

Global Supplier Quality Manual



Second Edition
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"One System...One Team...One Oshkosh"





This Oshkosh Corporation Supplier Quality Manual has been reviewed, approved and signed by the Quality and Purchasing leadership from each business segment.

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Supplier Quality Manual



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1. Introduction

The Supplier Quality Manual serves as a guide for aiding suppliers in understanding the key elements of Oshkosh Corporation Quality Requirements. The Supplier Quality Manual sections are the minimum practices that must be effectively implemented at all supplier facilities. In addition, Segment specific requirements are listed in the addendum section.

These requirements apply to ALL SUPPLIERS of:

- Production Materials
- Production or Service Parts
- Distribution Centers
- Manufacturers of Machinery

It is Oshkosh Corporation's mission to provide our customers with defect-free products and service, supply them this product globally and at the lowest total cost. The goal is simple – to be the benchmark supplier in every market. This goal can only be achieved with the support and commitment between you, our supplier and us. Clear, concise expectations and requirements will make the supplier-customer relationship more rewarding for all.

When referenced, Oshkosh Corporation includes but is not limited to the products produced under the brands of Oshkosh^(R), JLG^(R), Pierce^(R), McNeilus^(R), Medtec^(R), Jerr-Dan^(R), Oshkosh Specialty Vehicles, Frontline^(TM), SMIT^(TM), CON-E-CO^(R), London^(R) and IMT^(R).

2. Purpose

The purpose of this Supplier Quality Manual is to provide a uniform method to communicate general requirements, expectations, customer specific requirements and guidelines to the Supply Chain.

3. Global Procurement and Supply Chain (GPSC) Vision

To develop a world-class procurement and supply chain organization providing the best in logistics, quality, new product development (NPD) and competitiveness to the Oshkosh family of companies on a global basis.

4. Global Procurement and Supply Chain (GPSC) Responsibilities

All raw material and components are obtained through the corporate purchasing process. All raw materials and component parts will be classified by commodity type to develop consistency across all suppliers within that commodity and Oshkosh Corporation facilities.

5. Quality Management System



Currently Oshkosh Corporation requires our Supply Chain to be compliant to the requirements of the ISO 9001:2008 or TS16949 standards at a minimum and recommend your location be registered by a third party registrar. Effective December 31, 2013, all suppliers to Oshkosh Corporation are required to be ISO 9001:2008 or TS16949 registered by an accredited third party registrar. Non-compliance to this requirement may have an impact on future business.

As a minimum, the Supplier shall possess all AIAG (Automotive Industry Action Group) Core Quality Tool Manuals – latest editions.

The reference AIAG Manuals are listed below:

APQP – Advanced Product Quality Planning
PPAP – Production Part Approval Process
FMEA – Failure Modes Effects Analysis
SPC – Statistical Process Control
MSA – Measurement Systems Analysis

The above Manuals can be obtained at www.aiag.org

6. Supplier On-Boarding Process (New Supplier Approval Process)

A new supplier is defined as a supplier who has never done business with Oshkosh Corporation or is a past supplier who has not supplied product to Oshkosh Corporation within the last three years. Suppliers are required to register their business as a potential supplier by visiting <https://www.oskgpsc.net/supplierprofile/>. It is the supplier's responsibility to keep this information updated and current. Oshkosh Corporation must have a signed Non-Disclosure Agreement in place with a supplier prior to any intellectual information exchange. Supplier also acknowledges that Defense-related technical information provided by Oshkosh Corporation is subject to export control laws and regulations of the US.

All new suppliers may be subject to an on-site Supplier Site Assessment and Audit at the discretion of the Oshkosh Corporation business unit that is considering a potential supplier. Suppliers also agree to providing information to perform a Financial Analysis and Risk Assessment. Additionally suppliers are required to complete a W-9 Form and associated Accounts Payable Forms to permit the set up of a supplier ID. On-boarding is a defined and structured process involving Purchasing, Quality, Engineering, and Manufacturing working together to bring a new supplier into our system with limited disruptions.

7. Supplier Site Assessment and Audit



These audits are used to assess the supplier's capability and process in accordance with their Quality Management System. If a supplier is ISO 9001:2008 or TS16949 registered and in good standing, Oshkosh Corporation may choose not to perform a site assessment and/or audit.

7.1 Site Assessment

The site assessment gathers background information about the supplier and the capabilities they could bring to Oshkosh Corporation supply base. After the initial site assessment a recommendation will be given as to whether to continue the evaluation.

7.2 Site Audit

The audit process is used to determine how well a suppliers business and Quality Management System performs. The audit process contains Standard Process Elements and Special Process Elements (as required) which are scored. An audit will be required for all new suppliers and an audit may be scheduled for any suppliers with repetitive quality or delivery issues.

In addition audits may consist of assessing new supplier capabilities as well as capacity and readiness for new product launches.

8. Advanced Product Quality Planning

The information provided within all the Advanced Product Quality Planning sections outlines the specific Oshkosh Corporation requirements for new product implementation.

8.1.0 Advanced Product Quality Planning Overview

Advanced Product Quality Planning is a structured approach for defining, establishing and specifying goals for product quality. Quality planning focuses on developing processes with process controls that, when properly managed, will ensure a high degree of quality within the manufacturing/assembly system.

Quality planning begins with a company's management commitment to defect prevention and continual improvement, as opposed to defect detection.

The five common phases of the Advanced Product Quality Planning Process are:



- 1) Plan and Define Program
- 2) Product Design and Development
- 3) Process Design and Development
- 4) Product and Process Validation
- 5) Feedback Assessment and Corrective Action

The Supplier shall establish a structured approach to implement new processes utilizing the Advanced Product Quality Planning approach. This structured approach to new product planning will enable the Supplier to effectively launch new products and ensure controls are established to achieve the highest levels of Quality. This planning will enable the supplier to provide the required Production Part Approval Process (PPAP) documentation.

9. Production Part Approval Process – PPAP

The Oshkosh Corporation Production Part Approval Process (PPAP) defines requirements for production part approval. The purpose of PPAP is to determine if all customer engineering design record and specification requirements are properly understood by the Suppliers and that the manufacturing process has the capability to produce product consistently to meet these requirements during an actual production run at the quoted production rate.

When a Level 1 or 2 PPAP submission is required it shall be sent into Oshkosh with the first production order. Oshkosh Corporation will provide written approval of the PPAP package via a Part Submission Warrant (PSW).

When a Level 3 PPAP submission is required it shall be reviewed and approved by an Oshkosh Quality Representative prior to the first production delivery. PPAP parts may be requested to be sent into Oshkosh for review along with the PPAP submission. Written approval of the PPAP package is required via a Part Submission Warrant (PSW) prior to shipping any production product to any Oshkosh Corporation manufacturing facility.

When a Level 3 PPAP submission is required Suppliers are not authorized to ship production material to Oshkosh Corporation without a full or an interim PPAP approval. Interim PPAP approval may be used to permit the supplier to ship material on a limited time or quantity basis in accordance to the Interim Approval Worksheet and Part Submission Warrant.

9.1 PPAP Requirements



The Supplier shall meet all specified PPAP requirements outlined in this Supplier Quality Manual as well as utilizing the AIAG Production Part Approval Process Manual – latest edition as a reference document. Production parts shall meet all customer engineering design record and specification requirements to include all safety and regulatory requirements.

If any part specifications cannot be met, the Supplier shall document its problem-solving efforts and contact the appropriate Oshkosh Corporation agent to engage Quality and Engineering for concurrence in determination of appropriate corrective action. The documented path forward may be communicated through an Interim Approval Worksheet and/or a Part Submission Warrant.

When required, Level 2 PPAP submission is the default PPAP level for all products supplied to Oshkosh Corporation. The default PPAP submission level can be changed by the Oshkosh Corporation Segment Quality Representative. There may be instances when the specific Oshkosh Corporation Segment will require a PPAP submission level greater than or less than Level 2, depending on the specific component being supplied.

9.2 Level 1 PPAP Submission Level Definition

- Part Submission Warrant (PSW)

9.3 Level 2 PPAP Submission Level Definition

- Part Submission Warrant (PSW)
- 1 piece - Initial Sample Inspection Report (ISIR)
- Drawing Notes - Material / Performance / Surface Finish / Labeling, Paint Process, Welding

9.4 Level 3 PPAP Submission Level Definition

- Part Submission Warrant (PSW).
- 3 piece - Initial Sample Inspection Report (ISIR)
- Drawing Notes - Material / Performance / Surface Finish, Labeling, Paint Process, Welding
- Design Records – if applicable
- Engineering Change Documents (ECN)
- Design Failure Modes effects Analysis (DFMEA)
- Process Flow Diagram (PFD)
- Process Failure Modes Effects Analysis (PFMEA)
- Initial Process Capability



- Measurement System Analysis (MSA)
- Qualified Laboratory Documentation
- Process Control Plan
- Appearance Approval Report (AAR)
- Master Sample
- Checking Aids (Fixture, gage, template, etc)
- Customer Specific Requirements
- Sample Products for Layout.

9.5 Part Submission Warrant (PSW)

The Supplier shall complete the Part Submission Warrant after all PPAP elements have been verified and conform to all requirements. Oshkosh Corporation requires that Suppliers only submit one part number on a Part Submission Warrant (PSW).

9.6 Design Failure Modes and Effects Analysis (Design FMEA) if the Supplier is product design-responsible.

Oshkosh Corporation requires suppliers to develop a Design FMEA in accordance with, and compliant to, Oshkosh Corporation requirements if design-responsible. Oshkosh Corporation requires the Supplier adhere to the requirements outlined in the AIAG FMEA reference Manual – latest edition. The Supplier shall use their own format for the DFMEA.

9.7 Engineering Change Notice (ECN)

The Supplier shall have any authorized engineering change documents for those changes not yet recorded in the design record but incorporated in the product, part or tooling. All marked drawings from Oshkosh Defense must be signed and approved by engineering. Marked drawings are acceptable for PPAP submission if a released or Advanced Drawing is not available due to timeline constraints in the interim.

9.8 Process Flow Diagrams (PFD)

The Supplier shall have a process flow diagram outlining the process steps to manufacture the quoted product. Process flow diagrams for “families” of similar parts are acceptable if the new parts have been reviewed for commonality by the Supplier. The PFD must represent the process flow of material from receipt of raw material to finished goods at the dock for shipment.

9.9 Process Failure Mode and Effects Analysis (Process FMEA)



Oshkosh Corporation requires Suppliers to develop and maintain a Process FMEA in accordance with the requirements outlined in the AIAG FMEA reference Manual. The Supplier shall use the FMEA template within the AIAG FMEA reference manual and the FMEA lists for severity, detection and occurrence information.

The Supplier shall conduct the MFMEA – Machinery Failure Modes & Effects Analysis at the discretion of the SQA person assigned to your company for APQP activities. Information on Machinery Failure Modes & Effects Analysis can be found within the AIAG APQP & Control Plan and FMEA Manuals.

9.10 Initial Sample Inspection Report (ISIR)

The Supplier shall provide evidence of dimensional verification as required by the design record and the Control Plan proving compliance with specified requirements. The Supplier shall have dimensional results for each unique manufacturing process, e.g., cells or production lines and all cavities, molds, patterns or dies. The Supplier shall record actual results for all dimensions, characteristics, and specifications as noted on the design record and Control Plan.

9.11 Records of Material / Performance Test Results

The Supplier shall have records of material and/or performance test results for tests specified on the design record or control plan and adhere to the retention requirements.

9.12 Material Test Results

The Supplier shall perform all chemical, physical, metallurgical, or mechanical property tests for all parts and product materials when chemical, physical, metallurgical or mechanical property requirements are specified by the design record or Control Plan.

Material Test Results shall indicate and include the following:

- The design record change level of the parts tested.
- Any authorized engineering change documents that have not yet been incorporated in the design record.
- The number, date, and change level of the specifications to which the part was tested.
- The date on which the testing took place.
- The quantity tested.
- The actual results.



- The material Supplier's name and vendor code.

The Supplier shall use the PPAP workbook material template to use in reporting the above information.

9.13 Performance Test Results

The Supplier shall perform tests for all part(s) or product material(s) when performance or functional requirements are specified by the design record or Control Plan.

Performance test results shall indicate and include the following:

- The design record change level of the parts tested.
- Any authorized engineering change documents that have not yet been incorporated in the design record.
- The number, date, and change level of the specifications to which the part was tested.
- The date on which the testing took place.
- The quantity tested.
- The actual results.

The Supplier shall use the performance testing template within the PPAP workbook to document and submit the performance test results.

9.14 Measurement System Analysis (MSA)

The Supplier shall have applicable Measurement System Analysis studies, e.g., gage R&R, etc. for all new or modified gages, measurement, and test equipment. The Supplier shall refer to the AIAG MSA reference Manual for additional information.

9.15 Initial Process Studies (Capability)

The level of initial process capability or performance shall be a minimum Cpk value of 1.33 for all variable Major or Critical characteristics. The Supplier shall perform measurement system analysis to understand how measurement error affects the study measurements.

Where no Major or Critical characteristics are identified, Oshkosh Corporation reserves the right to require demonstration of initial process capability on other characteristics.



On-going statistical monitoring of all Major or Critical Product Characteristics is required by the Supplier. The Supplier must ensure that the process sustains a stable process with a minimum Cpk value of 1.33.

For clarification of SPC requirements reference the AIAG SPC Manual.

9.16 Laboratory Documentation

The inspection and applicable testing for Production Part Approval Process (PPAP) shall be performed by a “qualified laboratory” (internal or external to the Supplier organization). The laboratory must have a legitimate business license, scope of business, and all documentation proving that the laboratory is qualified for the specific type of inspection and testing performed on any sample part/component.

9.17 Process Control Plan

The Supplier shall have a Control Plan to define all methods used for process control. Oshkosh Corporation requires that all Suppliers use the Control Plan template within the AIAG APQP reference manual. The Supplier shall use the Process Flow Diagram and FMEA to verify line of sight to the control plan. The control plan must include all Critical Product Characteristics and process controls driven by the FMEA process.

9.18 Master Sample

It is at the Oshkosh Quality Representative’s discretion to require the Supplier retain a Master Sample for all parts/components at the supplier location. This will be noted on the Part Submission Warrant. The Master Sample must be appropriately labeled with traceability. The Supplier is responsible to ensure appropriate preservation of the master sample.

9.19 Customer Specific Requirements

The supplier shall have records of compliance to applicable customer-specific requirements.

9.20 Checking Aids

All instruments, templates, attribute and variable gages, fixtures, or jigs that are used to determine acceptance/rejection of a product characteristic shall be on a calibration program.

The Supplier shall also certify that all checking aid characteristics align with the part/component dimensional requirements. In the event that the checking aid is used to verify a “Major” characteristic or Critical Product Characteristic the Supplier shall conduct the appropriate Measurement



Systems Analysis (MSA) activities including Gage R&R. The Supplier shall ensure that all “custom” checking aids have the customer part number and revision level.

9.21 Submission Samples

One Sample is required for PPAP submission, the Supplier must ensure that the “PPAP Parts Label” is filled out and attached appropriately to the outside of the sample container. The PPAP Parts Label is also accessible in the appendix of this Manual.

For production parts that are produced from more than one die, mold, tooling, pattern, cavity or production process, the Supplier shall complete a full layout to all characteristics.

9.22 Appearance Approval Report

If the part/component has appearance requirements specified, the Supplier shall provide an Appearance Approval Report for each part or family of parts.

9.23 Approval Process

Approved - The Supplier will receive a signed and approved PSW via email to the email address provided on the PSW submitted with the PPAP package.

Interim Approved - The Supplier is authorized to ship material for production requirements on a limited time or piece part quantity basis. Interim approval is only permitted when the Supplier has clearly defined the discrepancies preventing full approval and has an action plan to resolve such discrepancies.

Reject – A rejected PSW is sent to the Supplier in the event that the PPAP submission does not meet Oshkosh Corporation requirements. In the event of a PPAP rejection, the Supplier shall take all action necessary to expediently correct the non-conformances.

Minor documentation discrepancies – In the event that Oshkosh Quality Representative discretion (rather than rejection of entire PPAP package) permits the Supplier to correct documentation discrepancies, the Supplier has 24 hours to re-submit the corrected document(s) unless otherwise agreed upon between the Supplier and Oshkosh Corporation Quality Representative.



9.24 PPAP Approval Status

Approved – An Approved PPAP is when the PPAP has been reviewed by Oshkosh Corporation Quality Representative and it has been determined that the PPAP has met all the requirements that has been requested of the supplier.

Interim Approved – An Interim Approved PPAP is when the PPAP has been reviewed by an Oshkosh Corporation Quality Representative and it has been determined that the PPAP submission has met all the requirements to allow the Supplier to ship product and use on vehicles / machines. However, there are still additional actions that are needed of the Supplier to become a Fully Approved PPAP.

Not Approved – When a PPAP is Not Approved that means the PPAP either has not been reviewed, submitted, or it has been rejected by Oshkosh Corporation Quality Representative. The Supplier is not authorized to ship product for the use on Vehicles / Machines intended for sale to a Customer.

9.25 PPAP Submission

The Supplier is required to submit the PPAP paperwork to the FTP server either/or e-mail the documentation the appropriate Oshkosh Quality Representative. The Supplier is also required to submit a paper copy of the PPAP documents and part submission checklist with samples (if samples are requested). Samples must be identified and labeled as PPAP samples with label provided within the Supplier Quality Manual.

10. Product/Process Change Notifications

Suppliers (Tier 1 and Tier 2) may propose design changes or modifications to help reduce cost, improve quality, reliability of product and fits process capability. ALL proposed design changes or modifications, whether permanent or temporary and including proprietary designs, MUST be reviewed, approved and authorized in writing by Oshkosh Corporation.

If a Tier 1 supplier wishes to change manufacturing locations, the supplier must notify Oshkosh Corporation. The new manufacturing location shall be qualified by an audit, material/parts validated, and a PPAP will be required. A PPAP submission may be required even if the change is at the Tier 2 level.



11. Temporary Product Deviation (MRB – Material Review Board)

The request for approval and acceptance of deviations(s) from Oshkosh Corporation specifications shall be initiated by the Supplier. The Supplier must communicate to the appropriate Oshkosh Corporation Buyer for review by Purchasing, Quality, and Engineering. Shipment shall be deferred until the Deviation / MRB request is approved. Any unauthorized shipment of material prior to Deviation / MRB approval will result in the rejection of that material. Supplier will request Deviation / MRB for all "Use-As-Is" and "Repair of Nonconformities" for every affected item listed on the purchase order. All material shipped to Oshkosh Corporation affected by an approved Deviation / MRB must be identified. The items must be segregated, identified and packaged separately from other production material. FAILURE TO COMPLY WILL RESULT IN REJECTION OF THE LOT OF PARTS RECEIVED. This will also have a negative impact on Supplier Quality rating.

12. Nonconforming Material

The Supplier must establish and maintain documented procedures to ensure that proven or suspected nonconforming products are prevented from unintended use or installation. The control procedures and activity must provide for identification, documentation, evaluation, segregation, and disposition.

In the event that nonconforming material is present on finished product in the field or sales lots or becomes a warranty problem, the Supplier is responsible to aid Oshkosh Corporation in evaluating and correcting the problem. Oshkosh Corporation shall be entitled to recover from the Supplier all costs reasonably incurred in taking corrective action per the terms and conditions.

In the event that nonconforming product is re-worked, the Supplier is required to re-verify the drawing characteristics to demonstrate conformity to the requirements.

13. Corrective Action Requirements for Suppliers

Oshkosh Corporation will notify suppliers of problems regarding quality, delivery, packaging and services in writing. Initial response and containment is required in 24 hours. This initial response will include, at a minimum:

- Utilization of a documented corrective action format (8D - Template)
- The problem description
- All personnel assigned to resolve the concerns
- Containment actions taken or in-process. Sorting on-site at Oshkosh Corporation facility by the supplier or a third party company and/or



replace with properly identified certified material to meet production needs.

- Containment of all in transit material
- Probable or determined root cause

The completion of the final corrective action report will be furnished to Oshkosh Corporation no longer than 30 days after the initial request. The final corrective action report should include all documentation of problem solving tools used such as, pareto analysis, 5 whys, fishbone diagram, DOE and include the updated FMEA's and Control Plans.

Corrective Actions may be issued for reasons to include, but not limited to:

- Delivery
- Packaging
- Non-conforming material
- Slow or no responsiveness to inquiries
- Non-compliance to ISO 9001/TS16949 or this Supplier Quality Manual

13.1 Containment

An initial response concerning Containment Measures is required within 24 hours after being discovered by Oshkosh Corporation. The Supplier must contain all materials at Oshkosh Corporation's facilities, off-site warehouses, and any material in transit. Upon request, the Supplier shall provide immediate containment at the Oshkosh Corporation facilities to ensure no stoppage of production. The Supplier is responsible to provide a detailed report of containment and disposition activity upon request. The Supplier must provide Returned Goods Authorization (RGA) at that time, if parts are to be returned.

The 8D Corrective Action initiator may require the supplier to implement Containment Level 1 if the nature of the Quality incident is of the following category:

- Repeat Non-conformances
- Major Disruptions
- Field Campaign
- Production Downtime
- Production Shortage

Containment Level 1: Is an Oshkosh Corporation requirement that a supplier put in place a redundant inspection process at the supplying location. To sort for a specific and specified nonconformance, execute the 8D corrective action methodology, and insulate the customer from the receipt of nonconforming parts/material. The redundant inspection is in addition to normal controls, is



executed by the supplier's employees, and must be in addition to the normal production process controls.

If the Containment Level 1 criteria is not executed properly and the Oshkosh Facility continues to receive nonconforming material, the Supplier will be placed on Containment Level 2

Containment Level 2: An Oshkosh Corporation requirement that includes the same processes as Containment Level 1, **with an added inspection process by a third party** representing the customer's interests specific to the containment activity. The third party is selected by the supplier, approved by Oshkosh Corporation, and **paid for** by the supplier.

13.2 Sorting and Rework

When Supplier parts do not meet specifications and the customer production schedule is at risk, the Supplier shall assume responsibility of sorting and rework activity. The Supplier shall provide detailed Standardized Work including re-inspection requirements for re-work activities that are approved by the Oshkosh Quality Representative. The Supplier must also provide detailed Standardized Work for sorting activities including both variable and attribute acceptance criteria if applicable.

- **Charge Backs:** are for sorting and rework done by Oshkosh Corporation that will be debited against the supplier for all expenses related to the activity.
- **Supplier of Third Party Activity:** are for additional temporary manpower needed by Oshkosh Corporation's temporary agency, the supplier will be billed directly by the agency.
- **Supplier Support:** is the presence of a required supplier representative while sorting and rework operations are conducted. If the supplier provides their own manpower to sorting and/or rework material, they will be allowed to sort and/or rework material on Oshkosh Corporation properties, space permitting.

14. Supplier Performance Monitoring

The purpose of Supplier Performance is to identify a suppliers' conformance according to Oshkosh Corporation standards. Parts and services furnished to Oshkosh Corporation are required to meet and maintain zero defects and 100% on-time delivery. The Supplier Performance will be continuously monitored and reported at a defined frequency from Oshkosh Corporation. Supplier Performance measures will be rated on PPM's, the amount of rejections, on-time delivery and commercial performance. This data will be used for sourcing



decisions by the GPSC Purchasing Department. If your performance does not meet the expectations of Oshkosh Corporation you could be placed on new business hold or removed from the supply base.

15. Parts Per Million – (PPM)

PPM (parts per million) is a method of stating the performance of a process in terms of actual nonconforming material. PPM data is used by Oshkosh Corporation Quality Representative and Purchasing to assess the performance of the Supply Chain relevant to Quality. Oshkosh Corporation requires its Suppliers to participate in and provide necessary improvements to reduce PPM levels in alignment with the Oshkosh Corporation PPM Goals.

PPM is calculated using the following formula:

$(\text{Total Nonconforming Quantity} / \text{Total Receipt Quantity}) * 1,000,000$

16. Delivery Requirements

All suppliers are required to meet 100% on-time delivery, including quantity and timing requirements by the Oshkosh Corporation facility. Failure to meet these requirements will result in the supplier being responsible for any premium freight as well as downtime incurred at Oshkosh Corporation.

17. Warranty and Cost Recovery

All suppliers shall review all warranty claims on their parts. Failure to review warranty returns does not relieve supplier responsibility to assure Customer Satisfaction. When a part in a product fails during the warranty period, there is a cost associated with repairing the product. If the part that fails is purchased, Oshkosh Corporation may look to the supplier for reimbursement. Our expectation will be for the supplier to collaborate with Oshkosh Corporation to determine the root cause of the failure as well provide reimbursement for the repair expenses. See Oshkosh Corporation's Terms and Conditions for further defined requirements.

18. Product Traceability

The Supplier must adhere to the ISO 9001:2008 Standard or TS16949 for Product Identification and Traceability and always identify its products from applicable drawings, specifications, or other documents, during all stages of production, delivery, and installation, where appropriate.



The Supplier shall always use a unique identification for an individual product or batches, where, and to the extent that, traceability is a specified requirement. This information must be documented and retained appropriately. In addition, these traceability requirements should be in place for all sub-suppliers (Tier 2, Tier 3 etc.).

19. Distributor Requirements

Distributors shall have in place a system to understand all parts origin, traceability to manufacturing location, and required specifications. The distributor shall be responsible for proper handling and storage to prevent damage and product deterioration. Stock control shall be implemented, as appropriate, for shelf life items and the removal of obsolete/unacceptable product. Packaging shall provide adequate protection to ensure safe delivery. The distributor is responsible for corrective actions in regards to nonconforming product supplied to Oshkosh Corporation. All requirements within this Manual apply to the Distributor.

20. Control of Customer – Supplied Product/Tooling

The Supplier shall establish and maintain documented procedures for the control of verification, storage and maintenance of Oshkosh Corporation Supplier product provided for incorporation into the Supplier or for related activities. Any such product that is lost, damaged, or is otherwise unsuitable for use shall be recorded and reported to Oshkosh Corporation Purchasing. Oshkosh Corporation owned returnable packaging is included in this specific requirement. An affixed tag specifically containing the part number and/or customer name to identify ownership is the preferred approach. However, this requirement may be met by using a Supplier designated number cross-referenced with clear traceability back to the customer.

21. Tooling Management

The Supplier shall establish and implement a system for tooling management including the following:

- Maintenance and repair facilities and personnel
- Tooling shall be uniquely identified
- Storage and recovery
- Setup
- Tool change programs for perishable tools
- Tool modification, including tool design documentation



- Tools and Fixtures owned by Oshkosh Corporation must be marked “Property of Oshkosh Corporation”. This must be visually documented in the PPAP workbook.

22. Preventative Maintenance

The organization shall identify key process equipment and provide resources for machine / equipment maintenance and develop an effective planned total preventative maintenance system. The organization shall utilize predictive maintenance methods to continually improve the effectiveness and the efficiency of production equipment.

23. Sub-tier Supplier Quality Assurance

Supplier is responsible for all communication of all purchase order requirements to include those specified within this Supplier Quality Assurance Manual. Supplier is required to provide requirements and guidance to their Supply Chain consistent with the requirements of Oshkosh Corporation.

The Supplier shall have a process in place to ensure that all sub-tier Suppliers have and maintain a system to provide conforming product and services in accordance with Oshkosh Corporation requirements.

24. Packaging and Shipping

Supplier shall provide for adequate facilities and instructions for handling, packaging and shipping to protect the products and prevent damage during storage and transit. See segment addendums for specific packaging, labeling or shipping requirements. General Packaging instructions can also be located under the Oshkosh Logistics link located at <http://osn.oshkoshcorp.com> (scroll down) website.

25. Identification, Preservation, Package, and Packing

The Supplier shall accomplish identification, cleaning, preservation, packaging, and packing in accordance with the applicable drawings, specifications, and instructions as referenced on the purchase order.

Unless otherwise specified, all uncoated or unprotected ferrous and nonferrous metal surfaces (internal and/or external) must be protected for a minimum of thirty (30) working days from date of shipment against rust and corrosion and be suitably packed to prevent damage from handling or shipping. All openings (i.e.



hydraulic, electrical connections, etc.) must be adequately protected by closures to prevent contamination or damage.

26. Fastener Quality Requirements

The supplier must develop a program to assure fasteners conform to the specifications to which they are represented to be manufactured, to provide for accreditation of laboratories engaged in fastener testing, to require inspection, testing and certification in accordance with standardized methods of fasteners.

All externally threaded fasteners in which drawings specify Grade 5 and metric 8.8 or greater, must have available chemical and physical certifications, from an accredited laboratory. Certifications must include lot traceability back through the manufacturing system to the heat lot of raw material used. It is not necessary for shipments to include certification documents; however, the supplier must be able to provide these certifications to Oshkosh Corporation within 24 hours of request. Cartons must be marked with a unique lot number, which allows the supplier to trace, material back to manufacturer. In addition, it is strongly recommended these requirements are communicated to your Tier 2 suppliers.

Oshkosh Corporation will not accept any cap screws or flange bolts which do not have a manufacturers head marking on them. Cap screws must be produced per applicable International Fastener Institute (IFI), SAE J429, SAE 1199 or DIN Standards. Reference: Fastener Quality Act Public Law No. 106-34 (1999).

27. Record Retention

Records/documents providing objective evidence of conformance to drawings, standards, and other applicable specifications considered essential to the effective operation of the program shall be maintained. They shall be legible, dated, clean, readily identifiable and maintained in an orderly manner. They shall provide traceability to specific products and use actual data, as required by applicable specifications, to indicate acceptability of the product. Records/documents may be either hard copy or computer media. See segment addendums for any addition specific record retention requirements.

28. Counterfeit/Used Parts

The supplier shall establish, implement and maintain documented procedures, which shall detect and/or preclude the use of counterfeit/used parts.



29. Shelf Life

Supplier supplying items subject to age control, such as paint, adhesives, rubber, hose assemblies, etc., shall mark the parts and exterior shipping container in accordance with applicable specifications. Products shall not exceed half of shelf-life from date of manufacture to receipt by Oshkosh Corporation unless allowed otherwise contractually. If there is a shelf-life for the product, the expiration date must be noted on the outside of all containers.

30. Welding Requirements

At a minimum Suppliers must comply with the appropriate industry accepted codes and standards, such as AWS, ASME or MIL-specs, or otherwise specified by the Business Segment Design Authority. Suppliers **MUST** certify and maintain a record of any and all personnel that weld on Oshkosh Corporation components per the accepted codes and standards, along with maintaining that certification to satisfy Oshkosh Corporation's customer requirements.

The following list includes, but is not limited to the relevant Industry Accepted publications that are referenced in Oshkosh Corporation welding requirements.

- AWS A2.4 Standard Symbols for Welding, Brazing, & Nondestructive Examination.
- AWS A3.0 Standard Welding Terms & Definitions.
- AWS C1.1M (R2006) Recommended Practices For Resistance Welding
- AWS D1.1 Structural Welding Code -- Steel.
- AWS D1.2 Structural Welding Code -- Aluminum.
- AWS D1.3 Structural Welding Code -- Sheet.
- AWS D9.1 Sheet Metal Welding Code.
- AWS D14.3 Specification for Welding Earth Moving & Construction Equipment.
- TACOM Ground Combat Vehicle Welding Code – Aluminum 12472301
- TACOM Ground Combat Vehicle Welding Code – Steel 12479550

30.1 Weld Fixtures

All weld fixtures must be certified either by the fixture manufacturer or the Supplier. Certification requires that the weld fixture be validated by verifying the part dimensions to the design record requirements. For characteristics that may result in distortion or nonconformance concerns, the Supplier shall verify the weld process capability.

31. Hydraulic and Pneumatic Component / System Cleanliness



The Supplier shall ensure components and hydraulic assemblies are clean per Oshkosh Corporation Engineering Specification 01-MC. Procedures that meet or exceed the Oshkosh Engineering Specification 01-MC or QACO36 shall be maintained by the Supplier for review by the buyer or Oshkosh Quality Representative at request.

All hydraulic and pneumatic items shall have all fittings, ports, open ends, etc. protected from contamination by closures.

Regular sampling and testing of the hydraulic fluid used in test stands shall be conducted with the results available to Oshkosh personnel if requested as part of the PPAP Workbook (tab within – PSC). The Supplier is responsible for notifying Oshkosh Corporation Purchasing and Quality in the event that conforming test results are not achieved.



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OSHKOSH ASIA SEGMENT ADDENDUM

NOTE: THESE REQUIREMENTS ARE ONLY APPLICABLE TO CHINA BASED SUPPLIERS.

32. United States Import Requirements

32.1 Purpose

OSHKOSH/JLG Industries, Inc., a wholly owned subsidiary of Oshkosh Corporation, requires that its foreign suppliers (inclusive of Canada and Mexico) abide by the rules and regulations of the United States Customs and Border Protection (USCBP) to ensure OSHKOSH/JLG's continuing compliance. This section outlines the baseline requirements the supplier must institute to ensure no penalties will be assessed to OSHKOSH/JLG, nor the merchandise that you are shipping to it's US locations is seized by USCBP.

32.2 Invoice Requirements

All commercial invoices that accompany international shipments must have the following datasets in English within its contents.

- Name and address of the shipper
- Name and address of the "Sold to party" / purchaser
- Name and address of the "Ship to" party / consignee
- Detailed description of the merchandise
- OSHKOSH/JLG part numbers
- OSHKOSH/JLG purchase order number
- Invoice number that is identical to the billing invoice number
- Marks and numbers of the packages
- Government Contract Number (if applicable)
- Quantity
- Weight (or on accompanying packing list)
- Value
- Currency
- Country of Origin per line item, if different
- Terms of sale (Incoterm)
- Reason for shipment (sale, return for credit, damage, etc.)
- Packaging costs (if not already built into the cost of goods sold)
- Discounts
- ISPM 15 certification statement



32.3 Country of Origin

All goods imported in the United States must be permanently, indelibly, and legibly marked with their respective country of origin. The mark must be the country's complete number in English language (19 CFR Part 134). OSHKOSH/JLG Industries has two scenarios relative to this marking requirement.

- Goods that are to be used by OSHKOSH/JLG Industries in manufacturing
 - The foreign supplier must mark the outermost shipping container with its content's country of origin
- Goods that are imported exclusively for aftermarket sale
 - The foreign supplier must either mark the article itself or the individual saleable package containing the article

To determine which of the above requirements pertains to the shipments you are shipping to the United States, the following general rule of thumb can be utilized. Any shipment destined to:

JLG Industries Service Parts Distribution
2927 East Paradise Street
Orrville, OH 44667

This product should be considered "exclusively for aftermarket sale". All imported items shipped to this location must either be marked with its country of origin on the part itself or on its saleable package.

32.4 ISPM 15 Solid – Wood Packing Requirements (SQPM)

All shipments from international origins must comply with the International Standards for Phytosanitary Measures (ISPM) 15 if they contain any solid – wood packaging.

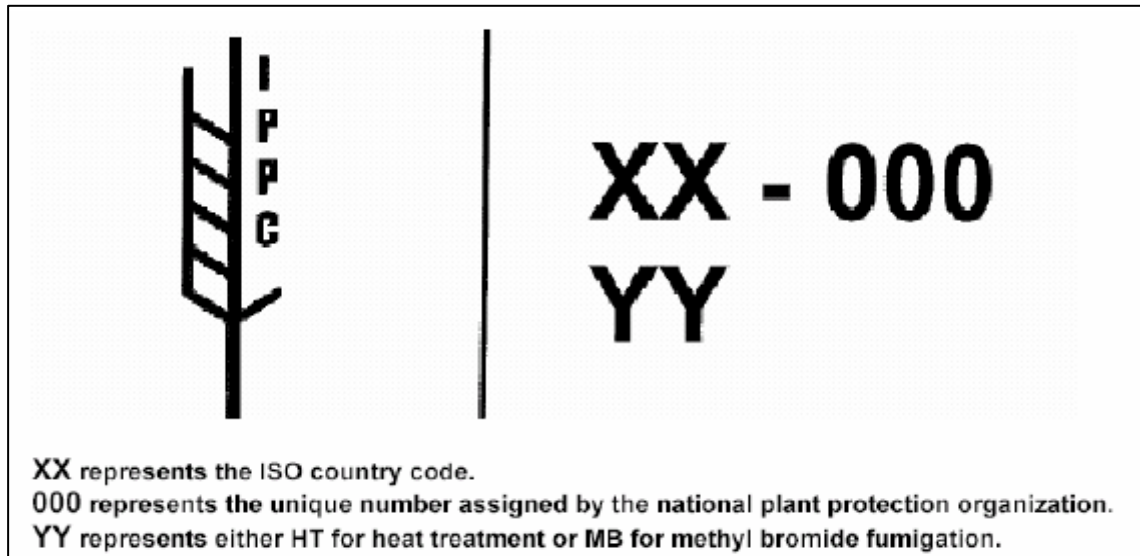
Any noncompliance with ISPM 15 standards involves USCBP. It is their discretion whether they want the shipment to immediately re-exported or allows the shipment to be separated from solid – wood packaging. Resulting costs from these activities are on the account of the importer, but will be billed back to the offending supplier. (7 CFR Part 319)

32.5 Requirements

All goods imported into the United States as of September 16, 2005, Animal and Plant Health Inspection Service (APHIS) and U.S. Customs and Border Protection will require compliance with the International Standards for Phytosanitary Measures (ISPM) 15. OSHKOSH/JLG Industries requires all indirect and direct suppliers that ship goods in or on solid wood packaging



materials (SWPM), to be compliant with ISPM 15. These materials include pallets, crates, boxes and dunnage. In accordance with ISPM 15, the below International Plant Protection convention (IPPC) mark must be indelibly affixed on at least two sides of each SWPM article.



SWPM must be marked with the IPPC logo and the two letter ISO code for the country that treated the SWPM. The marking must also include the unique number assigned by the national plant protection organization to the company responsible for ensuring the SWPM was properly treated, and either the abbreviation HT (heat treatment) or MB (methyl bromide – Fumigation).

OSHKOSH/JLG Industries is also requiring each supplier or exporter to make a statement on the commercial invoice or bill of lading / air waybill to the effect that the shipment contains either no solid wood packing materials or that it complies with all ISPM 15 requirements. If the statement certifies that it complies with all ISPM 15 requirements, it must state by what method of treatment it was subject to.

32.6 Exemptions

SWPM made entirely of manufactured wood material (e.g. particle board, plywood, orientated strand board) or SQPM made entirely of thin pieces of wood (6mm or less) is exempted from the treatment and marking requirements.

SWPM arriving directly from Canada will be allowed to enter the United States without the IPPC mark, although it will be inspected for pests. For purposes of enforcement of this exception and absent any acceptable proof to the country, US Customs and Border Protection will consider the country of



origin of merchandise coming from Canada to be the country of origin of the accompanying wood packing material.

32.7 General Rule of Thumb

If the country of origin of the imported merchandise is anything other than the U.S. or Canada, the wood packing material must depict an IPPC mark. Additionally, a statement must be present on the commercial invoice or bill of lading / air waybill to the effect that the shipment contains either no solid wood packing materials or that it complies with all ISPM 15 requirements.

32.8 References

APHIS factsheet –

http://www.aphis.usda.gov/publications/plant_health/content/printable_version/wpmregs12.pdf

ISPM 15 Manual –

https://www.ippc.int/servlet/BinaryDownloaderServlet/133703_ISPM15_2002_with_Ann.pdf?filename=1152091663986_ISPM_15_2002_with_Annex1_2006_E.pdf&refID=133703

32.9 International Routing of Shipments

When the Purchasing Term / Incoterm holds OSHKOSH/JLG Industries responsible for the international transportation and / or acting as the “importer of record” the international routing guide must be utilized as this will ensure visibility to all shipments and allow all delays to be proactively addressed. Even when the Purchasing Team / Incoterm does not hold OSHKOSH/JLG Industries responsible for international transportation the “notify party” depicted for the respective transportation mode must be depicted on the air waybill / bill of lading.

32.10 General Guide – All Modes to United States

Air

- For shipments that weigh 68 kgs (150 lbs) or less:
 - Use DHL small package as the carrier and broker
- For shipments that weigh more than 68 kgs (150 lbs):
 - Unless otherwise instructed, use BDP International as the carrier and broker. Please see below BDP’s respective “notify party” information.

Ocean

- Unless otherwise instructed, for all less – than – container – load (LCL) shipments use Expeditors International as the carrier and broker



- Please see below for Expeditors' respective "notify party" information
- For all – container – Load shipments contact Oshkosh Logistics
<https://www.oskgpsc.net/osklogistics/>
 - Please see below for Expeditors' respective "notify party" information

Truck

- For shipments that weigh 68 kgs (150 lbs) or that have a carton(s) that weigh less than 34 kgs (75 lbs):
 - Use DHL small package as the carrier and broker
- For shipments that weigh over 68 kgs (150 lbs) or that have a carton(s) that weigh over 34 kgs (75 lbs):
 - Please refer to the domestic routing guide unless a special exception exists, so the routing can be created if one is not currently in place
 - In all cases the broker will be BDP International. Please see below for BDP's respective "notify party" information
 - To obtain contact information for your closest BDP International office, please utilize the office locator.

32.11 Notify Parties

All Bills of Lading and Air Waybills must state the contract party. Please contact one of the following agencies below or contact your GPCS (Global Procurement & Supply Chain) representative.

Air and Ocean & Northern Border Truck
BDP International – Baltimore
ATTN: Amar Satnarain
811 Cromwell Park Drive, Suite 100
Glen Burnie, MD 21061

Truck – Southern Boarder
BDP International
ATTN: Jorge Armenta
12110 Doc Adams
Killam Industrial Park TX. 78045
Laredo, TX 78045
Fax: 956-718-3101
E-mail: oshkoshimports@bdpnet.com

Note 1: For deliveries to other Oshkosh Corporation divisions (Pierce, McNeilus Truck & Manufacturing Inc., etc) all the above mentioned requirements apply too.



Note 2: Do take note of the ISF Submission Instructions for Asia-Based Suppliers, please contact Alec Streeter at astreeter@oshkoshcorp.com or at 920-966-5952.



ACCESS SEGMENT ADDENDUM

33. JLG Labeling Requirements

Labeling shall comply with all requirements defined on the purchase orders or other documentation communicated from JLG SCM. Suppliers are to label each shipping container of material as follows:

All packages will be labeled with Bar Code Identification. Bar Codes will include the following:

- Purchase Order Number (PO Number)
- JLG Part(s) Numbers
- Quantity
- Location Number
- Readable Supplier Name

The Bar Code label MUST conform to ANSI MH10.8 using Code 39 with Data Identifiers, as described in ANSI/FACT-1*. Data identifiers to be used are as follows:

- K = Purchase Order Number (PO Number)
- P = JLG Part(s) Numbers
- Q = Quantity
- “ “ = Location Number





ANSI MH10.8* Code 39 also calls for a Quiet Zone. The Quiet Zones are areas at the beginning and end of a Bar Code Symbol that allow the optical equipment to differentiate a Bar Code from the printed material. Please allow a “Quiet Zone” of one half inch on each side of the Bar Code Symbol.

The following Bar Code Label examples are to be used for JLG’s three different shipping programs below:

Location Based Bar Code (Ex: 3” x 5”)

If the BIN ID is blank on the Purchase Order (P.O.)



(K) P.O.#	
	PY52975
(P) PART# CUST	
	3252694
(Q) QUANTITY	
	9
LOCATION	
	60360

Consumption Based Bin Location Label (Ex: 1-1/2" X 3-1/2")

U.S. NAMEPLATE CO. BIN ID# 0000122706

JLG Part Number 1703765

Kitting Based Bar Code Label (Ex: 1-1/2" x 3-1/2")

<u>BIN LOCATION NO:</u>	
<u>BIN ID NO:</u>	K625541001
	



Additional data required by our trading partners are included, but shall be in conformance with ANSI MH10.8. A minimum print quality grade of “C” for all tributes of the Bar Code Symbol as described in ANSI X3.182* is strongly recommended to ensure scan ability.

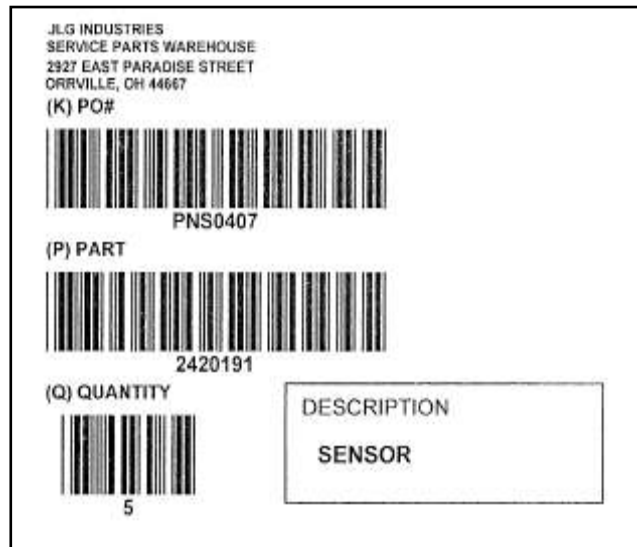
All the Bar Codes will be displayed so JLG personnel can visually locate the labels while in a Lift Truck or unloading a truck.

Bar Code Label (Do Not’s)

- Labels are not to be placed on part surfaces
- Labels are not to be placed where they can be damaged or destroyed during transit
- Labels are not to be exposed to Ultra Violet Light or Sun Light for extended periods

As required, attach the Bar Code label to a Wire Tie Tag or in a Plastic Envelope.

Example:



33.1 Supplier Quality Website (<https://sqa.jlg.com>) JLG ONLY

The website was developed as a tool to provide suppliers access to their performance scores, enhance quality communication, and assist them in improving their quality. The website is available for all members of the supplier’s organization, as well as for internal team members. Registration to register for the website (<https://sqa.jlg.com>), click “New user? Register here” on the home page of the website. Complete all required fields on the registration page (all required fields are in RED). The email address that is entered when registering



will become the user name.

a. Website Features

Further information regarding the use of the website features can be found in the Supplier Quality Documents, under the Documents Menu.

b. Home Page

The Home Page contains the “WE WANT TO HEAR FROM YOU” link. This link can be used to send questions about the website to JLG.

c. My Account

Features under “My Account” allow the user to change or add information that was entered during the registration process, including contact information and password.

d. Performance

Features under “Performance” provide tools for suppliers to view the different aspects of their quality metrics. “Supplier Scorecard” features allow the supplier to view the following: Parts Per Million (PPM) Score, Number of Receipts, and Number of Rejects.

PPM Score is calculated using the following formula:
(Total Nonconforming Quantity/Total Receipt Quantity)*1,000,000

Details are available for all nonconforming product and receipt transactions for the current month as well as the previous 13 months. An additional feature is “Pareto Analysis”. Pareto Analysis is a chart for PPM score and DMR’s allow suppliers to easily identify which parts are the largest contributors to a designated months PPM score. “SQA Activity” tab allows suppliers to view all activities performed by the SQA Department. The types of activities which can be found are as follows: Site Assessment & Audit, Re-Audit, Quality Review, Site Visit, 8D Corrective Action, and PPAP. “Supplier Dashboard” provides the following information: JLG SQA, Tactical Buyer, and Commodity Manager contact information. The Dashboard also provides information related to the Supplier’s business category and industry codes.

e. Resources

Two categories under “Resources: provide individual part information. “My Parts” provides a description of the part along with the cost and the estimated annual usage. “Parts Scorecard” provides the PPM score, DMR, and Receipt information on a part by part basis.

f. JLG Documents

The “Documents” section provides Supplier Quality and Product Quality documents. “Supplier Quality Documents” contain the following: Training



Presentations for the Website, Capability Form, Nonconforming Error Code Descriptions, Quality Leader Organization, Information, and PPAP Documents. The “Product Quality Documents” contain the following: Quality Acceptance (QAC) which are documents to define the criteria to manage and control processes or procedures as determined by JLG to product a quality product. Commodity Qualification Requirements (CQR) is documents defining the material specifications and/or technical requirements of a specific component supplied to JLG. Supplier Performance Level Warranty performance and/or others, if applicable (Warranty is not currently a feature of the Scorecard, but may be separately reported.) Suppliers that fail to achieve satisfactory performance on Scorecards will be selected for the Top Focus Supplier Program coordinated through SQA and SCM. JLG has initiated a monthly Supplier Scorecard to report supplier performance. The Scorecard is a tool used to monitor supplier performance. Supplier performance will be evaluated and reported regularly using the following criteria listed: PPM Rate, Corrective Actions, PPAP Performance and Revision.



DEFENSE SEGMENT ADDENDUM

34. Quality Assurance Requirements

In accordance with paragraph E.7.3.4 of the M-ATV Contract W56HZV-09-D-0111, M-ATV suppliers shall have a quality assurance program that is compliant to ASME/ISO/ASQ Q9001-2000, as a minimum. M-ATV suppliers are subject to audit by Oshkosh Corporation to assure that a documented quality system is in place which includes development, implementation, and maintenance of control plans for all M-ATV products.

34.1 Record and Documentation Retention Requirements

While in storage, records and documents shall be protected from damage, loss and deterioration due to environmental conditions. Records shall be maintained for (5) years. At the end of (5) years, the Supplier shall provide Oshkosh Defense with the option of having the records forwarded to Oshkosh Defense for further retention, as required by the contract, or authorizing disposal of the records and documents at the Supplier's location. Disposition shall be done in a timely and appropriate manner. Oshkosh Defense shall be notified when disposition has taken place.

34.2 Design Record

The Supplier shall comply with customers design record for the saleable product/part, including design records for components or details of the saleable product/part. Where the design record is in electronic format, the Supplier shall produce a hard copy. Examples include, but are not limited to pictorial, geometric dimensioning & tolerancing sheets, drawing to identify measurements taken.

34.3 Authorized Engineering Change Documents

The Supplier shall have any authorized engineering change documents for those changes not yet recorded in the design record but incorporated in the product, part or tooling. All marked drawings from Oshkosh Defense must be signed and approved by engineering. Marked drawings are acceptable for PPAP submission if a released or Advanced Drawing is not available due to timeline constraints in the interim.

34.4 Component First Article Testing (CFAT)

The Supplier shall conduct the appropriate CFAT testing as outlined on the design record (only applies if design record notes indicate requirement). Oshkosh Defense may be required to notify the government within a preset



number of days prior to the start of the CFAT testing. The government reserves the right to be present at any such testing. The Supplier shall work with the designated Oshkosh Defense person in reporting out and planning of these test activities. The Supplier shall conduct the testing at the Supplier's facility or via third party accredited laboratory unless a waiver is signed and approved from Oshkosh Defense in the event that the Supplier; within reason, can not perform the CFAT requirements. The Supplier shall include a copy of the waiver or submit a test report with the PPAP package to Oshkosh Defense.

The following programs have an additional list of specific CFAT requirements; please download the appropriate addendum for each program from the Oshkosh GPSC website.

Addendum A – Family of Medium Tactical Vehicles (FMTV) Program.

This addendum is intended to give additional details on the Component First Article Test (CFAT) requirements specific to the Family of Medium Tactical Vehicles (FMTV) Program. The FMTV contract has very specific instructions on how CFATs must be handled, with regard to prior notification of the government, a test plan, and a summarized report. Failure to follow the guidelines listed below may be grounds for Oshkosh Corporation and/or the government to seek financial compensation for delays to the program or for additional costs to repeat a given CFAT. A synopsis of the CFAT requirements is as follows:

A CFAT test plan is required within 20 days after purchase order (P.O.). The test plan must include an intended schedule, tests to be performed (as noted on the design record), test method, test location, and the test authority (whether the supplier or an accredited outside lab). The 20 day due date will be provided by Oshkosh Defense Purchasing either via e-mail or on the purchase order (P.O.) for the given parts. The supplier and or test agency shall notify Oshkosh Defense a minimum of 20 days prior to the start of CFAT testing. Failure to notify Oshkosh may be grounds to reject the test.

1. The CFAT test item must be part of the first 10 units manufactured. If Oshkosh requires 10 components for production, the supplier must make a total of 11 parts, of which 1 of the first 10 is used for the CFAT test. Some CFAT tests may require more than 1 test item to validate all requirements. The CFAT test item(s) must be manufactured at the same location and use the same processes, technical data, and material as the full rate production items. If temporary tooling is required to meet the production deadlines, conditional acceptance of a CFAT can be obtained (see note #5 below). Once the production tooling is in place you will need to follow up with a full finalized CFAT as part of the full PPAP submission for approval.



2. A CFAT report summarizing the test is due to the government no later than 20 days after the CFAT testing is completed. The CFAT report may be submitted with the PPAP package if within the 20 day window. The CFAT report must contain the following information:
 - a. Part number drawings and Quality Assurance Provisions;
 - b. A matrix summary that tabulates each test/inspection performed, the results of that test (pass/fail), corresponding page where the data is located, and in the event of a failure, the corresponding corrective action plan; and
 - c. Be prepared in accordance with (IAW) MIL-STD-831 and DID DI-NDTI-80809B (CDRL A073).
3. If the CFAT is disapproved by the government, the government reserves the right to have any and/or all of the CFAT repeated whether to clarify missing information or to verify that a corrective action has fixed a previously noted failure. The government reserves the right to require equitable adjustment for any delays to the vehicle delivery schedule or for any additional costs related to repeating a CFAT test.
4. Conditional acceptance of a CFAT can be granted pending successful completion of a CFAT if the supplier agrees to the following:
 - a. To successfully complete all of the CFAT tests.
 - b. To be willing to rectify all deficiencies/discrepancies in each component that is identified during subsequent CFAT testing, regardless of the location of the component at no cost to Oshkosh Corporation and/or the government.
 - c. Conditional acceptance of a CFAT will follow the same procedure as applying for interim PPAP approval using Interim Class F.

34.5 CFAT Interim Approval Classifications F thru H

Class F: Parts meet the requirements outlined in Class C but production tooling must be developed before proceeding with full PPAP/CFAT approval.

- Requires a PSW, prototype-to-production tooling timeline, full layout to all drawing characteristics, Interim Approval Worksheet and material/performance test results.

Class G: Parts are produced using 100% production tooling but you are waiting for an on-going CFAT test must be completed before full approval can be granted.

- Requires a PSW, timeline to complete the outstanding CFAT test, full layout to all drawing characteristics, Interim Approval Worksheet and material/performance test results (for any sub-tests that have already been completed).



Class H: Parts had a previous CFAT failure and are being reworked until tooling/processes are updated and retested in an updated CFAT, and prints are non saleable.

- Requires a PSW, Completion of applicable 8D Corrective Actions as assigned in addition to the PPAP Interim Approval Worksheet, and depending on the cause either a corrected tooling timeline (if applicable), or an updated PFD (if applicable).

34.6 Source Inspection

During performance on this subcontract, your manufacturing and associated processes, products and inspection and/or test data are subject to review, verification, examination, test and/or analysis by authorized Government and/or Oshkosh representatives.

34.7 Measuring and Test Equipment

Oshkosh Defense requires all measuring equipment to have a discrimination of less than one-tenth of the total drawing/3D Model tolerance being measured.

The Supplier shall provide, calibrate and maintain gages, tools, jigs, fixtures and dies that control/measure dimensions or other characteristics that affect quality.

The Supplier's calibration system shall meet or exceed MIL – STD – 45662

34.8 Packaging and Shipping

The Supplier shall provide for adequate facilities and instructions for handling, packaging and shipping to preserve the products and prevent damage during storage and transit. See Section 18 for more detail.

For specific requirements pertaining to Supplier Product Labeling, Packaging, and Shipping Instructions the Supplier shall adhere to Section J in the Supplier Standards Guide which can be found at <https://www.oskgpsc.net/>.

34.9 Surface Preparation, Paining and Finishing

Supplier must comply with the Oshkosh Corporation PS-100 Paint Standard, associated specifications and technical drawings.



Note: The purchase order may contain specific instructions regarding paint applications to facilitate subsequent operations.



Supplier must comply with the specifications of the appropriate finish code contained in the Oshkosh Corporation Finish Methods FM100.

Surface finished (to include paint and plating) shall be in accordance with Oshkosh FM100, PS100 and QCP-288. These documents can be found on the <https://www.oskgpsc.net/> website.

34.10 Major / Safety Critical Product Characteristics

Suppliers are required to conform to the requirements listed below for all Major and Safety Critical Quality Assurance Provisions (QAP) Characteristics. The minimum Cpk for critical characteristics shall be 1.33. The critical characteristics for FMTV will be indicated with  for Major characteristics and a  for Critical Safety Items.

9. CONTROL METHODS FOR MAJOR CHARACTERISTIC(S):

A. PROCESS CAPABILITY INDEX (Cpk):

1. MINIMUM ACCEPTABLE PROCESS CAPABILITY INDEX (Cpk) FOR CHARACTERISTICS IDENTIFIED AS M (MAJOR) SHALL BE THE FOLLOWING:


a. MAJOR CHARACTERISTICS SHALL MAINTAIN A Cpk INDEX EQUAL TO OR GREATER THAN 1.33 FOR VARIABLES OR A 99.73% PROCESS AVERAGE RATE OF ACCEPTANCE FOR ATTRIBUTES.


B. ALTERNATIVE CONTROL METHODS:

1. ONE HUNDRED PERCENT (100%) INSPECTION AND/OR TEST OF THE MAJOR CHARACTERISTICS.

2. BY AN ALTERNATIVE CONTROL METHOD APPROVED BY THE PROCURING OFFICER'S REPRESENTATIVE SUCH DESIGN OF EXPERIMENT (DOE) AND PROCESS CAPABILITY STUDY (PCS).

C. THE CONTROL METHODS SELECTED FOR ALL REMAINING CHARACTERISTICS SHALL BE AT THE SUPPLIER'S/SUBCONTRACTOR'S DISCRETION REGARDLESS OF THE CONTROL METHODS USED, IT SHALL BE ADEQUATE TO MAINTAIN CONFORMANCE TO ENGINEERING DRAWINGS.

10. THE SYMBOL THAT DESIGNATES A MAJOR QAP IS  THE HEXAGON WITH M.

16. CONTROL METHODS FOR CRITICAL CHARACTERISTIC(S): 

A. PROCESS CAPABILITY INDEX (Cpk):

1. MINIMUM ACCEPTABLE PROCESS CAPABILITY INDEX (Cpk) FOR CHARACTERISTICS IDENTIFIED AS CSI (CRITICAL SAFETY ITEM) SHALL BE THE FOLLOWING:

a. MAJOR CHARACTERISTICS SHALL MAINTAIN A Cpk INDEX EQUAL TO OR GREATER THAN 1.33 FOR VARIABLES OR A 99.73% PROCESS AVERAGE RATE OF ACCEPTANCE FOR ATTRIBUTES.

B. ALTERNATIVE CONTROL METHODS:

1. ONE HUNDRED PERCENT (100%) INSPECTION AND/OR TEST OF MAJOR CHARACTERISTICS.

2. AN ALTERNATIVE CONTROL METHOD APPROVED BY THE PROCURING OFFICER'S REPRESENTATIVE SUCH DESIGN OF EXPERIMENT (DOE) AND PROCESS CAPABILITY STUDY (PCS).

C. THE CONTROL METHODS SELECTED FOR ALL REMAINING CHARACTERISTICS SHALL BE AT THE SUPPLIER'S/SUBCONTRACTOR'S DISCRETION REGARDLESS OF THE CONTROL METHODS USED, IT SHALL BE ADEQUATE TO MAINTAIN CONFORMANCE TO ENGINEERING DRAWINGS.



COMMERCIAL SEGMENT ADDENDUM

Currently there are no specific requirements for McNeilus



FIRE & EMERGENCY SEGMENT ADDENDUM

Currently there are no specific requirements for Pierce



Revision History

Date	Change	Approval
10/1/10	Initial Release	Sean Ketter, GPSC Director of Supplier Development & Quality
3/01/11	Revised the Interim PPAP Definitions. Clarified the Major/Safety Critical Characteristics requirements in the Defense Addendum. Minor wording adjustments in Corrective Action and Delivery Requirements sections. Included General Packaging instructions detail. Added language around Containment Level 1 and 2	Supplier Quality Council