Description for Purchase (DFP)
For
Horizontal Runflat Insertion/Removal Press
NSN: TBD

1. Scope

1.1. Scope. This Description for Purchase (DFP) covers a stationary, electrically powered horizontal hydraulic press used for inserting and removing runflat inserts from rubber tires.

2. Applicable Documents

2.1. General. The documents listed in this section are specified in sections 3, 4 or 5 of this DFP. This section does not include documents cited in other sections of this DFP or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of documents cited in sections 3, 4 or 5 of this DFP, whether or not they are listed in this section.

2.2. Government documents.

2.2.1. Specifications, standards and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those dated on or before the date of issue for this DFP revision.

MILITARY SPECIFICATION

MIL-STD-129	Military Marking for Shipment and Storage
MIL-STD-1916	DoD Preferred Methods for Acceptance of Product
MIL-STD-2073	Standard Practice for Military Packaging

(Copies of these documents are available online at http://assist.daps.dla.mil/quicksearch/ or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.2.2. Other Government documents, drawings and publications. The following other government documents, drawings and publications form a part of this DFP to the extent specified herein. Unless otherwise specified, the issues of these documents are those dated on or before the date of issue for this DFP revision.

COMMERCIAL ITEM DESCRIPTIONS (CID)

FSC TBD	A-A-50271	Plate, Identification

(Copies of these documents are available online at http://assist.daps.dla.mil/quicksearch/ or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094)

2.3. Non-Government publications. The following document(s) form a part of this DFP to the extent specified herein. Unless otherwise specified, the issues of these documents are those dated on or before the date of issue of this DFP revision.

AMERICAN SOCIETY OF TESTING AND MATERIALS

ASTM D6251	Wood-Cleated Panelboard Shipping Boxes
ASTM D4169	Standard Practice for Performance Testing of Shipping Containers and Systems

(Application for copies should be addressed to The American Society for Testing and Materials, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428.)

2.4. Order of precedence. Unless otherwise noted herein or in the contract, in the event of a conflict between the text of this DFP and the references cited herein, the text of this DFP shall take precedence. Nothing in this DFP, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. Requirements

3.1. Reserved

3.2. Industrial quality. The runflat press and all components supplied with it shall be industrial quality. For the purposes of this procurement, the term "industrial quality tools" is defined as commercially marketed and manufactured for constant, rigorous, industrial or professional environment use. The items offered shall have either achieved industrial market acceptance (as defined in paragraph 3.2.1) or have been satisfactorily supplied to the Government under current or recent contracts for the same or similar requirements. Industrial quality items are used primarily by skilled professionals and technicians in such areas as machine shops, automotive maintenance and repair facilities, aircraft maintenance and repair facilities, industrial automotive assembly plants, fleet maintenance facilities, and airline service facilities. The runflat press will be used for specialized applications in an environment of virtual constant use, (i.e. around-the-clock 8 hour shifts), with applications requiring high torque, low slippage, and strict tolerances.

3.2.1. Market acceptance. Market acceptance is demonstrated by the component having a higher percentage of sales to industrial/professional/government customers than to retail customers. Advertising or marketing literature that indicates "professional grade" or "industrial quality", or merely stating that an item is "professional grade" or "industrial quality" is insufficient to establish industrial quality tools since these are terms for which there is no generally accepted definition. A claim that an item is manufactured to an industry consensus standard is also insufficient to establish industrial quality tools. The contracting officer may

require offerors to provide evidence of market acceptance in the professional or industrial market. Evidence of acceptance by industrial/professional customers includes sales to fleet operators, distributors, contractors, industrial and professional users, and sales to distributors who retail exclusively to the professional or industrial market.

3.3. Components. The described herein is considered "Brand Name or Equal." Offerors may offer the brand name item or equivalent item from other manufacturers determined to be equal to the specified product. Equal items shall meet the salient characteristics of the brand name items to be acceptable for award as set forth in paragraphs 3.4 through 3.6 below.

3.4. Description. The runflat press shall be a stationary, power-driven runflat insertion and removal press capable of installing and removing runflat inserts from large military truck and trailer tires. The runflat press shall utilize hydraulic rams to compress the runflat insert into a size small enough to be inserted into a rubber tire. A separate hydraulic ram shall be used to push the runflat insert into the tire cavity, as well as pull the runflat insert from the tire cavity. The runflat press shall feature a crane that will lift tires from the ground into the proper position for runflat insertion or removal. Brand name: Wheel Systems International, part number JDHV204; Hutchinson, part number BM083HD or equivalent.

3.4.1. Performance. The runflat press shall successfully perform all operations specified herein with no more than one (1) operator required to safely accomplish the tasks, in the time frame specified, with no more equipment than is to be supplied with the runflat press. There shall be no damage to the runflat press, tires or runflat inserts during normal operation of the runflat press. The runflat press shall insert and extract corresponding runflats from the following size tires: 37/12.50R16.5LT, 12.00R20, 365/80R20, 395/85R20, 14.00R20 and 16.00R20. The runflats shall range in size from 16 x 23.4 x 6.9 inches to 19.8 x 38.2 x 8.5 inches (ID x OD x W).

3.4.2. Materials. The materials used in the construction of the runflat press shall be specified herein. Materials not specified herein shall be selected by the contractor and shall be subject to all provisions of this purchase description.

3.4.2.1. Material Deterioration Prevention and Control. The runflat press shall be fabricated from compatible materials, inherently corrosion resistant or treated to provide protection against the various forms of corrosion and deterioration that may be encountered in any of the applicable operating and storage environments to which the runflat press may be exposed. When dissimilar metals are used in contact with each other, suitable protection against galvanic corrosion shall be applied.

3.4.3. Recovered Materials. Recovered materials are those materials, which have been collected from solid waste and reprocessed to become a source of raw materials, as distinguished from virgin raw materials. The components, pieces and parts incorporated in the runflat presses may be newly fabricated from recovered materials to the maximum extent practicable, provided the runflat presses produced meets all other requirements of this purchase description. Used, rebuilt or remanufactured components, pieces and parts shall not be incorporated in the runflat presses.

3.4.4. Construction. The runflat press shall be complete so that, when installed or connected

to the specified source of power, it can be used for any operation for which designed. Construction shall be free from any characteristic or defect that would prevent the runflat press from performing any of the requirements specified herein. The runflat press shall have provisions to be lifted and moved by forklift. Construction shall be durable enough to sustain transportation in a cross-country/off-road environment.

3.4.5. Maintainability. The runflat press shall operate as specified herein without repair or maintenance other than the contractor's recommended normal schedule adjustments and servicing as established by a maintenance schedule. All major assemblies and installed attachments shall be accessible for maintenance repair and replacement without removal of other major assemblies and installed attachments not normally removed. Cover plates shall be marked with the name of the component it covers, and any needed instructions and warnings, in accordance with the manufacturer's normal commercial practice. All fasteners shall be of corrosion resistant material or shall be treated to be corrosion resistant. Maximum use shall be made of interchangeable hardware and fastening devices. Means for drainage of lubricants and condensate traps shall be in an accessible location and shall drain without splashing on any component or on operating personnel. The drain outlets shall be so located to facilitate complete drainage into a suitable container.

3.4.6. Operating time. The runflat press shall completely remove and reinsert a runflat in each tire specified herein in no more than 30 minutes. The 30-minute time frame shall begin with a tire setting on the floor, next to but not touching the runflat press, with a runflat installed. The time frame shall end with a tire setting on the floor, not touching the runflat press, with a new runflat installed and ready for installation of the rim (this time frame does not include lubricating the runflat press or tire).

3.5. Components.

3.5.1. Deflector Plates. The deflector plates shall be used to deflect the runflat insert into the tire cavity during the insertion process. The deflector plate shall feature a handle and be capable of being inserted into the tire sizes listed herein. More than one plate shall be provided to accommodate the tire sizes listed in paragraph 3.4.

3.5.2. Removal Strap. The removal strap shall wrap around the runflat insert and attach to the extraction arm described in paragraph 3.5.8. The removal strap shall feature D-rings on each end.

3.5.3. Tire Lifting Hook. The tire lifting hook shall be compatible with the crane in paragraph 3.5.6 and shall be of sufficient strength to lift the largest tire identified in paragraph 3.4 from the ground to the proper runflat insertion/removal height as described by the manufacturer.

3.5.4. Electrical System. Connections of conductors and terminal parts shall be of the screw, pressure, or solder type. When soldered connections are used, the conductors and terminal parts shall be mechanically secured to prevent loss of tightness. The electrical system shall be designed to operate from a 220/380/460 ± 10% VAC, 3 phase, 50/60 Hz power supply.

3.5.4.1. Motor. The motor shall not be less than two (2) horsepower and shall be wired to

operate from a 220/380/460 ± 10% VAC, 3 phase, 50/60 Hz power supply.

3.5.4.2. Power Switch. An electric power on/off switch shall be provided.

3.5.4.3. Emergency Stop. The runflat press shall have an emergency stop button that when depressed will sever power to the electrical system and prevent movement of the hydraulic components.

3.5.5. Hydraulic System. The hydraulic system components shall be rated for no less than 1.5 times the maximum operating pressure of the runflat press.

3.5.5.1. Controls. Hand operated controls that control the movements of the machine shall be of the "dead man" type, returning to neutral position when released, thereby stopping the movement of the machine. All controls must be within reach of the operator from one position so that removal and installation of run flat inserts can be accomplished from one position only. The control station shall be equipped with a safety guard to prevent inadvertent operation.

3.5.5.2. Hydraulic Gages. A two (2) inch or larger hydraulic gage shall be placed in easy view of the operator that accurately indicates system pressure within one percent of full scale value. The full scale value of the gage shall not exceed the maximum system operating pressure or more than one hundred percent.

3.5.5.3. Reservoir. The hydraulic fluid reservoir shall be equipped with dipsticks, check plugs, or sight gauges to determine the level of hydraulic fluid. The reservoir shall be equipped with a means for filling with fluid and shall be equipped with a drain plug. The drain plug shall be located so that removal of the drain plug will result in complete drainage of the hydraulic fluid from the reservoir. Accessibility to the drain plug, the filling means, and the fluid-level checking device shall be obtained without the removal or adjustment of accessories or parts.

3.5.6. Crane. The runflat press shall be furnished with a jib crane and electric winch. The crane and winch shall have a capacity of no less than 1000 pounds and shall be able to be locked for use in no less than 3 positions. The winch shall be operated by electronic hand controls. The crane shall rotate about a central axis and shall be able to be locked in place.

3.5.7. Compression jaws. The compression jaws shall be capable of compressing the runflat inserts identified herein. The jaws shall have a means of locking on the bead of the tires identified herein without causing damage or deformation when performed in accordance with the manufacturer’s instructions.

3.5.8. Extraction Arm. The extraction arm shall be used to remove the runflat insert from the tire cavity. The arm shall not bend or permanently deform during the removal process or when it is subjected to the weight of the largest runflat insert positioned at the end of the arm when the arm is fully extended.

3.5.9. Tire Lubricant. A soap based tire lubricant shall be provided with the runflat press. The lubricant shall be provided in five (5) gallon quantities and shall be provided with an applicator.

3.6. Welding. The surfaces of parts being welded shall be free of scale, paint, grease, and other foreign matter. Welds shall transmit stress without permanent deformation or failure when the parts connected by the welds are subjected to proof and service loading.

3.7. Plates. All nameplates, information plates, instruction plates, and lubrication plates specified herein shall be permanently affixed to the runflat press. They shall be resistant to deterioration caused by heat, cold, solar radiation, water, and petroleum products to the extent that they will remain intact and readily legible for the expected life of the runflat press. Marking shall be accomplished in a manner that does not adversely affect the life and utility of the runflat press or its equipment. All plates and labels shall be printed using the English language and may be supplemented by graphical symbols. The plates in paragraphs 3.7.1 through paragraph 3.7.5 may be combined when doing so fulfills the requirements specified herein.

3.7.1. Data Plate. The data plate shall include the following information, including all information required to be inserted in the blanks indicated.

End Item Nomenclature: Horizontal Runflat Insertion/Removal Press
Manufacturer's Name/CAGE:
Manufacturer's Model Number: _____
Manufacturer's Serial Number (if applicable): _____
Date of Manufacture: _____
Contract or Purchase Order Number: _____

The data plate shall conform to Commercial Item Description A-A-50271 Composition A, Class 2 or Composition D. The data plate shall be placed in a plainly visible location on the exterior of each runflat press.

3.7.2. Lubrication plate. A lubrication plate shall be attached to each runflat press in a location conveniently visible to the operator. If a chart is furnished, it shall be placed in a transparent plastic folder or laminated between clear plastic, permanently sealed sheets, with suitable means for mounting. The following information shall be included on the lubrication plate and chart.

Points of Application
Service Interval
Type of Lubricant
Viscosity
Military, Federal or Industry Specification of Lubricant

3.7.3. Instruction Plates. Instruction plates shall be clear and concise in their meaning and application. All instruction plates shall be located on the runflat press in a position that the operator can readily and easily receive (read) the necessary instructions from the work station(s).

3.7.4. Information Plates. The information plate(s) shall be located in a location that is visually convenient to the operator. Information plates shall include warnings, cautions, and procedures to be followed when operating the runflat press and its ancillary parts.

3.7.5. Unique Item Identification. In addition to the requirements of DFARS clause

252.211-7003, when the cost of the item exceeds an amount of $5000 or when required by the contract, each kit shall be marked with a UII/UID that has machine-readable data elements that will distinguish it from all other like and unlike items. Each unique item identifier shall be globally unique and unambiguous. The UII/UID data elements shall be contained in a 2D (2-dimensional) Data Matrix symbol with Error Correction Code (ECC) 200 symbol in accordance with ISO/IEC 16022. Any individual component supplied with the runflat press for which the cost to the Government exceeds $5000 shall also be marked with a UII/UID. Markings shall conform to MIL-STD-130. The identifier shall remain intact and readily human and machine readable for the expected life of the set. The unique item identifier shall not be repeated during the life of the contract. If construct number 2 is used (serialization within the original part number of the enterprise), the contractor shall maintain the original part number on the item for the life of the item (see "Department of Defense Guide to Uniquely Identifying Items: Assuring Valuation, Accountability and Control of Government Property", Version 1.4). Further guidance on unique item identification may be found at http://www.acq.osd.mil/dpap/Docs/uid/guide_1_4.pdf and http://www.acq.osd.mil/dpap/pdi/uid/index.html.

3.8. Interchangeability. All parts having the same part number shall be functionally and dimensionally interchangeable. Interchangeable parts are defined as two or more parts possessing such functional and physical characteristics as to be equivalent in performance and durability and capable of being exchanged one for the other without alteration of the parts themselves or of adjoining parts, except for adjustment, and without selection for fit or performance.

3.9. Workmanship. All parts, components and assemblies of the runflat press including castings, forgings, molded parts, stampings, bearings, seals, machined surfaces and weld parts shall be clean and free from sand, dirt, fins, pits, sprues, scales, or any damaging extraneous material. The runflat press shall be free of any defect that could impair its operation and serviceability. The quality of workmanship imparted to the runflat press shall equal or exceed that typically provided to domestically produce commercial products of this type.

3.10. User Manual. A commercial off the shelf manual shall be provided with each runflat press. The manual shall be water and dust resistant through lamination or some other means of sealing. The manual shall include the following information and shall be in the contractors form:

1. User instructions for safe use and maintenance
2. Field (or “user”) level spare parts list, including item reference #, part #, item description with exploded parts drawing as is feasible
3. Government contract and delivery order number
4. Date of manufacture (month and year)
5. Name and address of contractor, and any other means of contacting the contractor such as phone number or e-mail address.

3.11. Warranty. Any standard warranty extended to the private sector for the runflat press, or any components thereof, shall be extended to the Government. The warranty period shall start from the day that the item is first delivered and accepted by the Government.

4. QUALITY ASSURANCE PROVISIONS

4.1. General Provisions. The inspections (demonstration and/or examination) herein shall be performed to determine whether the item conforms to Section 3 of this Purchase Description. Unless otherwise specified in the contract, the contractor is responsible for the performance of all verification requirements as specified herein. The Government reserves the right to perform any of the verifications set forth in the specifications where such verifications are deemed necessary to assure supplies and services conform to prescribed requirements. The absence of any verification requirements shall not relieve the contractor of the responsibility of assuring that all products submitted to the government for acceptance comply with all requirements of the contract.

4.1.1. Classification of verifications. The verification requirements specified herein are classified as a production conformance verification (see 4.2)

4.1.2. Right of Waiver. The government retains the right to waive the product performance verification, if the contractor provides evidence of sales to the Active Army for use in South West Asia, or in direct support of Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF), or Operation New Dawn (OND).

4.2. Production conformance verification. Conformance inspection shall be performed on the initial unit. These inspections shall include all verifications listed under paragraph 4.2 and shall be limited to the examination of product to verify compliance with design requirements established according to this DFP. Product submittal, inspections and acceptance criteria are as follows:

4.2.1. Components and related items of the tool set. Verify the runflat press is furnished with all the components and corresponding quantities specified herein (see paragraphs 3.4, 3.5 and 3.6).

4.2.2. Product Examination. Visually, and manually examine the sample to determine conformance with the requirements in sections 3 and 5 of this Description for Purchase. Visual examination shall include verification of completeness of manufacture and assembly, completeness of tool, proper cleaning, and freedom from the identified defects. Manual examinations shall include the operation of movable parts, by hand, to assure proper functioning. Failure of sample unit(s) to pass any examination shall be construed as a failure to present a product that meets the contract requirements. Units, which fail any examination, shall not be offered to the government for acceptance.

4.2.3. Performance. The runflat press shall insert and extract a HMMWV runflat (37.0/12.5R16.35, Wheel Assembly NSN: 2530-01-493-5859) and a RG33+ runflat (16.00R20, Wheel Assembly NSN: 2530-01-563-0583). There shall be no visible permanent damage to the machine, tire or runflat during normal operation of the runflat press as specified in the manufacturer's instructions. After removal and installation, each tire shall be mounted onto a rim, inflated to its rated pressure and tested for leakage. Leakage past either bead shall be considered evidence of damage. Failure of the runflat press to insert or extract all runflats specified without damage to itself, the tires and runflats shall be cause for rejection. Failure of the runflat press to insert and extract a runflat within the 30 minute time frame as specified in paragraph 3.4.1 shall be cause for rejection. (See paragraph 3.4.1)

4.2.3.1. Emergency Stop. Verify the runflat press has an emergency stop button that when depressed will sever power to the electrical system and prevent movement of the hydraulic components.

4.2.4. Hydraulic System. Verify the hydraulic system components are rated for no less than 1.5 times the maximum operating pressure of the runflat press.

4.2.4.1. Controls. Verify the hand operated controls that control the movements of the machine are of the "dead man" type, returning to neutral position when released, thereby stopping the movement of the machine. Verify all controls are within reach of the operator from one position so that removal and installation of run flat inserts can be accomplished from one position only. Verify the control station is equipped with a safety guard to prevent inadvertent operation.

4.2.4.2. Hydraulic Gages. Verify a two (2) inch or larger hydraulic gage is placed in easy view of the operator that accurately indicates system pressure within one percent of full scale value. Verify the full scale value of the gage does not exceed the maximum system operating pressure or more than one hundred percent.

4.2.4.3. Reservoir. Verify the hydraulic fluid reservoir is equipped with dipsticks, check plugs, or sight gauges to determine the level of hydraulic fluid. Verify the reservoir is equipped with a means for filling with fluid and shall be equipped with a drain plug. Verify the drain plug is located so that its removal will result in complete drainage of the hydraulic fluid from the reservoir.

4.2.5. Crane. Verify the runflat press is furnished with a jib crane and electric winch. Verify the crane and winch have a capacity of no less than 1000 pounds and are able to be locked for use in no less than 3 positions. Verify the winch is operated by electronic hand controls. Verify the crane rotates about a central axis and is able to be locked in place.

4.2.6. Compression jaws. Verify the jaws or other compression device has a means of locking on the bead of the tires identified herein without damage or deformation when performed in accordance with the manufacturer’s instructions.

4.2.7. Workmanship. Verify the quality of workmanship imparted to the runflat press equals or exceeds that typically provided to domestically produced, commercial equipment of this type. Verify the runflat press presented for acceptance has been manufactured with skill and care, is uniform, neat, and clean; and is free from irregularities and anomalies which would degrade the form, fit, function, performance or appearance of the runflat press (see paragraph 3.9).

4.2.8. Plates and Labels. Verify all identification, lubrication, warning and instruction plates and labels are permanently affixed to the runflat press. Verify the data plate contains the information as described in paragraph 3.7, including all information required to be inserted in the blanks indicated. Verify all plates and labels are printed using the English language or are supplemented by graphical symbols (see paragraph 3.7).

4.3. Changes to materials, processes, or configuration. The Government shall be informed of any changes to the materials, processes, or configuration of any characteristic of the units. The

contracting officer shall determine if the reported changes to materials, processes, or configuration shall require any of the verifications herein to be repeated. All products offered for acceptance throughout the life of the contract shall conform to all of the requirements of the contract. The Government reserves the right to re-verify conformance with requirements, at its own facility and at its own expense, at any time during the life of the contract and return to the contractor for warranty replacement such product that does not conform to the specified requirements.

4.5. Packaging. Verify that unit packaging, unit package markings, shipping containers, shipping container markings, packing lists, quality certification heat treatment markings and unitization requirements are in accordance with Section 5 of this DFP. Failure to comply with the requirements may be cause for rejection.

5. PRESERVATION, PACKING AND PACKAGING

5.1. Packaging. Preservation, packaging, packing, unitization and marking furnished by the supplier shall provide protection for a minimum of one year, provide for multiple handling, redistribution and shipment by any mode and meet or exceed the following requirements.

5.1.1 Cleanliness. Items shall be free of dirt and other contaminants which would contribute to the deterioration of the item or which would require cleaning by the customer prior to use. Coatings and preservatives applied to the item for protection are not considered contaminants. Cleaning may be any suitable process that is not injurious to the item or the protective finish.

5.1.2 Preservation. Items susceptible to corrosion or deterioration shall be provided protection by means of preservative coatings, volatile corrosion inhibitors, desiccants, waterproof and or water vapor proof barriers.

5.1.3 Cushioning. Items requiring protection from physical and mechanical damage (e.g. fragile, sensitive, material critical) or which could cause physical damage to other items shall be protected by wrapping, cushioning, pack compartmentalization, or other means to mitigate shock and vibration to prevent damage during handling and shipment. Items of a delicate nature shall not be subjected to damage from rugged items contained within the kit. Non-critical items of odd shapes or having sharp protrusions will not damage other items or protective barriers.

5.2 Unit Package. A unit package shall be so designed and constructed that it will contain the contents with no damage to the item(s), and with minimal damage to the unit pack during shipment and storage in the shipping container, and will allow subsequent handling. The outermost component of a unit package shall be a container such as a sealed bag, carton or box. Unit packs shall be designed to have minimum size and weight while retaining the protection required and enhancing standardization.

5.3 Unit Package Quantity. Unless otherwise specified, the unit package quantity shall be one each part, set, assembly, kit, etc.

5.4 Intermediate Package – (as applicable) Intermediate packaging is required whenever one or more of the following conditions exist:

a. the quantity is over one (1) gross of the same national stock number,

b. use enhances handling and inventorying,
c. the exterior surfaces of the unit pack is a bag of any type, regardless of size,
d. the unit pack is less than 64 cubic inches,
e. the weight of the unit pack is less than five (5) pounds and no dimension is over twelve (12) inches.

Intermediate containers shall be limited to a maximum of 100 unit packs, a net load of 40 pounds, or a maximum volume of 1.5 cubic feet, whichever occurs first.

5.5 Shipping Containers. Unit packages and intermediate packages not meeting the requirements for a shipping container shall be packed in shipping containers. All shipping containers shall be the most cost effective and shall be of minimum cube to contain and protect the items. The shipping container (including any necessary blocking, bracing, cushioning, or waterproofing) shall comply with the regulations of the carrier used and shall provide safe delivery to the destination at the lowest tariff cost. The shipping container shall be capable of multiple handling, stacking at least ten feet high, and storage under favorable conditions (such as enclosed facilities) for a minimum of one year.

5.6 Unitization. Shipments of identical items going to the same destination shall be palletized if they have a total cubic displacement of 50 cubic feet or more unless skids or other forklift handling features are included on the containers. Pallet loads shall be stable, and to the greatest extent possible, provide a level top for ease of stacking. A palletized load shall be of a size to allow for placement of two pallet loads high and wide in a conveyance. The weight capacity of the pallet shall be adequate for the load. The preferred commercial expendable pallet is a 40 x 48 inch, 4-way entry pallet although variations may be permitted as dictated by the characteristics of the items being unitized. All variations must be approved by the contracting office prior to implementation. The load shall be contained in a manner that will permit safe handling during shipment and storage.

5.7 Marking. All unit packages, intermediate packs, exterior shipping containers, and, as applicable, unitized loads shall be marked in accordance with MIL-STD-129, Revision P Change Notice 4, dated 19 Sep 2007 including bar coding and a MSL label. The contractor is responsible for application of special markings as discussed in the Military Standard regardless of whether specified in the contract or not. Special markings include, but are not limited to, Shelf-life markings, structural markings, and transportation special handling markings. The marking of pilferable and sensitive materiel will not identify the nature of the materiel. Passive RFID tagging is required in all contracts that contain DFARS clause 252.211-7006. Contractors shall check the solicitation and/or contract for this clause. For details and most recent information, see http://www.acq.osd.mil/log/rfid/index.htm for the current DoD Suppliers' Passive RFID Information Guide and Supplier Implementation Plan. If the item has Unique Item Identifier (UII) markings then the UII needs to be 2D bar coded and applied on the unit package, intermediate and exterior containers, and the unit load.

5.8 Hazardous Materials (as applicable): Hazardous Materials is defined as a substance, or waste which has been determined by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce and which has been so designated. (This includes all items listed as hazardous in Titles 29, 40 and 49 CFR and other applicable modal regulations effective at the time of shipment.)

When applicable, the packaging and marking for hazardous material shall comply with the requirements for the mode of transport and the applicable performance packaging contained in the following documents:

International Air Transport Association (IATA) Dangerous Goods Regulations
International Maritime Dangerous Goods Code (IMDG)
Code of Federal Regulations (CFR) Title 29, Title 40 and Title 49
Joint Service Regulation AFJMAN24-204/TM38-250/NAVSUPPUB 505/MCOP4030.19/DLAM 4145.3 (for military air shipments).

If the shipment originates from outside the continental United States, the shipment shall be prepared in accordance with the United Nations Recommendations on the Transport of Dangerous Goods in a manner acceptable to the Competent Authority of the nation of origin and in accordance with regulations of all applicable carriers.

Product Material Safety Data Sheet (MSDS) is required to be included with every unit pack and intermediate container and shall be included with the packing list inside the sealed pouch attached to the outside of the package.

5.9 Heat Treatment and Marking of Wood Packaging Materials. All non-manufactured wood used in packaging shall be heat treated to a core temperature of 56 degrees Celsius for a minimum of 30 minutes. The box/pallet manufacturer and the manufacturer of wood used as inner packaging shall be affiliated with an inspection agency accredited by the board of review of the American Lumber Standard Committee. The box/pallet manufacturer and the manufacturer of wood used as inner packaging shall ensure tractability to the original source of heat treatment. Each box/pallet shall be marked to show the conformance to the International Plant Protection Convention Standard. Boxes/pallets and any wood used as inner packaging made of non-manufactured wood shall be heat-treated. The quality mark shall be placed on both ends of the outer packaging, between the end cleats or end battens; on two sides of the pallet. . Foreign manufacturers shall have the heat treatment of non-manufactured wood products verified in accordance with their National Plant Protection Organization's compliance program. In addition, wood used as dunnage for blocking and bracing, to include ISO containers, shall be ordered with ALSC certified marking for dunnage or the markings may be applied locally at two foot intervals.

5.10 Quality Assurance. The contractor is responsible for establishing a quality system. Full consideration to examinations, inspections, and tests will be given to ensure the acceptability of the commercial package. All items, packing configurations, and markings supplied under this contract shall be identical to the first article

5.11 Supplemental Instructions. Overall, packaging shall successfully pass test levels of ASTM D 4169, Distribution Cycle 18, Assurance Level II, Acceptance Criterion 3. Testing shall be witnessed by the Government Quality Assurance Representative. Packaged gross weight and size shall be included on the test report as well as a detailed description of the packaging. The Contractor is exempted from testing if previous data for same or similar items can be provided (see Para. 5.6 of MIL-STD-2073-1D) and is acceptable to the Government.

5.12 Packing List. The contractor shall attach a detailed packing list inside each pallet and

container. The contractor shall provide a packing list for each pallet and container, or the contractor shall have one packing list for the entire shipment that indicates the pallet ID number for each line of tools with copies of the packing list attached to each pallet. The packing list shall be located in an easily accessible area, but shall be protected from possible removal due to rough handling. The packing list shall include the following information, at a minimum, in the contractor's format:

1. Part number
2. Quantity on the pallet or container
3. Destination (DODAAC)
4. Pallet ID Number
5. Transportation Control Number
6. Additional information, including manufacturer of the item, serial number or lot number, Item Unique Identification, Radio Frequency Identification number, Container number, is encouraged but not required.