# Q16 - Engineering Directed Standard Tool/Perishable Tool Inspection Requirements

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"IMPORTANT NOTICE: A hard copy of this document may not be the document currently in effect. The current version is always the version on the Lockheed Martin network."

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* REVISED ** ADDED

I. APPLICATION

Except as otherwise directed by Buyer, the governing revision of this document shall be the revision in effect on the date of this Purchase Order (PO). Subject to limitation by Buyer, if any, if subsequent revisions of this Buyer document are issued, Seller is authorized to use the latest revision of this document. If Seller opts for use of the latest revision, Seller shall utilize the applicable portions of the latest revision in their entirety.

** NOTE: As used herein, the term “Buyer” is synonymous with the term “LOCKHEED MARTIN”, the terms “Purchase Order” and “PO” are synonymous with the term “Contract”, and the terms “Item” and “Items” are synonymous with the term “Work”, all as may be used elsewhere in the PO of which this document “Q16 – Engineering Directed Standard Tool/Perishable Tool Inspection Requirements” is a part.

II. REQUIREMENTS

A. Seller shall perform an inspection after all normal manufacturing operations have been completed. Seller shall perform this inspection of any Item prior to delivery to Buyer.

B. Seller shall furnish the results of this inspection and any previous inspections to Buyer or Buyer’s Representative upon request.

C. Seller shall be permitted to perform sample inspection on the Items (reference Paragraph II. A.) as long as one (1) of the following statistically valid sampling plans is used.

1. MIL-Std-105E
2. ISO 2859-1

3. ANSI/ASQ Z1.4-2003

D. Seller shall furnish to Buyer or Buyer's Representative an electronic monthly report that contains, but is not limited to, the following data elements from the final inspection:

1. Distributor (Source provider) if applicable
2. Original Manufacturer
3. LM Aero Part Number
4. Total Lot Quantity
5. Sample Quantity Inspected
6. Number of Items Accepted
7. Number of Items Rejected
8. Feature Rejected
9. Equipment Utilized to Perform Inspection

III. ENGINEERING INSPECTION CRITERIA

A. Equipment to inspect and/or validate the required characteristics varies based upon the tool type. Seller shall ensure that each piece of inspection equipment is capable of measuring to the tolerance specified in Industry Standard and/or Buyer specifications. Seller shall provide a listing of measuring equipment, gages, holding devices, and method employed for validating each characteristic identified in Paragraph III. C (at the Seller's facility) to Buyer or Buyer's Representative upon request.

B. Prior to Buyer receipt, Seller shall ensure that all Items delivered shall have the following inspected for conformance to the applicable Buyer's Standard Tool Specification, "P" Sheet, "C" Number Drawing, TMS (Tool Manufacturing Standard), and/or NAS (National Aerospace Standard):

1. Tool number and Dash Number Identification
2. Verification that the tool is obtained from an approved manufacturer (if applicable)
3. Manufacturer's Certification, as required

C. In addition to the baseline requirements specified in Paragraph III. B, Seller shall inspect each tool category identified below against the respective requirements for each of the Buyer's sites identified in Table 1.

## Table 1 Buyer Site Inspection Requirements by Tool Category

| | MARIETTA, MERIDIAN, & CLARKSBURG | FORT WORTH |
|---|---|---|
| [redacted] | Body Diameter<br>Damage Check<br>Flute Length<br>Identification<br>Material Type<br>Over-All-Length<br>Surface Treatment<br>Thread Size | Back Taper<br>Cutting Diameter<br>Damage Check<br>Flute Length<br>Hardness<br>Helix Angle<br>Identification<br>Material Type<br>Over-All-Length<br>Relief/Clearance Angles<br>Run-Out (Concentricity)<br>Surface Finish |

* Shank D2(m)-365C31.240365C31.240.5( Do 1 Tc-se679C5)17. L1.24036p-0.1(l310.131.24036gh1 Tc

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| | MARIETTA, MERIDIAN, & CLARKSBURG | FORT WORTH |
|---|---|---|
| **Hole Saws** | Diameter<br>End Configuration<br>Arbor Threads | |
| **Routers** | Diameter<br>End Configuration | |
| **Bucking Bars** | Surface Finish<br>Hardness | |
| **Drill & Reamer Bushings** | Inside Diameter<br>Outside Diameter<br>Length | |
| **Keller-Lok Bushings** | Inside Diameter<br>Outside Diameter<br>Length | |
| **Safety Apparel** | Size<br>Logo | |
| **Process Tooling** | Dimensional Check with Tape Measure or Equivalent | |
| **Slings** | Over-All-Length with Tape Measure or Equivalent | |

D. Seller shall inspect the following characteristics by Standard Tool Number for the Marietta, Meridian, and Clarksburg facilities for the specific features identified below:

1. 550H006
   Hole must be centered with no burrs per Buyer specification

2. 550H007
   Dash number must match bushing size per Buyer specification

3. 550H008
   Slot dimension = 0.141” +.002”/-.000”

4. 550H203
   Surface coating adherence
   Dash number location per Buyer specification

** IV. TAPER-LOK DRILL AND REAMER VERIFICATION BY BUYER

A. Seller shall submit a sample quantity of Taper-Lok drills and/or reamers to Buyer for verification. The verification

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