

PURCHASE ORDER QUALITY CLAUSES

Only those quality control clauses identified on the face of the Textron Systems Marine & Land Systems purchase order shall apply. When identified, the quality control clauses shall supersede conflicting provisions of the preprinted terms and conditions of the order.

200 SELLER QUALITY PROGRAM

The seller shall document, implement and maintain an effective quality management system that satisfies the intent of ISO 9001:2015, Quality Management Systems – Requirements. Additional explanation of requirements is provided in the Marine & Land Systems Supplier Quality Manual.

Prior to the delivery of materials, a copy of the 3rd party accreditation certificate, if available, shall be submitted to:

Textron Systems Marine & Land
 252 Stone Road
 Slidell, LA 70460
 Attention: Product Assurance Admin
 Product Quality Assurance Department

Changes to the QMS are to be communicated with Marine & Land Systems and are subject to audit to determine compliance to the ISO 9001:2015 standard. Compliance with the provisions of this clause in no way relieves the seller of the final responsibility of furnishing acceptable supplies and services as specified in the purchase document.

210 SELLER INSPECTION SYSTEM

The seller shall document, implement and maintain effective procedures that satisfy the intent of ISO 9001:2015, Quality Management Systems – Requirements elements:

- 7.5.3 Control of documented information,
- 8.2.3 Review of the requirements for products and services,
- 8.4 Control of externally provided processes, products and services,
- 8.5.1 Control of production and service provision,
- 8.5.2 Identification and traceability,
- 8.5.3 Property belonging to customers or external providers,
- 8.5.4 Preservation,
- 7.1.5 Monitoring and measuring resources,
- 9.1 Monitoring, measurement, analysis and evaluation,
- 8.7 Control of nonconforming outputs and
- 10.2 Nonconformity and corrective action.

Additional explanation of requirements is provided in the Marine & Land Systems Supplier Quality Manual.

Prior to the delivery of materials, a copy of the 3rd party accreditation certificate is requested if available, and should be submitted to:

Textron Systems Marine & Land
 252 Stone Road
 Slidell, LA 70460
 Attention: Product Assurance Admin
 Product Quality Assurance Department

Changes to the supplier’s procedures impacting the areas identified are to be communicated with Marine & Land Systems and are subject to audit to determine compliance to stated requirements. Compliance with the provisions of this clause in no way relieves the seller of the final responsibility of furnishing acceptable supplies and services as specified in the purchase document.

215 AQAP INSPECTION SYSTEM

THIS QUALITY CLAUSE HAS BEEN ARCHIVED AND IS NOT CURRENTLY INVOKED.

220 RECORD RETENTION

Records and other objective evidence of inspection testing, assembly, processing, and fabrication shall be retained by the supplier for a minimum of 7 years after the completion of the contract unless otherwise specified. These records shall be identified and stored to enable the records to be readily located and retrieved.

230 ACCREDITED SUPPLIER PROGRAM

As of the date of this document, the Accredited Supplier Program has been discontinued. The requirements, as listed in TMLS 4156 (TML-QA-FM-005) - Purchase Order Quality Clauses, are valid for existing purchase orders. This clause applies to all new purchase orders and to changes to an existing purchase order is issued on or after the date of this document.

240 LIMITED LIFE MATERIAL, ACCREDITED SUPPLIER

THIS QUALITY CLAUSE HAS BEEN ARCHIVED AND IS NOT CURRENTLY INVOKED

250 HIGH STRENGTH FASTENER, ACCREDITED SUPPLIER

THIS QUALITY CLAUSE HAS BEEN ARCHIVED AND IS NOT CURRENTLY INVOKED

300 SOURCE INSPECTION - GOVERNMENT

Government inspection is required prior to shipment from the supplier plant. Upon receipt of this order, a for the Marine & Land Systems contract for which parts or materials are being purchased for.

The seller shall provide the government representative(s) with free access to the facilities used under this contract for performing source inspection. The supplier shall furnish to the government representative all information that the government representative considers pertinent to the function being performed. When requested by the government representative, the supplier shall provide the equipment necessary for the government representative to perform the required inspections and examinations, present the items under conditions satisfactory to the government representative for inspection and examination, and provide adequate office facilities for use by the government representative. When the government representative detects a quality program or product deficiency, a corrective action request may be written. The supplier is required to identify and correct the deficiency and its cause to minimize the probability of recurrence. A written response describing the cause of the deficiency, the action taken, and its effective date will be submitted to Textron Marine & Land as required, within a reasonable time

Evidence of Government inspection will be shown on the shipping document. In addition, the Supplier shall send a copy of the shipping document to:

Textron Systems Marine & Land
252 Stone Road
Slidell, LA 70460
Attention: Product Assurance Admin
Product Quality Assurance Department

During performance of this order, the supplier quality program or inspection system and manufacturing processes are subject to review, verification, and analysis by an authorized Government representative. The supplier shall provide a copy of this document to its Government representative upon the request of the representative.

In instances where the Letter of Delegation (LOD) has been closed prior to completion of the Purchase Order delivery schedule, a copy of the approved LOD closure, or proof of an official notification of closure, should accompany the shipment in lieu of a Government Source Stamped shipping document.

305 SOURCE INSPECTION – CANADIAN GOVERNMENT

Canadian inspection is required prior to shipment from the supplier plant. Upon receipt of this order, a copy shall be promptly furnished to the Canadian representative who is delegated assignment from the appropriate authority for the TAPV contract for which parts or materials are being purchased.

The seller shall provide the Canadian representative(s) with

copy shall be promptly furnished to the Government representative who has delegate assignment from the appropriate authority

free access to the facilities used under this contract for performing source inspection. The supplier shall furnish to the Canadian representative all information that the Canadian representative considers pertinent to the function being performed. When requested by the Canadian representative, the supplier shall provide the equipment necessary for the Canadian representative to perform the required inspections and examinations, present the items under conditions satisfactory to the Canadian representative for inspection and examination, and provide adequate office facilities for use by the Canadian representative. When the Canadian representative detects a quality program or product deficiency, a corrective action document may be written.

Evidence of Canadian inspection will be shown on the shipping document and maintained at the supplier's facility. During performance of this order, the supplier quality program or inspection system and manufacturing processes are subject to review, verification, and analysis by an authorized Canadian representative. The supplier shall provide a copy of this document to its Canadian representative upon the request.

350 MARINE & LAND SYSTEMS PRODUCT ASSURANCE REPRESENTATIVE

Textron Marine & Land Systems source inspection is required prior to shipment. The seller shall notify Marine & Land Systems Product Assurance Admin - Product Quality Assurance Department two working days in advance of the time the items will be available for the source inspection designated. Approval authority by the Product Assurance representative is limited to granting approval for shipment of items on this purchase order from the seller facility.

The seller shall provide the Product Assurance representatives with free access to the facilities used under this contract for performing source inspection (ie, quality surveillance, inspections, examinations, or tests). The supplier shall furnish to the representative all information that the representative considers pertinent to the function being performed. When requested by the representative, the supplier shall provide the equipment necessary for the representative to perform the required inspections and examinations, present the items under conditions satisfactory to the representative for inspection and examination, and provide adequate office facilities for use by the representative. When the representative detects a quality program or product deficiency, a corrective action request may be transmitted to the supplier. The supplier is required to identify and correct the deficiency and the cause of the deficiency to minimize the probability of recurrence, and submit to Textron Marine & Land within a reasonable time a written response describing the cause of the deficiency, the action taken, and its effective date.

If the supplier's performance dips and it is deemed appropriate/necessary to impose source inspection, it will

be conducted at the supplier's expense.

Evidence of source inspection, including applicable completed SMRR (Supplier Material Review Request), or source inspection waiver issued by Marine & Land Systems Product Assurance must accompany each applicable shipment unless prior arrangements have been made to electronically transmit the information. Supplier shall send a copy of the source inspection document, including applicable completed SMRR (Supplier Material Review Request), or source inspection waiver issued by Marine & Land Systems Product Assurance, to:

Textron Systems Marine & Land
252 Stone Road
Slidell, LA 70460
Attention: Product Assurance Admin
Product Quality Assurance Department

All items on this purchase order and all shipments are subject to final acceptance at destination in accordance with the INSTRUCTIONS, TERMS, AND CONDITIONS section as provided with the purchase order.

352 SERVICEABLE CONDITION

On returned items, the supplier is required to use form (TMLS 5169). Form TMLS 5169 is located on the Textron and Marine Systems External page:

<http://www.textronsystems.com/who-we-are/for-suppliers/resources>

From this page tab through the indexes until the correct form number is visible.

Returned items shall be reworked/repared and: (1) inspected and cleaned to remove any foreign material internal to the unit; (2) pass acceptance test and/or inspection requirements; (3) be reconditioned so that corrosion is removed and corrosion protection, conformal coating, and sealing requirements are reinstated; (4) have cosmetic deficiencies, paint, labels, safety wire, etc, corrected in a good workmanship manner; (5) have all defective components replaced; (6) have the item returned to an original configuration; and (7) ensure that the required loose parts normally supplied with a new component are provided if specified on the purchase order. An acceptance test or inspection report signed by a responsible inspection/test person stating compliance to the specifics of this Quality Clause requirement along with reference to the Marine & Land Systems Purchase Order and Part Number shall be returned with the item. The report supplied shall also include the nature of the failure, if able to determine, the specific rework required and completed in addition to a certification statement by the Seller attesting to the compliance with this Quality Clause and Purchase Order requirements.

If the returned part is replaced with a new part, the part shall: (1) pass acceptance test and/or inspection requirements; and (2) have the required loose parts

normally supplied with a new component, if specified on the purchase order. An acceptance test or inspection report signed by a responsible inspection/test person stating compliance to the specifics of this Quality Clause requirement and Purchase Order requirements along with reference to the Marine & Land Systems Purchase Order and Part Number shall be returned with the item. The report supplied shall also include the nature of the failure, if able to determine.

353 Cause and Corrective Action Report

The supplier shall prepare a corrective action/preventative action report on the non-conforming part/material. This report shall provide the following information: (a) Date of report (b) Purchase Order number (c) Part number and description (d) Revision level of the drawing (e) Source of the defect (e) Origin failure of the process (f) Action taken to correct the defects (g) Action taken or planned to prevent recurrence of the issue (h) other products affected (i) effective date (j) Quality representative approval signature.

360 HOSE, TUBING and PIPE END PROTECTION

Open ends of hoses, tubing and pipe, with or without fittings, shall be sealed with plugs or caps that will provide protection against entry of foreign material. Alternatively, open ends of hoses and tubing, except hydraulic hoses, may be sealed with grease-proof barrier material conforming to type 1 of MIL-PRF-121. When used, barrier material shall extend a minimum of 4 inches over the open ends onto the body of the hoses or tubing. Barrier material shall be secured with a minimum 1-inch wide, water-resistant, pressure-sensitive tape.

Open ended materials must be sealed as defined above even if the materials are boxed, crated, on reels, etc, and/or protected or covered for shipment through some other means of covering.

Any deviation of the methods above requires the pre-approval of the responsible Quality Engineer prior to submittal. The preferred method however is the caps.

Note: Tube, hoses and pipes with an inside diameter of 3" or larger do not need to be plugged or capped

400 SERIALIZATION

Parts and/or assemblies will be serialized. The supplier will assign a distinguishing serial number that is maintained throughout the life of the product and is not reassigned to another unit of the same part number. Assembly, test, and final acceptance records will be maintained by the serial number assigned.

401 ITEM UNIQUE IDENTIFICATION (IUID)

Parts and/or assemblies that have been assigned this code are required to be identified by use of the IUID system. The supplier will obtain the labels, and include the pertinent information on them and apply the labels in a location that

Changes within a paragraph are noted with a bar.

will be visible after installation of the part/assembly. Records will be maintained at the supplier by the serial number and IUID label. The labels shall meet the requirements of Defense Acquisition Regulations System (DFARS) 252.211-7003 with machine-readable IUID markings in accordance with MIL-STD-130.

If the drawing calls for the use of etching, ink stamp or equivalent method of marking the machine readable IUID on the part, an IUID label shall not be required.

IUID label requirements for SSC items:

- Unit acquisition cost is \$5,000 or more. (Acquisition cost, the cost to the Navy for the purchase of the item as a production or spare unit)
- Under \$5,000, when the item meets the definition of Maintenance Significant Item (MSI) and permanent identification is required.
- Under \$5,000, when the item is designated by the Navy as Department of Defense (DoD) serially managed, controlled inventory, or mission essential. (precious metals, hazardous materials, or items (such as crypto equipment) which have national or operational security implications)
- Regardless of value when an item is a DoD serially managed embedded item.
- If the item is a parent item (as defined in DFARS 252.211-7003(a)) that contains the embedded subassembly, component, or part.

Each configuration item that meets one or more IUID criteria must be marked with a unique item identifier (UII). The supplier shall also identify the location of the UII on the configuration item drawing provided to TM&LS.

Data to be included in the UII tag includes:

- Manufacturer's CAGECode
- Manufacturer's PartNumber
- Serial Number
- NAVSEA Part Number (if required)

402 TOOLING CONTROL

The supplier shall establish and maintain a system to ensure that manufacturing tooling is inspected, protected, and otherwise controlled according to specific conditions surrounding their use. Manufacturing tools, gauges, jigs, and fixtures used for measuring quality characteristics shall be checked for accuracy prior to initial use and at intervals thereafter, not to exceed 12 months, to ensure continued accuracy. The supplier shall maintain records of the

inspection results, available to Marine & Land Systems upon request. Tooling shall be identified to indicate the date when re-inspection is to be accomplished. The supplier shall report to the contractor any contractor- furnished property found damaged, deteriorated, or otherwise unsuitable for use.

This clause being invoked on a part and purchase order does not mandate the use of tooling but is present because this may be a viable method of manufacture.

404 RAW MATERIAL VERIFICATION

The supplier shall inspect/test materials furnished by Marine & Land Systems or procured by the supplier on receipt to ensure material conformance to contract requirements prior to the start of operations.

406 TOOLING INSPECTION INSTRUCTIONS

THIS QUALITY CLAUSE HAS BEEN ARCHIVED AND IS NOT CURRENTLY INVOKED.

408 RESUBMISSION OF REJECTED LOTS

All supplier-resubmitted lots must be identified as resubmitted material with reference made to the inspection or discrepancy report number that detailed the discrepancies of the rejected lot. The supplier will also present satisfactory evidence that the discrepancies have been corrected.

410 FAILURE ANALYSIS REPORT

The supplier shall perform a failure analysis on item(s) returned under this contract and shall provide, a minimum, the following information with the shipment or as directed by contract:

- * Date of report
- * Purchase order number
- * Vendor name and address
- * Part name, number, revision level, serial number
- * Nonconforming document serial number
- * Specific and contributory causes of failure
- * List of parts required to repair item(s)
- * Corrective action taken to preclude recurrence and effectivity by date or serial number of corrective action
- * Signature and title of supplier's quality representative approving the failure analysis report.

412 100 PERCENT DIMENSIONAL CONFORMANCE

The supplier shall perform 100 percent inspection and recording of variable (actuals) data for each piece of this order. The inspection record shall identify each characteristic, the allowable tolerance limits, and the actual

dimension recorded. The report must also indicate the method of inspection, eg, layout averaging (how many places) and type of gauge (tri-mic, dial bore, vernier, etc). This record shall be submitted with each parts shipment

and must show quality evidence that each characteristic has been inspected and accepted. If parts are not serialized, temporary serial numbers will be assigned and parts tagged.

the first article to indicate the cavity it represents. The first article shall be manufactured in the same manner using the same type of equipment to be used in producing the production items it represents.

414 ACCESS TO SUBCONTRACTORS

The supplier shall ensure contractor, prime contractor, and/or Government representative access to sub-tier supplier facilities for inspection system/quality program or product audit, surveillance, inspections, or tests upon request. Vendor will be responsible for conformance of all supplies or services procured from sub-tiers, and will ensure that the requirements of the purchase order, applicable drawings, and specifications are incumbent upon its procurement sources.

Documented evidence of sub-tier control shall be maintained.

425 FIRST-ARTICLE CONFORMANCE REPORT (FACR)

Each initial shipment of hardware for a new Purchase Order requires the submittal of a completed FACR document covering all purchase order, print, process, and specification characteristics and requirements with the shipment. The FACR shall include the purchase order number, part number(s), process identification and reference to the requirement. All FACR submittals must be sent to:

Textron Systems Marine & Land
252 Stone Road
Slidell, LA 70460
Attention: Product Assurance Admin
Product Quality Assurance Department

prior to the initial receipt of the material at Marine & Land Systems. If these requirements were complied with on a previous order, a re-submittal of the FACR is not required providing that materials have been received by Marine & Land Systems within the previous 12 months and no changes in process/equipment, sub-tier suppliers and personnel have been implemented since the last first-article. In the event of any characteristics or requirements change, a new FACR is required. The report shall include engineering tolerances and show actual results/values of inspections and tests.

In the case of articles produced by molds, dies, etc, with more than one cavity, the vendor shall submit a first-article report from each cavity and identify the first article to indicate the cavity it represents.

The acceptable first article inspection piece produced by the supplier shall be identified as a Fit Check item and shipped to Marine & Land Systems for verification. If the shipment of a single fit check part is not a purchase order requirement (425b), the part inspected for the FACR may be shipped as part of an initial order. In all cases the fit check part must be identified.

Fit Check Identification can be accomplished by attaching a large tag/sign to the item in a very conspicuous location stating "Fit Check" or by using tags provided by Marine & Land Systems. If Clause 425a is invoked on a Purchase Order, the Fit Check part is NOT required to be identified and submitted to Marine & Land Systems for the "Fit Check" verification.

A copy of the Suppliers FACR shall be included with the shipment in addition to sending a copy to Marine & Land Systems as required by this Quality Clause.

416 CONFIGURATION, SPECIFICATION, DRAWING, AND PROCEDURE CONTROL

The supplier shall provide for and maintain a system for implementing configuration changes at established points of effectivity. The supplier is responsible for obtaining, implementing, and maintaining the current issue of all specifications, standards, procedures, and drawings or other contractual documents referenced by purchase order. The supplier shall communicate, in writing, all necessary specifications and contractual requirements to sub-tier suppliers.

418 SUPPLIER CATALOG ITEMS

Items supplied under the supplier's catalog number, which are not controlled by a federal or military specification, shall conform to the supplier's catalog description regarding limits of size, finish materials, component details, and performance. The supplier shall coordinate variation of departures from the catalog description with the contractor prior to delivery of such items to ensure configuration control. This coordination shall be in writing. Contractor approval shall also be in writing.

420 FIRST-ARTICLE INSPECTION/TEST

The first article produced on this purchase order is subject to first-article acceptance at the supplier facility prior to further manufacture of the same type of articles. If the first article submitted to a Marine & Land Systems representative fails to meet the inspection/test acceptance requirements, a new first article will be submitted for approval. This procedure shall be continued until an acceptable first article has been approved. First-article acceptance shall be based on the requirements of the drawings, specification, and purchase document as applicable. Acceptance of the first article shall not be considered acceptance of subsequent articles. The submission of a first article shall be accompanied by the as-built data recorded by the supplier and the tool number used to produce the article or articles. In the case of articles produced by molds, dies, etc, with more than one cavity, the seller shall submit a first article from each cavity and identify

a) When Clause 425a is invoked on a Purchase Order all of the requirements of Clause 425 are required with the exception that the Fit Check part is NOTE required to be identified and submitted to Marine & Land Systems for the “Fit Check” verification.

b) When Clause 425b is invoked on a Purchase Order the fit check part will be shipped as a single item and no additional parts may be shipped without approval from Marine & Land Systems.

- f. Chemical films
- g. Soldering
- h. Other (specify)
- i. Prime/paint
- j. Cleaning
- k. Brazing

When special processes are required by the Marine & Land Systems drawing, specification or purchase order, regardless of Quality Clause 440 being invoked, procedures shall be submitted to:

440 SPECIAL PROCESS PROCEDURE APPROVAL

Prior to performing any special process under this order, the Seller must submit their procedures to:

Textron Systems Marine & Land
 252 Stone Road
 Slidell, LA 70460
 Attention: Product Assurance Admin
 Product Quality Assurance Department

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The Seller must also obtain written approval authorized by a Marine & Land Systems Quality Representative for Seller procedures and associated equipment as set forth in the applicable drawings, PO and PO Notes, specifications and standards prior to performing the required special process.

For welding, documents required are: Process Qualification Record (PQR), Weld Process Specification (WPS) and Welder Performance Test (WPT) or equivalent.

The Supplier shall also re-submit to Marine & Land Systems the required procedures/data if there are changes of personnel (if applicable), process parameters, manufacturing equipment (new or relocated equipment), any materials used in the process that have potential impact, changes to inspection / testing protocols, procedures (regardless of the reason for the update / change), with applicable certification status, and changes of subcontractors. It is the Supplier’s responsibility to provide Marine & Land Systems with the latest version of procedures. Marine & Land Systems may call for a re-submittal to audit compliance to requirements.

When special processing operations are subcontracted, the Supplier shall be responsible for the management of the sub-tier and the submittal of procedures to Marine & Land Systems for approval. The procedures (and changes as defined above) used by the subcontractor shall be provided to Marine & Land Systems prior to performing the required special process. Textron Marine & Land Systems shall have the right to audit and/or perform surveillance functions at any special processor (subcontractor) facility used.

Special processes include, but are not limited to:

- a. Passivation
- b. Heat treating
- c. Welding
- d. Anodizing
- e. Plating

442 PROCESS CERTIFICATION

For the initial material shipment against the Purchase Order a certification containing the signature and title of an authorized representative for all special processes used shall be submitted to:

Textron Systems Marine & Land
 252 Stone Road
 Slidell, LA 70460
 Attention: Product Assurance Admin
 Product Quality Assurance Department

An additional copy of the certification shall accompany the shipment.

If changes as defined by clause 440 have occurred, a new process certification shall be submitted to:

Textron Systems Marine & Land
 252 Stone Road
 Slidell, LA 70460
 Attention: Product Assurance Admin
 Product Quality Assurance Department

for the initial shipment after procedures are approved by Marine & Land Systems.

All special processes which are called out on the drawing or on the purchase order will be covered by the provisions of this section.

Marine & Land Systems may call for certifications to be submitted for shipments other than the initial shipment to assure compliance to requirements.

Special processes include, but are not limited to:

- a. Passivation
- b. Heat treating
- c. Welding
- d. Anodizing

Changes within a paragraph are noted with a bar.

- e. Plating
- f. Chemical films
- g. Soldering
- h. Other (specify)
- i. Prime/paint
- j. Cleaning
- k. Brazing

This certificate shall include the process used, reference to procedures used to satisfy clause 440 (including a revision letter, number or date), the specifications to which they conform (name, specification number and revision, type, class, purchase order, or drawing), and the name of the sub-tier supplier that performed the process if other than the supplier. The supplier must review and accept all reports of sub-tier suppliers.

450 CHEMICAL/PHYSICAL TEST REPORTS

THIS QUALITY CLAUSE HAS BEEN ARCHIVED AND IS NOT CURRENTLY INVOKED.

451 CHEMICAL/PHYSICAL TEST REPORTS

One legible copy of actual test reports shall be provided with each shipment of material. Reports must contain the purchase order number, part number, the specification and revision, heat and/or lot number it represents, and include the following:

- a. Actual chemical analysis data
- b. Actual physical analysis data.

Test reports must contain the signature of a responsible representative of the organization performing the test.

Note: in certain instances the PO number may be from a supplier to a sub tier supplier, in which case the PO number may not match the Textron number but the part number, the specification and revision, heat and/or lot number should all match.

460 FASTENERS

The supplier shall perform a chemical and physical analysis of a sample of fasteners supplied with this order. Chemical and physical analysis is required for each lot of fasteners used. A report of this analysis shall be provided with the shipment with actual analysis data included in the report along with the specification requirements. This report shall reference the subcontract number, specification number(s), and part number(s) and shall certify that the fasteners meet the subcontract requirements. The report shall be signed by a responsible quality representative.

461 FASTENERS - SPECIFIED GRADE - GRADE 5 AND HIGHER – DELIVERABLE CERTIFICATIONS

- a. One legible copy of a certification for the grade of fastener being supplied must accompany each shipment. The certification shall contain the following:
 - (1) Complete actual chemical composition as well as the specification number that the material complies with.
 - (2) Actual hardness measurement readings.
 - (3) Actual tensile strength values.
 - (4) Identity of manufacturer's logos being supplied. Logo must be registered with the Defense Industrial Supply Center. (Reference MIL-HDBK-57 for the list of approved grade 5 fastener suppliers.)
 - (5) Country of manufacture.

Any fasteners received without this certification will be rejected.

- b. One legible copy of a certification for the grade of fasteners installed in an assembly supplied by your company must accompany each shipment. The certification shall contain the data required by part a. of this Quality Clause. Any assembly received without this certification will be rejected.

462 FASTENERS - SPECIFIED GRADE - GRADE 5 AND HIGHER – NON-DELIVERABLE CERTIFICATIONS

- a. A certification for the grade of fastener being supplied must be retained on file at the Suppliers facility. The certification shall contain the following:
 1. Complete actual chemical composition.
 2. Actual hardness measurement readings.
 3. Actual tensile strength values.
 4. Identity of manufacturer's logos being supplied (logo must be registered with the Defense Industrial Supply Center).
 5. Country of manufacture.

All fasteners provided must be supported by this documentation.

- b. A certification for the grade of fasteners installed in an assembly supplied by your company must be retained on file at the Suppliers facility. The certification shall contain the data required by part (a) of this Quality Clause. All assemblies provided must be supported by this documentation.

Records and other objective evidence of inspection testing, processing, and fabrication shall be retained by the supplier for a minimum of 7 years after the completion of the contract unless otherwise specified. These records shall be identified and stored to enable the records to be readily located and made available as requested by Marine & Land Systems and/or the Government.

Changes within a paragraph are noted with a bar.

470 CERTIFICATION OF COMPLIANCE

Quality Clause 470 is satisfied without seller submittal of a certification, and if Quality Clause 475 is not invoked on the Marine & Land Systems purchase order, if the Marine & Land Systems Purchase Order invoking Quality Clause 470 includes as a general note of the Marine & Land Systems purchase order the following verbiage:

- a. Signed by an authorized representative stating that the items being supplied meet applicable referenced specifications and/or drawings and that all quantities provided are in accordance with the purchase order.
- b. When items procured are off the shelf, such as standard hardware (ie, standard nuts, bolts, washers, lock wire, cotter pins, or other catalog-type material supplied by a distributor), a certificate of compliance to purchase order and applicable catalog requirements is only required.
- c. Submit with each system shipped one legible copy of a certification of compliance, attesting that the supplier has complied with the requirements of the subcontract and that material and/or equipment (as applicable) was previously tested or has now been tested. As a minimum, the certificate shall reference the subcontract number, specification, part number, drawing number, revisions, and serial numbers, as applicable. The certificate shall be signed by a responsible quality representative with his/her title listed. The certificate shall include applicable test data, refer to the witnessing inspectors, and include appropriate other verifiable quality data. The supplier is responsible for its vendor performance.

The certification of compliance substitute defined herein for Quality Clause 470 is only applicable to Quality Clause 470 and is not acceptable for any other Quality Clause invoked within the purchase order.

Certification provided for Quality Clause 470 shall be in compliance with the applicable alpha paragraph for the material required by the purchase order if no alpha designation is invoked with the Quality Clause on the purchase order or if not all applicable alpha paragraphs are invoked.

DROP SHIPMENT CERTIFICATION:

Drop shipped materials require that a certification of conformance be mailed to Textron Systems Marine & Land Systems, Attn: PA Coordinator, Product Assurance Department, indicating that a drop shipment was authorized by Marine & Land Systems/PO and completed by the Supplier.

The certification shall state the name of the Marine & Land Systems Customer/Vendor who received the drop shipped materials along with the Marine & Land Systems PO number and responsible Suppliers name.

The standard Marine & Land Systems purchase order note verbiage, identified herein, that negates the certification

“By acceptance of this purchase order and performance hereunder, the Seller hereby certifies that the articles furnished in the quantities indicated and against referenced purchase order were produced in accordance with this purchase order and all drawings and/or specifications referenced hereon.”

- a. One legible copy of a certificate of compliance shall be provided with each shipment. The certificate shall be

submittal is not applicable to drop shipments. Quality Clause 475 need not be invoked to activate the certification/data submittal requirement by the Supplier.

The test/inspection data does not require to be provided with the drop shipped materials shipment however must be sent to Marine & Land Systems, as indicated above.

475 CERTIFICATION OF COMPLIANCE – SUPPLIER FURNISHED

When Quality Clause 475 is imposed on the Purchase Order along with Quality Clause 470, the supplier must submit the applicable certification required by Quality Clause 470 to Marine & Land Systems with the shipment of the hardware. If Quality Clause 475 is imposed on the Purchase Order, then the Terms and Conditions as noted on the Purchase Order specifying “Certificates of Compliance” will not solely suffice as compliance to the quality clause requirement.

- a. In addition to all of the requirements of Quality Clause 470 and 475 a manufacturers certification is also required which identifies each lot, heat, batch, serial number and/or unique identifying traceable number for materials provided. The certification shall, in addition, identify the applicable specifications/industry standards that the materials were manufactured to and are in compliance with such as IEEE-STD-45, for electrical cable and components, etc.

480 COUNTERFEIT PARTS

The supplier shall develop and implement a comprehensive counterfeit parts and assembly prevention and control plan to prevent the introduction of counterfeit parts and assemblies into items delivered to Marine & Land Systems.

Counterfeit parts shall mean a part, component, module, or assembly whose origin, material, source of manufacture, performance, or characteristics are misrepresented. This term includes but is not limited to parts that have been marked or remarked to disguise them or falsely represent the identity of the manufacturer. Also included are defective parts or surplus material scrapped by the original manufacturer, and previously used parts reclaimed and sold as new.

In the instance of detection of counterfeit parts by the supplier, the responsibility is to quarantine the material and notify Marine & Land Systems immediately. This notification is also to be flowed down to sub-tier

Changes within a paragraph are noted with a bar.

suppliers if applicable.

Quality Clause 480 is satisfied without seller submittal of a written certification if the Marine & Land Systems Purchase Order invoking Quality Clause 480 includes a general note of the following verbiage:

“In addition the seller also certifies that the articles furnished against referenced purchase order were supplied in accordance with this purchase order and contain no counterfeit parts as defined by TMLS 4156 (TML-QA-FM-005) Quality Clause 480”.

The supplier certifies that only new and authentic materials are used and supplied in products delivered to Marine & Land Systems, and that the work delivered or products sold contain no counterfeit parts or the individual materials are not counterfeit. This certification shall be signed by a responsible representative and furnished with the shipment.

The certification of counterfeit parts substitute defined herein for Quality Clause 480 is only applicable to Quality Clause 480 and is not acceptable for any other Quality Clause invoked within the purchase order.

490 COUNTRY OF ORIGIN

On all shipments the supplier is required to use form TML-IE-FM-007. Form TML-IE-FM-007 is located on the Textron and Marine Systems External page;

<http://www.textronsystems.com/who-we-are/for-suppliers/resources>

From this page tab through the indexes until the correct form number is visible.

Shipments shall be accompanied by a legible and reproducible copy of the supplier country of origin certification. This certification will contain part numbers included in the shipment, a description of the parts, the quantity of each part, and the country of origin of each part. Form TML-IE-FM-007 shall be signed by the responsible Quality personnel stating compliance to the specifics of this Quality Clause requirement.

550 IDENTIFICATION OF SHELF-LIFE MATERIAL – DELIVERABLE DOCUMENTATION (20% EXPIRED)

With the shipment of each item covered by this contract, the supplier shall furnish to Marine & Land Systems written identification of any shelf-life limitations on items or components. Indicate the cure date or manufacture date, batch/lot number, the shelf-life expiration date, the storage environment, and any special consideration required to achieve the stated life. If the limited life item is individually packaged, the item package shall bear this information. The supplier shall not supply any item with more than a 20% expired shelf life at the time of delivery.

551 IDENTIFICATION OF SHELF-LIFE MATERIAL – DELIVERABLE DOCUMENTATION (40% EXPIRED)

With the shipment of each item covered by this contract, the supplier shall furnish to Marine & Land Systems written identification of any shelf-life limitations on items or components. Indicate the cure date or manufacture date, batch/lot number, the shelf-life expiration date, the storage environment, and any special consideration required to achieve the stated life. If the limited life item is individually packaged, the item package shall bear this information. The supplier shall not supply any item with more than a 40% expired shelf life at the time of delivery.

552 IDENTIFICATION OF SHELF-LIFE MATERIAL – DELIVERABLE DOCUMENTATION (50% EXPIRED)

With the shipment of each item covered by this contract, the supplier shall furnish to Marine & Land Systems written identification of any shelf-life limitations on items or components. Indicate the cure date or manufacture date, batch/lot number, the shelf-life expiration date, the storage environment, and any special consideration required to achieve the stated life. If the limited life item is individually packaged, the item package shall bear this information. The supplier shall not supply any item with more than a 50% expired shelf life at the time of delivery.

553 IDENTIFICATION OF BATTERY SHELF-LIFE MATERIAL – DELIVERABLE BLANKET DOCUMENT

With each initial shipment covered by this contract, the supplier shall furnish to Marine & Land Systems a document which specifies any shelf-life limitations on Batteries or components. This document shall indicate the Shelf-Life of the Battery, as well as a description of where on the Battery the Manufacture Date is located. This Blanket Shelf-Life documentation is valid for (12 months) under the existing purchase order and will require updated Battery Shelf-Life documentation within (12 months) from the initial shipment date and any new purchase order or changes to the existing purchase order. If the limited life item is individually packaged, the item package shall bear this information.

Shelf-life is to be determined from the date stamped on the battery starting with the first of the month.

Supplier shall not supply any item with more than 40% expired shelf life at the time of delivery.

554 IDENTIFICATION OF SHELF-LIFE MATERIAL – DELIVERABLE DOCUMENTATION (5% EXPIRED)

With the shipment of each item covered by this contract, the supplier shall furnish to Marine & Land Systems written identification of any shelf-life limitations on items

Changes within a paragraph are noted with a bar.

or components. Indicate the cure date or manufacture date, batch/lot number, the shelf-life expiration date, the storage environment, and any special consideration required to achieve the stated life. If the limited life item is individually packaged, the item package shall bear this information. The supplier shall not supply any item with more than a 5% expired shelf life at the time of delivery.

The certification shall be traceable to the assembly produced and to this purchase order. The certification documents shall be retained on file at the Supplier's facility.

Records and other objective evidence of inspection testing, processing, and fabrication shall be retained by the supplier for a minimum of 7 years after the completion of the contract unless otherwise specified. These records shall be identified and stored to enable the records to be readily located and retrieved.

555 AGE CONTROL OF RUBBER GOODS

Quality Clause 555 consists of 555 (a) and 555 (b). If no alpha character designation is specified then 555 (b) is applicable.

Rubber goods delivered under this contract shall conform to the applicable following requirements:

- a. Material shall conform to MIL-STD-1523 requirements. Non-installed items shall be packaged in a cure date marked preservative wrapping and shall be delivered within 6 months from the cure date.
- b. The materials shall conform to Marine & Land Systems Purchase Order and Drawing/Specification requirements. All materials shall be new with no signs of age or deterioration. Materials shall be commercially packaged to preserve the materials during storage.

When this Quality Clause is invoked as a Purchase Order requirement, the Supplier shall include with the shipment a Certification attesting to the compliance of the material to Purchase Order requirements and the specifics of this Quality Clause. In addition the Certification shall include the Marine & Land Systems Purchase Order Number, Part Number and be signed and dated by an authorized representative of the company.

560 SHELF-LIFE MATERIAL INSTALLED IN AN ASSEMBLY – DELIVERABLE DOCUMENTATION

Each shipment of an assembly or assemblies incorporating a shelf-life material without age control after installation (such as adhesives, resin, plastic-base paints, etc) shall be supported by one legible copy of a certification signed by a responsible representative of the seller stating that the materials were properly controlled prior to use on the assembly and were within their specified shelf-life period. The certification shall be traceable to the assembly produced and to this purchase order.

565 TIME AND TEMPERATURE SENSITIVE MATERIAL

Time and temperature storage conditions must be attached to the packing sheet and accompany each shipment to be delivered hereunder. The outermost shipping box must be marked to indicate Time and Temperature Sensitive Material and Temperature Storage Range in degrees.

610 NONDESTRUCTIVE TESTING (NDT) REQUIREMENTS

Prior to performing any NDT under this order, the seller must obtain written approval (signed by an authorized representative of Marine & Land Systems) of seller procedures, personnel, and associated equipment as set forth in the applicable specifications and/or standards.

Seller or subcontractor laboratory personnel shall not read or interpret test results in connection with this order until evidence of their certification is approved by Marine & Land Systems.

One legible copy of all applicable test reports signed by a responsible representative of the seller shall be provided.

The reports shall indicate the test performed, the applicable specifications or standards with revision letters or numbers, and name and address of the tester if other than the seller. It shall also indicate the part number and revision, purchase order number, and serial numbers when applicable.

If parts are not serialized, the supplier shall use temporary serial numbers and tag parts for traceability to the inspection data.

In the case of radiographic inspection, one legible copy of the X-ray report and technique sheets, signed by a responsible laboratory representative, shall accompany the material, and one legible copy of the X-ray report, technique sheets, repair sketch (repair only), and X-ray film shall be sent to:

Textron Systems Marine & Land
252 Stone Road
Slidell, LA 70460
Attention: Product Assurance Admin
Product Quality Assurance Department

When testing is subcontracted, the seller is responsible for approval of the testing procedures, personnel, and associated equipment for each subcontractor as set forth in the applicable specifications and/or standards. The seller

Changes within a paragraph are noted with a bar.

561 SHELF-LIFE MATERIAL INSTALLED IN AN ASSEMBLY – NON-DELIVERABLE DOCUMENTATION

Each shipment of an assembly or assemblies incorporating a shelf-life material without age control after installation (such as adhesives, resin, plastic-base paints, etc) shall be supported by the original materials certification furnished by the supplier. It shall be signed by a responsible representative stating that the materials were properly stored and controlled prior to shipment and were within their specified shelf-life period.

shall maintain on file certification of such approval (available to the Marine & Land Systems representative for review upon request) during the period of performance of this order or longer periods as may be specified elsewhere in this order. Textron Marine & Land Systems shall have the right to audit and/or perform surveillance functions at any subcontractor facility performing NDT functions as part of this order.

The Seller shall provide to Marine & Land Systems with each shipment a Seller Certification for each subcontracted sub-tier supplier NDT performed on materials to be provided to Marine & Land Systems. Each certification shall meet the requirements of Quality Clause 610 for each specific NDT method performed.

Tests/methods referred to herein include, but shall not be limited to, radiographic, ultrasonic, liquid penetrant, and magnetic-particle tests.

612 NONDESTRUCTIVE TESTING (NDT) RADIOGRAPHIC REQUIREMENTS

In the case of radiographic inspection, One legible copy of the X-ray report signed by a responsible laboratory representative must accompany the material, as well as the film. The X-ray technique sheet utilized shall also accompany the report. For repairs, the repair sketch and number must appear on the certification. The supplier must review and accept all reports of subcontractors.

615 NONDESTRUCTIVE TEST CERTIFICATION

All shipments requiring nondestructive tests shall be accompanied by one legible and reproducible copy of a certified report of actual nondestructive tests (including, but not limited to, penetrant, magnetic particle, ultrasonic, radiographic, nital etch) performed identifiable with acceptance requirements and material submitted (name, specification number and revision, type, method, company procedure number, etc). These reports must contain the signature and title of the authorized supplier representative performing the inspection and must ensure conformance to specification requirements.

- a. When parts are serialized, serial distributor listed on the QPL, the manufacturer or distributor shall furnish the name of the manufacturer and part number designation of the product with each shipment. This information shall be preprinted on a tag affixed to the parts, or if the size of the parts does not permit, the information shall appear on a label or on the box in which the parts are contained.
- b. For qualified products from supplier or distributors not on the QPL, the seller shall furnish with each shipment one copy of a certification signed by a responsible representative that reads as follows:

Seller certified that the product and/or supplies shipped have been qualified by (manufacturer name) under

reference test number _____ and QPL (or interim approval) number _____.

- c. For a QPL item incorporated into end items, the seller shall furnish one copy of a certification signed by a responsible representative. The certification shall list the QPL items, and name and designation of the manufacturer, and the QPL reference number (which will be incorporated into an end item) and shall state that the end items meet the qualifications of the QPL.

616 NONDESTRUCTIVE TEST APPROVAL

Prior to performing any nondestructive test under this order, the supplier must obtain written approval by Marine & Land Systems for supplier procedures, personnel, and associated equipment as set forth in the applicable specifications or standards. Nondestructive tests include, but are not limited to, penetrant, ultrasonic, magnetic particle, radiographic inspections, pressure test, etc.

When testing is subcontracted, the seller is responsible for approval of the testing procedures, personnel, and associated equipment for each subcontractor as set forth in the applicable specifications and/or standards. The seller shall maintain on file certification of such approval (available to the Marine & Land Systems representative for review upon request) during the period of performance of this order or longer periods as may be specified elsewhere in this order. Textron Marine & Land Systems shall have the right to audit and/or perform surveillance functions at any subcontractor facility performing NDT functions as part of this order.

617 RADIOGRAPHIC TECHNIQUE SHEET

The supplier shall submit a completed radiographic technique sheet. A sample test of film processed in accordance with the technique sheet shall be submitted with the completed technique sheet for approval prior to acceptance testing and/or qualification testing.

618 VISUAL WELD INSPECTION

For any welding required by the technical data package, 100% Visual Weld Inspection (in accordance with the weld specification call out) is required.

620 QUALIFIED PRODUCTS LIST (QPL) CERTIFICATION

- a. For qualified products from a manufacturer or X-ray technique sheet shall accompany the X-ray report.

630 TESTING

Quality Clause 630 consists of 630 (a), 630 (b), 630 (c), 630(d) and 630 (e). If no alpha character designation is specified then 630 (c) is applicable.

- a. Sixty days prior to testing, the seller shall submit test procedures to Marine & Land Systems for approval. Test procedures shall comply with the requirements of Data Item Description DI-NDTI-80603 and shall be approved by Marine & Land Systems prior to testing. Test procedures shall identify the test equipment to be used by type and model (range and accuracy shall be specified as applicable). The test procedures shall identify the methodology for performance of the test in sequential steps. The environmental conditions for testing shall also be identified.
- b. Thirty days after completion of testing, the seller shall submit a test report to Marine & Land Systems. The test report shall comply with Data Item Description DI-T-2072 and requires approval by Marine & Land Systems.
- c. Test and inspection records shall provide, as a minimum, the item description, drawing number and revision level, purchase order, contract number, test number, quantity tested/inspected, characteristics inspected with associated tolerance, actual results, disposition of test/inspection results, and identification of witnessing/performing inspector. The test data shall be furnished with the shipment.
- d. Insulation-resistance measurement tests shall be made on all motors, generators, line voltage regulators, transformers, and static power conversion equipment. Separate measurements shall be made on the armature and field windings. Insulation resistance shall be measured with an insulation-resistance indicating ohmmeter, type GC or GM, conforming to MIL-O-16485 or equivalent. The test voltage shall be applied for not less than 60 seconds. The temperature of the component shall be noted and insulation-resistance measurements shall be corrected to 25°C. Corrections shall be based on insulation-resistance doubling for each 15°C decrease in temperature.

Insulation resistances, corrected to 25°C, shall be not less than the following megaohm values:

<u>AC generators</u>	
Generator stator circuit	10
Generator rotor circuit	20
Exciter armature circuit	10
Exciter field circuit	10
Starting motor	10
Governor motor	5
Starting motor	10

<u>AC motors</u>	
Squirrel-cage induction (3-phase) motors	25
Other AC motors	10

<u>DC motors</u>	
Armature circuit	25
Field circuit	50

<u>Components</u>	
Static power conversion equipment	10
Transformers	10
AC and DC controllers	10
Line voltage regulators (with neutral disconnected from ground)	10
Field rheostats	10
Frequency regulators	10
Variable speed controllers	10
Voltage regulators	10

NOTE:

Where the drawing/specification noted on this purchase order requires an insulation resistance greater than that noted here, the drawing/specification requirement shall be complied with.

Insulation resistance test data shall be recorded and one copy shall be furnished with the shipment. The test report shall comply with the requirement of Data Item Description DI-T-2072. The test report shall include the purchase order number and serial number, part number, and nomenclature of the item tested.

- e. The supplier shall submit a test report to Marine & Land Systems with the shipment. The test report shall comply with Data Item Description UDI-T-23729, and requires approval by Marine & Land Systems. The test report shall be signed by a responsible inspection/testperson.
- f. For certain suppliers approved by the Supplier Quality Manager or higher, the test records may be maintained at the supplier’s facility and not required to be with the shipment. The data however must be maintained by the supplier and available within 48 hours of a request from Marine & Land Systems.
- g. If a contractor is required by the Statement of Work (SOW) to submit acceptance test results by way of a Subcontract Data Requirement List (SDRL) into the Collaborative Work Environment (CWE) portal, then deliverable documentation is not required to accompany shipping documents. Acceptance test results shall be maintained on file in the CWE for as long as the contract dictates.

640 FUNCTIONAL TEST CERTIFICATION

The functional test records’ reports for the specified testing requirements shall be maintained on file and available for examination.

650 100% LOT – OBJECTIVE INSPECTION DATA

Objective data per the drawing dimensions and associated tolerances based on the supplier’s final inspection plan shall be created for each shipment and maintained by the *Changes within a paragraph are noted with a bar.*

supplier. The supplier inspection plan may include only critical dimensions as required to ensure conformance.

On a periodic basis, as deemed necessary by Marine & Land Systems Quality Engineering, data for a specific shipment and part will be requested. This clause requires that the data be created at the time of shipment therefore making the report immediately available upon request. The Marine & Land Systems review of test reports is in no way an approval of the dimensions selected and the supplier's quality planning. The supplier is responsible to deliver parts free of defects.

The data collected is for 100% of the parts provided in the shipment. The report may be the individual values for each part or portrayed as a range (min & max) of the actual inspection results. If the minimum and maximum are reported, all inspection results shall be made available at the request of Marine & Land Systems.

Inspections may be performed to a media of inspection. Data used to certify, validate and maintain the media of inspection must be available upon request.

Marine & Land Systems may, as part of corrective action for defective parts, require changes to the supplier's quality planning.

The data sheets shall contain the Purchase Order number, part number(s), quantity and the above dimensional data and be signed by a responsible representative of the seller assuring conformance to the requirements.

652 AUDITED LOT - OBJECTIVE INSPECTION DATA

Objective data per the drawing dimensions and associated tolerances based on the supplier's final inspection plan shall be created for each shipment and maintained by the supplier. The supplier inspection plan may include only critical dimensions as required to ensure conformance.

The data shall be specific to a minimum of 5 parts selected at random or 10% of the parts selected at random if the shipment is 55 parts or greater.

On a periodic basis, as deemed necessary by Marine & Land Systems Quality Engineering, data for a specific shipment and part will be requested. This clause requires that the data be created at the time of shipment therefore making the report immediately available upon request. The Marine & Land Systems review of test reports is in no way an approval of the dimensions selected and the supplier's quality planning. The supplier is responsible to deliver parts free of defects.

The report may be the individual values for each part inspected or portrayed as a range (min & max) of the actual inspection results obtained for the entire shipment provided. If the minimum and maximum are reported, all inspection results shall be made available at the request of Marine & Land Systems.

The data reports shall contain the Purchase Order number,

part number(s), quantity and the above dimensional data and be signed by a responsible representative of the seller assuring conformance to the requirements.

If a lot is produced greater than the shipment quantity, data complying with the above requirements may be created for the entire lot. This lot inspection data should be attached to a shipment specific data report as defined by this clause.

Inspections may be performed to a media of inspection. Data used to certify, validate and maintain the media of inspection must be available upon request.

Marine & Land Systems may, as part of corrective action for defective parts, require changes to the supplier's quality planning.

655 SERIALIZED - OBJECTIVE INSPECTION DATA

Objective data per the drawing dimensions and associated tolerances based on the supplier's final inspection plan shall be created for each shipment and maintained by the supplier. The supplier inspection plan may include only critical dimensions as required to ensure conformance.

The data shall be specific to all of the quantity provided in the shipment with individually listed part inspection results identified to a serial number of the actual inspection results obtained for the entire lot provided.

The data sheets shall be signed by a responsible representative of the seller assuring conformance to the requirements. If parts are not serialized, the supplier shall use temporary serial numbers and tag parts for traceability to the inspection data.

On a periodic basis as deemed necessary by Marine & Land Systems Quality Engineering, data for a specific shipment and part will be requested. This clause requires that the data be created at the time of shipment therefore making the report immediately available upon request. The Marine & Land Systems review of test reports is in no way an approval of the dimensions selected and the supplier's quality planning. The supplier is responsible to deliver parts free of defects.

Marine & Land Systems may, as part of corrective action for defective parts, require changes to the supplier's quality planning.

660 TEST BARS (CASTINGS)

The supplier shall furnish with each melt of a shipment:

- a. Two bars prepared to Federal Test Standard 151 of each heat treat and melt log of casting supplier.
- b. One spectrographic disk representing castings heat or melt supplier.
- c. Test bars and disk identified with purchase order number, alloy identification, and heat or melt they represent.

662 TENSILE TEST SAMPLES

Two separately cast test bars, coupons, or appendages as defined by the applicable specification or drawing shall be submitted with each lot delivered.

664 WELD TEST SAMPLES

Supplier shall furnish with initial shipment two samples of the same type material of comparable thickness at least 6 inches in length, which bear the same type weld used on the production item.

666 PLATING TEST SAMPLE

The supplier shall submit a separate plating specimen for each lot of plated parts, in accordance with the plating specification(s) referenced on the drawing. The specimen shall be partially masked to expose a portion of the base material and any under-plating. The specimen shall be retained by the contractor.

667 TEST SAMPLES

Concurrent with the shipment of production articles, the supplier shall furnish a minimum of two test samples of each batch sufficient to conduct tests in accordance with specification or contract requirements. Each test sample must be clearly and permanently marked with (1) batch or lot number; (2) date manufactured; (3) specification or material control information number; (4) contractor's designation; (5) purchase order number.

668 HEAT TREAT SAMPLES

Two test bars or samples shall be heat treated with parts and submitted with shipment (for each heat treat lot).

670 TEST BARS (FORGINGS)

The supplier shall furnish with each shipment: Two test bars prepared to Federal Test Standard 151 of each heat of the forgings supplied.

- a. Test bars identified with the applicable purchase order number, alloy identification, and heat number it represents.

672 RAW CASTINGS AND FORGINGS

A minimum of two samples of all raw castings and forgings are required from new or reworked dies or molds and must be approved by the contractor run prior to the run of production parts. Unless source inspection is a requirement of the contract, the samples shall be forwarded to Receiving Inspection with the actual results of layout inspection, radiographs, and actual chemical and physical test results.

When source inspection is a requirement of the contract, the layout and test data shall be evaluated at the supplier's facility. In either case, first article approval is required prior to the start of production. The supplier is responsible for

obtaining approval of any change in processes or tooling using the same approval instructions stated above.

674 SUPPLEMENTAL DATA REQUIREMENTS (CASTINGS/FORGINGS)

In addition to chemical/physical test reports stating the actual chemical and mechanical properties for each lot submitted, the inspection test data listed below shall be submitted for each lot of castings or forgings as required by specification or contract.

Certification for radiographic, magnetic particle, fluorescent penetrant and/or ultrasonic inspection, pressure test, and/or grain flow shall be submitted as required with the order.

Radiographic inspection film for each casting radiographed shall be supplied upon request.

These reports shall be validated by an authorized representative of the supplier's quality department, by either an inspection stamp or signature.

680 REDLINE CHARTS (GEARS)

The supplier shall furnish with each shipment a continuous redline gear chart for each article in this shipment. Redline charts shall be for one complete revolution with an indication of START and STOP. The chart shall be accompanied by a certification of material and process compliance to purchase order, blueprint, and specification. The certification shall be signed by a responsible representative and shall spell out the applicable document and revision letter or date. A legend shall also be provided for strip-chart interpretation.

685 ELECTRICAL CABLE

The purchase order specification requirements are required to be met. In addition, the following requirements shall be met. Where there is a conflict in these requirements, the purchase order specification shall apply.

The supplier shall submit with the shipment a test and inspection report that provides inspection and test data (quantitative results of all quality conformance inspections and tests performed in accordance with applicable specification) showing that the cable meets specification requirements. This test report shall comply with Data Item Description UDI-T-23729. The test report shall be traceable to the cable shipped and is subject to approval by Marine & Land Systems.

Both ends of the cable shall be exposed and readily accessible. Both ends of the cable shall be sealed with a strippable plastic coating per MIL-P-149D, a minimum of 2 inches on each end. Only one cable shall be on each reel.

686 ELECTRICAL CABLE INSPECTION SAMPLE

Prior to shipment, the supplier is to submit a 4-foot

Changes within a paragraph are noted with a bar.

sample and associated test report for each lot of cable to be inspected by Textron Marine & Land Systems' Quality Engineering. Acceptance and authority to ship will be granted subsequent to inspection. Samples are to be addressed to:

Manager, Quality Services
Textron Marine & Land Systems
252 Stone Road
Slidell, LA 70460

690 ELECTRONIC COMPONENT SCREENINGS

The seller is responsible for all electronic components purchased or manufactured, and shall screen for proper material, workmanship, and performance to ensure compliance to all drawings and the specification for that component. The seller shall maintain objective evidence of compliance on file, subject to Marine & Land Systems review upon request.

691 MANUFACTURING SCREENING TEST (ESS)

The seller shall conduct temperature cycling and random vibration in accordance with NAVMAT P-9492, May 1979, section 4.0, for contract end items consisting largely of electronic components. The seller shall maintain objective evidence of compliance on file, subject to Marine & Land Systems review upon request.

693 MANUFACTURING SCREENING TEST (ESS)

The seller shall conduct temperature cycling and random vibration testing in accordance with NAVMAT P-9492, May 1979, section 4.0, for contract end items consisting largely of electronic components. The seller shall record the test results and submit a test report with each item shipped.

695 ELECTROSTATIC DISCHARGE

An electrostatic discharge control program for class 1, 2, and 3 items of DOD-HDBK-263 and class 1 and 2 items of DOD-STD-1686 shall be implemented and documented.

This order includes items sensitive to electrostatic discharge (ESD). These parts must be packaged in conductive ESD protective packaging in accordance with DOD-STD-1686. Labels indicating ESD sensitivity must be affixed to both the inner and outer packaging. Additionally, a caution label conforming to MIL-STD-129 must be affixed to the outer package.

Receiving report, packing slip, etc, must be attached to the outside of the package and be easily removable without causing harm to contents.

Parts must be handled in accordance with paragraph 5.4 of DOD-STD-1686.

710 HEAT OR MELT IDENTIFICATION

All parts and/or material shall be identified with the heat, melt or heat code, or lot number. When stamping parts is not practical, they shall be tagged.

711 HEAT LOT NUMBER TRACEABILITY

For material that is drop shipped from the mill to the supplier, the heat lot number is required to be transferred from the plate to the parts fabricated from that plate. The Heat lot number shall be marked on the part in the same manner as the part marking is specified.

720 IDENTIFICATION MARKING OF PARTS

Note: Parts received by the supplier with an IUID label do not require the 720 marking requirements for the part.

If the drawing calls for the use of etching, ink stamp or equivalent method of marking the machine readable IUID on the part, an IUID label shall not be required.

Parts shall be marked/identified in accordance with Quality Clause 720. This includes items within in equipment, assemblies, subassemblies, components, groups, sets, or kits, and applies to new, spare, and repair parts.

Marking per Clause 720 shall be done per one of the following subtypes: 720 (a), 720 (b) or 720 (c). The subtype is specified in the purchase order, and is selected based upon the part origin, design, and application.

Clause 720a applies only to commercial (off the shelf) parts or components which are purchased under a supplier part number.

Clause 720b applies only to parts or components which have been purchased per a Government, Military Spec (MS), National Stock (NSN), or Marine & Land Systems part number.

Clause 720c applies to parts or assemblies which have been Manufactured or Fabricated per a Government or Marine & Land Systems specification or drawing.

720a. Parts manufactured to Commercial (off-the-shelf) specifications shall be marked by the supplier/distributor with the part number identified on the Marine & Land Systems Purchase Order. The part number shall either be marked directly on the part or on the part's package, carton, or container. When not practical, bagging or tagging with the part number is permitted.

In addition, the part marking, tag, or bag shall be marked with the Marine & Land Systems Purchase Order.

720b. Parts manufactured to Government, MS, NSN, or Marine & Land Systems specifications shall be marked as follows:

- (1) Electrical parts, i.e., all parts in electrical equipment and electrical parts used in equipment not electrical

Changes within a paragraph are noted with a bar.

in nature (e.g., electric controls and motors in a hydraulic system) shall be identified and marked in accordance with MIL-STD-1285. Where MIL-STD-1285 does not apply, the part shall be identified and marked in accordance with MIL-STD-130.

- (2) Electronic parts, i.e., all parts in electronic equipment and electronic parts used in equipment not electronic in nature (e.g., electronic fuel controls in some engines) shall be identified and marked in accordance with requirement 67 of MIL-HDBK-454.
- (3) Parts other than electrical or electronic parts (as described above) shall be identified and marked in accordance with MIL-STD-130.
- (4) In cases where parts are so small they cannot be identified and marked as provided above, those parts shall be appropriately coded to permit ready identification.

When not practical, bagging or tagging to identify is permitted. In addition, the part marking, tag, or bag shall be marked with the Marine & Land Systems Purchase Order number.

720c. Fabricated Parts and / or Assemblies manufactured to Government and /or Marine & Land Systems specifications shall be marked in accordance with MIL-STD-130. In addition the individual part must be marked with the part number and Marine & Land Systems purchase order number.

730 DATE OF MANUFACTURE, FABRICATION OR FINAL ASSEMBLY

Materials, parts or assemblies shall have the date of manufacture, fabrication or final assembly applied under or near the part number and by the same method used to apply the part number. The format shall be year – four digits, month – 2 digits and day – 2 digits. An example of the correct date format is as follows: 20070601 for June 1st, 2007.

800 REPORT OF DISCREPANCY

Quality Clause 800 consists of 800 (a) and 800 (b). If no alpha character designation is specified then 800 (b) is applicable.

Unless otherwise approved by Marine & Land Systems Product Assurance on a SMRR provided by the customer, all materials supplied shall be in accordance with the configuration of the part number specified, to include revision level if stated or implied by the part number, and to be identical to all previously supplied materials. All materials shall meet the configuration as designed and ordered, without substitution, without repairs, be new/unused status and without a deviated condition of “use as is” from the original design. All materials shall be shipped complete to the designed and required configuration, with no shortages. Any/All deviation requests shall be documented on a SMRR by the Supplier and dispositioned by Marine & Land Systems

MRB prior to the shipment. Additional deliveries of parts with a deviation to requirements, even when previously accepted, must have a new SMRR submitted and approved prior to the shipment.

- a. If approved by Marine & Land Systems, the supplier shall create a Material Review Board (MRB) to review and determine action to be taken for type II nonconformance material. As a minimum, the MRB members shall consist of a supplier representative whose primary responsibility is design or engineering, a supplier representative whose responsibility is product assurance, and a Government representative. The supplier representative appointed to the MRB shall be subject to Marine & Land Systems approval. A resume of each proposed appointee will be submitted to Marine & Land Systems. Type I nonconformances shall be documented on a Supplier Material Review Request (SMRR) and submitted to Marine & Land Systems for disposition. The SMRR must receive disposition by the Marine & Land Systems Material Review Board prior to shipment of the applicable material. The SMRR forms can be obtained from Marine & Land Systems.

Nonconformances are defined as follows:

- Type I - Supplies that depart from contract requirements and affect any of the following areas: performance, durability, interchangeability, effective use or operation, weight, appearance, health, or safety.
- Type II - Supplies or services that depart from contract requirements and are minor in that they do not affect any of the criteria specified in type I above. Departures are considered minor when they deviate insignificantly from established standards with no consequences bearing on the effective use, operation of the item, related components, or application.
- b. Departures from drawings, specifications, standards, or purchase orders considered salvageable, which cannot be brought into compliance through completion of standard operations or rework to drawing requirements, will be recorded and reported on Marine & Land Systems Form 0091, Supplier Material Review Request (SMRR). Submit all completed SMRR documents to the Marine & Land Systems Buyer or directly to Marine & Land Systems Product Assurance Attn: PA Coordinator, 1010 Gause Blvd., Slidell, LA 70458. The departure must be dispositioned and approved by Marine & Land Systems prior to shipment. The conditions and instructions for the use and completion of the SMRR form are as defined on the reverse side of the form.

900 PACKAGING, PRESERVATION, AND PACKING

- a. The items shall be preserved, packed, and packaged, as a minimum, in accordance with the requirements

Changes within a paragraph are noted with a bar.

of MIL-P-116G (method 1C-3). The shelf life for delivery preparation shall be a minimum of 2 years.

- b. The item shall be preserved, packed, and packaged in accordance with good commercial practice. The shelf life for delivery preparation shall be assumed to be 2 years.

905 PACKAGING APPROVAL

The supplier shall submit its proposed packaging design criteria to the contractor for review/approval prior to the first shipment on this procurement.

906 PACKAGING, PRESERVATION, AND PACKING

Unit pack one per package within a preservation wrap per method 1C-1 of MIL-P-116, unless otherwise specified by blueprint or specification. The supplier shall provide a certification with each shipment signed by a responsible representative containing the following information: purchase order number, cure date, manufacture date, batch/lot number, material specification, compound number, revision, and the part number.

910 SELLER-CONTROLLED PRODUCTS

A copy of applicable specifications, drawings, and/or catalog fly sheets must accompany only the initial shipment of parts on this purchase order. No changes shall be made on subsequent shipments against this purchase order unless authorized by Marine & Land Systems.

915 HEAT-TREATED STEEL NUTS

Heat-treated steel nuts shall be examined for defects. Each nut shall be subjected to wet fluorescent magnetic particle inspection in accordance with MIL-STD-271. Cracks and forging laps are not acceptable. Questionable defects shall be viewed under 5X minimum magnification with the particles removed. Seams on the flats, as evidenced by the straight, longitudinal, light particle buildup appearance, are acceptable if they do not extend into the crown or the washer face by more than 1/64 inch. Indications across the threads are acceptable if they do not extend to the root. Nuts showing four or more indications exceeding 1/8 inch in length shall be rejected. This examination shall be performed on all nuts defined above, except those nuts machined from steel bars inspected by electromagnetic analysis (eddy current) and found acceptable need not be re-inspected. For the electromagnetic analysis inspection, seams and other discontinuities in bar stock shall not exceed the indication obtained from an artificial defect of 0.01 inch in depth on a calibrated bar, or the radial thickness of material which will subsequently be removed during nut fabrication, whichever is less. Bars containing cracks, seams, or discontinuities, which exceed the above limits, shall be rejected. Wet magnetic particle inspection in accordance with MIL-STD-271 may be used in lieu of electromagnetic analysis, provided the depth of discontinuities is confirmed by filing or grinding across the area containing magnetic particle indication.

The supplier shall submit an inspection report with each lot

of nuts shipped indicating actual inspection results that provide objective evidence the lot of nuts meets the above requirements.

920 OPERATING TIME/CYCLE DATA

The seller shall initiate and maintain a record of operating time and cycle record of acceptance testing in the performance of this purchase order. Operating time/cycle is a requirement of this purchase order and must be submitted with each shipment, traceable to the part it represents by serial number.

921 MATERIAL HISTORY

The supplier shall prepare and maintain a material history for supplier-furnished equipment noted below. Entries shall be made describing repairs made, maintenance performed, derangements occurring, alterations made, tests conducted, and other information considered necessary to provide a comprehensive material history of the item concerned.

Routine cleaning and inspection shall not be recorded. The supplier shall operate machinery and equipment only for testing or as required to support the testing of other machinery and equipment. The supplier shall establish a system for recording the number of hours each of the following types of machinery and equipment was operated by the supplier during manufacturing, inspection, and test (prior to delivery): fuel pumps, cargo handling equipment, generator sets, water pumps, stripping pumps, hydraulic pumps, mooring and anchoring gear, lube oil pumps, and steering equipment. The supplier shall provide with each item shipped (with the shipment) the material history containing, as a minimum, part number, serial number, modifications incorporated, maintenance performed, tests conducted, number of hours the equipment was operated, and failures that occurred during test.

930 CALIBRATION REPORT

Quality Clause 930 consists of 930 (a) and 930 (b). If no alpha character designation is specified then 930 (a) is applicable and required. Only Quality Clause 930 (a) is acceptable for the calibration of IMTE equipment provided by M&LS. Purchased parts requiring calibration can require either Quality Clause 930 (a) or 930 (b) depending on M&LS data and certification requirements invoked on the PO.

- a. Upon completing the calibration of deliverable Inspection, Measuring and Test Equipment (IMTE), a signed "long form" calibration test data report of actual results attesting to the satisfactory calibration of the equipment shall be shipped/returned with the equipment along with a calibration certification that is traceable to the test data. The report shall contain the "As Received/As Found" and "As Left" condition and supporting "before and after" data as applicable to the

purchase, i.e. service/new hardware. If M&LS provided IMTE has failed calibration all test data actual results shall be provided. Failed equipment shall be physically identified as failed/rejected and traceable to their test data. New purchased parts and new IMTE do not require before data. The report shall provide an estimate of the uncertainty (limit of error), the calibration results, and statement that the equipment was calibrated to meet or exceed the original manufacturer specifications and stated accuracy. The report shall identify the date of the equipment calibration and shall also attest that the standards used in obtaining the results are traceable and have been compared at planned intervals with the National Institute of Standards and Technology (NIST), either directly or through a controlled system using the methods outlined in ISO 9001, AS 9100, ISO 10012, ISO 17025 and/or ANSI/NCSL Z540-1-1996 Handbook, ANSI/NCSL Z540-2-1997 - Guide, ANSI/NCSL Z540-3-2006 - Calibration, requirements, as applicable. The report shall also specify the name/identity of the person performing the calibration and shall be signed by a responsible representative and dated.

- b. A signed calibration “short form” certification/data sheet, identified to its related unit and attesting to the satisfactory calibration to, ISO 9001, AS 9100, ISO 10012, ISO 17025 and/or ANSI/NCSL Z540-1-1996 Handbook, ANSI/NCSL Z540-2-1997 - Guide, ANSI/NCSL Z540-3-2006 - Calibration requirements, as applicable, shall accompany each shipment. The calibration certification/data sheets shall reflect the actual calibration results of the “after”/“as left” data.

number. The marking shall read:

NSN No.: _____

Serial No.: _____

940 DATA ITEMS

When two copies of data are requested by a quality clause(s) or any other contract document, one copy shall accompany the shipment of hardware and the second copy shall be sent to:

Textron Systems Marine & Land
252 Stone Road
Slidell, LA 70460
Attention: Product Assurance Admin
Product Quality Assurance Department

If no hardware is being submitted, submit all required copies of data to:

Textron Systems Marine & Land
252 Stone Road
Slidell, LA 70460
Attention: Product Assurance Admin
Product Quality Assurance Department

942 QUALITY AND WORKMANSHIP REQUIREMENTS, MIL-HDBK-454

Requirement 5 - Soldering; Requirement 9 - Workmanship; and Requirement 12 - Fasteners, are invoked on this order. When applicable, Requirement 10 - Electrical Connectors; Requirement 13 - Structural Welding; Requirement 17 - Printed Wiring; Requirement 67 - Marking; and Requirement 69 - Internal Wiring Practices, are also invoked on this purchase order.

935 LIFEBOATS

Lifeboats shall be banded / lashed to an individual pallet for handling and shipment. Warning markings (1/2-inch red letters) shall be added to the exterior of each boat and shall read as follows:

DO NOT ROLL THIS CONTAINER.

DO NOT STAND ON END.

If the lifeboat and pallet are placed in a shipping container, the above warning marking shall be placed on the sides and top of the shipping container.

The lifeboat first aid kits shall be packed with the freshest items available. However, under no condition shall those items packed have less than 24 months remaining until their shelf life expires.

The lifeboats shall have monel disks for the inflation valves. All lifeboats shall have the lifeboat serial number stenciled in 1/2-inch letters on the upper half of the lifeboat container (to indicate that the inflation valves have monel disks). This marking is to be done in accordance with MIL-C-24491B(SH), paragraph 3.5.1.1 immediately after the NSN

950 SPECIAL CERTIFICATION REQUIREMENTS, ASV MATERIALS

The following materials require special supplier certification. The certifications shall be provided in duplicate to Marine & Land Systems with the hardware shipment. All certifications must be signed by an authorized representative stating that the item(s) meet applicable specifications, catalog requirements, technical and performance criteria, etc., and are in accordance with the purchase order. The certification must also include the item(s) Serial Number (s/n) or Model Number, as applicable, as well as the following specific verbiage. Any certifications that do not include these specifics will result in the hardware being rejected and held for supplier correction.

* - Engine (Alternative Fuel)

The certification must state that the engine is capable of continuous operation on fuel JP5 in all ambient temperatures without adverse impact on reliability, durability or warranty. The certification must also be

Changes within a paragraph are noted with a bar.

supported by and accompanied by the actual test results/performance data or analytical data in addition to the above.

*** - Towing Pintle – Standard Army Type**

The certification must state that the standard Army towing swivel pintle is rated for 500 pounds tongue weight. The certification must also be supported by and accompanied by the actual test results/performance data or analytical data in addition to the above.

*** - Exhaust System and Components**

The certification must state that the exhaust system muffler and tailpipe are made of corrosion resistant material. The certification must also be supported by and accompanied by actual test results/performance data or analytical data in addition to the above.

*** - Fire Extinguisher System and Components**

The certification must state that the fire extinguisher system and its components use an Army Surgeon General approved agent and are capable of being recharged using DoD-type classified systems that use environmentally safe agents. The certification must also be supported and accompanied by actual test results/performance data or analytical data in addition to the above.

*** - CARC Paint and Primer**

The certification must state that the paint supplied is CARC paint and/or that the primer supplied is compatible with CARC paint. The certification must also be supported by and accompanied by actual test results/performance data or analytical data in addition to the above.

*** - JP8 Fuel**

The certification must state that the fuel is JP*. The certification must also be supported and accompanied by actual test results/performance data or analytical data in addition to the above.

952 SPECIAL CERTIFICATION REQUIREMENTS, SSC MATERIALS

The following materials require special supplier certification. The certification shall be provided to Marine & Land Systems 45 days prior to the delivery of paint and/or primer (raw materials), and 45 days prior to the delivery of painted hardware, and also furnished with the raw materials or hardware shipment. All certifications must be signed by an authorized representative stating that the item(s) meet applicable specifications, catalog requirements, technical and performance criteria, etc., and are in accordance with the purchase order. The certification must also include the coating batch number as well as the following specific verbiage.

Prior to the delivery of materials, certifications shall be submitted to:

Textron Systems Marine & Land
252 Stone Road
Slidell, LA 70460
Attention: Product Assurance Admin Product
Quality Assurance Department

Any certifications that do not include these specifics will result in the paint, primer, or hardware being rejected and held for supplier correction.

*** - Paint and Primer**

For raw materials deliveries only, the certification must state that the paint supplied meets the specifications on the drawing or purchase order. The certifications must also be supported and accompanied by actual test results/performance data.

For delivered components and assemblies, the certification must state that the paint applied to the delivered item(s) meets the specifications on the drawing or purchase order. The certifications must also be supported and accompanied by actual paint test/performance data (paint manufacturers test certificates) or analytical data.

Revision:

8/18/16 – Modified Clauses 401 and 720 to allow for non-label marking of IUIDs on parts.

11/16/18 – Per CARR IA18-011 changed ISO 9001:2008 requirements elements to the ones called out in ISO 9001:2015, Quality Clause 210.

1/2/2018 – Added Clause 554. Removed the Supplier/Manufacturer identifying Part Marking requirement from Clauses 720A and 720B.