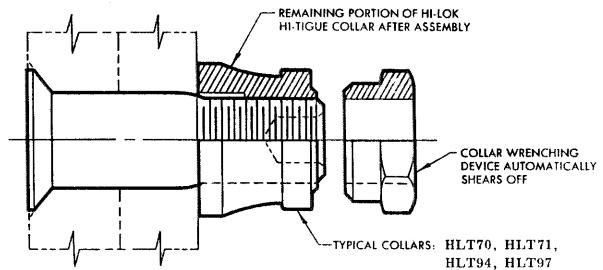
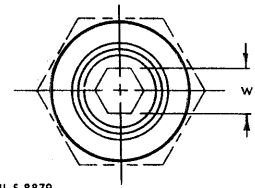
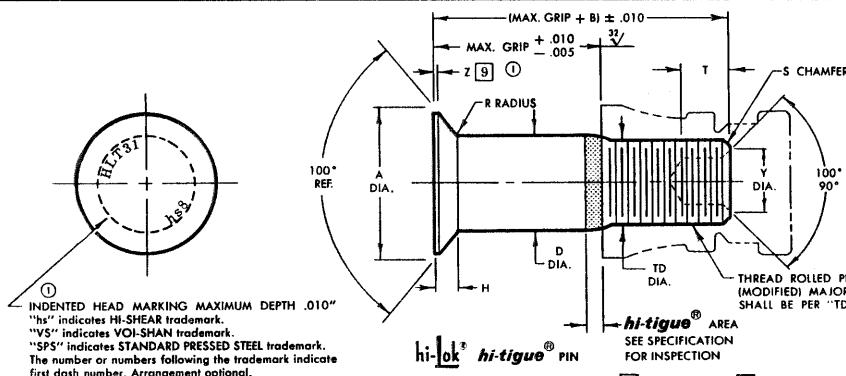


**STANDARDS COMMITTEE FOR
HI-LOK® HI-TIGUE® PRODUCTS**
2600 SKYPARK DRIVE, TORRANCE, CALIFORNIA 90509

Division of Hi-Shear Industries Inc., U.S.A. _____ (Licensee)
AIRCRAFT FASTENERS (Forged Parts) LTD., U.K. _____ (Licensee)
Division of Hi-Shear Industries Inc., U.S.A. _____ (Licensee)
VOI-SHAN, Division of VSI Corp., U.S.A. _____ (Licensee)
SPS TECHNOLOGIES, U.S.A. _____ (Licensee)
LITTON FASTENING SYSTEMS, U.S.A. _____ (Licensee)
Division of Litton Systems Inc., U.S.A. _____ (Licensee)

KANAX-WEHKE, Germany _____ (Licensee—EEC Countries)
Rudolph Kellerman GmbH & Co. _____ (Licensee—EEC Countries—Collars)
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 _____ (Licensee)



① 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.

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	H	R RAD.	Z MAX.	S CHAMFER REF.	THREAD	SOCKET			DOUBLE SHEAR POUNDS MINIMUM	TENSION POUNDS MINIMUM
												W HEX.	T DEPTH	Y DIA.		
-5	5/32	.2612	.312	.1635	.1595	.004	.041	.025	.010	1/32" x 45°	8-32UNJC-3A Modified	.0801	.100	.119	5,280	1,700
		.2564		.1630	.1570			.039				.015	.0791	.080		
-6	3/16	.3016	.325	.1895	.1840	.005	.047	.030	.015	1/32" x 45°	10-32UNJF-3A Modified	.0806	.100	.119	7,060	2,600
		.2966		.1890	.1810			.045				.020	.0791	.080		
-8	1/4	.3948	.395	.2495	.2440	.006	.061	.030	.015	1/32" x 45°	1/4-28UNJF-3A Modified	.0967	.110	.142	12,260	4,400
		.3898		.2490	.2410			.059				.020	.0947	.090		
-10	5/16	.4739	.500	.3120	.3060	.007	.068	.040	.015	3/64" x 45°	5/16-24UNJF-3A Modified	.1295	.130	.180	19,160	7,000
		.4689		.3115	.3020			.066				.030	.1270	.110		
-12	3/8	.5604	.545	.3745	.3690	.008	.078	.040	.015	3/64" x 45°	3/8-24UNJF-3A Modified	.1617	.160	.217	27,600	10,000
		.5554		.3740	.3640			.076				.030	.1582	.140		
-14	7/16	.6680	.635	.4370	.4310	.009	.097	.050	.022	3/64" x 45°	7/16-20UNJF-3A Modified	.1930	.190	.253	37,500	13,500
		.6620		.4365	.4260			.094				.040	.1895	.170		
-16	1/2	.7540	.685	.4995	.4930	.010	.107	.050	.022	3/64" x 45°	1/2-20UNJF-3A Modified	.2242	.220	.289	49,100	18,000
		.7480		.4990	.4880			.104				.040	.2207	.200		
-18	9/16	.8380	.770	.5615	.5550	.010	.116	.050	.022	1/16" x 45°	9/16-18UNJF-3A Modified	.2555	.260	.326	62,100	22,500
		.8310		.5610	.5500			.113				.040	.2520	.240		
-20	5/8	.9250	.825	.6240	.6180	.010	.126	.050	.022	1/16" x 45°	5/8-18UNJF-3A Modified	.2555	.260	.326	76,700	28,000
		.9180		.6235	.6120			.123				.040	.2520	.240		

① SEE COLLAR STANDARDS FOR COLLAR STRENGTHS. LOWER STRENGTH (PIN OR COLLAR) DETERMINES SYSTEM STRENGTH.

- GENERAL NOTES:**
- Head edge out of roundness shall not exceed "F."
 - Concentricity: Conical surface of head to "D" diameter within .005 FTR.
 - "H" is dimensioned from maximum "D" diameter.
 - Dimensions of solid film lubed parts to be met after lube.
 - ① Surface texture per ANSI B46.1.
 - Hole preparation per NAS618.
 - ⑦ Maximum "D" diameter may be increased by .0004 to allow for solid film application (code "LP" only).
 - Use HLT131 for oversize replacement.
 - ⑨ Curved or flat edge manufacturers option.

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
HLT31-8-8
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
HLT3170-8-8
Size and Grip Length, See Above Example
Collar Part Number
Pin Part Number

MATERIAL: Type 431 stainless steel per AMS5628 and MIL-S-18732.
HEAT TREAT: 125,000 psi shear minimum.
FINISH: HLT31-()-() = Passivate per Hi-Shear Spec. 258 and cetyl alcohol lube per Hi-Shear Spec. 305.
HLT31LP-()-() = Solid film lube per Spec. MIL-L-46010 and cetyl alcohol lube per Hi-Shear Spec. 305.
SPECIFICATION: Hi-Lok Hi-Tigue Product Specification 342.

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 VAN	DATE 10-27-71	hi-lok hi-tigue PIN 100° FLUSH SHEAR HEAD TYPE 431 STAINLESS STEEL 1/16" GRIP VARIATION
APPROVED JGW	DATE 10-27-71	
REVISION ①	DATE D. P. S. 10-14-83	DRAWING NUMBER HLT31

HLT31