lisi AEROSPACE
hi-shear corporation
2600 SKYPARK DRIVE, TORRANCE, CALIFORNIA 90509 U.S.A.

HI-SHEAR Corporation, USA
a LISI AEROSPACE Company

Design Holder

CAGE No. 73197

(17)

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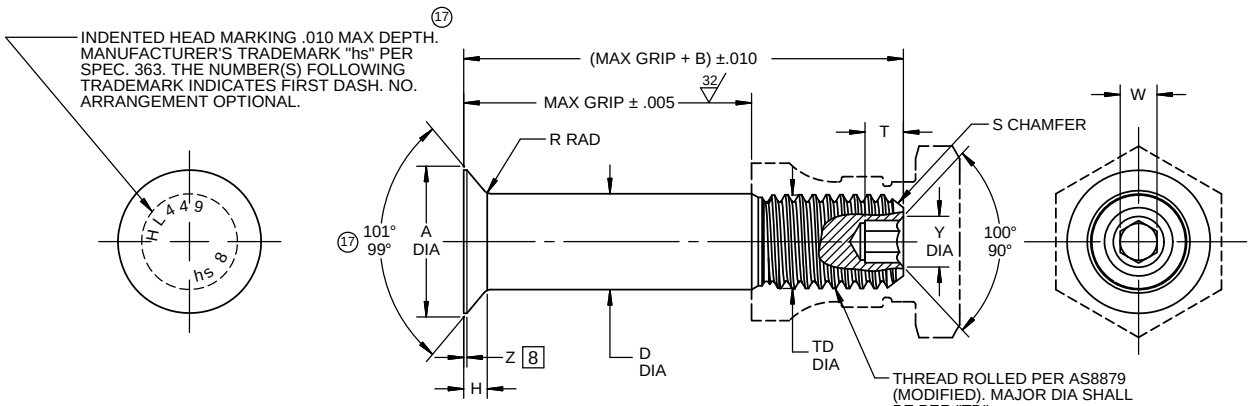
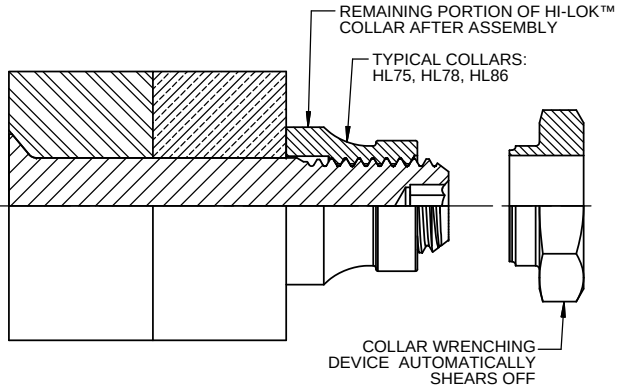


HI-LOK™ PIN



HI-LOK™ PIN AND COLLAR AFTER ASSEMBLY

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

FIRST DASH NO.	PIN NOM DIA	**A** DIA	**B** REF	**D** DIA [9] WITHOUT COATING OR PLATING	**D** DIA [9] WITH COATING OR PLATING	**TD** DIA	**F** [1]	**H**	**R** RAD (17)	**Z** MAX [8]	**S** CHAMFER REF	**THREAD** MODIFIED	SOCKET **W** HEX	SOCKET **T** DEPTH	SOCKET **Y** DIA	DOUBLE SHEAR POUNDS MINIMUM	TENSION POUNDS MINIMUM
5	5/32	.3304 .3256	.312	.1635 .1630	.1635 .1625	.1595 .1570	.004	.0700 .0680	.025 .015	.015	1/32 x 45°	.1640-32 UNJC-3A	.0801 .0791	.135 .115	[5]	4,010	2,180
6	3/16	.3813 .3765	.325	.1895 .1890	.1895 .1885	.1840 .1810	.005	.0805 .0785	.030 .020	.015	1/32 x 45°	.1900-32 UNJF-3A	.0806 .0791	.135 .115	.119 .104	5,380	3,180
8	1/4	.5066 .5018	.395	.2495 .2490	.2495 .2485	.2440 .2410	.006	.1080 .1060	.030 .020	.015	1/32 x 45°	.2500-28 UNJF-3A	.0967 .0947	.150 .130	.142 .122	9,300	5,820
10	5/16	.6335 .6287	.500	.3120 .3115	.3120 .3110	.3060 .3020	.007	.1350 .1330	.040 .030	.015	3/64 x 45°	.3125-24 UNJF-3A	.1295 .1270	.170 .150	.180 .160	14,600	9,200
12	3/8	.7604 .7556	.545	.3745 .3740	.3745 .3735	.3680 .3640	.008	.1620 .1600	.040 .030	.015	3/64 x 45°	.3750-24 UNJF-3A	.1617 .1582	.200 .180	.217 .197	21,000	14,000
14	7/16	.8884 .8812	.635	.4370 .4365	.4370 .4360	.4310 .4260	.009	.1895 .1865	.050 .040	.022	3/64 x 45°	.4375-20 UNJF-3A	.1930 .1895	.230 .210	.253 .233	28,600	18,900
16	1/2	1.0139 1.0068	.685	.4995 .4990	.4995 .4985	.4930 .4880	.010	.2160 .2130	.050 .040	.022	3/64 x 45°	.5000-20 UNJF-3A	.2242 .2207	.260 .240	.289 .269	37,300	25,600
18	9/16	1.1408 1.1337	.770	.5615 .5610	.5615 .5605	.5550 .5500	.010	.2430 .2410	.050 .040	.025	1/16 x 45°	.5625-18 UNJF-3A	.2555 .2520	.290 .270	.326 .306	47,200	32,400
20	5/8	1.2723 1.2651	.825	.6240 .6235	.6240 .6230	.6180 .6120	.010	.2720 .2690	.050 .040	.025	1/16 x 45°	.6250-18 UNJF-3A	.2555 .2520	.330 .305	.326 .306	58,300	41,000
24	3/4	1.5308 1.5236	1.050	.7490 .7485	.7490 .7480	.7430 .7370	.012	.3280 .3250	.050 .040	.025	1/16 x 45°	.7500-16 UNJF-3A	.3185 .3150	.395 .365	.398 .378	83,900	59,500

"HI-LOK", "HL", AND "HI-KOTE", ARE TRADEMARKS OF HI-SHEAR CORPORATION

DRAWN BY: BRIEJ — DATE: 1963-04-01	TITLE: HI-LOK™ PIN 100° FLUSH MS24694 TENSION HEAD A-286 HIGH TEMPERATURE ALLOY 1/16 GRIP VARIATION
APPROVED: M.E.C. — DATE: 1963-04-01	
REVISION: (17) — DATE: M.BEARD 2017-07-31	DRAWING NUMBER: **HL449** 1 OF 2

HL449

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GENERAL NOTES:
1. Head edge out of roundness shall not exceed "F".
2. Concentricity: Conical surface of head to "D" diameter within .005 FIM.
3. "H" is dimensioned from maximum "D" diameter.
17. 4. Dimensions are in inches and to be met after finish.
5. Evidence of broken edge across point.
17. 6. Surface texture per ASME B46.1.
7. Hole preparation per NAS618.
8. Curved or flat edge manufacturer's option.
9. Maximum "D" diameter may be increased by .0002" to allow for plated, coated or solid film application.
10. Non-lubed pin must be used with wet sealant or with lubed collars.
11. Use HL453 for oversize replacement.
12. After February, 21st of 2015, HI-KOTE™ 1 aluminum pigmented coating per Hi-Shear Spec. 294 will be replaced by REACH compliant HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294 on fasteners coated in European Union.

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

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

FINISH:
HL449-( )-( ) = Cadmium plate per AMS-QQ-P-416, Type II, Class 2, with color blue on top of head and cetyl alcohol lube per Hi-Shear Spec. 305.
12. HL449AP( )-( ) = HI-KOTE™ 1 aluminum coating per Hi-Shear Spec. 294 and cetyl alcohol lube per Hi-Shear Spec. 305.
12. HL449AZ( )-( ) = HI-KOTE™ 1 aluminum coating per Hi-Shear Spec. 294, with color black on thread end and cetyl alcohol lube per Hi-Shear Spec. 305.
HL449EL( )-( ) = Solid film lube per "Electrofilm" 4396.
HL449N( )-( ) = Cadmium plate per AMS-QQ-P-416, Type II, Class 2., without lubricant. (For use in LOX systems.)
HL449UC( )-( ) = Cadmium plate per AMS-QQ-P-416, Type II, Class 2., with color green on thread end and cetyl alcohol lube per Hi-Shear Spec. 305.
10. HL449PY( )-( ) = Passivate per Hi-Shear Spec. 258.
HL449PZ( )-( ) = Passivate per Hi-Shear Spec. 258 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
17. **EXAMPLE:** Pin Part Number
HL449AP8-8
- 8/16 or 1/2 Maximum Grip Length
- 8/32 or 1/4 Nominal Diameter Pin
- Finish Code
- Pin Basic Part Number

HL449

DRAWING NUMBER
HL449