

14153 QAP-CSI011838848
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**DEFENSE SUPPLY CENTER PHILADELPHIA
QUALITY ASSURANCE PROVISION**

**NSN: 5315-01-183-8848
P/N 2006405-63**

This Quality Assurance Provision (**QAP**) is to be used in conjunction with any orders/contracts for the cited **NSN**

REV:	ENGINEERING DATA REQUIREMENTS (ATTACHMENT "A")	
NOTE: MILITARY SPECIFICATIONS / STANDARDS WILL NOT BE FURNISHED IN THE BID SET.		
1. THE FOLLOWING INSTRUCTIONS ARE FURNISHED FOR THE MANUFACTURE OF: PIN, PIVOT-LINKAGE ATTACHMENT (F-16)		
2. PART NUMBER: 2006405-63	3. NATIONAL STOCK NUMBER: 5315-01-183-8848LE	

4. THE FOLLOWING SPECIFICATIONS/STANDARDS, ETC., WILL BE USED IN LIEU OF THE DATA INDICATED. THE SUPERSEDED DATA WILL NOT BE FURNISHED UNLESS SO INDICATED.

5. 417 SCMS/GUEB retains all rights to review and accept Material Review Board (MRB) dispositions prior to shipment of discrepant item. All deviations, minor and major, from the engineering drawing package shall be submitted for MRB disposition.

6. Prior to contract award, the contractor shall certify to the Government in writing full compliance with manuals, specifications and standards called out and required for the manufacture of this contracted landing gear component/assembly. Contractor is responsible to completely search these manuals, specifications and standards and fully understand the requirements necessary to manufacture landing gear components. Any questions can be forwarded to 417 SCMS/GUEB.

7. DRAWING 2006405-63 – PIN, PIVOT-LINKAGE ATTACHMENT

7.1 This component/assembly is a **CRITICAL SAFETY ITEM (CSI)**. Refer to **AESO 05A2800** for critical characteristics and processes.

7.2 Use 4330V Modified Steel material per SAE AMS 6411 in lieu of AMS 6411. (Flagnote 1)

7.3 Heat treat and process to 220-240 KSI ULT TS per SAE AMS-H-6875 in lieu of MIL-H-6875 and MM4995. (Flagnote 2)

7.4 On parts Heat Treated 180 KSI and above, any surfaces ground/machined after Heat Treat will be inspected for burns per MIL-STD-867 in lieu of MM5512. No more than three successive inspections shall be performed without a waiver from 417 SCMS/GUEB. Grinding will be per MIL-STD-866 in lieu of MM5759.

7.5 Perform Magnetic Particle Inspection per ASTM E 1444 in lieu of MIL-I-6868. Use fluorescent type, full wave direct current (FWDC), and wet continuous method with the following acceptance/rejection criteria: **NO RELEVANT INDICATIONS ALLOWED**. The intent of **NO RELEVANT INDICATIONS ALLOWED** is that the inspection is conducted at the required sensitivity level and there shall be no defects allowed. The inspector performing the inspections shall be certified to Level II with the inspection procedure developed by a Level III as specified in the AIA/NAS-410. (Note 4)

7.6 Shot Peen to meet drawing requirements per SAE AMS 2430 in lieu of MIL-S-13165. Use hard steel shot in the range 55-65 HRC (PER SAE AMS 2431/2 OR 2431/8), or ceramic shot with a hardness comparable to 57-63 HRC (PER SAE AMS 2431/7) . (Flagnote 5)

7.7 Cadmium Plate to meet drawing requirements per MIL-STD-870 Type II Class 2 in lieu of MM5542 or MM4951 Type II Class 1. (Flagnote 8)

7.8 Dry film lubrication is not required. (Flagnote 11)

7.9 Unique Identification (UID) shall be applied to each part per MIL-STD-130 in lieu of TM1040. The UID shall contain human-readable information (HRI) and machine-readable information (MRI) markings. Quality and technical requirements for both the MRI and HRI shall be in accordance with SAE AS9132. The method of marking for the HRI shall be per drawing requirements. The depth of each mark shall be from .003 - .005 inches. The HRI mark will be limited to 16 alphanumeric characters including the vendor cage (FSCM) of the contractor named on the contract, date of manufacture in the format MMY Y, and a unique 4-digit number starting with 0001 in numerical order of manufacture. The HRI shall appear as "SN 9874701040001". The height of each alphanumeric character in the HRI shall be a maximum of .125 inches. The location of the HRI shall be identified on the drawing. The full detailed UID marking requirements shall be applied to a tag, supplemental bag or other package that encloses the individual item in accordance with drawing 200827953-5.

7.10 Chromium Plate to meet drawing requirements per MIL-STD-1501 Type I Class 2 in lieu of QQ-C-320 Class 2. Base metal surface finish shall be RMS 16. After plating, surface finish shall be RMS 32. (Flagnote 24)

PREPARED BY: JARED BUTTERFIELD	OFFICE SYMBOL: 417 SCMS/GUEB	DATE: 18 SEPTEMBER 2009
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7.11 The maximum allowable delay for the 4-hour bake between chromium plate and cadmium plate operations as referenced in MIL-STD-1501 shall be 4 hours.

7.12 Nital etch inspect per MIL-STD-867 in lieu of MM5512. (Note 27)

7.13 Grinding will be per MIL-STD-866 in lieu of MM5759. (Note 28)

7.14 Apply one coat epoxy waterborne primer per MIL-PRF-85582 Type I Class C2 or N to meet drawing requirements identified in Flagnotes 31 and 32. Alternate one coat of epoxy polyamide primer per MIL-PRF-23377 Type I Class C2 or N in lieu of MIL-P-23377.

7.15 Surface roughness per ASME B46.1 in lieu of ASA B46.1. (Flagnote 13)

7.16 Dimensioning and Tolerancing per ASME Y14.5 in lieu of ANSI Y14.5. (Flagnote 15)

7.17 Corrosion protection per MIL-PRF-16173 Class 2 Grade 3 in lieu of MM5752. (Flagnote 16)

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FIRST ARTICLE REQUIREMENTS

(AFMCI 64-110, AFMCI 23-102 and FAR Part 9, Sub Part 9.3) (Additional Instructions on Page 3)

1. DATE
16 SEP 2009

2. PR/MIPR NUMBER

3. CAGE / REFERENCE NUMBER
17576 / 2006405-63

4. NSN
5315011838848WF

5. FIRST ARTICLE QUANTITY

THE FIRST ARTICLE IS 1 UNIT(S) OF LOT/ITEM EA _____
AND WILL BE: PART OF PRODUCTION QUANTITY IN ADDITION TO PRODUCTION QUANTITY

6. ARTICLES

WILL WILL NOT SERVE AS A MANUFACTURING STANDARD

7. LONG LEAD TIME ITEMS

REQUIRED NOT REQUIRED
(See FAR 52.209-3 OR -4, alternate II)

8. SPECIAL REQUIREMENT/PRODUCTION FACILITIES (See FAR 52.209-3 OR -4 Alternate I)

REQUIRED NOT REQUIRED

"The First Article offered must be manufactured at the facilities in which that item is to be produced under the contract, or if the First Article is a component not manufactured by the contractor, such component must be manufactured at the facilities in which the component is to be produced for the contract. A certification to this effect must accompany each First Article which is offered."

9. TEST/INSPECTION REQUIREMENTS

A. CONTRACTOR TESTING
 GOVERNMENT TESTING

Performance or other characteristics which the First Articles must meet are
Conformance to all drawings and specification in the contract

B. The detailed technical requirements for First Article approval tests are contained in
all drawings and specification in the contract
(Cite Spec and Para number)

C. TEST PLAN REQUIRED
Number of days for government approval/disapproval _____ days.

D. Contractor's notification to ACO and
OO-ALC
(Requesting Activity)
of test time and location due 15 days prior to start of testing.

E. TEST REPORT REQUIRED

(1) Forwarded to

(2) Government written notice of approval/disapproval due _____ days after receipt of contractor's report.

F. FIRST ARTICLE DELIVERY

(1) Due within 300 calendar days from date contract.

(2) Notify 15 calendar days prior to shipment.

(3) Delivered to government at

OO-ALC/809 MXSS/MXDEB
Bldg 849 Attn: Non-Accountable Bay
Transportation Office
Hill Air Force Base, UT 84056-5713 USA
(Set Forth Consignee and Address)

(4) Government written notice of approval/disapproval within 120 days after receipt of first article package.

G. Estimated cost of government testing/inspection evaluation.

\$750.0000

10. DISPOSITION OF FIRST ARTICLES

- Approved First Articles will be forwarded to supply
- (insert quantity) First Articles will be expended in testing. Residual components of disapproved First Articles
 - will be returned to the contractor
 - will be retained by pending disposition instructions from the contractor.
- First Articles will be installed on aircraft/equipment to determine proper fit/function. Approved article will remain on the aircraft/equipment and will not be forwarded to USAF Supply, but will be considered part of the contract quantity.
- Disapproved First Articles
 - will be returned to the contractor
 - will be retained by OO-ALC pending disposition instructions from the contractor.
- On purchase requests designated as direct shipments the following disposition will apply. (NOTE: Always applicable on Foreign Military Sales (FMS)).
 - a. Approved First Articles will be returned to the contractor for shipment with production item.
 - b. Disposition of disapproved First Articles will remain the same as marked above.
- Other Disposition:

11. CONDITION(S) FOR WAIVER OF FIRST ARTICLE APPROVAL

- a. Offerors who have previously furnished production quantities of the same or similar article to the prime contractor for delivery to the
 - Government, DoD, Air Force.
- b. Offerors currently in production of the same or similar article for a
 - Government, DoD, Air Force contract and who have received First Article approval under the existing contract.
- c. Offerors who have previously furnished production quantities of the same or similar articles to the
 - Government, DoD, Air Force, provided articles thus furnished, have exhibited satisfactory performance in service in the opinion of the Air Force.
- d. Provided not more than months have elapsed since completion of the contract.
- e. First Article testing will not be waived.
- f. See Remarks in block 12 below.

NOTE TO BUYER: UNDER CONDITIONS A AND C ABOVE, THE COGNIZANT ENGINEERING ACTIVITY WILL DECIDE WHETHER OR NOT THE ITEM HAS EXHIBITED SATISFACTORY PERFORMANCE IN SERVICE AND PREPARE AND RETAIN SUPPORTING DOCUMENTATION TO FULLY JUSTIFY THIS DECISION. THE BUYER MUST SOLICIT DUAL PRICES (That is, both with and without requirement for first article approval) AND MUST FURNISH THE COGNIZANT ENGINEERING ACTIVITY WITH THE FOLLOWING INFORMATION ON THE PREVIOUSLY SUPPLIED ARTICLE:

A. PROCURING OFFICE	B. CONTRACT NUMBER	C. DATE OF CONTRACT	D. SPECIFICATION NUMBER AND REVISION
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12. REMARKS

NAME Butterfield, Jared DATE 16 SEP 2009

The critical nature of the part requires a First Article from a contractor who has never produced the item or has not produced the item for an extended period of time. The Government reserves the right to assure all materials and process certifications are correct and to test the item to any or all drawings, specifications and other contract requirements. A vendor will normally be allowed only one attempt to receive full or conditional approval. Failure to receive approval of First Article inspection will, at the discretion of the Government, result in termination of the contract. The contractor shall produce a report on the subject item with all dimensions and tolerances specified on the manufacturing data listed in one column and the actual corresponding reading obtained from the inspection of the part

listed in another column. Materials utilized in the manufacture of First Article items shall be identified and certified along with a copy of material purchase requests as conforming to applicable data requirements. Material processing, including finish requirements-plating, casting, forging, heat treatment, welding, inspecting, anodize, painting, etc-utilized in the manufacture of First Article items shall be identified and certified along with a copy of material purchase requests as conforming to applicable data requirements. A copy of the purchase order certifying the process accomplished at other than the contractor's facility shall be included. First Article waiver approvals as well as similar item determination are solely the responsibility of the Cognizant Engineering Organization. The Cognizant Engineering Organization shall determine First Article testing requirements based on component criticality and complexity, regardless of PR value.

13. COGNIZANT ENG ORGANIZATION RESPONSIBLE FOR APPROVING TEST *(Name, Organization, Phone)*

Jared Butterfield
417 SCMS
801-777-7189
777-7189

14. COGNIZANT ENG ORGANIZATION RESPONSIBLE FOR CONDUCTING TEST *(Name, Organization, Phone)*