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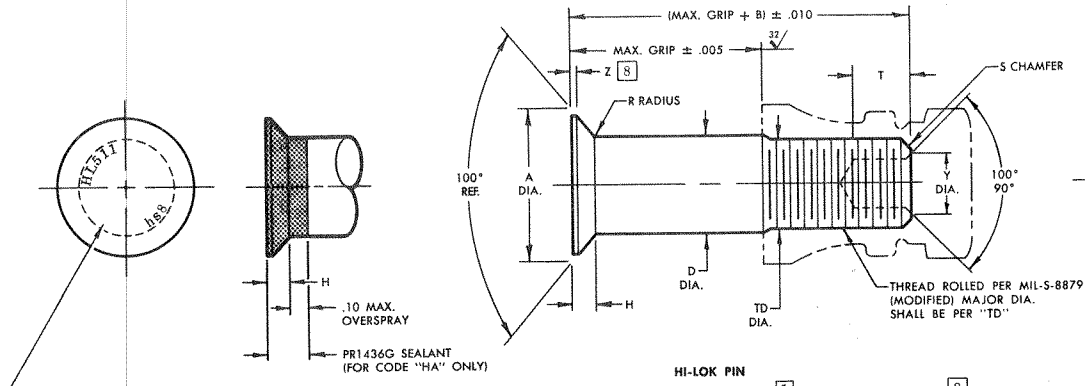
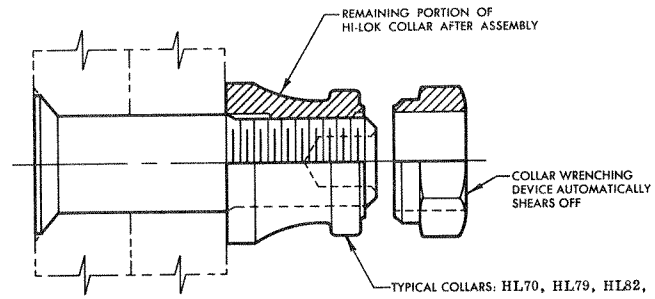
STANDARDS COMMITTEE FOR HI-LOK® PRODUCTS
2600 SKYPARK DRIVE, TORRANCE, CALIFORNIA 90509

HI-SHEAR CORPORATION (Patent Holder) — Federal Code Ident. No. 73197
VOI-SHAN DIV., VSI CORP. (Licensee) — Federal Code Ident. No. 92215
STANDARD PRESSED STEEL CO. (Licensee) — Federal Code Ident. No. 56878



HI-LOK PIN



HI-LOK PIN AND COLLAR AFTER ASSEMBLY

INDENTED HEAD MARKING MAXIMUM DEPTH .010"
"hs" indicates Hi-SHEAR trademark.
"VS" indicates VOI-SHAN trademark.
"SPS" indicates STANDARD PRESSED STEEL trademark.
The number or numbers following the trademark indicate first dash number. Arrangement optional.

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

FIRST DASH NO.	NOM. DIA.	A DIA.	B REF.	D DIA.	TD DIA.	F [1]	H	R RAD.	Z MAX. [8]	S CHAMFER REF.	THREAD	SOCKET W HEX.	SOCKET T DEPTH	SOCKET Y DIA.	DOUBLE SHEAR POUNDS MINIMUM	TENSION POUNDS MINIMUM
** –5	5/32	.2612 .2564	.312	.1635 .1625	.1595 .1570	.004	.0410 .0390	.025 .015	.010	1/32" x 45°	8-32UNJC-3A Modified	.0645 .0635	.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°	10-32UNJF-3A Modified	.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°	1/4-28UNJF-3A Modified	.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°	5/16-24UNJF-3A Modified	.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°	3/8-24UNJF-3A Modified	.1617 .1582	.200 .180	.217 .197	21,000	7,200
–14	7/16	.6680 .6620	.635	.4370 .4360	.4310 .4260	.009	.0969 .0944	.050 .040	.022	3/64" x 45°	7/16-20UNJF-3A Modified	.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°	1/2-20UNJF-3A Modified	.2242 .2207	.260 .240	.289 .269	37,300	13,500

(10) HL511 & HL511HC ARE NOT RECOMMENDED. FOR FUTURE PROCUREMENT USE HL511AZ, HL11AZ, HL511HA, OR HL11VHA.

GENERAL NOTES:
1. Head edge out of roundness shall not exceed "F."
2. Concentricity: Conical surface of head to "D" diameter within .005 FIR.
3. "H" is dimensioned from maximum "D" diameter.
4. Dimensions to be met after plating.
5. Surface texture per ANSI B46.1.
6. Hole preparation per NAS618.
7. Evidence of broken edge across points.
8. Curved or flat edge manufacturer's option.
9. Curved or flat edge manufacturer's option.

MATERIAL: 6Al-4V titanium alloy per Spec. AMS4928 or AMS4967.
HEAT TREAT: 95,000 psi shear minimum.
FINISH: HL511-( )-( ) = ~~Type II, Class 2 cadmium plate with color code red on thread end plus cetyl alcohol lube per Hi-Shear Spec. 305.~~
HL511HC-( )-( ) = ~~Type II, Class 2 cadmium plate with color code red on thread end and apply Precoat No. PR1436G sealant (.002-.005 thick) plus cetyl alcohol lube per Hi-Shear Spec. 305.~~
HL511AZ-( )-( ) = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294 with color code black on thread end and cetyl alcohol lube per Hi-Shear Spec. 305.
HL511HA-( )-( ) = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294 with color code black on thread end, and apply Precoat No. PR1436G sealant (.002 to .005 thick) plus 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 EXAMPLES:
Pin Part Number Only
HL511AZ-8-8
- 8/16 or 1/2 Maximum Grip Length
- 8/32 or 1/4 Nominal Diameter Pin
- Pin Part Number

Pin and Collar Assembly Part Number Combination
HL511AZ70-8-8
- Size and Grip Length, See Above Example
- Collar Part Number
- Pin Part Number

** –5 size must be installed using a torque controlled hex key.

U.S. patents 2,882,773; 2,927,491; 2,940,495; 3,027,789; 3,138,987; design patent 191,883; other U.S. and Foreign patents granted and pending; property of Hi-Shear Corporation. "Hi-Lok" and "HL" are Registered Trademarks of Hi-Shear Corporation.

DRAWN	DATE	hi-lok® PIN
D. Shrode	1-25-67	100° FLUSH SHEAR HEAD TITANIUM 1/16" GRIP VARIATION (10)
APPROVED J. Miller	DATE 1-27-67	
REVISION (10)	DATE D. P. S. 12-14-78	DRAWING NUMBER HL511

HL511

2-1501

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