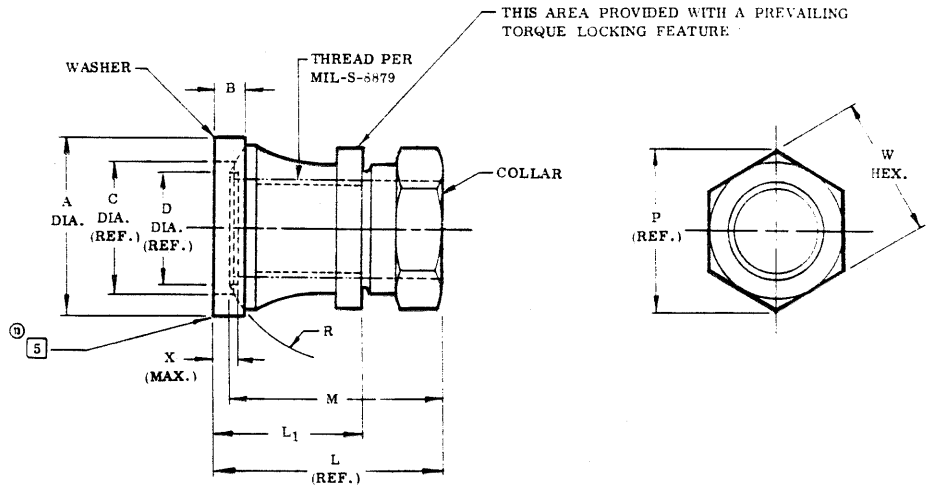


**STANDARDS COMMITTEE
FOR HI-LOK® PRODUCTS**
2600 SKYPARK DRIVE, TORRANCE, CALIFORNIA 90509

① HI-SHEAR CORPORATION, U.S.A. (Patent Holder) U.S. Federal Code I.D. No. 73197
 Division of Hi-Shear Industries Inc.
 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

KAMAX-WERKE, Germany (Licensee)
 Rudolph Kellerman GmbH & Co.
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 TOKYO SCREW COMPANY, Japan (Licensee)



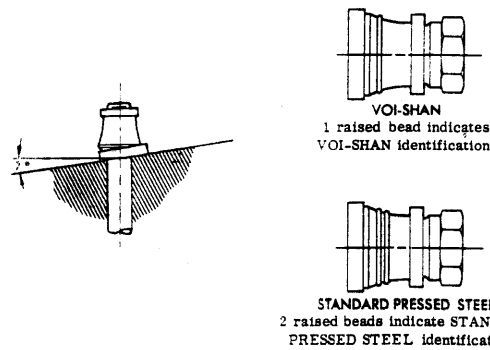
DASH NO.	PIN NOM. DIA.	THREAD	A DIA.	B	C DIA. (REF.)	D DIA. (REF.)	L (REF.)	L ₁ (REF.)	R SPHER. RAD.	M	P (REF.)	W HEX.	X (MAX.)	UTS LBS. MIN.	TORQUE OFF IN. LBS.
-6	3/16	10-32UNJF-3B	.365 .355	.095 .085	.255	.210	.445	.280	.20	.420 .400	.380	.346 .332	.115	4,000	40-50
-8	1/4	1/4-28UNJF-3B	.475 .465	.120 .110	.333	.270	.540	.340	.26	.510 .490	.360	.346 .332	.121	7,500	115-130
-10	5/16	5/16-24UNJF-3B	.620 .610	.130 .120	.417	.333	.660	.430	.34	.617 .597	.484	.440 .425	.133	11,750	200-250
-12	3/8	3/8-24UNJF-3B	.790 .780	.145 .135	.490	.395	.730	.470	.38	.677 .657	.557	.503 .488	.133	18,000	360-440
-14	7/16	7/16-20UNJF-3B	.895 .885	.180 .170	.570	.456	.855	.562	.45	.772 .752	.624	.565 .550	.146	23,750	525-600
-16	1/2	1/2-20UNJF-3B	1.005 .995	.205 .195	.648	.518	.925	.612	.51	.842 .822	.763	.690 .675	.146	30,000	725-825
-18	9/16	9/16-18UNJF-3B	1.125 1.115	.270 .260	.763	.592	1.050	.700	.71	.960 .940	.970	.878 .861	.155	39,000	1000-1150
-20	5/8	5/8-18UNJF-3B	1.305 1.290	.315 .305	.955	.647	1.145	.765	.76	1.035 1.015	1.120	1.003 .986	.155	49,000	1350-1550
-24	3/4	3/4-16UNJF-3B	1.500 1.485	.390 .380	.985	.773	1.405	.980	.81	1.285 1.255	1.240	1.128 1.110	.165	70,000	1900-2200
-28	7/8	7/8-14UNJF-3B	1.740 1.720	.450 .435	1.155	.905	1.600	1.100	.92	1.470 1.440	1.520	1.380 1.366	.180	95,000	3200-3600
-32	1	1-12UNJF-3B	2.000 1.980	.505 .490	1.345	1.035	1.900	1.300	1.11	1.755 1.725	1.650	1.504 1.480	.200	124,000	4500-5000

- NOTES: 1. Go thread gage penetration shall be 3/4 of one revolution minimum.
 2. For use on sloped surfaces up to 7° maximum on standard and 1/4° oversize Hi-Lok tension head pins.
 3. Dimensions apply after finish.
 4. Use HL289 for oversize replacement.

MATERIAL: ⑤ Collar — 17-4PH stainless steel per AMS5643.
 Washer — 17-4PH stainless steel per AMS5643, or 17-7PH per AMS5528, or PH15-7Mo per AMS5520.
 HEAT TREAT: Collar — Age to H-1025 condition per MIL-H-6875.
 Washer — Age to H-1025 condition for 17-4PH, age to TH-1050 condition for 17-7PH and 15-7Mo per MIL-H-6875.
 FINISH: Collar — HL89-()A = Silver plate per AMS2410 and cetyl alcohol lube per Hi-Shear Spec. 305.
 HL89PB-()A = Cadmium plate per QQ-P-416, Type II, Class 2, and cetyl alcohol lube per Hi-Shear Spec. 305.
 HL89DU-()A = Solid film lube per MIL-L-8937.
 Washer — HL89-()W = Cadmium plate per QQ-P-416, Type I, Class 2.
 HL89-()GW = Silver plate per AMS2410 and cetyl alcohol lube per Hi-Shear Spec. 305.
 HL89-()PBW = Cadmium plate per QQ-P-416, Type II, Class 2.
 HL89-()DW = Solid film lube per MIL-L-8937.

SPECIFICATION: HI-Lok Product Specification 345.
 CODE: Dash number indicates nominal thread size in 1/32nds.
 See the "Finish" note for explanation of code letters.

EXAMPLE: HL89-8AW = Assembly of HL89-8A collar and HL89-8W washer.
 HL89-8AGW = Assembly of HL89-8A collar and HL89-8GW washer.
 HL89DU-8ADW = Assembly of HL89DU-8A collar and HL89-8DW washer.



U.S. patents 2,927,491; 2,940,495; 3,027,789; 3,138,987.
 Other U.S. and foreign patents granted and pending.
 "Hi-Lok" and "HL" are registered Trademarks of Hi-Shear Corporation.

DRAWN	DATE	BY	TITLE	DRAWING NUMBER
	11-22-63	Bolaj		
APPROVED	11-22-63	Assma	SELF-ALIGNING COLLAR ASSEMBLY 17-4PH STAINLESS STEEL 1/16" GRIP VARIATION — TENSION APPLICATION	
⑩ REVISION	2-1-80	D. P. S.		