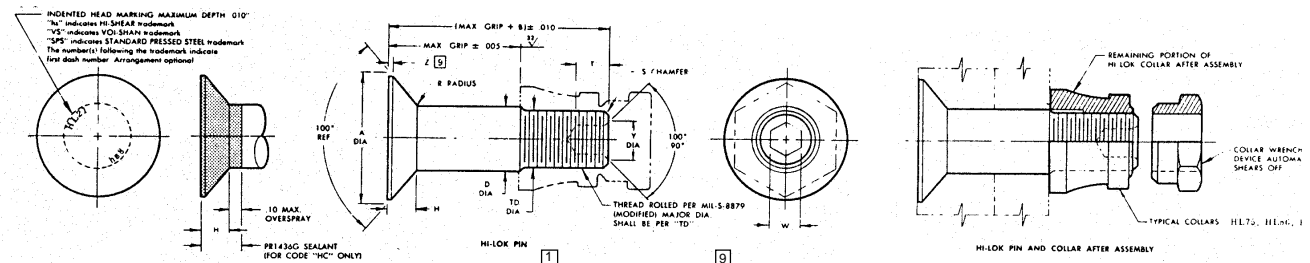


STANDARDS COMMITTEE FOR HI-LOK[®] PRODUCTS

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., 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)
 Rudolf Kallerman 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



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	.3304 .3256	.312	.1635 .1625	.1595 .1570	.004	.0700 .0680	.025 .015	.010	1/32" x 45°	8-32UNJC-3A Modified	.0801 .0791	.135 .115	8	4,010	2,180
-6	3/16	.3813 .3765	.325	.1895 .1885	.1840 .1810	.005	.0805 .0785	.030 .020	.015	1/32" x 45°	10-32UNJF-3A Modified	.0806 .0791	.135 .115	.119 .104	5,380	3,180
-8	1/4	.5066 .5018	.395	.2495 .2485	.2440 .2410	.006	.1080 .1060	.030 .020	.015	1/32" x 45°	1/4-28UNJF-3A Modified	.0967 .0947	.150 .130	.142 .122	9,300	5,820
-10	5/16	.6335 .6287	.500	.3120 .3110	.3060 .3020	.007	.1350 .1330	.040 .030	.015	3/64" x 45°	5/16-24UNJF-3A Modified	.1295 .1270	.170 .150	.180 .160	14,600	9,200
-12	3/8	.7604 .7556	.545	.3745 .3735	.3680 .3640	.008	.1620 .1600	.040 .030	.015	3/64" x 45°	3/8-24UNJF-3A Modified	.1617 .1582	.200 .180	.217 .197	21,000	14,000
-14	7/16	.8884 .8812	.635	.4370 .4360	.4310 .4260	.009	.1895 .1865	.050 .040	.022	3/64" x 45°	7/16-20UNJF-3A Modified	.1930 .1895	.230 .210	.253 .233	28,600	18,900
-16	1/2	1.0139 1.0068	.685	.4995 .4985	.4930 .4880	.010	.2160 .2130	.050 .040	.022	3/64" x 45°	1/2-20UNJF-3A Modified	.2242 .2207	.260 .240	.289 .269	37,300	25,600
-18	9/16	1.1408 1.1337	.770	.5615 .5605	.5550 .5500	.010	.2430 .2400	.050 .040	.025	1/16" x 45°	9/16-18UNJF-3A Modified	.2555 .2520	.290 .270	.326 .306	47,200	32,400
-20	5/8	1.2723 1.2551	.825	.6240 .6230	.6180 .6120	.010	.2720 .2690	.050 .040	.025	1/16" x 45°	5/8-18UNJF-3A Modified	.2555 .2520	.330 .305	.326 .306	58,300	41,000
-24	3/4	1.5308 1.5236	1.050	.7490 .7480	.7430 .7370	.012	.3280 .3250	.050 .050	.025	1/16" x 45°	3/4-16UNJF-3A Modified	.3185 .3150	.395 .365	.398 .378	83,900	59,500

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

GENERAL NOTES:

1. Head edge out of roundness shall not exceed "F."
2. Concentricity: Conical surface of head to "D" diameter within .005 FIR.
3. "H" dimensioned from maximum "D" diameter.
4. Dimensions to be met after finish.
5. Non-lubed pins must be used with wet sealant or with lubed collars.
6. Surface texture per ANSI B46.1.
7. Hole preparation per NAS618.
8. Evidence of broken edge across points.
9. Curved or flat edge manufacturer's option.
10. Use HL65 for oversize replacement.

MATERIAL: Alloy steel per Spec. MIL-S-5000, MIL-S-5626 or MIL-S-6049.
 HEAT TREAT: 160,000-180,000 psi tensile per Spec. MIL-H-6875.

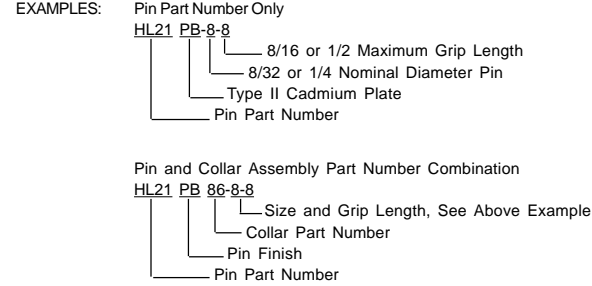
- FINISH:
- HL21(-)(-) = Cadmium plate per Spec. QQ-P-416, Type I, Class 2 and cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL21HC(-)(-) = Cadmium plate per Spec. QQ-P-416, Type II, Class 2, and apply precoat No. PR1436G sealant (.002-.005 thick) plus cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL21KD(-)(-) = Aluminum coating per Boeing BMS 10-85, Type I, Class B, with color code black on thread end and cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL21N(-)(-) = Diffused nickel-cadmium plate per AMS2416 and cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL21PB(-)(-) = Cadmium plate per Spec. QQ-P-416, Type II, Class 2, and cetyl alcohol lube per Hi-Shear Spec. 305.
 - HL21PN(-)(-) = Cadmium plate per QQ-P-416, type II, Class 2 (see Note 5).
 - HL21RB(-)(-) = Cadmium plate per QQ-P-416, Type II, Class 2, color violet to purple, and cetyl alcohol lube per Hi-Shear Spec. 305.

SPECIFICATION: Hi-Lok Product Specification 342.

CODE:

First dash number indicates nominal diameter in 1/32nds.
 Second dash number indicates maximum grip in 1/16ths.
 See the "Finish" note for explanation of code letters.

HOW TO ORDER



U.S. patents 2,882,773; 2,927,491; 2,940,495; 3,027,789; 3,138,987; design patent 191,883 other U.S. and Foreign patents granted and pending properties of "Hi-Lok" and "HL" are Registered Trademarks of Hi-Shear Corporation.		
DRAWN Ric	DATE 3-11-63	 100° FLUSH MS24694 TENSION HEAD ALLOY STEEL 1/16" GRIP VARIATION
APPROVED Cessna	DATE 3-13-63	
REVISION ①7	DATE D. P. S. 9-24-79	DRAWING NUMBER HL21

793

HL21