

DSCR QUALITY ASSURANCE PROVISION (QAP) B09

1 SCOPE:

This QAP is applicable to F/A-18 aircraft landing gear ~~loadings~~. These ~~loadings~~ have been determined by responsible engineering authority to be of critical application. This QAP contains unique quality assurance requirements that must strictly be adhered to by the contractor.

2 CONTRACTOR QUALITY SYSTEM

- a. The contractor shall provide and maintain a quality system which meets or exceeds the requirements of FAR Clause 52.246-11, Higher Level Contract Quality Requirement. Refer to Section E of the contract. FAR 52.246-2, Inspection of Supplies – Fixed Price, also applies.
- b. Records of all certifications, inspections, and tests identified to lot and contract number, shall be maintained and available for review for no less than seven (7) years from date of final contract delivery. Records of inspections and tests verified partially or completely by the Quality Assurance Representative (QAR) shall show evidence of such verification by the QAR's stamp or endorsement on contractor's test report. Inspection and test records shall indicate the nature and number of observations made, and the number and type of deficiencies found.
- c. The calibration of measuring and testing equipment shall, as a minimum, adhere to the requirements of the following: ANSI/NCSL Z540-1-1994, ISO 10012-1:1992, or other calibration standards or systems which meet or exceed ANSI/NCSL/ISO standards. Record of calibration and functional adequacy of the supplier's inspection, measuring, and test equipment shall be available for evaluation by the Government.
- d. Third party registration or certification of the contractor's quality system is not required; nor shall third party registration or certification be considered a substitute for Government quality assurance.

3 MANUFACTURING, INSPECTION AND TEST

a. MANUFACTURING:

- (1) Articles to be furnished hereunder shall be manufactured, inspected and tested in accordance with (CAGE: 76301) drawing number -SEE CONTRACT SCHEDULE- and all details and specifications referenced therein as supplemented by McDonnell Douglas Aircraft (MDA), as of date of contract award. Any proposed change(s) to item configuration must be submitted to and approved by the Procurement Contracting Officer (PCO).
- (2) The contractor shall include, on the manufacturing detailed process/operation sheets, all in house manufacturing processes and all manufacturing processes/operations performed outside of their facilities. These process/operation sheets shall not be revised or altered after the successful completion of any First Article or Production Lot Testing, as may be cited in the contract, without approval from the basic design engineering authority via the PCO.
- (3) Certification is required (refer to attached DD Form 1423, Contract Data Requirements List) that all critical processes, to include acquisition of forgings/castings have been procured from MDA approved source(s).
- (4) Unless expressly provided for in the contract, equipment such as fixtures, jigs, dies, patterns, templates, mylars, special tooling, test equipment, or any other manufacturing aid required for the performance of this contract 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.

b. INSPECTION AND TEST

- (1) First Article Inspection and Test requirements, when required by the contract, are cited in detail within the contract schedule.
- (2) Mandatory production inspection and test.
First piece of each production lot, representing a specific part run on a specific machine, will be 100% inspected at each machine operation to all applicable drawing dimensions affected by that specific operation. Production will only continue upon the first piece meeting all drawing dimension requirements.

Thereafter and as a minimum, every sixth production piece, at each machine operation, shall be inspected 100% to all applicable drawing dimensions. Any nonconformance found during this inspection process shall be cause for production to cease, root cause corrective action to be taken, and acceptability of all produced pieces in that specific lot determined. That determination and methodology used is to be documented. Resulting documentation shall be maintained with the lot.

- (3) Aside from the mandatory production inspection and test cited, normal production lot inspection sampling, for inprocess and end item visual/dimensional verification will be performed in accordance with inspection, level II, single sampling for normal inspection per ANSI/ASQC Z1.4-1993. All CRITICAL characteristics, as defined below in (4.a.), shall be identified and inspected/tested on 100% of the items within a lot for a lot size up to and including 1250 pieces. Sample size shall be 1250 for all lot sizes over 1250 pieces.

If the contractor elects to use an alternate sampling plan, it must be approved by the Procuring Contracting Officer, PCO, and not have been previously determined to be insufficient for the government's purpose. Acceptable Quality Levels (AQLs) do not apply. Any defective item discovered will be cause for rejection of the entire lot.

c. Definition of defects:

1. Critical Defect - a defect that is likely to result in unsafe conditions for individuals using, operating, maintaining, or otherwise depending upon the item. Also, a defect that is likely to prevent the required level of performance of the tactical function of major end items; such as aircraft, communication systems, land and space vehicles, missiles, ships, surveillance systems, or major part thereof.

2. Major Defect - a defect other than critical, that is likely to result in failure, or to reduce the usability of the item for its intended purpose.

3. Minor Defect - a defect other than critical or major, that is not likely to reduce the usability of the item for its intended purpose. Also, a defect that is a departure from established standards, but has little or no affect on the performance of the item.

4. PRODUCTION LOT TEST SAMPLE

- a. DSCR Clause 52.246-9000 Certificate of Quality Compliance applies.

During the performance of this inspection, the contractor will make the following available to the government QAR to satisfy the COQC requirement:

(1) Objective evidence of complete compliance to all MDA drawing requirements, to allow:

- (a) Review of all completed manufacturing and inspection/test operation process sheets.
- (b) Verification of raw material certifications meeting MDA drawing material requirements.
- (c) Forgings: When applicable, verification of documentation certifying that only MDA approved sources were used for critical processes including forging/casting(s) for the item and that all test/inspections required in the material specification were complied with, including test reports.
- (d) Verification of compliance with MDA drawing penetrant inspection requirements.
- (e) Verification of compliance to all MDA drawing surface finish requirements.
- (f) Verification of compliance to MDA drawing material heat treat, temper, hardness requirements.

- b. Production lot test shall be performed on a sample size of 1 each for each separately identified production lot. The sample shall be clearly identified to the manufacturing lot and contract number. This sample, after having been selected by the government quality assurance representative (QAR), shall be inspected by the contractor, in the presence of the government QAR. This inspection shall consist of a 100% detailed dimensional check to the MDA drawing cited in the contract schedule.

5. Examination of Preparation for Delivery: Examination of preservation, packaging, packing, and marking shall be performed to determine compliance with contract requirements. Contractor's inspection shall be performed in accordance with level S-2, single sampling for normal inspection per ANSI/ASQC Z1.4-1993. Any one defect shall be cause for rejection of the shipment quantity until corrective action is accomplished.