930 .1895	.230 .210	.253 .233	32,700	12,100
16	17/32	.770 .735	.685	.5307 .5302	.5307 .5297	.4930 .4880	.050	.116 .103	.030 .020	3/64" x 37°	1/2-20UNJF-3A Modified	.2242 .2207	.260 .240	.289 .269	42,000	15,300
18	19/32	.864 .829	.770	.5927 .5922	.5927 .5917	.5550 .5500	.055	.127 .112	.040 .025	1/16" x 37°	9/16-18UNJF-3A Modified	.2555 .2520	.290 .270	.326 .306	52,400	19,000
20	21/32	.953 .918	.825	.6552 .6547	.6552 .6542	.6180 .6120	.060	.137 .122	.040 .025	1/16" x 37°	5/8-18UNJF-3A Modified	.2555 .2520	.330 .305	.326 .306	64,100	23,000
24	25/32	1.108 1.066	1.050	.7802 .7797	.7802 .7792	.7430 .7370	.070	.151 .136	.045 .030	1/16" x 37°	3/4-16UNJF-3A Modified	.3185 .3150	.395 .365	.398 .378	90,900	30,700
28	29/32	1.285 1.241	1.210	.9052 .9047	.9052 .9042	.8680 .8610	.090	.187 .172	.050 .035	5/64" x 37°	7/8-14UNJF-3A Modified	.3820 .3780	.455 .425	.471 .451	122,000	45,000
32	1-1/32	1.468 1.424	1.390	1.0302 1.0297	1.0302 1.0292	.9930 .9860	.110	.218 .203	.060 .045	5/64" x 37°	1-12UNJF-3A Modified	.5100 .5040	.580 .550	.618 .598	158,000	60,900

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

HL410

JFO-STD/HLPIN

"Hi-Lok" and "HL" are internationally registered trademark of Hi-Shear Corporation.			
DRAWN	DATE	TITLE	
Brlej	4-7-66	HI-LOK® PIN	
APPROVED	DATE	PROTRUDING SHEAR HEAD TITANIUM	
Miller	4-7-66	1/16" GRIP VARIATION, 1/32" OVERSIZE	
REVISION	DATE	DRAWING NUMBER	
20	JO 11-15-06	HL410	

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. Oversize replacement for HL10 and HL110.
6. Maximum "D" diameter may be increased by .0002 to allow for solid film or aluminum coating application.
7. Non-lubed pins must be used with lubed collars or wet sealant.

MATERIAL:

6AL-4V titanium alloy per AMS4928 or AMS4967.

HEAT TREAT:

95,000 psi shear minimum.

FINISH:

- HL410K(-)(-) = Solid film lube per Lubeco 905.
- HL410V(-)(-) = Cetyl alcohol lube per Hi-Shear Spec. 305.
- HL410VAP(-)(-) = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL410VAZ(-)(-) = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294, with color black on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL410VBJ(-)(-) = I.V.D. aluminum coating per MIL-DTL-83488, Type II, Class 3, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL410VBR(-)(-) = Color code white on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
- 7 HL410VBU(-)(-) = I.V.D. aluminum coating per MIL-DTL-83488, Type I, Class 3, with color code yellow on thread end.
- 7 HL410VBV(-)(-) = I.V.D. aluminum coating per MIL-DTL-83488, Type II, Class 3, with color code blue on thread end.
- HL410VCB(-)(-) = I.V.D. aluminum coating per MIL-DTL-83488, Type I, Class 3, with color code black on thread end and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL410VF(-)(-) = Surface coating per Hi-Shear Spec. 306, Type I, color blue, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL410VHA(-)(-) = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294, with color code black on thread end, and apply Precoat No. PR1436G sealant (.002-.005 thick), and cetyl alcohol lube per Hi-Shear Spec. 305.
- 20 HL410VHD(-)(-) = I.V.D. aluminum plating per BAC5315, with color code red on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL410VLJ(-)(-) = Surface coating per Hi-Shear Spec. 306, Type II, and solid film lube per AS5272.
- HL410VLV(-)(-) = Phosphate fluoride treat and Esna-Lube No. 382 (Evertube Corp).
- HL410VR(-)(-) = Surface coating per Hi-Shear Spec. 306, Type II, and solid film lube per "Electrofilm" 4396.
- HL410VRA(-)(-) = Phosphate fluoride treat with color code red on thread end and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL410VSY(-)(-) = Phosphate fluoride treat, solid film lube per AS5272, Type I, and color red on thread end.
- HL410VT(-)(-) = Surface coating per Hi-Shear Spec. 306, Type I, color pink, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL410VTA(-)(-) = Anodize Ti-Shield III and Hi-Kote 2 solid film lube per Hi-Shear Spec. 292, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL410VTB(-)(-) = Hi-Kote 2 solid film lube per Hi-Shear Spec. 292, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL410VTF(-)(-) = Hi-Kote 2 solid film lube per Hi-Shear Spec. 292.
- HL410VTL(-)(-) = Anodize per Hi-Shear Ti-Shield III, solid film lube per DAG-258 and cetyl alcohol lube per Hi-Shear Spec. 305; or anodize per Tiodize Type II, solid film lube per TI-O-LUBE TAL-58, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL410VTT(-)(-) = Translube.
- HL410VUE(-)(-) = Surface coating per Hi-Shear Spec. 306, Type II, and cetyl alcohol lube per Hi-Shear Spec. 305.
- HL410VUU(-)(-) = Surface coating per Hi-Shear Spec. 306, Type II, and solid film lube per "Lubeco" 2123, Type II.
- HL410VV(-)(-) = Solid film lube per "Lubeco" 2123, Type II.

SPECIFICATION:

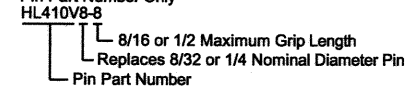
Hi-Lok Product Specification 342.

CODE:

First dash number indicates nominal diameter in 1/32nds of the pin which HL410V oversize pin replaces. Second dash number indicates maximum grip in 1/16ths. See Finish note for explanation of code letters.

HOW TO ORDER EXAMPLES:

Pin Part Number Only



Pin and Collar Assembly Part Number Combination

