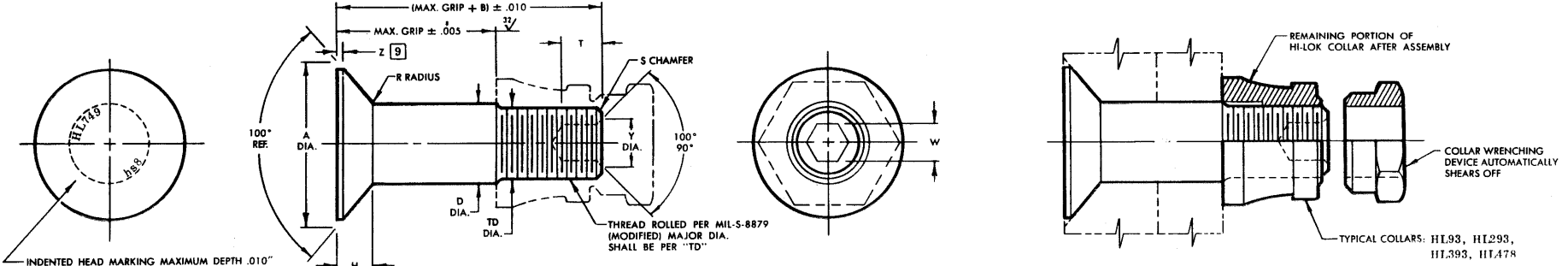


**STANDARDS COMMITTEE
FOR HI-LOK® PRODUCTS**
2600 SKYARK DRIVE, TORRANCE, CALIFORNIA 90509

① HI-SHEAR CORPORATION, U.S.A. (Patent Holder) U.S. Federal Code No. 73157
 Division of Hi-Shear Industries Inc., U.S.A.
 AIR INDUSTRIES CO., INC. (Licensee - U.S. & Canada) U.S. Federal Code No. 08725
 DEUTSCH FASTENER CO., INC. (Licensee) U.S. Federal Code No. 97222
 SPS TECHNOLOGIES, U.S.A. (Licensee) U.S. Federal Code No. 58878
 VOI-SHAN, DIVISION of VSI Corp., U.S.A. (Licensee) U.S. Federal Code No. 92215
 WEST COAST AEROSPACE INC., U.S.A. (Licensee) U.S. Federal Code No. 80514
 Pins & Steel Collars
 HI-SHEAR FASTENERS EUROPE, LTD. U.K. (Licensee)
 KAMAX-WERKE, Germany (Licensee - EEC Countries)
 Rostsch Kellermann GmbH & Co. (Licensee - EEC Countries)
 ST. CHAMOND GRANAT, S.A. France (Licensee - EEC Countries)
 SIMMONDS, S.A. France (Licensee - EEC Countries)
 Collars
 TOKYO SCREW COMPANY, Japan (Licensee - Japan)



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 PIN

HI-LOK PIN AND COLLAR AFTER ASSEMBLY

FIRST DASH NO.	NOM. DIA.	A DIA.	B REF.	D DIA. [8]		TD DIA.	F	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	13/64			NOTE: Use HL249-6													
-6	7/32	.3813 .3765	.325	.2182 .2177	.2182 .2172	.1840 .1810	.005	.0690 .0660	.030 .020	.015	1/32" x 45°	10-32UNJF-3A Modified	.0806 .0791	.135 .115	.119 .104	7,100	3,180
-8	9/32	.5066 .5018	.395	.2807 .2802	.2807 .2797	.2440 .2410	.006	.0950 .0930	.030 .020	.015	1/32" x 45°	1/4-28UNJF-3A Modified	.0967 .0947	.150 .130	.142 .122	11,800	5,820
-10	11/32	.6335 .6287	.500	.3432 .3427	.3432 .3422	.3060 .3020	.007	.1220 .1200	.040 .030	.015	3/64" x 45°	5/16-24UNJF-3A Modified	.1295 .1270	.170 .150	.180 .160	17,600	9,200
-12	13/32	.7604 .7556	.545	.4057 .4052	.4057 .4047	.3690 .3640	.008	.1490 .1470	.040 .030	.015	3/64" x 45°	3/8-24UNJF-3A Modified	.1617 .1582	.200 .180	.217 .197	24,600	14,000
-14	15/32	.8884 .8812	.635	.4682 .4677	.4682 .4672	.4310 .4260	.009	.1760 .1730	.050 .040	.022	3/64" x 45°	7/16-20UNJF-3A Modified	.1930 .1895	.230 .210	.253 .233	32,700	18,900
-16	17/32	1.0139 1.0068	.685	.5307 .5302	.5307 .5297	.4930 .4880	.010	.2030 .2000	.050 .040	.022	3/64" x 45°	1/2-20UNJF-3A Modified	.2242 .2207	.260 .240	.289 .269	42,000	25,600
-18	19/32	1.1408 1.1337	.770	.5927 .5922	.5927 .5917	.5550 .5500	.010	.2300 .2270	.050 .040	.025	1/16" x 45°	9/16-18UNJF-3A Modified	.2555 .2520	.290 .270	.326 .306	52,400	32,400
-20	21/32	1.2723 1.2651	.825	.6552 .6547	.6552 .6542	.6180 .6120	.010	.2589 .2559	.050 .040	.025	1/16" x 45°	5/8-18UNJF-3A Modified	.2555 .2520	.330 .305	.326 .306	64,100	41,000
-24	25/32	1.5308 1.5236	1.050	.7802 .7797	.7802 .7792	.7430 .7370	.012	.3149 .3119	.050 .040	.025	1/16" x 45°	3/4-16UNJF-3A Modified	.3185 .3150	.395 .365	.398 .378	90,900	59,500

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

- GENERAL NOTES:**
- Head out of roundness shall not exceed "F".
 - Concentricity: Conical surface of head to "D" diameter within .005 F.I.R.
 - "H" dimensioned from maximum "D" diameter.
 - Dimensions to be met after finish.
 - Non-lubed pins must be used with lubed collars.
 - Surface texture per ANSI B46.1.
 - Hole preparation per NAS618.
 - Maximum "D" diameter may be increased by .0002 to allow for solid film or coating application.
 - Curved or flat edge manufacturer's option.

MATERIAL: A-286 high temperature alloy per Spec. AMS5737 or AMS5731.

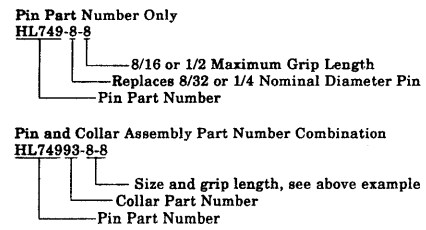
HEAT TREAT: 160,000 psi tensile minimum (95,000 psi shear minimum) at 70°F.

- ① **FINISH:**
- HL749-()-() = Passivate per Hi-Shear Spec. 258, and cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL749AZ-()-() = 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.
 - HL749DL-()-() = Solid film lube per MIL-L-46010, Type I, and cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL749DU-()-() = Solid film lube per MIL-L-46010, Type I.
 - HL749PY-()-() = Passivate per Hi-Shear Spec. 258.
 - HL749V-()-() = Solid film lube per "Lubeco" 2123, Type II.

SPECIFICATION: Hi-Lok Product Specification 342.

CODE: First dash number indicates nominal diameter in 1/32nds of the pin which HL749 oversize pin replaces. Second dash number indicates maximum grip in 1/16ths. See finish note for explanation of code letters.

HOW TO ORDER EXAMPLES:



** The Double Shear values shown are based on cross sectional area for nominal diameter pin.

"Hi-Lok" and "HL" are internationally registered trademarks of Hi-Shear Corporation

DRAWN	DATE	 100° FLUSH MS24694 TENSION HEAD A-286 HIGH TEMPERATURE ALLOY 1/16" GRIP VARIATION - 1/32" OVERSIZE
SHRODE	10-18-67	
APPROVED	DATE	
J.MILLER	10-18-67	REVISION
⑥	D.P.S.	DRAWING NUMBER
	8-6-92	HL749

HL749