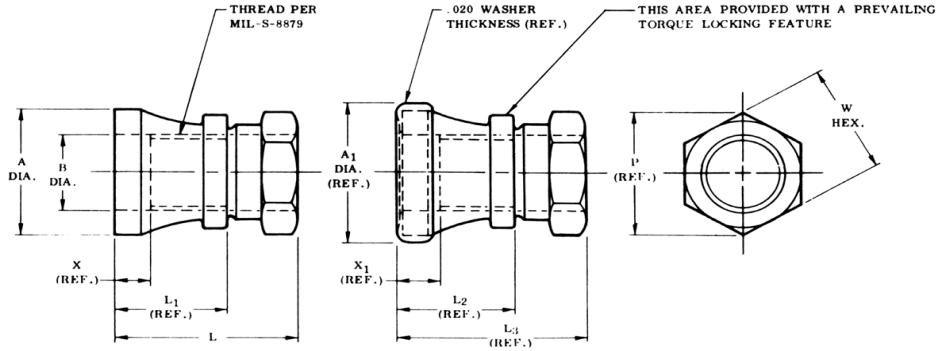


# STANDARDS COMMITTEE FOR HI-LOK® PRODUCTS

2600 SKYPARK DRIVE, TORRANCE, CALIFORNIA 90509

HI-SHEAR CORPORATION, U.S.A. (Patent Holder) — U.S. Federal Code I.D. No. 73197  
 Division of Hi-Shear Industries Inc., U.S.A.  
 AIRCRAFT FASTENERS (Forged Parts) LTD., U.K. (Licensee)  
 Division of Hi-Shear Industries Inc., U.S.A.  
 VOI-SHAN, Division of VSI Corp., U.S.A. (Licensee) — U.S. Federal Code I.D. No. 92215  
 SPS TECHNOLOGIES, U.S.A. (Licensee) — U.S. Federal Code I.D. No. 56878  
 LITTON FASTENING SYSTEMS, U.S.A. (Licensee) — U.S. Federal Code I.D. No. 97928  
 Division of Litton Systems Inc., U.S.A.

ST. CHAMOND-GRAMAT, S.A. France (Licensee — EEC Countries)  
 KAMAX-WERKE, Germany (Licensee — EEC Countries)  
 Rudolph Kellenman GmbH & Co.  
 SIMMONDS, S.A. France (Licensee — EEC Countries — Collars)  
 TOKYO SCREW COMPANY, Japan (Licensee — Japan)  
 WEST COAST AEROSPACE INC, U.S.A. (Licensee — Oversize Pins & Steel Collars  
 U.S. Federal Code I.D. No. 60516



DASH NO.	PIN NOM. DIA.	THREAD	A DIA.	A1 DIA. (REF.)	B DIA.	L1	L (REF.)	L2 (REF.)	L3 (REF.)	P (REF.)	W HEX.	X (REF.)	X1 (REF.)	UTS LBS. MIN.	TORQUE OFF IN. LBS.
-5	5/32"	8-32UNJC-3B	.292 .288	.337	.173 .166	.447 .427	.270	.300	.467	.344	.314 .302	.107	.137	1,400	15-25
-6	3/16"	10-32UNJF-3B	.307 .303	.360	.200 .192	.457 .437	.280	.310	.477	.344	.314 .302	.107	.137	1,600	25-35
-8	1/4"	1/4-28UNJF-3B	.412 .408	.462	.261 .252	.552 .532	.340	.370	.572	.380	.316 .332	.112	.142	3,000	60-80
-10	5/16"	5/16-24UNJF-3B	.518 .512	.575	.325 .314	.672 .652	.430	.460	.692	.484	.440 .425	.122	.152	5,000	130-160
-12	3/8"	3/8-24UNJF-3B	.628 .622	.690	.388 .376	.744 .724	.470	.500	.764	.557	.503 .488	.122	.152	7,000	200-240
-14	7/16"	7/16-20UNJF-3B	.713 .707	.770	.150 .442	.862 .842	.560	.590	.882	.624	.565 .550	.137	.167	9,500	270-330
-16	1/2"	1/2-20UNJF-3B	.815 .809	.872	.513 .501	.942 .922	.610	.640	.962	.763	.690 .675	.137	.167	12,500	370-430
-18	9/16"	9/16-18UNJF-3B	NOTE: Use HL 79-18												
-20	5/8"	5/8-18UNJF-3B	NOTE: Use HL 79-20												
-21	3/4"	3/4-UNJF-3B	NOTE: Use HL 79-24												
-28	7/8"	7/8-14UNJF-3B	NOTE: Use HL 79-28												
-32	1"	1-12UNJF-3B	NOTE: Use HL 79-32												

- NOTES: 1. Go thread gage penetration shall be 3/4 of one revolution minimum.  
 2. Dimensions apply after finish.  
 3. Use HL79 for oversize replacement.

MATERIAL: Collar - 2024 aluminum alloy per QQ-A-430 or QQ-A-225/6.

② Washer - "NW" = 303 series stainless steel.

"TW" = 5052 aluminum alloy per QQ-A-250/8, or 2024 aluminum alloy per QQ-A-250/4 or QQ-A-250/5.

HEAT TREAT: Collar - Age to T6 conditions per MIL-H-6088.

② Washer - "NW" = None.

"TW" = Age to T6 condition per MIL-H-6088 (for 2024 only).

- FINISH: Collar - HL70-( ) = Anodize per Spec. MIL-A-8625, dye color red, and cetyl alcohol lube per Hi-Shear Spec. 305.  
 HL70CM-( ) = Chemical conversion coat per MIL-C-5541, Class 1A, and cetyl alcohol lube per Hi-Shear Spec. 305.  
 HL70D-( ) = Anodize per Spec. MIL-A-8625 and solid film lube per MIL-L-8937.  
 HL70K-( ) = Anodize per Spec. MIL-A-8625 and solid film lube per "Lubeco" 905.  
 HL70LZ-( ) = Anodize per Spec. MIL-A-8625, dye color red, and lauric acid lube per Hi-Shear Spec. 305.  
 HL70TF-( ) = Anodize per Spec. MIL-A-8625, and Hi-Kote 2 solid film lube per Hi-Shear Spec. 292.  
 HL70TT-( ) = Anodize per Spec. MIL-A-8625, dye color red, and translube.

Collar & Washer - HL70DTW-( ) = Collar finish is the same as HL70D-( ). Washer finish is anodize per Spec. MIL-A-8625, dye color grey, or blue (for 2024 only).

② HL70NW-( ) = Collar finish is same as HL70-( ). Washer is passivated.

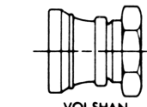
HL70TW-( ) = Collar finish is the same as HL70-( ). Washer finish is anodize per Spec. MIL-A-8625, dye color grey, or blue (for 2024 only).

SPECIFICATION: Hi-Lok Product Specification 345.

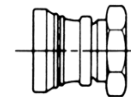
CODE: Dash number indicates nominal thread size in 1/32nds. See "Finish" note for explanation of code letters.

EXAMPLE: HL70-8 = 1/4-28 Hi-Lok collar only.

HL70TW-8 = 1/4 Hi-Lok collar with aluminum washer.



VOI-SHAN  
1 raised bead indicates VOI-SHAN identification.



STANDARD PRESSED STEEL  
2 raised beads indicate STANDARD PRESSED STEEL identification.

U.S. patents 3,390,906; and foreign patents.  
 "Hi-Lok" and "HL" are Registered Trademarks of Hi-Shear Corporation.

DATE	BY	TITLE	DRAWING NUMBER
DRAWN 7/27/60	VAN	 2024-T6 ALUMINUM ALLOY 1/16" GRIP VARIATION - SHEAR APPLICATION	<b>HL70</b>
APPROVED 7-27-60	MEC		
② REVISION 9-16-83	D.P.S.		