

**MANDATORY QUALITY ASSURANCE PROVISIONS**

P/N: (17576) 2578560-001A

NOMEN: Pin, Root Upper Torque Arm Nose Landing Gear

NSN: 5315-00-432-3543

**APPLICABLE CLAUSES:**

Articles to be furnished hereunder shall be manufactured, tested and inspected in accordance with drawing number (17576) 2578560-001A, Revision "D" and all details and specifications referenced therein.

I. Process/Operation Sheets Revision "D" date shall be utilized in manufacture of the articles to be furnished hereunder.

**II. Quality/Inspection Requirements**

A. MIL-I-45208 applies.

B. MIL-Q-9858 applies.

C. First Article testing applies. (Government Testing)

D. Production Lot Testing applies. (Government Testing)

E. Mandatory Inspection applies.

**III. Supplemental Requirements**

A. Additionally, paragraphs 3.1-3.5, 5.1-5.2, and 6.1-6.2 of MIL-Q-9858 apply.

B. The contractor shall identify on the process/operation sheets all manufacturing sources performing processes/operations outside of their facilities. These sheets shall not be revised or altered after the successful completion of First Article or Production Lot Testing without approval from the ESA located at the Naval Air Depot, Cherry Point, North Carolina, via the PCO.

C. The Inspection Method Sheets, which list the characteristics of each item produced under the contract shall have serial number traceability to the raw material, casting, or forging.

D. The contractor shall provide all certificates of compliance for any material purchased or any processes performed by a sub-vendor, i.e. heat treat, NDI, plating, painting, etc. All material and/or process sub-vendors shall be OEM approved sources.

MANDATORY QUALITY ASSURANCE PROVISIONS continued

E. Markings should be I/A/W MIL-STD-130 latest revision, paragraphs 5.3.3(a), (b), (c) and (g). Method and location shall be I/A/W drawing.

IV. Mandatory Inspection Requirements

During production, mandatory inspection is required to be accomplished by the contractor as follows:

A. Level of Inspection (LOI).

1. Critical Characteristics: 100% inspection shall apply
2. Major and Minor Characteristics - LOI shall be I/A/W sampling plan acceptable to the QAR

B. Critical Characteristics Bendix Drawing (17576) 2578560:

1. Material per 2578560 drawing.
2. Prime ID per note 9 of 2578560 drawing.
3. Magnetic Particle Inspection per note 11 of 2578560 drawing.
4. Concentricity of .010 per note 12 of 2578560 drawing.
5. Nital etch per note 14 of 2578560 drawing.
6. Shot Peen per note 15 of 2578560 drawing.
7. ID dimension of 0.76 – 0.77 and OD dimension of 1.2385 - 1.2405 before plating of 2578560 drawing.
8. OD dimension of 1.2470 – 1.2485 after plating of 2578560 drawing.

C. Major and Minor Characteristics

1. Shall be defined by the contractor subject to QAR concurrence, unless defined on applicable drawings and associated specifications.

V. Unless expressly provided for elsewhere in this Clause, equipment such as fixtures, jigs, dies, patterns, templates, mylars, special tooling, test equipment, or any other manufacturing aid required for the manufacture and/or testing of the subject item(s) will not be provided by the Government or any other source and is the sole responsibility of the contractor. The foregoing applies notwithstanding any reference to such equipment or the furnishing thereof that may be contained in any drawing or referenced specification.

VI. The following manufacturing aid(s) will be furnished for the purpose(s) indicated and shall be returned to the Government after use as intended and not later than the delivery date of the last production item of the contract EQUIPMENT PURPOSE COGNIZANT ACTIVITY.

## **FIRST ARTICLE TEST REQUIREMENTS (GOVERNMENT TESTING)**

**P/N: (17576) 2578560-001A**

**NOMEN: PIN, ROOT UPPER TORQUE ARM NOSE LANDING GEAR**

**NSN: 5315-00-432-3543**

**I. First Article Inspection/Test Criteria:**

The tests to be performed under the First Article approval clause of the contract are:

- A. Compliance with Bendix Drawing (17576) 2578560-001A, Rev. D and all specifications referenced therein.**
- B. Identification: Verification and certification that the parts are serialized and identified per the requirements of Bendix Drawing (17576) 2578560-001A, Rev. D and all specifications referenced therein.**
- C. Packaging and Preservation: Verification that the parts have been packaged and preserved per the requirements of the contract.**
- D. Verification and certification of the overall workmanship of the First Article Sample(s).**
- E. Visual: Dimensional: 100% dimensional.**
- F. Non-Destructive Inspection: Magnetic Particle Inspection per note 11 of 2578560 drawing.**
- G. Fit/Form: Verification and certification of fit/form to the next higher assembly, F-14A, Nose Landing Gear, 2577818**
- H. Material Analysis of the First Article Sample(s):**
  - 1) Destructive material analysis to verify material composition of 2578560 Drawing.**
- I. Review of documentation as provided under DD 1423 requirements.**

**FIRST ARTICLE TESTS REQUIREMENTS (GOVERNMENT TESTING) continued**

In addition to the above tests, the First Article(s) to be delivered hereunder shall also be subjected to those tests, which will demonstrate that the articles comply with contract requirements. The contractor shall be responsible for providing necessary parts and repair of the First Article(s) during testing.

**II. Samples to be submitted for testing:**

- A. Quantity 2 each.
- B. Estimated Cost: T.B.D.

**III. Special Instructions:**

A. Upon successful first article inspection all processes are to be frozen. Any changes to the manufacturing process will be cause for a new First Article Inspection.

B. One sample will be destroyed during testing and will not be returned to the contractor. One sample may be considered as production items under the contract provided the sample could be refurbished to ready for issue (RFI) condition and provided the sample has inspection approval of the cognizant QAR. Sample(s) may be shipped as production items only after all other units required under the contract have been produced and are ready for shipment.

C. Waiver of the destruction of the First Article test piece may be granted if the contractor provides a certified test coupon that is of the same material and has undergone the same special processes as the First Article test piece.

D. One sample is to be unpainted and all corrosive areas are to be coated with a light preservative on both samples.

**Notification of Shipment of Material for Government Testing**

A. Fourteen (14) days prior to shipment of the First Article Sample(s) the contractor shall notify the designated test facility, in writing of the anticipated shipping date, with an information copy to the PCO, ACO, and QAR. The contractor shall also arrange for preliminary inspection of test sample(s) by the CAO/QAR. The First Article Sample(s) shall be forwarded to the following First Article point of contact at the designated test facility:

**Commanding Officer  
NAVALAIRDEPOT  
ATTN: First Article Testing Office  
Door 16  
NAS Jacksonville, Florida 32212-0016**

**FIRST ARTICLE TESTS REQUIREMENTS (GOVERNMENT TESTING) continued**

B. Upon shipment of First Article Sample(s), two (2) copies of the Material Inspection and Receiving Report (DD Form 250), bearing the QAR's signature and indication of preliminary inspection, shall be forwarded to the PCO/ACO DSCR Code DSCR-VC, and the designated test facility. In addition, the contractor must supply all detailed process/operation sheets, Inspection Method Sheets, First Article Test Report (Signed by the QAR), and all Certificates of Compliance for material (including chemical analysis), **Magnetic Particle Inspection** and any out-sourced process conducted on the First Article Sample(s). These forms and documentation may either be placed in the shipping container with the sample(s) or sent separately, however the envelopes shall be clearly marked, "DO NOT OPEN IN MAILROOM." These forms and documentation shall be sent to the following point of contact:

**Commanding Officer  
NAVALAIRDEPOT  
ATTN: First Article Testing Office  
Door 16  
NAS Jacksonville, Florida 32212-0016**

Within 120 days after receipt of the sample(s) the test site shall complete testing/evaluation and submit a copy of their test report with conclusions and recommendations to DSCR-VC.

## **PRODUCTION LOT TESTING REQUIREMENTS (GOVERNMENT TESTING)**

**P/N: (17576) 2578560-001A**

**NOMEN: PIN, ROOT UPPER TORQUE ARM NOSE LANDING GEAR**

**NSN: 5315-00-432-3543**

**QUANTITY: 2**

The material produced under contract shall be accepted by the cognizant CAO/QAR upon the successful completion of these requirements.

### **I. Production Lot Test Requirements**

A. The cognizant CAO/QAR shall select the applicable number of items at random from the production lot per the ANSI/ASQC Z1-4 Sampling Procedures and Tables for Inspection by Attributes. In addition the QAR shall select the applicable number of items at random from each successive lot or portion thereof per the ANSI/ASQC Z1-4 Sampling Procedures and Tables for Inspection by Attributes.

B. Production Lot Testing to be completed during production after First Article Approval.

C. Sample(s) are to be unpainted. Corrosive areas to be coated with a light preservative.

D. If sample(s) are not destroyed during testing, they will be put into Defense Logistic Agency stock.

### **II. The tests to be performed under the Production Lot Sample testing provisions of the contract are:**

A. Compliance with Bendix Drawing (17576) 2578560-001A Rev. D and all details and specifications referenced therein.

B. Identification: Verification and certification that the parts are serialized and identified per the requirements of Bendix Drawing (17576) 2578560-001A Rev. D and all details and specifications referenced therein.

C. Packaging and Preservation: Verification that the parts have been packaged and preserved per the requirements of the contract.

D. Visual: Verification and certification of the overall workmanship of the Production Lot Sample(s).

E. Dimensional: Verification and certification of 100% dimension check of finished Production Lot Sample(s).

F. Non-Destructive Inspection: Verification and certification of Magnetic Particle Inspection per Bendix drawing 2578560.

## PRODUCTION LOT TESTING REQUIREMENTS (GOVERNMENT TESTING)

G. **Fit/Form/Function: Verification and certification of fit/form/function to the next higher assembly, F-14A, Nose Landing Gear, 2577818.**

H. **Material Analysis of the Production Lot Sample(s).** NOTE: A destructive material analysis can be waived **ONLY** if a destructive material analysis was conducted by the Engineering Support Activity (ESA), **AIR-4.3.4.1, Naval Air Depot, Jacksonville, FL,** during a successful First Article Inspection. However, all applicable material certificates of compliance will have to be provided for the production lot for verification of the material.

**1) Destructive material analysis to verify material composition of the Pin to be 300M Steel per CF-0896.**

**2) Destructive material analysis to verify heat treat of Pin, per Bendix 2578560.**

I. Review of documentation as provided under DD 1423 requirements.

In addition to the above tests, the Product Lot Sample(s) to be delivered hereunder shall also be subjected to those tests which will demonstrate that the sample(s) comply with contract requirements.

### III. Testing Location

A. The contractor is to ship sample(s) and all required documentation and technical data to:

**Commanding Officer  
NAVALAIRDEPOT  
ATTN: First Article Testing Office  
Door 16  
NAS Jacksonville, Florida 32212-0016**

B. The shipping container marking: "FOR PRODUCTION LOT TESTING. NON RFI MATERIAL. DO NOT TAKE UP IN STOCK. CONTRACT NUMBER \_\_\_\_\_."

Within fifteen (15) days of completion of Production Lot Testing the CAO/QAR shall prepare and submit two (2) copies of their test report with conclusions and recommendations to the Contracting Officer.

PRODUCTION LOT TESTING REQUIREMENTS (GOVERNMENT TESTING) continued

**Shipment and Distribution of Sample(s):**

A. Fourteen (14) days prior to shipment of Production Lot Sample(s) the contractor shall notify the designated test facility, in writing of the anticipated shipping date, with an information copy to the PCO, ACO and the QAR. The contractor shall also arrange for preliminary inspection of test samples by the CAO/QAR.

B. Upon shipment of the Production Lot Sample(s), two (2) copies of the Material Inspection and Receiving Report (DD Form 250), bearing the QAR's signature and indication of preliminary inspection, shall be forwarded to the PCO/ACO DSCP (Code DSCP-IT), and the testing facility. In addition, the contractor shall provide all detailed Process/Operation Sheets, Inspection Method Sheets, First Article Test Report (Signed by the QAR), and all Certificates of Compliance for material (including chemical analysis), **Magnetic Particle** Inspection, any out-sourced process conducted on the Production Lot Sample(s) and all technical data used to manufacture the Production Lot Sample(s) to the testing facility. The envelopes shall be clearly marked, "DO NOT OPEN IN MAILROOM".

C. Production Lot Sample(s) may be considered as production items under the contract provided the sample(s) can be refurbished to Ready for Issue (RFI) condition and provided sample(s) have inspection approval from the cognizant DCMAO and the ESA engineer (F-14 FST (AIR-4.3.5)). Sample(s) may be shipped as production items **ONLY** after all other units required under contract have been produced and are ready for shipment.

D. Sample(s) will be returned to the contractor. The contractor must provide material disposition instructions to:

**Commanding Officer  
NAVALAIRDEPOT  
ATTN: First Article Testing Office  
Door 16  
NAS Jacksonville, Florida 32212-0016**

E. The designated test facility and the contracting officer shall be notified as to all shipping data applicable to the sample(s), such as bill of lading number, method of shipment, etc. within fourteen (14) days prior to shipping.

