

Quality Clause Q17
Maintenance, Repair or Overhaul Activities

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<https://www.lockheedmartin.com/en-us/suppliers/business-area-procurement/aeronautics/quality-requirements/clauses.html>

The terms “item”, “PO”, and “Buyer” used herein have the same meaning as “Work”, “Contract” and “Lockheed Martin”, respectively, as may be defined in another provision of the Purchase Order (PO) of which this Quality Clause Q17 is a part.

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1. APPLICABILITY:

This Quality Clause Q17 is applicable to Sellers performing Maintenance, Repair, and Overhaul (MRO) activities on products owned by Buyer’s customers. The use of the term MRO in this document is synonymous with the term “maintenance” in AS9110.

2. DEFINITIONS:

- A. Repair of Repairable: Sellers doing maintenance, repair or overhaul of components, subcomponents and commodities. This may include Original Equipment Manufacturers (OEM) performing these activities on their equipment or other non-OEM Sellers performing the activity. Non-OEM Sellers may also be called Alternate Repair Facilities.

3. GENERAL REQUIREMENTS:

- A. Sellers performing Maintenance Repair and Overhaul (MRO) of aircraft shall comply with one of the following:
 - 1. AS9110 Third Party Certification (or international equivalent). Seller shall comply with AS9110 requirements;
 - 2. ISO9001 Third Party Certification (or international equivalent) with repair in the scope of approval and a FAR Part 145 certification (or international equivalent). Seller shall comply with AS9110 requirements; or

3. For OEMs, AS9100 Third Party Certification (or international equivalent) with the limitations of AS9110, page 5, Intended Application. Seller shall comply with AS9100.

- B. For commercial work components applicable to MRO (FAA, CAA, etc.), Seller shall comply with FAR Part 145 and 14 CFR part 43, or international equivalent as applicable. Seller shall maintain a Type Rating on the FAA Part 145 certificate applicable to the airframe of record on this purchase order (PO).

- C. Seller shall perform repairs at Seller's facility designated in Buyer's PO. Outsourcing of work related to tear down, repair, re-assembly, and functional test of the item or detailed components is prohibited **unless authorized in writing in advance** by Buyer. This requirement does not apply to subcomponents that are returned to the Original Equipment Manufacturer (OEM) for repair.

- D. If Seller is not the OEM, Seller shall only have authority to perform repairs of items for which it has a capability rating listed in the Supply Chain Management Alternate Repair Sources website at: <https://aero-sp1.external.lmco.com/sites/scm-sct/hosted/ars/SitePages/ARS%20Supplier%20Listing.aspx>.

- E. Licensing Agreements for Sellers that are not the OEM of the items to be repaired:
 1. Seller shall obtain and maintain licensing agreements with the OEM for technical data and technical support during the period of performance of this PO, unless otherwise waived by Buyer in writing.
 2. Seller shall maintain technical data to the latest revisions or the appropriate revision called for in the repair manuals.
 3. Licensing Agreement shall cover provisions for OEM dispositioning of nonconformances created by Seller during the repair process.
 4. Seller shall make available for inspection upon Buyer's request licensing agreements and technical data of the items repaired by Seller and not the OEM.

- F. Incoming Inspection, Teardown and Maintenance Release - Seller shall document and maintain the following for each unit repaired, overhauled and tested:
 1. Completed Incoming Inspection and Condition Report (Seller format, unless otherwise stipulated elsewhere in the PO)
 2. Acceptance Test Procedures (ATP) revision utilized as required by the PO, Technical Order (T.O.) or OEM Repair/Overhaul Manual or procedure.
 3. Teardown Report: The teardown report must contain the following:
 - a. Part Numbers
 - b. Serial Number if applicable
 - c. Part numbers removed and replaced
 - d. Test reports, as applicable
 - e. Incoming software version/revision
 - f. Photographs if damage is noted. The supplier assumes all liability for damages identified after teardown, test and evaluation without photographic evidence that the damages were preexisting, with the exception for damages to items such as O-rings, gaskets, seals, crush washers, etc. or other items that could not have reasonably been discovered during initial teardown

- g. T.O. or Repair/Overhaul Manual number used to repair the item, including the revision level.
 - h. Repair or overhaul tasks performed

- G. Seller shall maintain records of all repairs and overhauls. Seller shall provide a summary of all repairs/overhauls with the following data, at a minimum, monthly to their Buyer /Supplier Quality Engineer. The data must be presented in a format which allows data mining and analytics:
 - 1. Date of Receipt
 - 2. Return from location
 - 3. Part number (Buyer part number, if applicable, and Seller part number)
 - 4. Program (i.e., C-130, F-35, F-16, F-22)
 - 5. Serial number, if applicable
 - 6. Reason for return
 - 7. Status of repair/overhaul cycle (i.e., In Induction, In Repair, Repair Complete, Retest OK or No Fault Found).
 - 8. Cause of initial issue; if routine maintenance, indicate so.
 - 9. Responsibility for initial issue, unless routine maintenance
 - 10. Repair/overhaul actions taken
 - 11. Corrective actions if unplanned removal and Seller responsible
 - 12. Repair & rework information for Seller induced nonconformances

- H. Seller-caused nonconformances during the repair process:
 - 1. Any damage or nonconformance caused by Seller during the repair process shall be documented as nonconforming material and dispositioned in accordance with Appendix QX;
 - 2. Rework and repair shall be tracked as part of Seller's Quality Management System;
 - 3. For Sellers that are NOT the OEM for an item, Seller shall obtain disposition instructions and approvals from the OEM or repair in accordance with the OEMs approved standard repair procedures; and
 - 4. Seller shall make available for inspection to Buyer disposition instructions and approvals from OEM for review.

- I. Seller shall use the latest revision of the T.O. or OEM Repair/Overhaul Manual for all repairs or overhauls as applicable for that configuration, unless otherwise directed in the PO.

- J. Any substitution of parts not specified in the T.O. or OEM Repair/Overhaul Manual shall be approved by Buyer in writing prior to use.

- K. Seller shall maintain configuration management of the product, processes and software required to effectively execute the work.

- L. Seller cannibalization or reutilization of government or customer owned assets (components, subcomponents, etc.) is strictly prohibited without prior written authorization from Buyer.

- M. Seller shall track repetitive item returns, repetitive component failures/replacements, unplanned removes, and zero or low hour removals of an item, which may indicate a quality related issue.

Seller shall take preventative and corrective actions as necessary with Buyer's prior written approval.

- N. Non-OEM Sellers shall comply with Appendix QX, paragraph 2.4, for the use of approved processors for QCS-001 processes, even if the repaired part is not Buyer-Designed.

4. REPAIR OF REPAIRABLES:

A. Repair of Repairables by OEMs:

1. Evaluation of New Capability

When repair activity is not performed at the same facility where the original item is manufactured, Seller shall conduct an Evaluation of New Capability to ensure contractual flow down requirements are met. An Evaluation of New Capability is an evaluation provided by a qualified person. Any time an update to the Evaluation of New Capability is necessary, the evaluation must be submitted to a competent authority. Each Evaluation of New Capability shall be performed prior to any maintenance conducted on an article or product.

- a. Seller shall comply with all military technical data, OEM repair and overhaul data and customer requirements
- b. Seller shall comply with all approved test requirements and procedures
- c. Seller shall verify the first repair or overhaul of a component. Seller need not repeat the verification for follow-on POs as long as records of the original verification are available for Buyer to inspect.

2. Seller shall have the ability to evaluate, verify, and document corrections, changes, and quality conformity steps to any Evaluation of New Capability. Such evaluation, verification, and documentation should include, but is not limited to, Time Compliance Technical Data (TCTD) verification; trial kit installations or kit proofing. This verification will include documentation, personnel qualification, procedures and tools/tooling requirements.

- a. New maintenance processes shall be documented and approved by Buyer and any applicable statutory or regulatory authorities. The verification shall be reassessed by Seller when changes occur that invalidate the original results. A partial evaluation of capabilities is required for any amended work scope after the original approval has been conducted.
- b. Any lower-level components which are incorporated into the top-level item shall comply with the verification requirements.
- c. Buyer reserves the right to require Seller to perform a partial or complete Evaluation of Capabilities for cause.
- d. Seller shall document the verification in the English language.

B. Repair of Repairables by Non-OEMs:

1. At first application of maintenance processes, when repair activity is not performed at the same facility where the original item was manufactured:

- a. Seller shall conduct an Evaluation of New Capability. Any time an update to an Evaluation of New Capability is necessary, the result of the evaluation shall be submitted to a competent authority in order to update the capability list.

- b. Seller shall comply with all military technical data, OEM repair and overhaul data and customer requirements.
 - c. Seller shall comply with all approved test requirements and procedures.
 - d. Seller shall verify the first repair or overhaul of a component. Seller need not reassess the verification for follow-on POs as long as the records of from the original verification are available upon request by Buyer to inspect.

2. Seller shall have the ability to evaluate, verify, and document corrections, changes, and quality conformity steps to any first application of a capability, such as, but not limited to, Time Compliance Technical Data (TCTD) verification; trial kit installations or kit proofing. This verification will include documentation, personnel qualification, procedures and tools/tooling requirements.
 - a. New maintenance processes shall be documented and approved by Buyer and any applicable statutory or regulatory authorities. The verification shall be repeated by Seller when changes occur that invalidate the original results. A partial Evaluation of Capabilities is required for any amended work scope after the original approval has been conducted.
 - b. Any lower-level components incorporated into the top-level item shall also comply with the verification requirements
 - c. Buyer reserves the right to require Seller to perform a partial or complete Evaluation of Capabilities for cause.
 - d. Seller shall document the verification in the English language.