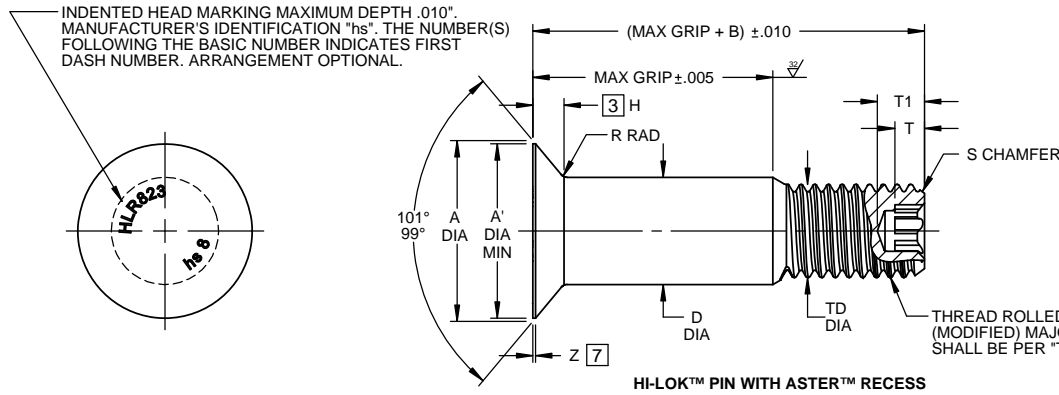


②

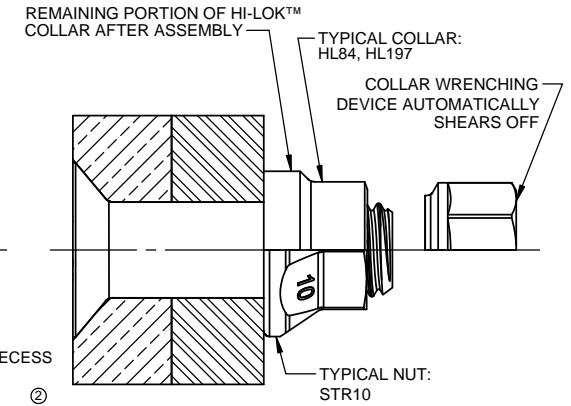
For the current list of licensed manufacturers, please visit the  
LISI AEROSPACE website at:  
[HTTP://WWW.LISI-AEROSPACE.COM/LICENSES](http://WWW.LISI-AEROSPACE.COM/LICENSES)



HI-LOK™ PIN WITH ASTER™ RECESS

1

7



RECOMMENDED COLLAR OR NUT FOR ASSEMBLY

FIRST DASH NO.	PIN NOM DIA	A DIA	A' DIA MIN	B REF	D DIA		TD DIA	F REF	H	R RAD	Z MAX	S CHAMFER REF	THREAD MODIFIED	ASTER™ RECESS			DOUBLE SHEAR POUNDS MINIMUM	TENSION POUNDS MINIMUM
					WITHOUT ALUMINUM COATING	WITH ALUMINUM COATING								RECESS SIZE CODE	T1 DEPTH MAX	T DEPTH MIN		
5	NOTE: USE HLR537( )6(-)																	
6	7/32	.3536 .3486	.322	.325	.2182 .2177	.2182 .2172	.1840 .1810	.005	.0568 .0547	.030 .020	.015	1/32 X 37°	.1900-32 UNJF-3A	A5L-06	.116	.069	7,100	2,590
7	NOTE: USE HLR523( )8(-)																	
8	9/32	.4732 .4682	.442	.395	.2807 .2802	.2807 .2797	.2440 .2410	.006	.0807 .0786	.030 .020	.015	1/32 X 37°	.2500-28 UNJF-3A	A5L-08	.118	.069	11,800	4,760
10	11/32	.5619 .5569	.531	.500	.3432 .3427	.3432 .3422	.3060 .3020	.007	.0917 .0896	.040 .030	.015	3/64 X 37°	.3125-24 UNJF-3A	A5L-10	.127	.070	17,600	7,100
12	13/32	.6912 .6862	.660	.545	.4057 .4052	.4057 .4047	.3680 .3640	.008	.1198 .1177	.040 .030	.015	3/64 X 37°	.3750-24 UNJF-3A	A5L-12	.147	.087	24,600	10,600
14	15/32	.8041 .7969	.756	.635	.4682 .4677	.4682 .4672	.4310 .4260	.009	.1409 .1379	.050 .040	.022	3/64 X 37°	.4375-20 UNJF-3A	A5L-14	.196	.116	32,700	14,450
16	17/32	.9166 .9095	.868	.685	.5307 .5302	.5307 .5297	.4930 .4880	.010	.1619 .1589	.050 .040	.022	3/64 X 37°	.5000-20 UNJF-3A	A5L-16	.236	.139	42,000	19,550

②

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

HLR823

"HI-LOK", "HLR", AND "HI-KOTE" ARE TRADEMARKS OF HI-SHEAR CORPORATION. ASTER™ IS A TRADEMARK OF LISI AEROSPACE.		
DRAWN BY F.CARINGELLA	DATE 2016-04-28	TITLE HI-LOK™ PIN, ASTER™ RECESS 100° FLUSH MS20426 HEAD TITANIUM 1/16 GRIP VARIATION, 1/32 OVERSIZE
APPROVED C.REITZ	DATE 2016-04-28	
REVISION ②	DATE M.BEARD 2017-12-05	DRAWING NUMBER <b>HLR823</b> 1 OF 2

- GENERAL NOTES:**
- 1 Head edge out of roundness shall not exceed "F".
  - 2. Concentricity: Conical surface of head to "D" diameter within .003 FIM.
  - 3 "H" is dimensioned from maximum "D" diameter.
  - 4. Dimensions are in inches and to be met after finish.
  - ② 5. Surface texture per ASME B46.1.
  - 6. Hole preparation per NAS618.
  - 7 Curved or flat edge manufacturer's option.
  - 8 US patent 6632057; other US & foreign patents granted and pending property of LISI AEROSPACE.
  - 9. Oversize replacement replacement for HLR537.
  - 10 Broach petals removed.
  - ② 11 Identification colorant is not allowed in the ASTER™ Recess.

**MATERIAL:** 6Al-4V titanium alloy per AMS4928 or AMS4967.

**HEAT TREAT:** 160,000 psi tensile minimum (95,000 psi shear minimum).②

**FINISH:** HLR823NKJ( )-( ) = HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294 with color silver on thread end and cetyl alcohol lube per Hi-Shear Spec. 305.

HLR823NKK( )-( ) = Sulfuric acid anodizing per ISO8080 and HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294 on threads only with color silver on thread end and cetyl alcohol lube per Hi-Shear Spec. 305.

HLR823NKL( )-( ) = HI-KOTE™ 1 NC aluminum pigmented coating per Hi-Shear Spec. 294 on threads only with color silver on thread end and cetyl alcohol lube per Hi-Shear Spec. 305.

**SPECIFICATION:** HI-LOK™ Product Specification 409.  
 ASTER™ Recess per A5L-QA02.

**CODE:** First dash number indicates nominal diameter in 1/32nds of the pin which HLR823 oversize pin replaces.  
 Second dash number indicates maximum grip in 1/16ths. See Finish note for explanation of code letters.

**HOW TO ORDER** Pin Part Number

② **EXAMPLES:** HLR823 NKJ 8-8

8/16 or 1/2 Maximum Grip Length  
 8/32 or 1/4 Nominal Diameter Pin  
 Finish Code  
 Pin Basic Part Number

HLR823

DRAWING NUMBER

**HLR823**

2 OF 2