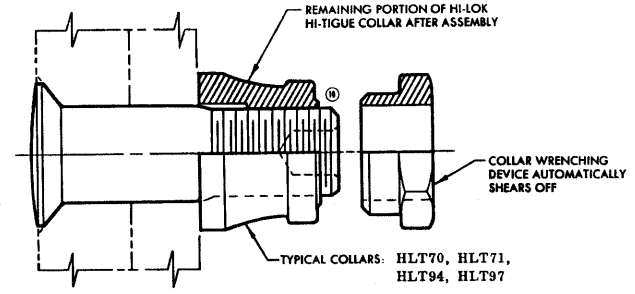
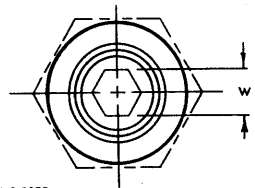
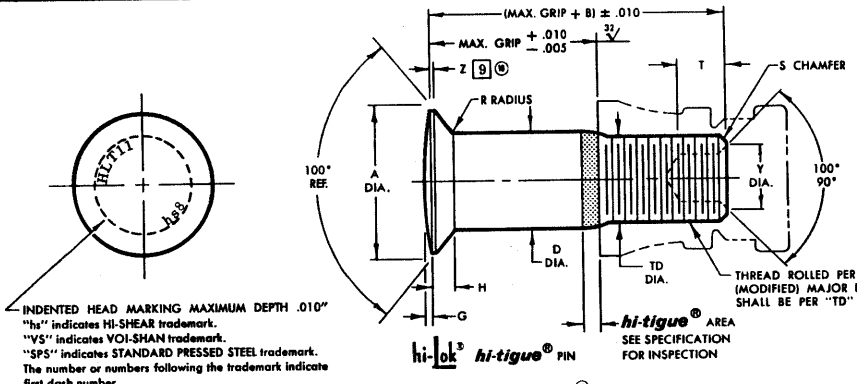


**STANDARDS COMMITTEE FOR
HI-LOK[®] HI-TIGUE[®] PRODUCTS**
2600 SKYPARK DRIVE, TORRANCE, CALIFORNIA 90509

① HI-SHEAR CORPORATION, U.S.A. (Patent Holder) U.S. Federal Code I.D. No. 73197
 Division of HI-Shear Industries Inc., 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. 62215
 SPS TECHNOLOGIES, U.S.A. (Licensee) U.S. Federal Code I.D. No. 58878
 LITTON FASTENING SYSTEMS, U.S.A. (Licensee) U.S. Federal Code I.D. No. 97823
 Division of Litton Systems Inc., U.S.A.
 ST. CLAMOND-ORANAT, S.A. France (Licensee—EEC Countries)
 KAMAX-WERKE, Germany (Licensee—EEC Countries)
 Rudolph Kallermann GmbH & Co. (Licensee—EEC Countries—Collars)
 SIMMONDS, S.A. France (Licensee—Japan)
 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



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.

hi-lok[®] hi-tigue[®] PIN
 SEE SPECIFICATION FOR INSPECTION

hi-lok[®] hi-tigue[®] PIN AND COLLAR AFTER ASSEMBLY

FIRST DASH NO.	NOM. DIA.	A DIA.	B REF.	D DIA.		TD DIA.	F	G	H	R RAD.	Z MAX.	S CHAMFER REF.	THREAD	SOCKET			DOUBLE SHEAR POUNDS MINIMUM	TENSION POUNDS MINIMUM
				WITHOUT COATING OR SOLID FILM LUBE	WITH COATING OR SOLID FILM LUBE									W HEX.	T DEPTH	Y DIA.		
-5	5/32	.2612 .2564	.312	.1695 .1690	.1695 .1685	.1595 .1570	.004	.0070 .0040	.0385 .0365	.025 .015	.010	1/32" x 37°	8-32 UNJC-3A Modified	.0645 .0635	.100 .080	.090 .075	4,210	1,290
-6	3/16	.3016 .2966	.325	.1955 .1950	.1955 .1945	.1840 .1810	.005	.0080 .0050	.0445 .0424	.030 .020	.015	1/32" x 37°	10-32 UNJF-3A Modified	.0806 .0791	.100 .080	.119 .104	5,550	2,000
-8	1/4	.3948 .3898	.395	.2555 .2550	.2555 .2545	.2440 .2410	.006	.0100 .0070	.0584 .0563	.030 .020	.015	1/32" x 37°	1/4-28 UNJF-3A Modified	.0987 .0947	.110 .090	.142 .122	9,620	3,700
-10	5/16	.4739 .4689	.500	.3180 .3175	.3180 .3170	.3060 .3020	.007	.0110 .0080	.0654 .0633	.040 .030	.015	3/64" x 37°	5/16-24 UNJF-3A Modified	.1295 .1270	.130 .110	.180 .160	14,890	5,000
-12	3/8	.5604 .5554	.545	.3805 .3800	.3805 .3785	.3680 .3640	.008	.0125 .0095	.0755 .0734	.040 .030	.015	3/64" x 37°	3/8-24 UNJF-3A Modified	.1617 .1582	.160 .140	.217 .197	21,430	7,200
-14	7/16	.6680 .6620	.635	.4430 .4425	.4430 .4420	.4310 .4280	.009	.0150 .0120	.0944 .0919	.050 .040	.022	3/64" x 37°	7/16-20 UNJF-3A Modified	.1930 .1895	.190 .170	.253 .233	29,000	10,000
-16	1/2	.7540 .7480	.685	.5055 .5050	.5055 .5045	.4930 .4880	.010	.0165 .0135	.1042 .1017	.060 .040	.022	3/64" x 37°	1/2-20 UNJF-3A Modified	.2242 .2207	.220 .200	.289 .269	37,900	13,500

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

- ① GENERAL NOTES:
- Head edge out of roundness shall not exceed "F."
 - Concentricity: Conical surface of head to "D" diameter within .005 FIR.
 - "H" is dimensioned from maximum "D" diameter.
 - Dimensions to be met after finish.
 - Surface texture per ANSI B46.1.
 - Hole preparation per NAS618 (Column "B") for interference application.
 - Use HLT111 for oversize replacement.
 - Install per Hi-Shear Spec. 299.
 - Curved or flat edge manufacturer's option.

MATERIAL: 6Al-4V titanium alloy per Spec. AMS4928 or AMS4967.
 HEAT TREAT: 95,000 psi shear minimum.

② FINISH: HLT11-()-() = Cetyl alcohol lube per Hi-Shear Spec. 305.
 HLT11AP-()-() = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294 and cetyl alcohol lube per Hi-Shear Spec. 305.
 HLT11TB-()-() = Hi-Kote 2 solid film lube per Hi-Shear Spec. 292 and cetyl alcohol lube per Hi-Shear Spec. 305.

SPECIFICATION: Hi-Lok Hi-Tigue 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
 HLT11-8-8
 — 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
 HLT1170-8-8
 — Size and Grip Length, See Above Example
 — Collar Part Number
 — Pin Part Number

U.S. patents 3,390,906; 3,578,367; and foreign patents. "Hi-Lok," "HL," "Hi-Tigue," and "HLT" are Registered Trademarks of Hi-Shear Corporation.

DRAWN	DATE	hi-lok [®] hi-tigue [®] PIN
VAN	6-28-68	
APPROVED	DATE	100° FLUSH CROWN SHEAR HEAD TITANIUM
R. TING	7-25-68	1/16" GRIP VARIATION
REVISION	DATE	DRAWING NUMBER
⑩	D. P. S. 5-22-84	HLT11

HLT11