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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HTTP://WWW.LISI-AEROSPACE.COM/LICENSES

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	"hs" INDICATES HI-SHEAR TRADEMARK.  THE NUMBER(S) FOLLOWING THE TRADEMARK INDICATES FIRST AND SECOND DASH NUMBERS.  ARRANGEMENT OPTIONAL.  H  C  R RAD  COLD WORKED  DIA  DIA  DIA  DIA  DIA  DRILL CENTER DIMPLE .035 DIA MAX X.010 MAX DEPTH, CONCENTRIC TO "D" DIA WITHIN .008 FIM.  TABLE 1	D1 DIA S X 45° CHAMFER PULL MANDREL [7] INTERNAL THREAD LEFT HAND	5° MAX  EXAMPLE OF PULL-IN™ PIN AND NUT/COLLAR AFTER ASSEMBLY
-	INDENTED HEAD MARKING MAXIMUM DEPTH .010".	D) . 040	
- 1	"hs" INDICATES HI-SHEAR TRADEMARK.   ☐ (MAX GRIP +	B)±.010 —	
- 1	THE NUMBER(S) FOLLOWING THE TRADEMARK		
- 1		2.010 ─────	
- 1			
- 1	H (MAX GRIP)±.005 →	<del>-</del>	
- 1	\		
- 1		D1	
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- 1	RRAD D	TD	A ////////////////////////////////////
- 1	COLD WORKED TOLA	S X 45° CHAMEER	
- 1		`   ↓ DIA       / PULL MANDREL   7	
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- 1		13 111 11 / / / / / / / / / I - I - I - I - I - I	
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- 1			
- 1			
- 1		LEFT HAND	
- 1	OFF WEW A	[ ] [ \	
- 1	SEE VIEW A		\
- 1			
- 1	PRILL CENTER DIMPLE 035 DIA MAX. SELE ALIGNING. \ MANUFACTUREDS	(MODIFIED MAJOK DIA	
- 1		SHALL BE PER ID	5° MAX
- 1			71
- 1	TABLE 4	PULL-IN™ PIN	EXAMPLE OF PULL-IN™ PIN AND NUT/COLLAR AFTER ASSEMBLY
- 1	I ABI E 1	-	

	TABLE 1																			
FIRST DASH	PIN NOM DIA	A DIA REF	B REF	D DIA	TD	D1	w	н	S CHAMFER REF	V REF R	E	R RAD ROLLED	C REF	THREAD MODIFIED	INTERNAL THREAD LEFT HAND 10			DOUBLE SHEAR	TENSION POUNDS	TENSION- TENSION FATIGUE
NO.					DIA	DIA	DIA MAX	MAX			RAD				T1 MAX	THREAD SIZE UNJF-2B	LOAD POUNDS MAX	POUNDS MINIMUM	MINIMUM	POUNDS MAX
18	19/32	1.051	.845	.5927 .5917	.5550 .5500	.4783 .4764	1.307 1.300	.382	.020	.701	.688	.040 .025	.303	.5625-18 UNJF-3A	.465	5/16-SP	11,500	52,600	32,400	11,300
20	21/32	1.130	.935	.6552 .6542	.6180 .6120	.5413 .5394	1.437 1.430	.405	.020	.733	.750	.040 .025	.319	.6250-18 UNJF-3A	.520	3/8-SP	14,200	64,300	41,000	14,400
24	25/32	1.291	1.125	.7802 .7792	.7430 .7370	.6575 .6555	1.689 1.681	.547	.020	.927	.875	.045 .030	.358	.7500-16 UNJF-3A	.625	7/16-SP	19,109	91,000	59,500	21,000
28	29/32	1.449	1.315	.9052 .9042	.8680 .8610	.7717 .7697	1.921 1.913	.634	.020	1.021	1.000	.050 .035	.390	.8750-14 UNJF-3A	.725	1/2-SP	31,500	119,100	77,500	28,800
32	1-1/32	1.602	1.500	1.0302 1.0292	.9930 .9860	.8819 .8799	2.134 2.126	.712	.020	1.151	1.125	.060 .045	.437	1.0000-12 UNJF-3A	.830	9/16-SP	38,218	149,700	100,900	37,600

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

- GENERAL NOTES: 1. Concentricity: "A" to "D" diameter within .010 FIM.
  - 2. Dimensions in inches and to be met after finish.
  - ②3. Surface texture per ASME B46.1.
  - Hole preparation per HSL/HPL-IS01: PULL-STEM™ / PULL-IN™ fastener installation specification for HSL/HPL pins.
  - 5. HPL1432 is the oversize replacement for HPL1422.
  - 6. Use HPL1442 for oversize replacement.

- [7] Mandrel is sold separately.
- 8. Product in accordance with LISI AEROSPACE Product Specification N°415.
- 9 One line indicates Blanc Aero Industries, France as manufacturer.
- To The maximum allowable installation load must not exceed the maximum load values in table or thread/mandrel failure may occur.
- [1] 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.

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 DATE ASSYSTEM 2012-06-03 APPROVED DATE J.GOYER 2012-06-03

(2)

PULL-IN™ PIN SELF-ALIGNING TENSION HEAD INTERFERENCE FIT TITANIUM 1/16 GRIP VARIATION, 1/32 OVERSIZE

1 OF 2

F.CARINGELL **HPL1432** 2017-10-26



## **FINISH TABLE**

Part	Finish, Lube, ID Code	Finish	Lube	Idenitfication	
Titanium	11 <sub>KM</sub>	HI-KOTE™ 1 Aluminum Pigmented Coating per Hi-Shear Spec. 294	Cetyl alcohol lube per Hi-Shear	White color on pin end	
Pin	NKM	HI-KOTE™ 1 NC Aluminum Pigmented Coating per Hi-Shear Spec. 294	Spec. 305		
Titanium		HI-KOTE™ 1 Aluminum Pigmented Coating per Hi-Shear Spec. 294	Cetyl alcohol lube per Hi-Shear	White spot on outside diameter	
Washer	NAPW	HI-KOTE™ 1 NC Aluminum Pigmented Coating per Hi-Shear Spec. 294	Spec. 305		

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

Washer = 6Al-4V Titanium alloy per AMS4928 or AM4967.

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

Washer = 160,000 psi tensile minimum and 95,000 psi shear minimum.

CODE: First dash number indicates nominal diameter in 1/32nds of the pin

which HPL1432 oversize pin replaces.
Second dash number indicates maximum grip in 1/16ths.
See "Finish" note for explanation of code letters.

HOW TO ORDER Pin-Washer Assembly Part Number #PL1432 NKM 18 NAPW 34 ☐ 34/16 Maximum Grip Length Washer finish code 18/32 or 9/16 Nominal Diameter Pin Finish Code Pin Basic Part Number

DRAWING NUMBER