



2600 SKYPARK DRIVE  
TORRANCE, CALIFORNIA 90509-2975  
TELEPHONE (310) 326-8110 • FAX (310) 784-4234  
CAGE CODE 73197

## CERTIFIED TEST REPORT



### PREVENT FRAUD

This certificate must be reproduced in its entirety, not in part. Any alteration or misuse of this certificate, or any unauthorized rework or modification of Hi-Shear products voids all warranties and may lead to civil damages and/or criminal penalties.

This certification applies only to the part number/lot number listed in this shipment. The products identified in this certificate have been manufactured, tested and inspected in accordance with, and unless otherwise noted below, conform in all respects to the applicable drawings, specifications and/or standards. Complete reports of physical and chemical tests are on file for on-site examination.

Hi-Shear Part No.: HL11VAZ5-4 Rev.: 45 Material Lot: 1105034531 Lot No: 8022609  
Customer Part No.: BACB30NW5K4 Rev.: AW Material: 6AL-4V TITANIUM Lot Size: 64600 pcs  
Procurement Spec.: BPS-F-67 AL Part Name: PIN Spec: AMS4967J MFG Date: 7/12/2011  
Customer: B/E AEROSPACE Head Marking: HS Heat No: H15889 PO: 0JAY16  
Melt Source: RTI Niles Producer: Dynamet Qty Shipped: 33975 pcs

ULTIMATE TENSILE STRENGTH		DOUBLE SHEAR	TENSION-TENSION FATIGUE LIFE		Torsional Test:
Strength in Pounds	Location of Fracture	Strength in Pounds	Cycles	Location of Fracture	
Not Applicable		Not Applicable	Not Applicable		15 pcs. Accept  Tested both directions CW & CCW meets min. Torsional Req. of 10 in. lbs.
DFARS 252.225.7009					
Min. Req.: Max. Req.:	lbs. lbs.	Min. Req.: Max. Req.:	lbs. lbs.	Min. Req.: Avg. Req.: Cycles Low Load: Cycles High Load:	lbs. lbs. Req'ts: 10 in. lbs. min.

### METALLURGICAL EXAMINATION

File No.	Sample Size:	Requirements:	Actual Results:	HARDNESS	PROCESS SPECIFICATIONS
11 J 966-969				Req: N/A	
Macro Exam:		Proc. Spec.	N/A	Sample Size	
Micro Exam:	15 pcs	Proc. Spec.	Accept		
	Etchant:	2% HF			
	Magnification:	50-500X			
Threads:	15 pcs	Proc. Spec.	ACCEPT		
Coating Thickness:	15 pcs	.0002 - .0005 in			
Adhesion:	5 pcs	Coating Spec.	Accept		
Broach Check:	15 pcs	Proc. Spec.	ACCEPT		
Head Ductility:	0 pcs	Proc. Spec.	N/A		
2 Hr. Salt Spray:	0 pcs	Proc. Spec.	N/A		
Installation Test:	0 pcs	Proc. Spec.	N/A		
Stress Durability:	0 pcs	Proc. Spec.	N/A		
Actual Aging Temp					
Hydrogen:	1 pc	125 PPM Max	40 PPM		
				SUBCONTRACT PROCESS	
				Specification: N/A	
				Subcontractor:	
				Cert No.	
					FPI ASTM-E-1417-05e1 Heat Treat AMS-H-81200B Cetyl Alcohol per HS305W and AS87132, T-1, GR. B Aluminum Coating per BMS 10- 85R, T-1, CL. A Hi-Kote I Alum. Coating per HS Spec 294L Actual Thickness: .0003 - .0004 Black ID on Thread End

Parts contained in this shipment have been manufactured and inspected in accordance with FAA TSO-C148. The conditions and tests required for TSO approval of this article are minimum performance standards set in the manufacture's design. Aircraft fasteners approved under this TSO are not necessarily interchangeable with other aircraft fasteners approved under this TSO. Fasteners of similar dimensional properties may have widely varying performance and metallurgical properties. Substitution of parts may only be done if acceptable to or approved by the administrator. Threads are manufactured and inspected in accordance with the latest revision of AS8879 and/or per applicable customer drawing.

### MILL ANALYSIS

AL: 6.14 V: 4.03 C: .034 FE: .17 N: .008 O: .16 Y: < .0004 H: 0.0039 TI: BAL.  
Alloy verification has been performed: 05-07-11 Beta Transus: 1816°F

Authorized Signature

9/24/2012  
Date





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Hi-Shear Part No.: HL11VAZ5-4 Rev.: 45 Material Lot: 1105034531 Lot No: 8022609.  
Customer Part No.: Rev.: Material: 6AL-4V TITANIUM Lot Size: 64600 pcs  
Procurement Spec.: HS342 AG Part Name: PIN Spec: AMS4967J MFG Date: 7/12/2011  
Customer: B/E AEROSPACE Head Marking: HS Heat No: H15889 PO: 0JAY16  
Melt Source: RTI Niles Producer: Dynamet Qty Shipped: 33975 pcs

ULTIMATE TENSILE STRENGTH		DOUBLE SHEAR	TENSION-TENSION FATIGUE LIFE		Torsional Test:
Strength in Pounds	Location of Fracture	Strength in Pounds	Cycles	Location of Fracture	
Not Applicable		Not Applicable	Not Applicable		15 pcs. Accept  Tested both directions CW & CCW meets min. Torsional Req. of 10 in.lbs.
Min. Req.: <u>lbs.</u>	Max. Req.: <u>lbs.</u>	Min. Req.: <u>lbs.</u>	Min. Req.: <u>Cycles</u>	Low Load: <u>lbs.</u>	Req'ts: 10 in. lbs. min.
		Max. Req.: <u>lbs.</u>	Avg. Req.: <u>Cycles</u>	High Load: <u>lbs.</u>	

DFARS 252.225.7009

### METALLURGICAL EXAMINATION

METALLURGICAL EXAMINATION				HARDNESS	PROCESS SPECIFICATIONS
File No.	Sample Size:	Requirements:	Actual Results:	Req: N/A	
11 J 966-969		Proc. Spec.	N/A	Sample Size	FPI ASTM-E-1417-05e1 Heat Treat AMS-H-81200B Cetyl Alcohol per HS305W and AS87132, T-1, GR. B Hi-Kote I Alum. Coating per HS Spec 294L Actual Thickness: .0003-.0004 Black ID on Thread End
Macro Exam:		Proc. Spec.	Accept		
Micro Exam:	15 pcs	Proc. Spec.			
	Etchant:	2% HF			
	Magnification:	50-500X			
Threads:	15 pcs	Proc. Spec.	ACCEPT		
Coating Thickness:	15 pcs	.0002 - .0005 in			
Adhesion:	5 pcs	Coating Spec.	Accept		
Broach Check:	15 pcs	Proc. Spec.	ACCEPT		
Head Ductility:	0 pcs	Proc. Spec.	N/A		
2 Hr. Salt Spray:	0 pcs	Proc. Spec.	N/A		
Installation Test:	0 pcs	Proc. Spec.	N/A		
Stress Durability:	0 pcs	Proc. Spec.	N/A		
Actual Aging Temp					
Hydrogen:	1 pc	125 PPM Max	40 PPM		
				SUBCONTRACT PROCESS	
				Specification: N/A	
				Subcontractor:	
				Cert No.	

Parts contained in this shipment have been manufactured and inspected in accordance with FAA TSO-C148. The conditions and tests required for TSO approval of this article are minimum performance standards set in the manufacture's design. Aircraft fasteners approved under this TSO are not necessarily interchangeable with other aircraft fasteners approved under this TSO. Fasteners of similar dimensional properties may have widely varying performance and metallurgical properties. Substitution of parts may only be done if acceptable to or approved by the administrator. Threads are manufactured and inspected in accordance with the latest revision of AS8879 and/or per applicable customer drawing.

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AL: 6.14 V: 4.03 C: .034 FE: .17 N: .008 O: .16 Y: <.0004 H: 0.0039 TI: BAL.  
Alloy verification has been performed: 05-07-11 Beta Transus: 1816°F

Authorized Signature

9/24/2012

Date



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191  
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR  
www.KLXAerospace.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


### Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

**FIRM: AJ WALTER AVIATION LTD**

**PURCHASE ORDER#: CP15520**

QUANTITY U/M PART-NUMBER	CUST REF#	LOT-NUMBER	Eff Date	EXP DATE
300 EA BACB30NW5K4		8022609		

  
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Jason Lewis  
Senior Director, Global Quality

01/15/16

Inv # 01/15/16