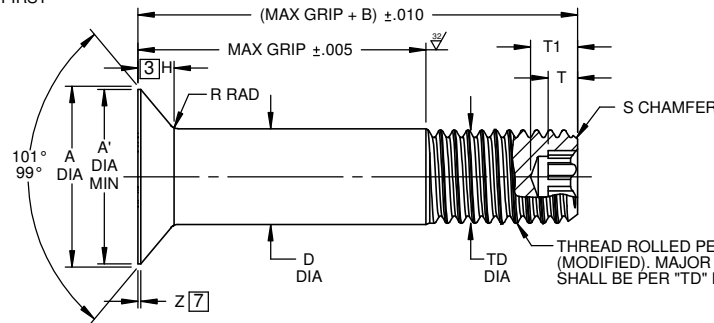
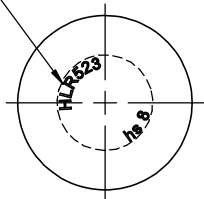
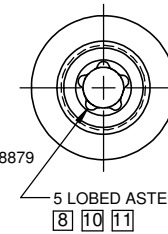


②

INDENTED HEAD MARKING MAXIMUM DEPTH .010".
MANUFACTURER'S IDENTIFICATION "hs". THE NUMBER(S)
FOLLOWING THE BASIC NUMBER INDICATES FIRST
DASH NUMBER. ARRANGEMENT OPTIONAL.



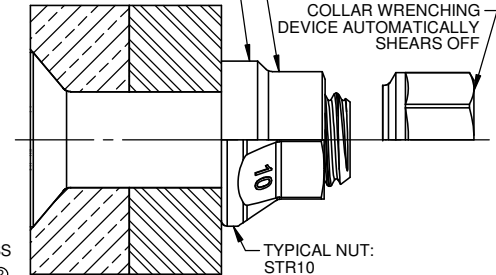
HI-LOK™ PIN WITH ASTER™ RECESS



REMAINING PORTION OF HI-LOK™
COLLAR AFTER ASSEMBLY

TYPICAL COLLAR:
HL70, HL79, HL82, HL94,
HL190, HL276, HL379

COLLAR WRENCHING
DEVICE AUTOMATICALLY
SHEARS OFF



RECOMMENDED COLLAR OR NUT FOR ASSEMBLY

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

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	5/32	.2922 .2874	.273	.312	.1635 .1630	.1635 .1625	.1595 .1570	.004	.0540 .0520	.025 .015	.010	1/32 X 37°	.1640-32 UNJC-3A	A5L-05	.118	.072	4,010	1,730
6	3/16	.3536 .3486	.322	.325	.1895 .1890	.1895 .1885	.1840 .1810	.005	.0688 .0667	.030 .020	.015	1/32 X 37°	.1900-32 UNJF-3A	A5L-06	.116	.069	5,380	2,590
7	7/32	.4007 .3959	.382	.355	.2182 .2177	.2182 .2172	.2100 .2070	.005	.0766 .0746	.030 .020	.015	1/32 X 37°	.2160-28 UNJF-3A	A5L-07	.117	.069	7,194	3400
8	1/4	.4732 .4682	.442	.395	.2495 .2490	.2495 .2485	.2440 .2410	.006	.0939 .0918	.030 .020	.015	1/32 X 37°	.2500-28 UNJF-3A	A5L-08	.118	.069	9,300	4,760
10	5/16	.5619 .5569	.531	.500	.3120 .3115	.3120 .3110	.3060 .3020	.007	.1048 .1027	.040 .030	.015	3/64 X 37°	.3125-24 UNJF-3A	A5L-10	.127	.070	14,600	7,100
12	3/8	.6912 .6862	.660	.545	.3745 .3740	.3745 .3735	.3680 .3640	.008	.1329 .1308	.040 .030	.015	3/64 X 37°	.3750-24 UNJF-3A	A5L-12	.147	.087	21,000	10,600
14	7/16	.8041 .7969	.756	.635	.4370 .4365	.4370 .4360	.4310 .4260	.009	.1540 .1510	.050 .040	.022	3/64 X 37°	.4375-20 UNJF-3A	A5L-14	.196	.116	28,600	14,450
16	1/2	.9166 .9095	.868	.685	.4995 .4990	.4995 .4985	.4930 .4880	.010	.1750 .1720	.050 .040	.022	3/64 X 37°	.5000-20 UNJF-3A	A5L-16	.236	.139	37,300	19,550

②

HLR523

"HI-LOK", "HLR", AND "HI-KOTE", ARE TRADEMARKS OF HI-SHEAR CORPORATION. ASTER™ IS A TRADEMARK OF LISI AEROSPACE.			
DRAWN BY F.CARINGELLA	DATE 2016-04-27	TITLE HI-LOK™ PIN, ASTER™ RECESS 100° FLUSH MS20426 HEAD TITANIUM 1/16 GRIP VARIATION	
APPROVED C.REITZ	DATE 2016-04-27		
REVISION ②	DATE F.CARINGELLA 2017-12-06	DRAWING NUMBER HLR523	

- 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. Use HLR537 for oversize replacement.
 - 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: HLR523NKJ()-() = 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.

HLR523NKK()-() = 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.

HLR523NKL()-() = 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.
 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:** HLR523 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

HLR523