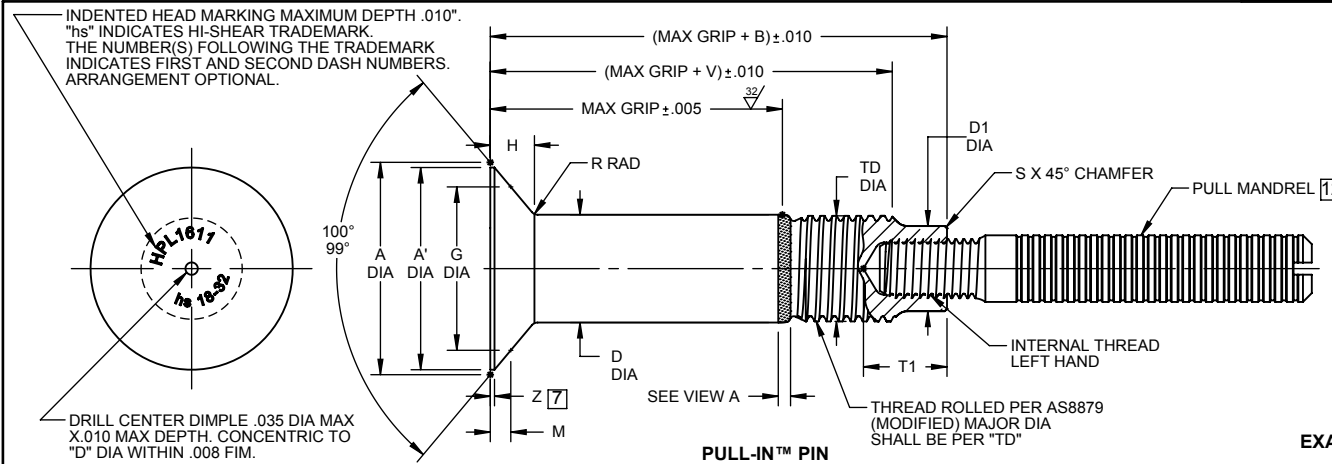


EXAMPLE OF PULL-IN™ PIN AND NUT/COLLAR AFTER ASSEMBLY

FIRST DASH NO.	PIN NOM DIA	A DIA MAX	A' DIA MIN	B REF	D DIA	TD DIA	D1 DIA	F REF	G GAGE DIA	H REF	M GAGE PROT.	R RAD ROLLED	S CHAMFER REF	V REF	Z REF	THREAD MODIFIED	INTERNAL THREAD LEFT HAND 10			DOUBLE SHEAR POUNDS MINIMUM	TENSION POUNDS MINIMUM	TENSION- FATIGUE POUNDS MAX
																	T1 MAX	THREAD SIZE UNJF-2B	LOAD POUNDS MAX			
18	19/32	.9300	.881	.844	.5927 .5917	.5550 .5500	.4783 .4764	.010	.8012 .8010	.140	.0533 .0485	.050 .040	.020	.701	.022	.5625-18 UNJF-3A	.465	5/16-SP	11,500	52,600	22,500	7,880
20	21/32	1.0440	.995	.935	.6552 .6542	.6180 .6120	.5413 .5394	.010	.8902 .8900	.161	.0633 .0589	.050 .040	.020	.733	.022	.6250-18 UNJF-3A	.520	3/8-SP	14,200	64,300	29,203	10,200
24	25/32	1.3000	1.251	1.125	.7802 .7792	.7430 .7370	.6575 .6555	.012	1.1124 1.1122	.215	.0776 .0716	.050 .040	.020	.927	.022	.7500-16 UNJF-3A	.625	7/16-SP	19,109	91,000	42,000	14,770
28	29/32	1.5091	1.461	1.315	.9052 .9042	.8680 .8610	.7717 .7697	.014	1.3440 1.3438	.240	.0694 .0622	.050 .040	.020	1.021	.022	.8750-14 UNJF-3A	.725	1/2-SP	31,500	119,100	56,267	19,842
32	1-1/32	1.7201	1.671	1.500	1.0302 1.0292	.9930 .9860	.8819 .8799	.014	1.5732 1.5730	.285	.0617 .0536	.050 .040	.020	1.151	.022	1.0000-12 UNJF-3A	.830	9/16-SP	38,218	149,700	71,000	24,850

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

- GENERAL NOTES:**
- Head edge out of roundness shall not exceed "F".
 - Concentricity: Conical surface of head to "D" diameter within .010 FIM.
 - "H" is dimensioned from maximum "D" diameter
 - Dimensions in inches and to be met after finish.
 - Surface texture per AMSE B46.1.
 - Hole preparation per HSL/HPL-IS01: PULL-STEM™/ PULL-IN™ fastener installation specification for HSL/HPL pins.
 - Curved or flat edge manufacturers option.
 - HPL1611 is the oversize replacement for HPL1511.
 - Use HPL1711 for oversize replacement.
 - The maximum allowable installation load must not exceed the maximum load values in table or thread/mandrel failure may occur.
 - Product in accordance with LISI AEROSPACE Product Specification N°415.
 - Mandrel is sold separately.
 - "NKA" is a duplicate code, use "NAP" for new design.

MATERIAL: Pin = Titanium alloy 6Al-4V per AMS4928 or AMS4967.

HEAT TREAT: Pin = 160,000 psi tensile minimum and 95,000 psi shear minimum.

FINISH: 13 HPL1611NAP()-() = HI-KOTE™ 1 NC aluminum coating per Hi-Shear Spec. 294, and cetyl alcohol lube per Hi-Shear Spec. 305.
HPL1611NKM()-() = HI-KOTE™ 1 NC aluminum coating per Hi-Shear Spec. 294, with color white on pin end, and cetyl alcohol lube per Hi-Shear Spec. 305.

CODE: First dash number indicates nominal diameter in 1/32nds of the pin which HPL1611 oversize pin replaces.
Second dash number indicates maximum grip in 1/16ths.
See "Finish" note for explanation of code letters.

HOW TO ORDER

③ **EXAMPLES:** Pin Part Number
HPL1611NAP18-32
32/16 or 2 Maximum Grip Length
18/32 or 9/16 Nominal Diameter Pin
Finish Code
Pin Basic Part Number

THIS AREA OF SPECIAL CONFIGURATION
AND COLD WORKING TO MEET PHYSICAL
REQUIREMENTS



VIEW A
HI-LITE™ THREAD TRANSITION AREA
SEE SPECIFICATION FOR INSPECTION

"HI-KOTE", "HI-LITE", "PULL-IN" AND "HPL", ARE TRADEMARKS OF HI-SHEAR CORPORATION			
DRAWN BY ASSYTEM	DATE 2012-02-17	TITLE PULL-IN™ PIN 100° FLUSH SPECIAL SHEAR HEAD INTERFERENCE FIT TITANIUM 1/16 GRIP VARIATION, 1/32 OVERSIZE	
APPROVED J. GOYER	DATE 2012-02-17		
REVISION 3	DATE F. CARINGELLA 2017-10-25	DRAWING NUMBER HPL1611	