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

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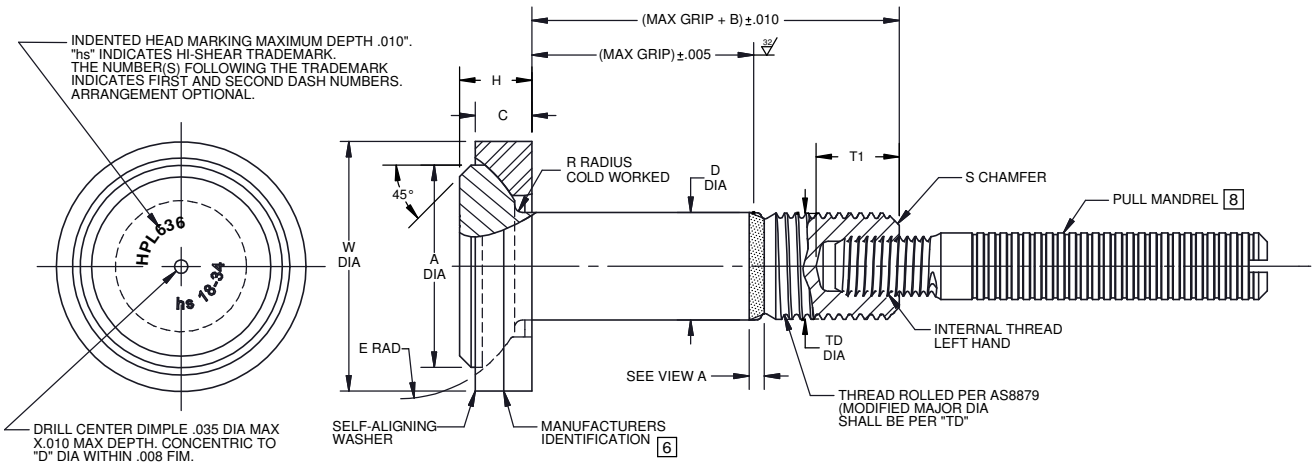
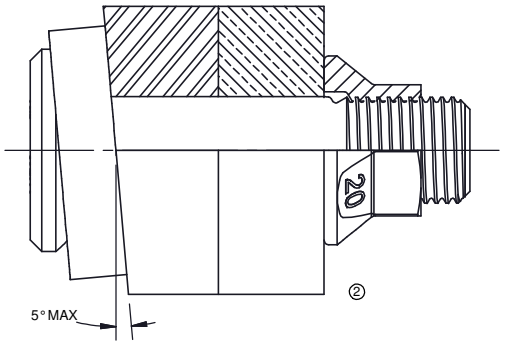
②




**PULL-IN™ PIN**

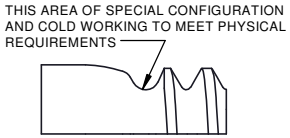



**EXAMPLE OF PULL-IN™ PIN AND NUT/COLLAR AFTER ASSEMBLY**

TABLE 1

| FIRST DASH NO. | PIN NOM DIA | A DIA REF | B REF | C REF | D DIA | | TD DIA | H MAX | R RAD | S CHAMFER REF | E RAD | W DIA | THREAD MODIFIED | INTERNAL THREAD LEFT HAND [5] | | | DOUBLE SHEAR POUNDS MINIMUM | TENSION POUNDS MINIMUM | TENSION-TENSION FATIGUE POUNDS MAX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | WITHOUT COATING OR FINISH | AFTER COATING OR FINISH | | | | | | | | T1 MAX | THREAD SIZE UNJF-2B | LOAD POUNDS MAX | | | |
| 18 | 37/64 | 1.051 | .845 | .303 | .5771<br>.5766 | .5771<br>.5761 | .5550<br>.5500 | .382 | .040<br>.025 | 1/16 x 37° | .687 | 1.307<br>1.291 | .5625-18<br>UNJF-3A | .465 | 5/16-SP | 11,500 | 49,900 | 28,350 | 9,900 |
| 20 | 41/64 | 1.130 | .935 | .319 | .6396<br>.6391 | .6396<br>.6386 | .6180<br>.6120 | .406 | .040<br>.025 | 1/16 x 37° | .750 | 1.437<br>1.421 | .6250-18<br>UNJF-3A | .520 | 3/8-SP | 14,200 | 61,200 | 38,360 | 13,470 |
| 24 | 49/64 | 1.291 | 1.125 | .358 | .7646<br>.7641 | .7646<br>.7636 | .7430<br>.7370 | .547 | .045<br>.030 | 1/16 x 37° | .875 | 1.689<br>1.673 | .7500-16<br>UNJF-3A | .625 | 7/16-SP | 19,109 | 87,400 | 55,600 | 19,400 |
| 28 | 57/64 | 1.449 | 1.315 | .390 | .8896<br>.8891 | .8896<br>.8886 | .8680<br>.8610 | .634 | .050<br>.035 | 5/64 x 37° | 1.000 | 1.921<br>1.906 | .8750-14<br>UNJF-3A | .725 | 1/2-SP | 31,500 | 115,000 | 67,900 | 25,200 |
| 32 | 1-1/64 | 1.602 | 1.500 | .437 | 1.0146<br>1.0141 | 1.0146<br>1.0136 | .9930<br>.9860 | .713 | .060<br>.045 | 5/64 x 37° | 1.125 | 2.134<br>2.118 | 1.0000-12<br>UNJF-3A | .830 | 9/16-SP | 38,218 | 145,200 | 88,600 | 31,912 |
| | | | | | | | | | | | | | | | | ② | | ② | ② |

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




**VIEW A**

HI-LITE™ THREAD TRANSITION AREA
SEE SPECIFICATION FOR INSPECTION

② **GENERAL NOTES:**

1. Concentricity: "A" to "D" diameter within .010 FIM.
2. Dimensions in inches, to be met after finish and before solid film lubricant, where applicable.
3. Surface texture per ASME B46.1.
4. Hole preparation per HSL/HPL-IS01: PULL-STEM™ / PULL-IN™ fastener installation specification for HSL/HPL pins.

[5] The maximum allowable installation load must not exceed the maximum load values in table or thread/mandrel failure may occur.

[6] One line indicates Blanc Aero Industries, France as manufacturer.

7. Use HPL736 for oversize replacement.

[8] Mandrel is sold separately.

[9] 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 the European Union.



| DRAWN BY | DATE |
|---|---|
| F.CARINGELLA | 2017-03-22 |
| APPROVED | DATE |
| J. LO | 2017-03-22 |
| REVISION | DATE |
| ② | F.CARINGELLA 2017-03-22 |

TITLE
PULL-IN™ PIN
SELF-ALIGNING TENSION HEAD
6AL-4V TITANIUM ALLOY
SPECIAL THREAD
1/16 GRIP VARIATION, 1/64 OVERSIZE

DRAWING NUMBER
**HPL636**





HPL636

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

② **FINISH:**

| PART DESCRIPTION | PART NUMBER | FINISH | LUBE | IDENTIFICATION |
|---|---|---|---|---|
| TITANIUM PIN | ~~HPL636BM( )-( )~~ | ~~HI-KOTE™ 1 NC ALUMINUM PIGMENTED COATING PER HI-SHEAR SPEC. 294~~ | CETYL ALCOHOL LUBE PER HI-SHEAR SPEC. 305 | WHITE COLOR ON THREAD END |
| | HPL636KM( )-( ) [9] | HI-KOTE™ 1 ALUMINUM PIGMENTED COATING PER HI-SHEAR SPEC. 294 | | |
| | HPL636NKM( )-( ) | HI-KOTE™ 1 NC ALUMINUM PIGMENTED COATING PER HI-SHEAR SPEC. 294 | | |
| TITANIUM WASHER | HPL636-( )APW [9] | HI-KOTE™ 1 ALUMINUM PIGMENTED COATING PER HI-SHEAR SPEC. 294 | CETYL ALCOHOL LUBE PER HI-SHEAR SPEC. 305 | WHITE COLOR SPOT ON OUTSIDE DIAMETER |
| | HPL636-( )NAPW | HI-KOTE™ 1 NC ALUMINUM PIGMENTED COATING PER HI-SHEAR SPEC. 294 | | |

**MATERIAL:** Pin = 6AL-4V Titanium alloy per AMS4928, AMS4967 or British Standard 2TA 28.
Washer = 6Al-4V Titanium alloy per AMS4928 or AM4967 or British Standard 2TA 28.

**HEAT TREAT:** Pin = 160,000 psi tensile minimum and 95,000 psi shear minimum for size up to 3/4.
150,000 psi tensile and 90,000 psi shear minimum for 7/8 and larger
Washer = 160,000 psi tensile minimum.

② **SPECIFICATION:** PULL-IN™ Product Specification N°412.

**CODE:** First dash number indicates nominal diameter in 1/32 of the pin which HPL636 oversize pin replaces.
Second dash number indicates maximum grip in 1/16ths.
See "Finish" note for explanation of code letters.

② **HOW TO ORDER EXAMPLE:**

Pin-Washer Assembly Part Number
HPL636 KM 18 APW 34

- HPL636 — Pin Basic Part Number
- KM — Pin Finish Code
- 18 — 18/32 or 9/16 Nominal Diameter Pin
- APW — Washer finish code
- 34 — 34/16 or 17/8 Maximum Grip Length

HPL636

DRAWING NUMBER
**HPL636**
SHEET 2 OF 2