

MANDATORY QUALITY ASSURANCE PROVISIONS

P/N: (76301) 75A430674-2001

NSN: 5315-01-172-2110

NOMEN: AV-8B PIN, TORQUE ARM WING GEAR

CRITICALITY (CSI/CAI/Non-critical): CRITICAL SAFETY ITEM

DATE OF DETERMINATION: 15 JUNE 2004

APPLICABLE CLAUSES:

I. Articles to be furnished hereunder shall be manufactured, tested and inspected in accordance with drawing number (76301) 75A430674, Revision C, DCN E332403, and all details and specifications referenced therein.

II. Quality/Inspection Requirements

- A. MIL-I-45208 applies or ISO 9000 equivalent.
- B. First Article Testing applies. (Government Testing)
- C. Production Lot Testing applies. (Government Testing)
- D. 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 or ISO 9000 equivalent applies.

B. The contractor shall include on the detailed process/operation sheets developed, a tracking method that is traceable to the contract, all manufacturing sources performing processes/operations both those performed in-house and those outsourced and a tracking method that is traceable to the contract. 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 AV-8FST, Naval Air Depot, Cherry Point, NC via the PCO. Depending upon the proposed change, a new First Article Inspection may be required.

C. The Inspection Method Sheets (IMS) which list the characteristics of each item produced under the contract shall have traceability to the raw material, casting, or forging. The tracking method used on the IMS shall have traceability to the contract. In addition, the contractor is responsible for providing completed IMS showing the actual dimensions taken for all critical characteristics.

D. Markings shall be I/A/W MIL-STD-130 latest revision, and method and location shall be I/A/W drawing.

MANDATORY QUALITY ASSURANCE PROVISIONS continued

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 **McDonnell Douglas (76301) 75A430674-2001:**

- 1) .43135 + .0000 DIA. BEFORE PLATING
-.0004
- 2) .43735 + .0000 DIA. AFTER PLATING
-.0004
- 3) .220 ± .005
- 4) NOTE 7: SHOTPEEN ENTIRE PART PER PS 14023 INTENSITY .006-.010 A
- 5) NOTE 9: CHROME PLATE TO PS 13102 CLASS "B" WHERE SHOWN
- 6) NOTE 11: HEAT TREAT 280/300 KSI TO PS 15296
- 7) NOTE 15: MAGNETIC PARTICLE INSPECTION PER PS 21201 CLASS B
INSPECT PRIOR TO IVD AND CHROME PLATING
- 8) NOTE 16: PENETRANT INSPECT PER PS 21201 CLASS A
- 9) MATERIAL: 300M PER MIL-S-8844 CLASS B

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 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.

FIRST ARTICLE TEST REQUIREMENTS (GOVERNMENT TESTING)

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I. First Article Inspection/Test Criteria:

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

A. Compliance with (76301) 75A430674 Rev. C or latest revision level and DCN E332403 all details and specifications referenced therein.

B. Identification: Verification and certification that the parts are identified per the requirements of (76301) 75A430674 Rev. C or latest revision level and DCN E332403 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. Verification and certification of the overall workmanship of the First Article Sample(s).

E. Visual: Dimensional: 100% dimensional.

F. Non-Destructive Inspection: Penetrant Inspect per PS21201 Class A

G. Fit/Form/Function: To next higher assembly, 75A430800

H. Destructive material analysis of the one First Article Sample to verify:

a) 300M per MIL-S-8844 Class B

b) Chrome Plate per PS13102 Class B

c) IVD Coat per PS13143, Type II, Class 3

d) Heat Treat to 280-300 KSI per PS 15296

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

In addition to the above tests, the First Article(s) to be delivered hereunder shall also be subjected to those tests that 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.

FIRST ARTICLE TESTS REQUIREMENTS (GOVERNMENT TESTING) continued

II. Samples to be submitted for testing:

A. Quantity two (2) each.

B. Estimated Cost: To be determined.

POC for estimates at NADEP CP is Mr. Harold Hardison, AIR-6.1.1.1, (252) 464-7228 or hardisonHII@navair.navy.mil.

III. Special Instructions:

A. Upon successful first article inspection all processes are to be frozen.

B. One (1) sample will be destroyed during testing and will not be returned to the contractor. One (1) 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
Naval Air Depot
Attn: AIR-3.3.2 (Mr. Steve Lundberg)
Bldg. 159, Door R-4
Cherry Point, NC 28533-0021**

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-DSCP; 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

FIRST ARTICLE TESTS REQUIREMENTS (GOVERNMENT TESTING) continued

Compliance for material (including chemical analysis), Penetrant Inspection, chrome plating, IVD coating, 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
Naval Air Depot
Attn: AIR-3.3.2 (Mr. Steve Lundberg)
Bldg. 159, Door R-4
Cherry Point, NC 28533-0021**

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 DSCP.

PRODUCTION LOT TESTING APPROVAL (GOVERNMENT TESTING)

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A. The Production Lot Samples shall be:

1. Selected at random by the cognizant government QAR. Such samples shall be submitted via the cognizant government inspector, and all transportation charges prepaid by the contractor to:

**Commanding Officer
Naval Air Depot
Attn: AIR-3.3.2 (Mr. Steve Lundberg)
Bldg. 159, Door R-4
Cherry Point, NC 28533-0021**

2. The samples shipping container and samples shall be identified by contract number, lot number and be clearly marked as follows:

**PRODUCTION LOT TEST SAMPLES
NON-RFI MATERIAL
DO NOT TAKE UP IN STOCK**

B. Such samples shall be delivered to the testing facility in sufficient time prior to the delivery date of the production articles to allow a 90 day period for testing and written notification by the contracting officer of the approval or disapproval of the samples. Within 120 days of the receipt of the samples, the testing facility shall notify the contracting officer, PCO/ACO of the results of the testing, together with the recommendation for approval or disapproval.

C. In the event the contractor does not receive written notification of approval or disapproval of the samples for a particular lot within 120 days from their submission for such testing, the contract delivery schedule shall be equitably adjusted as necessary.

D. If the contractor fails to deliver any Production Lot Samples for testing within the time or times specified, or if the contracting officer disapproves any Production Lot Samples, the contractor shall be deemed to have failed to make delivery within the meaning of the default clause of this contract, and this contract shall be subject to termination for default.

E. In order for a Production Lot to be acceptable, all samples representative of the lot must pass all the contract requirements. In the event a sample fails to pass such requirements, the lot will be rejected. In such event, the government may, at its option and at no additional cost to the government, (I) terminated all or any portion of this contract for default, (II) require the

PRODUCTION LOT TESTING APPROVAL (GOVERNMENT TESTING) continued

manufacture of a new Production Lot, or a rework of the rejected Production Lot if the means and procedures by the contractor for rework are acceptable to the government, or (III) require the submission of additional samples for test. The foregoing procedures shall apply to new or reworked Production Lots in the same way as they did to the original Production Lot.

F. For each additional sample or each resubmission of a modified sample which the contractor is required to submit for approval hereunder as a result of a failure of a previous sample to conform to the requirements of the specification, the contractor shall pay to the government the costs of reinspection, examination and retesting and the contractor and his sureties (if any) shall be liable for the amount of such costs.

G. The contractor must provide material disposition instructions to the First Article Coordinator at the POC and address below for the return of the production lot samples.

**Commanding Officer
Naval Air Depot
Attn: AIR-3.3.2 (Mr. Steve Lundberg)
Bldg. 159, Door R-4
Cherry Point, NC 28533-0021**

H. Nothing contained in the foregoing provisions of this clause, and not action of the government in accordance herewith, shall in any way prejudice the right of the government under this clause of this contract entitled default.

PRODUCTION LOT TESTING REQUIREMENTS (GOVERNMENT TESTING)

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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 and are in RFI condition, they will be put into Defense Logistic Agency stock. All other samples will be returned to the contractor.

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

A. Compliance with (76301) 75A430674 Rev. C or latest revision level and DCN E332403 and all details and specifications referenced therein.

B. Identification: Verification and certification that the parts are identified per the requirements of (76301) 75A430674 Rev. C or latest revision level and DCN E332403 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).

PRODUCTION LOT TESTING REQUIREMENTS (GOVERNMENT TESTING)

- F. Non-Destructive Inspection: Penetrant Inspect per PS21201 Class A
- G. Fit/Form/Function: To next higher assembly, 75A430800
- H. Destructive material analysis of the one First Article Sample to verify:
 - a) 300M per MIL-S-8844 Class B
 - b) Chrome Plate per PS13102 Class B
 - c) IVD Coat per PS13143, Type II, Class 3
 - d) Heat Treat to 280-300 KSI per PS15296

NOTE: A destructive material analysis can be waived ONLY if a destructive material analysis was conducted by the Engineering Support Activity (ESA), AV-8B FST, Naval Air Depot, Cherry Point, NC 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.

- 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
Naval Air Depot
Attn: AIR-3.3.2 (Mr. Steve Lundberg)
Bldg. 159, Door R-4
Cherry Point, NC 28533-0021

- 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)

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, 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), Penetrant Inspection, chrome plating, IVD coating, and 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 (AV-8B FST, Naval Air Depot, Cherry Point, NC). 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
Naval Air Depot
Attn: AIR-3.3.2 (Mr. Steve Lundberg)
Bldg. 159, Door R-4
Cherry Point, NC 28533-0021**

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.

INSTRUCTIONS FOR COMPLETING DD FORM 1423
(See DoD 5010.12-M for detailed instructions.)

FOR GOVERNMENT PERSONNEL

- Item A.** Self-explanatory.
- Item B.** Self-explanatory.
- Item C.** Mark (X) appropriate category: TDP - Technical Data Package; TM - Technical Manual; Other - other category of data, such as "Provisioning," "Configuration Management," etc.
- Item D.** Enter name of system/item being acquired that data will support.
- Item E.** Self-explanatory (to be filled in after contract award).
- Item F.** Self-explanatory (to be filled in after contract award).
- Item G.** Signature of preparer of CDRL
- Item H.** Date CDRL was prepared.
- Item I.** Signature of CDRL approval authority.
- Item J.** Date CDRL was approved.
- Item 1.** See DoD FAR Supplement Subpart 4.71 for proper numbering.
- Item 2.** Enter title as it appears on data acquisition document cited in Item 4.
- Item 3.** Enter subtitle of data item for further definition of data item (optional entry).
- Item 4.** Enter Data Item Description (DID) number, military specification number, or military standard number listed in DoD 5010.12-L (AMS DL), or one-time DID number, that defines data content and format requirements.
- Item 5.** Enter reference to tasking in contract that generates requirement for the data item (e.g., Statement of Work paragraph number).
- Item 6.** Enter technical office responsible for ensuring adequacy of the data item.
- Item 7.** Specify requirement for inspection/acceptance of the data item by the Government.
- Item 8.** Specify requirement for approval of a draft before preparation of the final data item.
- Item 9.** For technical data, specify requirement for contractor to mark the appropriate distribution statement on the data (ref. DoDD 5230.24).
- Item 10.** Specify number of times data items are to be delivered.
- Item 11.** Specify as-of date of data item, when applicable.
- Item 12.** Specify when first submittal is required.
- Item 13.** Specify when subsequent submittals are required, when applicable.
- Item 14.** Enter addressees and number of draft/final copies to be delivered to each addressee. Explain reproducible copies in Item 10.
- Item 15.** Enter total number of draft/final copies to be delivered.
- Item 16.** Use for additional/clarifying information for Items 1 through 15. Examples are: Tailoring of documents cited in Item 4; Clarification of submittal dates in Items 12 and 13; Explanation of reproducible copies in Item 14.; Desired medium for delivery of the data item.

FOR THE CONTRACTOR

Item 17. Specify appropriate price group from one of the following groups of effort in developing estimated prices for each data item listed on the DD Form 1423.

a. **Group I. Definition -** Data which is not otherwise essential to the contractor's performance of the primary contracted effort (production, development, testing, and administration) but which is required by DD Form 1423.

Estimated Price - Costs to be included under Group I are those applicable to preparing and assembling the data item in conformance with Government requirements, and the administrative and other expenses related to reproducing and delivering such data items to the Government.

b. **Group II. Definition -** Data which is essential to the performance of the primary contracted effort but the contractor is required to perform additional work to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, or quality of the data item.

Estimated Price - Costs to be included under Group II are those incurred over and above the cost of the essential data item without conforming to Government requirements, and the administrative and other expenses related to reproducing and delivering such data item to the Government.

c. **Group III. Definition -** Data which the contractor must develop for his internal use in performance of the primary contracted effort and does not require any substantial change to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, and quality of the data item.

Estimated Price - Costs to be included under Group III are the administrative and other expenses related to reproducing and delivering such data item to the Government.

d. **Group IV. Definition -** Data which is developed by the contractor as part of his normal operating procedures and his effort in supplying these data to the Government is minimal.

Estimated Price - Group IV items should normally be shown on the DD Form 1423 at no cost.

Item 18. For each data item, enter an amount equal to that portion of the total price which is estimated to be attributable to the production or development for the Government of that item of data. These estimated data prices shall be developed only from those costs which will be incurred as a direct result of the requirement to supply the data, over and above those costs which would otherwise be incurred in performance of the contract if no data were required. The estimated data prices shall not include any amount for rights in data. The Government's right to use the data shall be governed by the pertinent provisions of the contract.