

Mac Fasteners  
A TriMas Aerospace Company  
1110 E. Enterprise  
Ottawa, KS 66067

## TEST REPORT AND PROCESS CERTIFICATION

CUSTOMER <b>KLX AEROSPACE SOLUTIONS</b>		PO NUMBER <b>003Y767</b>	PO Date <b>01/26/17</b>	CERT DATE <b>05/10/17</b>
PART NUMBER <b>NAS1790-5R12</b>		REV <b>5</b>	PART TYPE <b>Screw, 100° Flat Head, Offset Cruciform Recess</b>	
LOT NO <b>87267</b>	MFG QUANTITY <b>83,000</b>		PROCUREMENT SPEC <b>NAS4002 REV 11</b>	
RAW MATERIAL IDENTIFICATION (Mill Cert Attached)				
MATERIAL / MATERIAL SPECIFICATION <b>8740 PER AMS6322</b>		MILL HEAT NUMBER <b>8292801</b>	SUPPLIER <b>JOHNSTOWN</b>	

### MECHANICAL TEST RESULTS - TESTING PER NASM1312

ULTIMATE TENSILE STRENGTH POUNDS / PSI		DOUBLE SHEAR STRENGTH POUNDS / PSI		Fatigue Test Sample <input type="checkbox"/> Accept	
10,760	10,840	15,890	15,920	NOT REQUIRED	
11,080	10,940	15,880	15,820	Stress Durability <input type="checkbox"/> Accept	
10,930		15,810		External Load Method	
11,020		15,980		Load	Hours
11,090		15,800		Magnetic Particle Inspection per ASTM E1444	
11,040		15,840		Sample insp <input checked="" type="checkbox"/> 100% insp <input type="checkbox"/> <input checked="" type="checkbox"/> Accept	
10,940		15,890		Liquid Penetrant Inspection per ASTM E1417	
10,720		15,870		Sample insp <input type="checkbox"/> 100% insp <input type="checkbox"/> <input type="checkbox"/> Accept	
MIN. REQ. <b>9260</b>		MIN. REQ. <b>14600</b>		Magnetic Permeability ASTM A342 Less than 2.0 <input type="checkbox"/> Accept	
METALLURGICAL EXAMINATION					
Discontinuities	<input checked="" type="checkbox"/>	Carb/Decarb	<input checked="" type="checkbox"/>	Head Marking <input checked="" type="checkbox"/> Accept	
Grain Flow	<input checked="" type="checkbox"/>	Microstructure	<input checked="" type="checkbox"/>	Recess Torque 220 in/lbs <input checked="" type="checkbox"/> Accept	
Grain Size	<input checked="" type="checkbox"/>	Workmanship	<input checked="" type="checkbox"/>		
Thread Inspection FED-STD-H28/20 - ASME B1.3					
System 21 <input type="checkbox"/>		System 22 <input checked="" type="checkbox"/>		System 23 <input type="checkbox"/>	

FINISH / PROCESSOR: Detray Plating Works		
Cadmium Plate <input checked="" type="checkbox"/>	AMS-QQ-P-416 E	Type II Class 2
Passivate <input type="checkbox"/>		
<input type="checkbox"/>		

HEAT TREAT PROCESSOR: Paulo Products NADCAP ID 4679	
SPECIFICATION: AMS2759	
REQUIREMENT: 160-180 KSI FTU HRC 36-40	
RESULTS: SAMPLE SIZE: 8	36 - 38 HRC

### TEST CERTIFICATION

WE CERTIFY THAT THE PART NUMBER, LOT NUMBER, AND SAMPLES REFERENCED ABOVE HAVE BEEN PROCESSED AND TESTED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATION FOR THE TESTS REPORTED HEREIN. THIS CERTIFICATION SHALL NOT BE RE-PRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF MAC FASTENERS, INC.

  
Jim Farrell  
Quality Assurance Representative



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Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR  
www.KLXaerospace.com

Shipped From: 10000 N W 15TH 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#: CP17966**

QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MFR DTE	EXP DATE
100	EA	NAS1790-5R12	NAS1790-5R12	87267		

  
Jason Lewis  
Senior Director, Global Quality

02/16/18

Inv # 02/06/18