MIL-V-62038E(AT)
1 March 1988
SUPERSEDING
MIL-V-62038D(AT)
8 November 1976

MILITARY SPECIFICATION

VEHICLES, WHEELED: PREPARATION FOR SHIPMENT AND STORAGE OF

This specification is approved for use within US Army Tank-Automotive Command, Department of the Army, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification provides the general requirements for the preservation, packaging and packing of automobiles, trucks, truck-tractors, trailers, and trailer dollies for shipment and storage. Preservation and packing shall hereafter be referred to as processing.

1.2 Classification. Processing for shipment and storage shall be in accordance with the applicable level of protection specified in 1.2.1.

1.2.1 Levels of protection. Processing of vehicles shall be in accordance with the level of protection specified in the procurement document and the requirements of the applicable paragraphs of this specification referenced in the specific vehicle Equipment Preservation Data Sheet (EPDS), see example EPDS attached (see 6.2). Determination of level of protection shall be based on the following criteria:

Level A - Processing for domestic or overseas shipments and any storage outside of buildings in excess of 90 days from the date of processing with periodic care and preservation during storage required.

Level B - Limited processing for immediate shipment and use, domestic or overseas, excluding open deck loading, and for any storage not to exceed 90 days from the date of processing.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: US Army Tank-Automotive Command, ATTN: AMSTA-GDS, Warren, MI 48397-5000, by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document, or by letter.

AMSC N/A AREA PACK

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications and standards. The following specifications and standards form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents shall be those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation.

SPECIFICATIONS
FEDERAL

C-N-200	- Neat's Foot, Oil.
L-P-378	- Plastic Sheet and Strip, Thin Gage, Polyolefin.
O-S-801	- Sulfuric Acid, Electrolyte; for Storage Batteries.
P-C-437	- Cleaning Compound, High Pressure (Steam) Cleaner.
T-R-571	- Rope, Cotton, or Cotton and Polyester.
FF-N-105	- Nails, Brads, Staples and Spikes, Wire, Cut and Wrought.
NN-P-530	- Plywood, Flat Panel.
QQ-S-781	- Strapping, Steel, and Seals.
TT-V-121	- Varnish, Spar, Water-Resisting.
UU-T-81	- Tags, Shipping and Stock.
VV-F-800	- Fuel Oil, Diesel.
VV-L-800	- Lubricating Oil, General Purpose, Preservative (Water-Displacing, Low Temperature).
MMM-A-178	- Adhesive, Paper Label, Water-Resistant.
PPP-B-20	- Bags, Cotton, Mailing.
PPP-B-601	- Boxes, Wood, Cleated-Plywood.
PPP-B-621	- Boxes, Wood, Nailed and Lock-Corner.
PPP-F-320	- Fiberboard: Corrugated and Solid, Sheet Stock (Container Grade) and Cut Shapes.
PPP-S-760	- Strapping, Nonmetallic (and Connectors).
PPP-T-97	- Tape, Packaging/Industrial, Filament Reinforced.

MILITARY

MIL-P-116	- Preservation, Methods of.
MIL-B-117	- Bags, Sleeves and Tubing-Interior Packaging.
MIL-B-121	- Barrier Material, Greaseproofed, Waterproofed, Flexible.
MIL-L-2104	- Lubricating Oil, Internal Combustion Engine, Tactical Service.
MIL-C-5501	- Caps and Plugs, Protective, Dust and Moisture Seal.
MIL-A-11755	- Antifreeze, Arctic-Type.

MIL-B-12841	- Basic Issue Items for Military Vehicles, Carriages and Equipment; Preparation for Shipment and Storage of.
MIL-C-16173	- Corrosion Preventive Compound, Solvent Cutback, Cold-Application.
MIL-C-17504	- Coating, Compound, Acrylic Clear.
MIL-L-21260	- Lubricating Oil, Internal Combustion Engine, Preservative and Break-In.
MIL-T-22085	- Tape, Pressure-Sensitive Adhesive, Preservation and Sealing.
MIL-B-22191	- Barrier Materials, Transparent, Flexible, Heat Sealable.
MIL-P-46002	- Preservative Oil, Contact and Volatile Corrosion-Inhibited.
MIL-A-46153	- Antifreeze, Ethylene Glycol, Inhibited, Heavy Duty, Single Package.
MIL-T-46755	- Tires, Pneumatic and Tires, Semipneumatic: Installed on Vehicles, Preparation for Storage of.
MIL-T-50036	- Talc, Technical, T1 and T3.
MIL-A-53009	- Additive, Antifreeze Extender, Liquid Cooling System.
MIL-P-53030	- Primer Coating, Epoxy, Water Reducible, Lead and Chromate Free.
MIL-D-81298	- Dye, Liquid, for the Detection of Leaks in Aircraft Fuel Systems.

STANDARDS
MILITARY

MIL-STD-105	- Sampling Procedures and Tables for Inspection by Attributes.
MIL-STD-129	- Marking for Shipment and Storage.
MIL-STD-45662	- Calibration Systems Requirements.
MS3367	- Strap, Tiedown, Electrical Components, Adjustable, Self-Clinching, Plastic, Type I, Class 1.

(Copies of specifications and standards required by manufacturers in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting activity.)

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted shall be those listed in the issue of the DODISS specified in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS shall be the issue of the nongovernment documents which is current on the date of the solicitation.

ASSOCIATION OF AMERICAN RAILROADS (AAR)

Section 1	- General Rules Governing Loading of Commodities on Open Top Cars.
Section 6	- Rules Governing the Loading of Department of Defense Material on Open Top Cars.

(Application for copies should be addressed to the Association of American Railroads, 1920 L Street N.W., Washington D.C. 20036.)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D287	- API Gravity of Crude Petroluem Products (Hydrometer Method), Test Method for.
ASTM D3815	- Accelerated Aging of Pressure-Sensitive Tapes by Carbon-Arc Exposure Apparatus (Metric), Practice for.

(Application for copies should be addressed to American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA, 19103.)

DEPARTMENT OF TRANSPORTATION (DOT)

Hazardous Materials Regulations.
Federal Motor Carrier Safety Regulations.

(Applications for copies should be addressed to the Department of Transportation, Washington, DC 20590.)

(Nongovernment standards and other publications are normally available from the organizations which prepare or which distribute the documents. These documents also may be available in or through libraries or other informational services.)

2.3 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein (except for associated detail specifications, specification sheets or MS standards), the text of this specification shall take precedence. Nothing in this specification, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 First article. Unless otherwise specified (see 6.2), one of the first ten production processed vehicles shall be subjected to first article inspection (see 4.4). A separate processed vehicle shall be subjected to first article inspection for each level of protection specified. First

article inspection vehicles, properly marked with identifying information, shall be representative of vehicles to be furnished to the Government. All subsequent processed vehicles delivered to the Government shall conform to the respective sample in all pertinent, physical and performance attributes. The Government representative shall select the vehicle(s) to be inspected.

3.2 Processing.

3.2.1 Documents, records and forms. All technical manuals and lube orders shall be heat sealed inside a bag conforming to MIL-B-117, Type I, Class B, Style 2. The log book, DD Form 1348 or DD Form 250 and one copy of DA Form 2258 shall be heat sealed inside a separate bag, as specified above. Information on the DA Form 2258 shall include all preservation accomplished and complete depreservation instructions. The document location standards shall apply as specified in table I.

TABLE I. Document location standards.

Document	Vehicle type	Location
Technical Manuals, lube order.	All vehicles.	Packed in basic issue items (BII) Box.
Log Book, DD Form 1348 or DD Form 250, and DA Form 2258, one copy.	All self-propelled wheeled vehicles.	Drivers compartment within map compartment or; secured under passenger or driver seat.
Log Book, DD Form 1348 or DD Form 250, and DA Form 2258, one copy.	All tracked vehicles.	Driver's compartment.
Log Book, DD Form 1348 or DD Form 250, and DA Form 2258, one copy.	Trailers, van type.	In storage compartments or inside van door, right side secured.
Log Book, DD Form 1348 or DD Form 250 and DA Form 2258, one copy.	Trailers, flat bed.	In storage compartment or secured to under carriage.
Log Book, DD Form 1348 or DD Form 250, and DA Form 2258, one copy.	Trailers, small.	Secured to drawbar assembly at left side.

3.2.2 Government furnished equipment (GFE). Unless previously accomplished, GFE (other than installed) shall be packaged, packed and marked in accordance with the individual document for the specific item. GFE shall be stowed with BII.

3.2.3 Preservation and atomize spray equipment. Preservatives specified herein shall conform to MIL-P-116. When atomized spraying of preservative oils is specified, equipment shown in figures 1 and 2, or equivalent, shall be used. Compressed air supply lines shall be equipped with moisture separators every 50 feet (ft) or fraction thereof.

3.2.4 Disassembly. The maximum reduction in cube shall be effected for shipment to ports and overseas, or to facilitate loading the maximum number of vehicles on the common carrier (see 3.3). Parts vulnerable to damage and pilferage and projecting parts whose removal will accomplish reduction in cube, for example soft top cabs, cargo body covers, bows, side racks, troop seats, spare tires, upper section of vertical tailpipe, mirrors, and cab protector, except when welded, shall be removed. In addition, when vehicle is equipped with windshield washers, windshield washer container and lines shall be drained of all fluid prior to shipment. Removed items, except non-removable web strapping, shall be preserved, packaged, packed, separate from BII, in accordance with the individual document for the specific item. Non-removable web strapping shall be rolled to the smallest possible roll and secured against unrolling by a tape conforming to MIL-T-22085, type II. The packed parts shall be placed on the vehicle and secured in a manner to prevent movement and damage during shipment and storage. Removed bolts, nuts, screws, pins, and washers shall be placed in one of the mating parts and secured.

3.2.5 Matchmarking. Parts removed from the vehicle shall be matchmarked when necessary to facilitate reassembly. The matchmarking information shall be put on cloth shipping tags conforming to type A of UU-T-81 and attached to mating parts. The marked cloth shipping tags shall be waterproofed with varnish conforming to TT-V-121 or adhesive conforming to MMM-A-178.

3.2.6 Relubrication. The vehicle shall be relubricated using materials conforming to drawings, specifications or lubrication orders applicable to the vehicle, after the vehicle has been driven more than 50 miles (mi) or has been exposed to contaminating environments, since initial lubrication, which necessitates cleaning in accordance with paragraph 3.2.9.

3.2.7 Tires. All vehicle tires shall be inflated to the maximum operating pressure. All mounted tires including spare tire(s) shall be preserved in accordance with MIL-T-46755. Annotate air pressure on DA Form 2258.

3.2.8 BII. BII shall be packaged and packed in accordance with MIL-B-12841 or other documents designated by the responsible agency. Stowage of BII shall be in accordance with the applicable Equipment Preservation Data Sheet (see figure 3).

3.2.9 Cleaning and drying. Exterior surfaces of the vehicle and the interior of the cab and body, shall be free of dirt, dust, grease, and any other contaminate. Exposed surfaces to which application of a preservative is specified shall be cleaned and dried in accordance with any applicable process and procedure of MIL-P-116 which will accomplish cleaning and not damage the item.

3.2.10 Miscellaneous preservation. All exterior, unpainted surfaces including surface type finishes such as black oxide, phosphate, chromic acid wash, anodic, or any semipermanent surface treatment that only produces a thin corrosion-resistant film, and all bare surfaces exposed by disassembly shall be preserved in accordance with MIL-C-16173, grade 4 (type P-19 of MIL-P-116). All exposed oil can points such as, but not limited to, levers, locking bars, strikers, hinges, hinge pins, locking pins, pintle pins, locking levers, wing nuts, linkage and threaded ends of yokes and related clevis pins shall be lubricated with oil conforming to VV-L-800. Working mechanism of padlocks, latches, door locks and hand operated locking knobs shall be lubricated with oil conforming to VV-L-800.

3.2.11 Cooling system. All engine cooling systems shall be protected, depending on the environment conditions as specified in 3.2.11.1, 3.2.11.2, and 3.2.11.3. Premixing of the solutions, as specified in 3.2.11.2 and 3.2.11.3 shall be accomplished prior to filling cooling systems to operating level. DD Form 2258 (see 3.2.1) shall be completed to indicate solution used (see 4.7.3.1).

3.2.11.1 Antifreeze compound procedure [temperature conditions will drop below -55 degrees Fahrenheit (°F)]. The cooling system shall be filled to operating level with antifreeze compound conforming to MIL-A-11755. The compound shall be used without dilution. A warning tag, bearing the information "COOLING SYSTEM FILLED WITH ANTIFREEZE (ARCTIC TYPE) - DO NOT DRAIN" shall be securely attached to the radiator filler neck.

3.2.11.2 Water and corrosion inhibitor procedure (temperature conditions are always above 32°F). The cooling system shall be filled with clear water up to, but not including the radiator upper tank. A corrosion inhibitor conforming to MIL-A-53009 shall be added in the proportion of 5 ounces of the inhibitor for each 10 quarts of water. The inhibitor shall be dissolved in two quarts of warm water and poured into the radiator while the engine is idling. More water shall be added, if necessary, to fill the radiator to operating level. A warning tag, bearing the information "COOLING SYSTEM DOES NOT CONTAIN ANTIFREEZE - FILLED WITH WATER AND INHIBITOR" shall be securely attached to radiator filler neck. WARNING: WATER AND CORROSION INHIBITOR SHALL NOT BE USED IN ENGINES HAVING ALUMINUM BLOCKS AND/OR HEADS.

3.2.11.3 Water and antifreeze procedure (temperature conditions are never below -55°F). The cooling system shall be filled up to operating level with a clean solution consisting of equal parts by volume of antifreeze, ethylene glycol, conforming to MIL-A-46153 and water. The engine shall be operated until a temperature has been reached that causes the thermostat to

open, assuring complete mixing and even distribution of the antifreeze solution. A warning tag, bearing the information "COOLING SYSTEM FILLED WITH WATER AND ANTIFREEZE SOLUTION (ETHYLENE GLYCOL) IN EQUAL PARTS BY VOLUME - DO NOT DRAIN" shall be securely attached to the radiator filler neck.

3.2.12 Belt pulleys. The belt tension shall be released on all belts after completing the engine preservation. Unpainted surfaces of pulley groves shall be coated with a primer conforming to MIL-P-53030. A tag shall be prepared indicating, "BELT TENSIONS RELIEVED - ADJUST PRIOR TO STARTING ENGINE," and DA Form 2258 annotated."

3.2.13 Engine crankcase. Unless otherwise specified (see 6.2), the engine crankcase shall be filled to the operating level with lubricating oil conforming to type I of MIL-L-21260, grade PE10-1, PE30-1, or PE50-1, as specified in applicable specification, drawing, or lubrication order. DA Form 2258 shall be completed to indicate the type and grade of lubricating oil used.

3.2.14 Fuel tanks.

3.2.14.1 Metallic, ferrous fuel tanks. Fuel tanks in vehicles shall be completely drained of all fuel by removing the fuel tank drain plug or, if not equipped with a drain plug, by siphoning or any other means available. After draining, the fuel tank drain plug, if so equipped, shall be reinstalled and the fuel tank filled with lubricating oil conforming to type 1, grade PE10-1 of MIL-L-21260, and again drained, siphoned or otherwise emptied. If drained, allow to drain until the oil flow drips. The metallic plug, if so equipped, and tank filler cap, if metallic, shall be coated with the same oil and reinstalled. The examination of the first processed tank shall be made to determine if all interior surfaces are coated with preservative. If the top of the tank is not coated with preservative because of an airlock, the sending unit shall be loosened or some other means devised to permit the preservative to reach all interior surfaces. Emptied preservative oil may be reused for processing other fuel tanks, provided not more than 10 percent (%) of the fluid is fuel when tested as specified in 4.7.3.2.

3.2.14.2 Non-metallic and non-ferrous fuel tanks. Fuel tanks in vehicles shall be completely drained of all fuel by removing the fuel tank drain plug or, if not equipped with a drain plug, by siphoning or any other means available. No preservation of fuel tanks is necessary. The metallic drain plug, if so equipped, and tank filler cap, if metallic, shall be coated with a lubricating oil conforming to type I, grade PE10-1 of MIL-L-21260 and reinstalled.

3.2.15 Engines.

3.2.15.1 Gasoline.

3.2.15.1.1 Fuel system. A portable container with two compartments shall be positioned to provide gravity feed to the engine. One compartment shall be filled with gasoline specified for engine operation, the other with oil conforming to type I, grade PE10-1 of MIL-L-21260. The container shown in figure 4 has proven to be satisfactory for engine preservation. The engine fuel supply line shall be disconnected at the most convenient point nearest the fuel tank, and a flexible line from the portable container connected to the disconnected fuel supply line leading to the engine. The container selector valve shall be turned to the fuel position, the engine started and operated at fast idle speed, without load, until running smoothly, but not for more than 4 minutes. The engine shall then be accelerated to 2/3 maximum revolutions per minute (rpm) and, with the engine still operating, the selector valve on portable container shall be switched to the oil position. The instant the oil reaches the combustion chambers, this will be noted by loss of engine rpm or excessive smoke emitting from the exhaust pipe, the ignition shall be turned off. The line from portable container shall be disconnected and the engine fuel line reconnected.

3.2.15.1.2 Combustion chamber. After processing the fuel system (see 3.2.15.1.1), the engine shall be cooled to assure that the cylinder head temperature, measured at spark plug gasket surfaces of all cylinders, is not more than 100°F. The cooling shall be accomplished by induced air currents, circulation of engine coolant, for liquid-cooled engines, or by waiting the period of time required to arrive at the above specified temperature. When the ambient temperature exceeds 100°F, the engine shall be cooled to a temperature equivalent to the ambient. After the engine has been cooled to the required temperature, processing through the combustion chamber shall be started and completed with minimum delay. The overall elapsed time for complete engine processing shall not exceed 24 hours (hr). Spark plugs shall be removed. As the engine is cranked with the starting motor, preservative oil conforming to type I, grade PE10-1 of MIL-L-21260 shall be atomized sprayed through each spark plug opening into the combustion chamber with a low air pressure, less than 25 pounds per square inch (psi). The amount of oil sprayed into the combustion chamber shall be 1/2 ounce per cylinder for piston displacements up to 25 cubic inches (in^3), 1 ounce up to 50 in^3, 1-1/2 ounces up to 75 in^3, and 2 ounces over 75 in^3. After completion of the above and without cranking the engine, the amount of oil specified above shall be atomized sprayed into each combustion chamber, and spark plugs reinstalled. The equipment shown in figures 1 and 2 has proven satisfactory for engine preservation. Fuel filters and sediment bowls shall be drained.

CAUTION: Special precautions shall be taken to assure that the amount of oil specified above will not result in a hydrostatic lock. Prior to processing additional engines, the first engine shall be processed as specified above and allowed to stand for 12 hr. The engine shall then be manually rotated or rotated by the starter if manual turning is not possible, to assure that the amount of oil sprayed into combustion chambers allows free rotation of the engine.

3.2.15.2 Gasoline auxiliary. The fuel tank filler cap and drain plug shall be removed and the fuel tank completely drained. The fuel tank shall be preserved as specified 3.2.14. The filler cap shall be reinstalled, and after completion of the engine processing, the filler cap breather vent shall be sealed with a tape conforming to MIL-T-22085, type II. The gasoline auxiliary engine shall be processed as specified in 3.2.15.1.1 and 3.2.1.5.1.2, except 3 ounces of preservative oil conforming to type I, grade PE10-1 of MIL-L-21260 shall be atomized sprayed into the crankcase instead of the 6 ounces specified in 3.2.15.6.

3.2.15.3 Diesel and multifuel (2 and 4 cycle).

3.2.15.3.1 Fuel system and combustion chamber. Prior to processing the engine, it shall be cooled to assure that the cylinder head temperature, measured at the injector nozzle flange surface of all cylinders, is not more than 100°F. The cooling shall be accomplished by induced air currents, circulation of the engine coolant, or by waiting the period of time required to arrive at the above specified temperature. When the ambient temperature exceeds 100°F, the engine shall be cooled to a temperature equivalent to the ambient. After the engine has been cooled, the fuel supply system from the fuel tank shall be shut off. A portable container with two compartments shall be positioned to provide gravity feed to the engine. One compartment shall be filled with a lubricating oil conforming to grade 1 of MIL-P-46002 to which has been added an oil soluble red dye conforming to MIL-D-81298, in a concentration sufficient to impart a marked coloring to the oil. The second compartment shall be filled with a diesel fuel conforming to VV-F-800 (see note 1). Disconnect the fuel line between the primary fuel filter and the fuel pump at the primary fuel filter outlet. Drain the residual diesel fuel from the secondary fuel filter. If the vehicle is not equipped with a secondary fuel filter, disregard all requirements concerning the secondary fuel filter. Remove the filter can and the filter element. Fill the filter can with oil, lubricating, grade 1 of, MIL-P-46002 and replace. Disconnect the residual vehicle fuel return line at the quick disconnect coupling. Connect a transparent plastic fuel line to the engine end of the disconnected fuel return line; insert the other end of the plastic fuel line into a recovery container to collect the residual returned fuel and oil mixture. An air restrictor plate fabricated in accordance with figure 5 shall be installed at the nearest and most convenient place to cut off the air supply to the engine; assuring that the air leakage (see note 2) to the engine is completely sealed off. The fuel line on the auxiliary fuel tank shall be turned to the lubricating oil, conforming to grade 1 of MIL-P-46002, position. The throttle shall be placed at maximum open position and the engine cranked with the starter, the engine may fire for approximately 5 seconds (sec), for a minimum period ranged from 30 to 45 sec (see note 3 for special instructions). The fuel valve on the auxiliary fuel container shall be turned to the off position. Remove the filter can from the secondary fuel filter. Drain the oil, lubricating, conforming to grade 1 of MIL-P-46002, from can, wipe clean with clean lint free cloth. Reinstall the element, fill the can with a diesel fuel conforming to VV-F-800, and reinstall the filter can.

NOTE 1 - The container shown in figure 4 has been proven satisfactory for the engine preservation.
NOTE 2 - For vehicles with engine models LD-427; LDS-465; -1; -1A and -2; and Cummins NHC-250. The most convenient place is the inlet side of the air cleaner. For all other diesel or multifuel engines, use either the inlet or outlet side of the air cleaner, air shut off valve, or the removal of an assembly available nearest to the air intake system.
NOTE 3 - The Mack ENDT model 673 and Cummins model 300 engine shall be cranked for a period ranged from 60 to 75 sec.

CAUTION: Special precautions shall be taken to assure that time limits specified shall not be exceeded or the engine, starter or starter solenoid may be damaged.

3.2.15.3.2 Engine purging. Purge fuel return lines of all oil, lubricating, conforming to grade 1 of MIL-P-46002, by turning the auxiliary fuel tank valve to the diesel fuel position, close engine throttle to the NO injection setting. Crank the engine by starter for a period of time to remove all traces of the red colored lubricating oil from the plastic return line.

CAUTION: DO NOT OPERATE STARTER FOR A PERIOD EXCEEDING 45 SECONDS. If preservative oil has not been purged, rest the starter for 3 minutes and repeat the purge operation. Turn the auxiliary fuel tank valve to the OFF position. Remove the fuel line and reconnect to the outlet side of the primary fuel filter. Turn on the vehicle fuel supply system. Remove the air restrictor plate and reinstall any disassembled parts. Disconnect the plastic fuel return line.

3.2.15.3.3 Alternate processing. The alternate processing, to be used when the use of MIL-P-46002 is not acceptable due to tests that show volatile corrosion inhibitors (VCI) promote corrosion of certain metals, for example: brass, cadmium, copper, lead, magnesium, solder and zinc. VCI may also attack certain organic meterials.

3.2.15.3.3.1 Fuel system. A portable container with two compartments shall be positioned to provide gravity feed to the engine. One compartment shall be filled with diesel fuel specified for engine operation, the other with oil conforming to MIL-L-21260, grade PE10-1. The container shown in figure 4 has proven to be satisfactory for the engine preservation. The engine fuel supply line shall be disconnected at the most convenient point nearest the fuel tank, and a flexible line from the portable container connected to the disconnected fuel supply line leading to the engine. The container selector valve shall be turned to the fuel position, the engine started and operated at fast idle speed, without load, until running

smoothly, but not for more than 4 minutes (min). The engine shall then be accelerated to 1/2 throttle and with the engine still operating, the selector valve on the portable container shall be switched to the oil position. Run the engine on preservative oil for 3 minutes and then shutdown by conventional methods or by using an air restrictor plate to snuff the engine.

3.2.15.3.3.2 Combustion chamber. The engine shall be cooled to assure that the cylinder head temperature, measured at the injector nozzle flange surface of all cylinders, is not more than 100°F. The cooling shall be accomplished by induced air currents, circulation of engine coolant, or by waiting the period of time required to arrive at the above specified temperature. When ambient temperature exceeds 100°F, the engine shall be cooled to a temperature equivalent to the ambient. After the engine has been cooled, the fuel supply system from the fuel tank shall be shut off. A container of preservative oil conforming to MIL-L-21260, grade PE10-1 shall be positioned to provide feed to the engine. A red soluble oil dye conforming to MIL-D-81298, in a concentration sufficient to impart a marked coloring to the oil, shall be added to the preservative oil. Disconnect the fuel line at the most convenient point nearest to the fuel tank, and connect a flexible line from the preservative container to the disconnected fuel supply line leading to the engine. Disconnect the residual vehicle fuel return line at the quick disconnect coupling. Connect a transparent plastic fuel line to the engine end of the disconnected fuel return line; insert the other end of the plastic line into a recovery container to collect the residual returned solution. An air restrictor plate fabricated in a manner similar to that shown in figure 5 shall be installed at the nearest and most convenient place to cut off the air supply to the engine; assuring that the air leakage to the engine is completely sealed off. The fuel supply line running from the preservative container shall be set to provide preservative oil, conforming to MIL-L-21260, to the engine. The engine throttle shall be placed in the extreme open position and the engine shall be cranked for a period of not more than 10 sec.

CAUTION: Special precautions shall be taken to ensure that actual time limits specified are not exceeded or the engine, starter, or starter solenoid may be damaged. The engine shall rest at least 2 min between each cranking cycle. The cycle shall be repeated until red dye is observed in the transparent plastic fuel return line. The fuel supply shall then be turned off, close the throttle, remove the transparent plastic fuel return line, and reconnect the residual vehicle fuel return line to the engine. The flexible line from the preservative container shall be disconnected and the fuel line reconnected. Turn on the vehicle fuel supply system. Remove the air restrictor plate and reinstall any disassembled parts using applicable torque requirements when required (see 6.2).

3.2.15.4 Air intake system.

3.2.15.4.1 Without blower. The air intake tube at the outlet side of the air cleaner shall be disconnected and 1 ounce of preservative oil conforming to grade 1 of MIL-P-46002 shall be atomized sprayed into the intake opening directed toward the engine. The air intake tube to air cleaner shall be reconnected.

3.2.15.4.2 With supercharger. The air intake tube between the air cleaner and the supercharger shall be disconnected at the outlet side of the air cleaner. Air tube or tubes between the supercharger and intake manifold or cylinders shall be disconnected. One ounce of preservative oil conforming to grade 1 of MIL-P-46002 shall be atomized sprayed into the air tube toward the supercharger and 1 ounce into the supercharger at the outlet side. Two ounces of the same oil shall be atomized sprayed through the air tubes toward the manifold or cylinders. Air intake tubes shall be reconnected.

3.2.15.4.3 With turbocharger. Processing shall be as specified for the supercharger in 3.2.15.4.2.

3.2.15.4.4 With rootes-type blower. The air intake shall be processed as specified in 3.2.15.4.1, except 2 ounces of preservative oil conforming to grade 1 of MIL-P-46002 shall be used.

3.2.15.5 Exhaust system.

3.2.15.5.1 Without turbochargers. One ounce of preservative oil conforming to grade 1 of MIL-P-46002 for each 2 ft of length shall be atomized sprayed into exhaust pipes or tailpipes toward the engine. Unpainted exterior surfaces of the exhaust system, except manifold, shall be coated with type P-19 preservative of MIL-P-116. For overseas shipment or to facilitate loading to the full capacity of the transportation medium, the vertical section of the tailpipe which exceeds the highest fixed, nonreducible, point of the vehicle shall be removed and coated with P-19 preservative of MIL-P-116, and stowed and secured on the vehicle. Opening of tailpipes, vertical and horizontal, shall be sealed with tape conforming to MIL-T-22085, type II.

3.2.15.5.2 With turbochargers. The exhaust tube between the turbocharger and the exhaust manifold shall be disconnected and 1 ounce of preservative oil conforming to grade 1 of MIL-P-46002 shall be atomized sprayed into each the turbocharger and the exhaust tube toward the manifold. The tube shall be reconnected and the remainder of the exhaust system shall be processed as specified in 3.2.15.5.1. The turbocharger without exhaust tube, that is directly connected to the exhaust manifold, shall be processed as specified in 3.2.15.5.1.

3.2.15.6 Crankcase openings. Six ounces of preservative oil conforming to grade 1 of MIL-P-46002 shall be atomized sprayed into the crankcase through the dipstick shroud opening, the breather vent tube, the breather vent, or the oil filler tube, whichever is most accessible. A flexible extension of sufficient length shall be used to allow the spraying nozzle to be within the crankcase. The nozzle shall not be submerged in the crankcase oil.

3.2.15.7 Engine sealing. All openings to the interior of the engine except air box drain tubes of two-cycle engines, such as, crankcase breather, oil filler caps, valve cover breather holes and oil level dipstick tube, shall be covered with 4 mil polyethylene conforming to type II of L-P-378, or barrier material conforming to MIL-B-121, type II, grade A, class 2. Secure with a tape conforming to MIL-T-22085, type II. A warning tag, bearing the information "ENGINE PRESERVED, AIR CLEANER, TAILPIPE, CRANKCASE BREATHER, VALVE COVER VENTS, AND OIL LEVEL DIPSTICK TUBE SEALED - REMOVE SEALS BEFORE STARTING ENGINE" shall be secured in a conspicuous location in the driver's compartment.

3.2.15.8 Air cleaner (oil bath and dry type). The air cleaner, oil bath type, shall be filled to the operating level with the operational oil as specified in the applicable drawing, specification or lubrication order. The interior of the air cleaner, above the oil level, shall be sprayed with a preservative oil conforming to grade 1 of MIL-P-46002, and the element reinstalled. The dry type air cleaner shall be clean and dry with the new filter element. Oil bath and dry type air cleaner openings shall be sealed with a tape conforming to MIL-T-22085, type II, or covered with 6 mil polyethylene conforming to type II of L-P-378, secured with a tape conforming to MIL-T-22085, type II.

3.2.16 Transmission.

3.2.16.1 Standard drive. The transmission shall be filled to the operating level with lubricant of the applicable type and grade as specified in the drawing, specification or lubrication order, and shall be operated through all ranges for not less than 1 min at a sufficient speed to assure the lubricant coverage of all interior parts and surfaces. DA Form 2258 (see 3.2.1) shall be completed to indicate the grade of the lubricant used.

3.2.16.2 Automatic drive. Transmissions that operate on MIL-L-2104 type lubricating oils shall be filled to the operating level with a preservative oil conforming to MIL-L-21260, type I, grade PE10-1 or PE30-1, as specified in the applicable drawing, specification or lubrication order. Transmissions that do not operate on MIL-L-2104 type oil shall be filled to the operating level with operational oil as specified in the applicable drawing, specification or lubrication order. Transmissions shall be operated through all ranges as prescribed in 3.2.16.1. DA Form 2258 (see 3.2.1) shall be completed to indicate the grade and type of the lubricating oil used.

3.2.17 Differentials, transfer assemblies, and power take-off assemblies. Differentials, transfer assemblies, power take-off assemblies, and other gear driven units, except those lubricated by the unit to which they are attached, shall be filled to the operating level with a lubricant of the applicable type and grade as specified in the drawing, specification or lubrication order, and operated as specified in 3.2.16.1. DA Form 2258 (see 3.2.1) shall be completed to indicate the grade of the lubricating oil used.

3.2.18 Propeller shafts. Exposed, machined surfaces of propeller shafts, including splines, slip joints, constant velocity joints, and universal joints, shall be coated with a type P-19 preservative of MIL-P-116.

3.2.19 Disc-type clutch. The clutch pedal, with gear shift in "NEUTRAL" shall be depressed the required distance to eliminate the free play, then depressed an additional 1 to 1-1/2 inches (in). The pedal shall be secured in the depressed position, by wiring the pedal to floorboard plates, or by wiring a block between the pedal shaft and the floorboard, or by wiring a block between the pedal stop and the pedal bumper.

3.2.20 Brake systems. Exterior, unpainted, or threaded surfaces such as cables, clevises, and linkage of service and parking brakes, shall be coated with type P-19 preservative of MIL-P-116.

3.2.20.1 Hydraulic brakes. The brake system shall be filled with an operational hydraulic fluid as specified in the applicable drawing, specification or lubrication order.

3.2.20.2 Airbrakes. The air compressor shall be processed as specified in 3.2.21. Air reservoirs shall be drained of all condensate and interior surfaces atomized sprayed with preservative oil conforming to type I, grade PE10-1 of MIL-L-21260. Drain plugs and threaded areas shall be coated with the same grade of preservative oil and plugs reinstalled. Drain valves shall be closed. Exposed ends of service air lines and dummy couplings shall be covered with a tape conforming to MIL-T-22085, type II. Air line filters shall be drained and closed. Exhaust ports of relay emergency quick release, and relay valves not equipped with exhaust check valves shall be closed by inserting plastic plugs conforming to MIL-C-5501, pipe plugs, or sealed with a tape conforming to MIL-T-22085, type II. Warning tags shall be prepared indicating any area sealed and shall be securely attached in the drivers compartment in a conspicuous location. Additionally, DA Form 2258 will indicate all areas sealed.

3.2.20.2.1 Diaphragm-type chambers, pull-type cylinders, and hydrovac's. Exterior, unpainted or threaded surfaces of diaphragm chambers, cylinders, valves, vacuum tank piping and compensator rods shall be coated with type P-19 preservative.

3.2.20.3 Air-hydraulic brakes. Air-hydraulic, vacuum, and vacuum hydraulic brakes shall be processed in accordance with the applicable requirements of 3.2.20.1 and 3.2.20.2.

3.2.20.4 Electric brakes. Electric brakes shall be preserved in accordance with 3.2.20.

3.2.21 Air compressor. Where the lubricating system is separate from the associated power unit, the air compressor crankcase shall contain a preservative oil conforming to MIL-L-21260, type I, grade PE10-1 or PE30-1, as specified in the drawing, specification or lubrication order, filled to the operating level. The compressor air outlet shall be disconnected. Compressors equipped with air cleaner shall have the cleaners removed and processed as specified in 3.2.15.8. Compressors equipped with air strainers shall have the strainers removed and coated with a preservative oil conforming to grade 1 of MIL-P-46002. While the compressor is being operated during engine preservation (see 3.2.15.1 or 3.2.15.3 as applicable), 1/2 ounce of the same grade of preservative oil shall be atomized sprayed into the compressor air intake until the oil appears at the outlet. The air outlet shall be reconnected and the air cleaner or air strainer reinstalled.

3.2.22 Vehicle cabs.

3.2.22.1 Hardtop cab. Door hinges, latches, and operating mechanisms shall be lubricated with type P-9 preservative oil of MIL-P-116. The operating mechanism of locks shall be lubricated in accordance with VV-L-800. Inspection access plates shall be removed and all interior surfaces of doors, including inner surfaces of access plates, if unpainted and not rustproofed, shall be coated with P-19 preservative specified in MIL-P-116, and access plates reinstalled. The rubber molding not directly exposed to the elements, wherein metal to molding or molding to molding contact is involved, for example: around doors, windows, and vents shall be dusted with a talc conforming to MIL-T-50036. Windows shall be open 1/2 inch for ventilation and cab air vents shall be left in the open position. Windshield wiper arms, blades, and side mirrors shall be removed and packaged with keys. Removed items shall be preserved, packaged, packed and stowed, separate from the BII, in accordance with the individual document specified for the vehicle (see 3.2.4). All cab drains shall be open and DA Form 2258 annotated.

3.2.22.2 Soft top cabs with top in place. The processing of the soft top cabs shall be as specified in 3.2.22.1.

3.2.22.3 Soft top cabs with top removed. Tops shall be removed for shipment to ports or overseas, and when the removal will facilitate loading to the full capacity of the transportation conveyance. When the above conditions do not apply, processing shall be as specified in 3.2.22.1. When the top is removed, the windshield shall be secured in folded-down position. The top shall be thoroughly dried, folded, or rolled in a manner to avoid creasing of plastic windows, and placed in a bag fabricated of 6 mil polyethylene conforming to MIL-B-117, type I, class B, style 2. The closure shall be accomplished by heat sealing. The preserved top shall be packed in a box conforming to style I, grade B, overseas type of PPP-B-601. The box shall be identified and stowed with BII or within the vehicle. The rubber molding that is not directly exposed to the elements, wherein metal to molding or molding to molding contact is involved, for example, around

windows and vents shall be dusted with a talc conforming to MIL-T-50036. The door glass shall be rolled down to the maximum extent and the door glass slit sealed with a tape conforming to MIL-T-22085, type II. Dash panel instruments shall be covered with one piece of 6 mil black polyethylene conforming to type II of L-P-378 and secured in place with a tape conforming to MIL-T-22085, type II. Defroster vents shall be sealed with the same class tape. The horn button shall be covered as specified for dash panel instruments or with plastic caps conforming to MIL-C-5501. Openings in top of shift towers shall be sealed with a tape conforming to MIL-T-22085, type II. Windshield wiper arms and blades, side view mirrors, door hinges, latches, operating mechanisms, locks, interior surfaces of doors and inspection access plates, shall be processed as specified in 3.2.22.1. All cab drains shall be open. For level B, seat backs and cushions shall be covered with 6 mil, black polyethylene conforming to type II of L-P-378. The polyethylene shall be secured in place with a tape conforming to MIL-T-22085, type II, allowing bottom side to be open for drainage. For level A, seat backs and cushions shall be removed, placed in a bag conforming to type I, class B, style 2 of MIL-B-117, and boxed with other on-vehicle equipment (OVE) items. For level B, seat backs and cushions installed by snap fasteners or envelope slip covers shall be secured individually to the seat frame with 3/4 by 0.020 inch steel strapping conforming to class 1, type I, finish B of QQ-S-781. Two straps shall be secured around each seat back and cushion, one in each direction, crossing at right angles at the approximate center. The fiberboard conforming to PPP-F-320, class weather-resistant, shall be placed between strapping and edges of seat backs and cushions to prevent damage to the fabric and barrier material. For level A, seat backs and cushions installed by snap fasteners or envelope slip covers shall be removed, placed in a bag conforming to type I, class B, style 2 of MIL-B-117 and boxed with other OVE items.

3.2.22.3.1 Windshield cover. For the shipment to ports or overseas, the windshield shall be secured in a folded down position and provided with a cover fabricated from plywood paneling 1/2 inch thick, 16/32 minimum span rating, grade CD, bonded with exterior glue and conforming to NN-P-530. The cover shall be dimensioned so that it extends to the outside perimeter of the windshield assembly and shall be designed and positioned to prevent damage to the glass. Battens, cleats and supporting wood members shall be utilized, as necessary, to support the cover adequately in a plane horizontal to the common plane of the windshield assembly. The cover shall be notched and cut out, to circumvent protrusions above the common plane such as windshield wiper motors and brackets. The cover shall be secured to the windshield assembly with minimum 3/8 inch strapping conforming to class 1, type I, finish B of QQ-S-781. The fiberboard conforming to PPP-F-320, class weather-resistant, shall be placed between the strapping and the windshield assembly. The strapping shall be located on the windshield in such a manner that it does not damage rubber seals along the hinged edge. Windshield covers shall be fabricated in accordance with the detailed requirements in the vehicle EPDS (see figure 3). Copies of specific vehicle model EPDS's are available from U.S. Army Tank-Automotive Command, AMSTA-GTP, Warren, Michigan 48397-5000 or from the DARCOM Packaging, Storage, and Containerization Center, Packaging Data Microform File, Tobyhanna Army Depot, Tobyhanna, PA 18466.

3.2.23 Vehicle bodies.

3.2.23.1 Cargo bodies, cargo covers removed. Covers shall be removed to reduce the cube for shipment to ports or overseas and when removal increases the loading capacity of the transportation medium. Leather straps of the cover shall be coated with neat's-foot oil conforming to C-N-200. The cover, including end curtains, shall be wrapped with 6 mil polyethylene conforming to type II of L-P-378, and secured with a rope conforming to class 2 of T-R-571, 1/8 inch diameter. Preserved covers shall be packed in a box conforming to class 2, style 4 of PPP-B-621, modified to require a one piece plywood top. A box conforming to PPP-B-601 may be used as an alternate. The box shall be identified and stowed with BII. Top bows shall be removed. Unpainted metal surfaces of bows, racks, stake pockets, and removed hardware shall be coated with type P-19 preservative of MIL-P-116. Bows shall be banded together with strapping, 3/4 by 0.020 in, conforming to class 1, type I, finish B of QQ-S-781. The strapping, 3/4 inch wide conforming to type II or III of PPP-S-760, may be used as an alternate. Bows shall then be stowed and secured in the cargo compartment fiberboard edge protectors conforming to PPP-F-320, class weather-resistant, shall be placed under the strapping. Openings resulting from the removal of bows, racks, and stakes, that are not provided with drain holes to permit draining, shall be sealed with a tape conforming to MIL-T-22085, type II. Troop seats and side racks shall be removed, banded together and stowed in the cargo compartment in the same manner as the bows. Body drains shall be secured in the open position.

3.2.23.1.1 Cargo bodies, cab covers, in place. Troop seats shall be in a folded position and secured with furnished locking devices. Body drains shall be secured in the open position.

3.2.23.2 Dump bodies, cab covers, removed. When troop seats, bows, and covers are furnished with the dump body, the items shall be processed as prescribed in 3.2.23.1. Unpainted metal surfaces of the dump body, roller arms and ramps, uncovered tailgate chains, locking devices, control levers, and related linkage shall be coated with type P-19 preservative of MIL-P-116. The hydraulic system shall be filled to the operating level with an operational hydraulic fluid as specified in the applicable drawing, specification or lubrication order. Exposed unpainted machined surfaces of the fully retracted hydraulic ram shall be coated with type P-11 preservative of MIL-P-116, wrapped with barrier material conforming to type II, grade A, class 2 of MIL-B-121, and secured with a tape conforming to MIL-T-22085, type II. When furnished, the cab protector (except when welded) shall be removed and secured within the body. Removed hardware and unpainted surfaces exposed by disassembly shall be coated with type P-19 preservative of MIL-P-116. The hardware shall be reinstalled into one of the mating parts. When vehicles are placed in storage outside of a building, the front end of the dump body shall be blocked up by resting on a nominal 4 by 4 piece of lumber. Exposed surfaces of the hydraulic ram shall be coated with P-11 preservative of MIL-P-116, wrapped with a barrier material conforming to type II, grade A, class 2 of MIL-B-121 and secured with a tape conforming to MIL-T-22085, type II.

3.2.23.2.1 Dump bodies, cab covers in place. The hydraulic system and exposed unpainted machined surfaces of the fully retracted hydraulic ram shall be processed as specified in 3.2.23.2. The dump body shall be blocked, when vehicles are placed in storage, as specified in 3.2.23.2.

3.2.23.3 Van, ambulance, panel utility, and maintenance truck. Body drains and ventilators, except those which would allow the entry of free water, shall be placed in the open position to provide all the possible ventilation. The ladder shall be removed from the rear of the van and stowed and secured to the wood floor inside of the van with two pieces of steel strapping, 3/4 by 0.020 in, conforming to class 1, type II, finish A of QQ-S-781, and 2d nails conforming to type II, style 7 of FF-N-105. Vehicles with composition or metal floors shall have the strapping secured through footman loops or other equally positive means of anchoring the strapping. The strapping for other than wood floors shall be 3/4 by 0.020 in, conforming to class 1, type I, finish A of QQ-S-781. For overseas shipment, tie down hooks, mounted on each side of the van, shall be removed and placed in a cotton cloth drawstring bag conforming to PPP-B-20. The bag shall be stowed in the map compartment. Door hinges, latches, and operating mechanisms shall be lubricated with type P-9 preservative oil specified in MIL-P-116. Doors shall be closed and secured to prevent pilferage or damage.

3.2.23.4 Utility trucks. Utility trucks shall be processed as specified in 3.2.22.2 or 3.2.22.3, as applicable.

3.2.23.5 Water tank. The metal water tank body shall be cleaned in accordance with process C-14 of MIL-P-116, using a cleaning compound conforming to P-C-437 and dried by procedure D-1 of MIL-P-116. After cleaning, drains and lower outlets shall be left in the open position and openings covered with fine mesh aluminum or plastic screen, secured in place with tape conforming to MIL-T-22085, type II. Drain plugs shall be removed, metallic drain plugs shall be coated with type P-14 preservative of MIL-P-116, and packaged in accordance with method IC-1 of MIL-P-116. Non-metallic drain plugs shall be packaged in accordance with method IC-1 of MIL-P-116. The bag containing drain plug shall be identified and securely attached to one of the faucets or in a conspicuous location within the equipment compartment. Rubber seals of hatches and top openings shall be coated with a talc conforming to MIL-T-50036 and forward outlet, hatches and top openings closed and secured. Equipment compartment drains shall be secured in the open position and compartment doors closed and secured to prevent pilferage or damage. For steel tanks, other than stainless or precoated, all interior surfaces shall be coated with type P-14 preservative of MIL-P-116. The interior of piping shall also be coated with the same type P-14 preservative.

3.2.23.5.1 Fiberglass tanks. Fiberglass tanks shall be cleaned, using a mild nontoxic detergent and warm water, followed by a clear water rinse. The drain plug shall be removed and the interior of the tank drained and completely dried in accordance with procedure D-1 of MIL-P-116. The interior of piping shall be coated with type P-14 preservative of MIL-P-116. The drain plug shall be reinstalled. The rubber seal manhole and filler cover

shall be coated with a talc conforming to MIL-T-50036. The filler and manhole cover shall be closed and secured. Lower outlets shall be left in the open position and openings covered with fine mesh aluminum or plastic screen, secured in place with a tape conforming to MIL-T-22085, type II.

3.2.23.5.2 Water pumping system. The drain plug on the bottom of the water pump shall be removed and the pump completely drained. The drain plug shall be reinstalled. The 1/4 inch plug shall be removed from the tee on the top of the pump and the pump filled with type P-14 preservative of MIL-P-116. The pump shall be operated allowing the perservative to drain through outlet nozzle and introduce a sufficient amount of type P-14 preservative of MIL-P-116 to assure complete coverage of areas within the pumping system from intake to outlet. After completion of application of preservative, the drain plug shall be removed and the system completely drained. The drain and top plug shall be reinstalled. A red warning tag bearing the following information "Before placing in use, flush system with hot water, minimum 160 °F, and drain to maximum extent" shall be attached to the preserved water tank in a conspicuous location, and DA Form 2258 annotated.

3.2.23.6 Fuel tank and semitrailer without segregator. Fuel tank trucks and semitrailers, not equipped with segregators, shall be processed in accordance with 3.2.23.6.1 and 3.2.23.6.2.

3.2.23.6.1 Fuel servicing system. All drains and drain plugs shall be opened or removed to permit maximum drainage. The gravity discharge and all compartment manifold valves shall be opened. Drain plugs shall be reinstalled and valves placed in normal operating positions. On tankers with multiple tank compartments, the first fuel compartment shall be filled with 150 gallons of type P-9 preservative oil specified in MIL-P-116. The preservative oil shall be pumped alternately into all fuel compartments of the vehicle and all valves operated to their maximum positions to provide the preservative contact with all surfaces. The preservative shall be drained from the system as specified above. The drained oil shall be recovered and may be reused for processing of other vehicles provided that the preservative oil is not more than 10% contaminated when tested as specified in 4.7.3.3. The manifold and emergency trip valve shall be secured in the open position. The remaining valves shall be closed and drain plugs reinstalled. Tankers with a single tank compartment shall be processed as specified above, except that the preservative oil shall be pumped through the servicing system and into a recovery container.

3.2.23.6.2 Tank body and equipment. All interior surfaces of fuel compartments, including unpainted surfaces of underside of hatches, except stainless steel, aluminum, and tanks coated with epoxy-based enamel or fuel resistant lacquer, shall be coated with type P-9 preservative oil of MIL-P-116. All openings of the tank shall be closed, including the emergency relief valves. A red warning tag bearing the following information "BEFORE PLACING IN USE, FLUSH COMPARTMENT AND FUEL SERVICING SYSTEM WITH SAME FUEL WITH WHICH VEHICLE IS TO BE FUELED, AND DRAIN TO MAXIMUM EXTENT" shall be secured to the gravity gate valve. Rubber seals of hatches shall be coated with a talc conforming to MIL-T-50036, and hatches shall be closed and secured. Exterior unpainted metal surfaces of hose couplings, valves and

pump shall be coated with type P-19 preservative of MIL-P-116. Equipment compartment drains shall be secured in the open position. Keys to vehicle stowage cabinet shall be identified and secured in a conspicuous location adjacent to engine instruments inside the stowage cabinet. Door hinges and latches shall be lubricated with type P-9 preservative oil of MIL-P-116, and doors closed and secured to prevent pilferage or damage. When equipped with fire extinguishers, the exterior portable fire extinguisher shall be packed in a fiberboard container, identified and secured in the stowage cabinet.

3.2.23.7 Fuel tank and semitrailer with segregator. Tank trucks and semitrailers equipped with a segregator tank shall have the segregator tank removed and drained. A by-pass line constructed of fuel resistant rubber hose shall be installed connecting the disconnected intake and the outlet piping vacated by the removal of the segregator. The by-pass line shall be secured to the piping with appropriate size hose clamps. The fuel servicing system shall be processed as specified in 3.2.23.6.2. The by-pass line shall be removed and stowed in the vehicle storage cabinet. The intake and outlet piping and the opening of the segregator tank shall be sealed with a tape conforming to MIL-T-22085, type II. The segregator tank shall be reinstalled to support hangers. A red warning tag, bearing the following information, "BEFORE PLACING INTO USE, REMOVE SEGREGATOR, INSTALL BY-PASS LINE, FLUSH COMPARTMENTS AND FUEL SERVICING SYSTEM WITH THE SAME FUEL THE VEHICLE IS TO BE FILLED WITH AND DRAIN TO MAXIMUM EXTENT - REMOVE BY-PASS LINE AND REINSTALL SEGREGATORS", shall be secured to the gravity gate valve.

3.2.24 Trailers. Racks, bows, and lattice type side extensions, as applicable, shall be removed and banded together with strapping, 3/4 by 0.020 in, conforming to class 1, type I, finish B of QQ-S-781. Nonmetallic strapping 3/4 inch wide conforming to type II or III of PPP-S-760 may be used as an alternate. Fiberboard conforming to PPP-F-320, class weather-resistent, shall be placed between the strapping and the bearing area of the components. Canvas covers shall be clean, dry, folded to the smallest practical cube, tied with a rope coforming to class 2 of T-R-571, 1/8 inch in diameter, and heat sealed inside a bag conforming to type I, class B, style 2 of MIL-B-117. Covers shall be packed in containers conforming to class 2, style 4 of PPP-B-621, modified to require a one piece plywood top. A box conforming to PPP-B-601 may be used as an alternate. The racks, bows, sides, and cover shall be stowed and secured on the bed of the trailer body. During the storage, trailers shall be stored in such a manner as to afford drainage.

3.2.24.1 Inverted trailers, chassis and trailer dollies. Trailers, chassis, flatbed and cargo types, and trailer dollies shall be inverted for shipment. Wheels of inverted trailers, chassis, flatbed and cargo types, and trailer dollies, except vertically loaded vehicles, shall be removed for shipment to ports, overseas, and removed when wheel removal increases the loading capacity of the transportation medium. Covers, racks, bows, and sides of these vehicles shall be removed, processed, stowed and secured as specified in 3.2.24. Removed wheels shall be stowed and secured as prescribed for other removed items. Trailers equipped with hydraulic master brake cylinders shall have the filler plug and vent assembly removed from the inverted trailers and the solid plug installed, using two compressor type copper gaskets. The filler plug and vent assembly shall be coated with

perservative oil conforming to grade 1 of MIL-P-46002, and packaged in accordance with method IC-1 of MIL-P-116. The package shall be secured to the master cylinder. A warning tag bearing the information, "MASTER CYLINDER FILLER PLUG AND VENT ASSEMBLY SECURED TO MASTER CYLINDER; REINSTALL BEFORE PLACING VEHICLE IN SERVICE", shall be securely attached to the trailer-to-vehicle brake line connection. Exposed ends of airplane type shock absorbers of the inverted trailer shall be covered with a tape conforming to MIL-T-22085, type II. Detachable lunettes shall be removed for overseas shipment and secured to the drawbar with strapping, 3/4 by 0.020 in, conforming to class 1, type I, finish B of QQ-S-781. The blocking and cushioning shall be installed between contact surfaces of the vehicles to prevent damage. Trailers shall be banded together with a strapping, 1-1/4 by 0.050 in, conforming to class 1, type I, finish B of QQ-S-781.

3.2.25 Winch and derrick assemblies. The winch gear and other gear driven units shall contain the applicable lubricant as specified in the drawing, specification or lubrication order, filled to the operational level. The steel cable shall be unreeled and all surfaces coated with type P-1 preservative of MIL-P-116. Nonmetallic cables shall not be preserved. If preservative is disturbed during rewind, additional preservative shall be applied. Exposed unpainted metal surfaces of cable drums, sheaves, snatch blocks, boom block, A-frame, crane, derrick boom controls and linkage shall be coated with the same type preservative. Exposed surfaces of hydraulic piston rod shall be coated with P-11 preservative of MIL-P-116 and wrapped with a barrier material conforming to type II, grade A, class 2 of MIL-B-121 and secured with a tape conforming to MIL-T-22085, type II. The cover from winch automatic brake assembly shall be removed. Exterior surfaces of brake disc and brake band shall be coated with a primer conforming to MIL-P-53030. The adjusting pin, spring and related hardware shall be coated with type P-19 preservative of MIL-P-116. All disassembled items shall be reassembled.

3.2.26 Gear chain drive. Exposed gears, non precision drive chains, sprockets, and adjusting mechanisms shall be coated with type P-19 preservative of MIL-P-116. The exposed precision drive chains shall be coated with type P-9 preservative oil of MIL-P-116 to assure penetration to inner surfaces of rollers, pins, and bushings. The excess of type P-9 preservative specified shall be allowed to drain, then the entire area shall be coated with type P-19 preservative of MIL-P-116.

3.2.27 Batteries and cables. Dry charged batteries shall be installed and secured in vehicle battery carrier. Batteries shall be secured in a battery carrier with a steel strapping, 5/4 by .031 in, conforming to QQ-S-781, finish A. Battery cables shall be secured to the battery carrier with a Strap, Tiedown, Electrical Components, Adjustable, Self-Clinching, Plastic, in accordance with type I, class 1 of MS3367, or as an alternate, secure with a tape conforming to PPP-T-97, 1/2 inch wide, type IV. Filler cap openings, when applicable, shall be sealed by placing a 2 inch wide by 3 mil thick sheet of film, conforming to type II of MIL-B-22191, over all filler cap openings with the cap removed. The sheet shall be of sufficient length to be depressed into the filler cap opening to the same depths as the filler plug. Filler caps shall be screwed or inserted into the filler openings to form a complete seal without damaging the sheet.

e other than as specified ... when bids or quotations are

3.2.28 Electrolyte. The electrolyte shall be packaged and packed in accordance with O-S-801, as applicable, except that exterior containers shall conform to PPP-B-621, class 2, or PPP-B-601, overseas type. The marking shall be as specified in O-S-801. The packed electrolyte shall be stowed in the same location as BII, and secured independently to permit separate removal.

3.2.29 Intervehicular jumper cable, air lines, and safety chains. The intervehicular jumper cable shall be secured to the vehicle with a Strap, Tiedown, Electrical Components, Adjustable, Self-Clinching, Plastic, in accordance with Type I, Class 1 of MS 3367 or as an alternate, secured with a tape conforming to PPP-T-97, 1/2 inch wide, type IV. Connectors at end of air lines shall be secured in dummy couplings provided. Loose portions of air lines and safety chains shall be secured to the vehicle as specified for the intervehicular jumper cable. Cables and air lines shall have a bend of not less than a 12 inch radius when secured to the vehicle.

3.2.30 Heaters, fuel operated.

3.2.30.1 Heaters, not installed in vehicles. Heaters, not installed, shall be cleaned, preserved, packaged, packed and marked in accordance with the applicable packaging data. The level of protection shall be as specified for the vehicles.

3.2.30.2 Heaters installed in vehicles. The disconnect heater fuel line at the most convenient point between the heater fuel tank and the heater. Drain the fuel from the system, to the maximum extent possible. Attach a hose from a tank containing preservative oil conforming to MIL-L-21260, grade PE10-1, to provide the feed of oil to the heater through the heater fuel pump. Process the heater until all fuel has been purged out of the heater and lines and the preservative oil has run through the system. Remove the preservative oil line, drain oil lines, and reconnect the heater fuel supply line. Seal all openings to the heater with plastic plugs and caps conforming to MIL-C-5501, or with a tape conforming to MIL-T-22085, type II, including the breather, valves, external exhaust stacks, etc. A warning tag shall be prepared and attached to the heater operating switch bearing the information, "Heater preserved and sealed - remove seals - deprocess prior to starting heaters". DA Form 2258 shall be annotated and shall specify the depreservation requirements.

3.2.31 Recycled, virgin and reclaimed materials. There are no requirements for the exclusive use of virgin materials. The use of recycled or reclaimed (recovered) materials is acceptable provided that all other requirements of this specification are met (see 6.3.1).

3.3 Loading.

3.3.1 Rail shipment. Loading of wheeled vehicles on open top single or multilevel railroad cars shall be in accordance with the applicable requirements of AAR, section 1 and the applicable figure of section 6 of the AAR rules. The quantity of units to be loaded on each railcar, the type of railcar, and the applicable transportation data shall be as authorized by the responsible Government transportation office (or officer).

3.3.1.1 Special equipment loading. To facilitate loading to the full capacity of the transportation conveyance; cube reduction, disassembly, and preparation of the disassembled items shall be in accordance with 3.2.4, 3.2.15.5.1, 3.2.22.3, 3.2.22.3.1, 3.2.23.1, 3.2.23.2 and 3.2.24.1, as applicable.

3.3.2 Highway shipment. Loading of vehicles for shipment by haulaway and rules for shipment by driveaway or towaway shall be in accordance with the DOT, Federal Motor Carrier Safety Regulations, and applicable military publications.

3.3.3 Ship loading. When it is known that a vehicle will be transported by ship the following warning label shall be prepared and placed directly below the overseas address marking and shall be of the same quality:

WARNING: Deck loading of this vehicle requires additional preservation. Doors shall be secured to prevent accidental opening. All openings in closed cabs, vans, and other closed type bodies shall be sealed with a tape conforming to MIL-T-22085, type II. Radiator grilles shall be covered with not less than 3/8 inch thick, three ply, plywood paneling bonded with exterior glue and secured in place with strapping of 3/4 by 0.020 in, conforming to class I, type I, finish B of QQ-S-781.

3.4 Marking. In addition to the special marking requirements specified in this paragraph, vehicle contract or purchase order, the vehicles shall be marked in accordance with the applicable requirements of MIL-STD-129.

3.4.1 Preservation data marking. Preservation data marking shall be stenciled or printed on pressure sensitive labels for CONUS, level "A" only, and oversea shipments. Labels shall be 2-1/2 inches high and 20 inches wide. The following basic marking is required:

a. Level of protection, level A, level B or commercial, and date vehicle is processed.
b. Gross weight, cube and outside dimensions.
c. Contractor's name or depot symbol, and mailing address.
d. When vehicles are processed in accordance with manufacturer's standard practice, the statement "not processed for storage" shall appear in addition to the level of protection.
e. Preservation data marking shall be 1/2 inch high and shall be spaced as specified on the applicable illustration.

f. Labels for Level A shipments shall be waterproofed by coating the entire outer surface of the label with coating compound conforming to MIL-C-17504, or waterproofing compound certified as equal to the above and compatible with the label material.

3.4.2 Oversea address marking. The oversea address marking shall be printed or stenciled on separate pressure sensitive labels, 6 inches high and 20 inches wide. The marking shall be 3/4 inch high, spaced as specified on the applicable drawing, and as specified in the shipping order. When the space is not adequate to accomodate the complete address, using 3/4 inch characters, the marking size shall be reduced to 5/8 or 1/2 in. Labels and stenciling, as applicable, shall be waterproofed as specified in 3.4.1f above.

3.4.3 Label sizes. Label sizes shall be altered only when one or more of the following conditions exist:

a. If a 6 by 20 inch address label is not large enough to accommodate the specified marking, when using the minimum 1/2 inch lettering, the label size shall be increased as required.
b. When a unique configuration of the vehicle makes it impossible to find a suitable location for either or both of the labels of the prescribed dimensions, labels shall be altered as required to fit the available space. Labels shall be designed to permit the required marking size.

3.4.4 CONUS shipments. CONUS, level "A", shipments shall have one preservation data marking label applied on the rear or right side near the rear, on each vehicle. Oversea shipments shall have one preservation data marking label and one address marking label, applied on the rear or right side near the rear, on each vehicle. When possible, labels shall be positioned on the vehicle at a height ranged from 4 to 6 ft. When the above locations are not practical, the best alternate location shall be used.

3.4.5 Label requirements. Labels supplied shall meet MIL-STD-129 requirements and the following:

a. Labels shall be capable of adhering to a vehicle surface for at least 1 year without fading.
b. If a label is applied directly to the vehicle it must be capable of being removed from the painted metal surface, without leaving adhesive residue or damaging the painted metal surface after weathering in accordance with ASTM D3815.
c. When labels are applied to the vehicle surface, labels and vehicle surfaces shall have a temperature of not less than 60°F, or application shall be in accordance with the label manufacturer's recommendations.

3.5 Workmanship. Workmanship shall meet all specified requirements and shall assure that processings are free from defects that would affect interchangeability and safety of handling and delivery personnel.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order (see 6.2), the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform or witness any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.1.1 Responsibility for compliance. All items must meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of assuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling in quality conformance does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance of defective material.

4.1.2 Inspection equipment. Unless otherwise specified in the contract (see 6.2), the contractor is responsible for the provision and maintenance of all inspection equipment necessary to assure that supplies and services conform to contract requirements. Inspection equipment must be capable of repetitive measurements to an accuracy of 10% of the measurement tolerance. Calibration of inspection equipment shall be in accordance with MIL-STD-45662.

4.2 Classification of inspections:

a. First article inspection (see 4.4).
b. Quality conformance inspection (see 4.5).
    1. Examination (see 4.5.2).

4.3 Inspection conditions. Unless otherwise specified (see 6.2), all inspections shall be conducted under the following conditions:

a. Air temperature 73 $\pm$ 18°F
b. Barometric pressure $28.5 \begin{smallmatrix} +2 \\ -3 \end{smallmatrix}$ inches mercury (in Hg)
c. Relative humidity 50 $\pm$ 30%

4.4 First article inspection. Unless otherwise specified (see 6.2), the Government shall select one of the first ten production vehicles processed under the contract for first article inspection. First article samples shall be subjected to the examinations specified in 4.5.2.1 and tests specified in 4.7.3.1 and 4.7.3.2. Approval of the first article sample by the Government shall not relieve the contractor of his obligation to supply production processed vehicles that are fully representative of those inspected as a first article sample. Any changes or deviation of the production units from the first article sample shall be subject to the approval of the contracting officer.

4.4.1 First article inspection failure. Deficiencies found during, or as a result of, first article inspection shall be cause for rejection of the first article sample until evidence has been provided by the contractor that corrective action has been taken to eliminate the deficiency. Any deficiency found during, or as a result of, first article inspection, shall be evidence that all processed vehicles already produced prior to completion of the first article inspection are similarly deficient unless contrary evidence satisfactory to the contracting officer is furnished by the contractor. Such deficiencies on all processed vehicles shall be corrected by the contractor. The Government shall not accept products until first article inspection is completed to the satisfaction of the Government.

4.5 Quality conformance inspection (QCI).

4.5.1 Sampling.

4.5.1.1 Lot formation. An inspection lot shall consist of all the production vehicles of one type, processed during one working day.

4.5.1.2 Sampling for examination. Samples for quality conformance examination shall be selected from each lot in accordance with level S-1 of MIL-STD-105 using the single sampling plan.

4.5.1.3 Sampling for test. Samples for testing production processed vehicles shall be selected from each lot that has been examined as specified in 4.5.2.1. Samples shall be selected at the rate of one out of every ten vehicles in the lot to be tested as specified in 4.7.3.1 and one out of five vehicles to be tested as specified in 4.7.3.2 and 4.7.3.3.

4.5.2 Examination.

4.5.2.1 Acceptable quality level (AQL). Each sample selected in accordance with 4.5.1.2 shall be examined for the defects specified in table II, and shall conform to an AQL of 4.0.

TABLE II. Processing defects.

Item	Paragraph	Defects
Documents, records, and forms	3.2.1	Missing or improperly completed or located.
GFE	3.2.2	Improperly packaged or packed per specific item specification. Improper stowage.
Preservatives	3.2.3	Improper or incomplete types available.
Disassembly	3.2.4	Removed parts improperly packaged, packed, or stowed.
Matchmarking	3.2.5	Missing or incomplete marking or tagging.
Relubrication	3.2.6	Omission or improper lubrication.
Rubber tires	3.2.7	Improper inflation. Improper preservation.
BII	3.2.8	Improperly packaged or packed in accordance with MIL-B-12841.
Cleaning and drying	3.2.9	Improper or omission of cleaning or drying.
Miscellaneous preservation	3.2.10	Improper application or omission of preservative.
Cooling system	3.2.11	Improper level. Improper mixture. Leaking drains or freeze plugs. No warning tag.
Belt pulleys	3.2.12	Improper or omitted primer application. Belts unreleased.
Engine crankcase	3.2.13	Improper level. Improper grade of oil. Leaks. Drain plugs loose.

TABLE II. Processing defects - Continued.

Item	Paragraph	Defects
Fuel tanks	3.2.14 3.2.14.1 3.2.14.2 3.2.30	Improper or omission of preservative. Improper application. Drain plugs loose. Filler caps not sealed.
Gasoline engine	3.2.15.1 3.2.15.1.1 3.2.15.1.2	Improper application or omission of preservative. Filters and sediment bowls not drained. Temperature too high. No warning tag.
Gasoline auxiliary	3.2.15.2	Same as 3.2.15.1.1 and 3.2.15.1.2 above.
Diesel and multifuel engines (2 and 4 cycle)	3.2.15.3 3.2.15.3.1 3.2.15.3.2	Improper application of Air Restriction. Improper application or omission of preservative. No warning tag.
Air intake system	3.2.15.4.1 3.2.15.4.2 3.2.15.4.3 3.2.15.4.4	Improper application or omission of preservative.
Exhaust system	3.2.15.5.1 3.2.15.5.2	Improper application or omission of preservative. Omission or improper sealing.
Crankcase openings	3.2.15.6	Improper application or omission of preservative.
Engine sealing	3.2.15.7	Omission or improper sealing. No warning tags.
Air cleaner (oil bath and dry type)	3.2.15.8	Low level. Improper application or omission of preservative. Improper sealing.

TABLE II. Processing defects - Continued.

Item	Paragraph	Defects
Transmission	3.2.16	
Standard drive	3.2.16.1	Low level. Leaks. Drain plugs loose.
Automatic drive	3.2.16.2	Low level. Leaks. Drain plugs loose.
Differentials, transfer assemblies and power take-off assemblies	3.2.17	Improper lubricant level. Leaks. Drain plugs loose.
Propeller shafts	3.2.18	Improper application or omission of preservative.
Disc-type clutch	3.2.19	Improper blocking of clutch.
Brake systems	3.2.20	Improper application or omission of preservative.
Hydraulic brakes	3.2.20.1	Improper fluid level.
Airbrakes	3.2.20.2	Improper draining. Improper application of preservative. Improper sealing or plugging. No warning tags.
Diaphragm-type chambers, pull-type cylinders, and hydrovac's	3.2.20.2.1	Improper application or omission of preservative.
Air-hydraulic brakes	3.2.20.3	Improper fluid level. Valves not closed. Omission or improper sealing.
Electric brakes	3.2.20.4	Improper application or omission of preservative.
Air compressor	3.2.21	Low crankcase level. Improper application of preservative. Improper sealing.

TABLE II. Processing defects - Continued.

Item	Paragraph	Defects
Hardtop cab	3.2.22.1	Omission or improper application of preservative. Improper ventilation. Drains closed or clogged. Improper disassembly and stowage of component parts.
Soft top cabs with top in place	3.2.22.2	Same as 3.2.22.1
Soft top cabs with top removed	3.2.22.3	Improper or omitted packaging taping. Improper diassembly and stowage of component parts.
Windshield cover	3.2.22.3.1	Improper fabrication and application. Improper sealing.
Cargo bodies, cargo covers removed	3.2.23.1	Improper application or omission of preservative. Improper packaging and stowage. Drains closed or clogged.
Cargo bodies, cab covers, in place	3.2.23.1.1	Body drains not opened. Troop seats not folded and secured.
Dump bodies, cab covers, removed	3.2.23.2	Improper application or omission of preservative. Improper oil level in hydraulic system. Improper disassembly and stowage of component parts.
Dump bodies, cab covers, in place	3.2.23.2.1	Improper application or omission of preservative. Improper oil level in hydraulic system.
Van, ambulance, panel utility, and maintenance truck	3.2.23.3	Improper application or omission of preservative. Drains and vents not open. Improper strapping.

TABLE II. Processing defects - Continued.

Item	Paragraph	Defects
Utility trucks	3.2.23.4	Improper packaging, packing, and stowage.
Water tank	3.2.23.5 & 3.2.23.5.1	Improper or omitted cleaning and preservation. Drain openings improperly covered.
Water pumping system	3.2.23.5.2	Improper application or omission of preservative. Improper draining. Plugs not reinstalled. No warning tags.
Fuel tank and semitrailer without segregator	3.2.23.6 3.2.23.6.1 3.2.23.6.2	Improper draining. Improper application or omission of preservative. Valves, drains, hatches improperly open or closed. Fire extinguishers improperly packaged and stowed. No warning tag.
Fuel tank and semitrailer with segregator	3.2.23.7	Improper draining. Improper application or omission of preservative. Valves and drains improperly open or closed. Improper sealing. No warning tag.
Trailers	3.2.24	Improper disassembly. Improper packaging, packing or stowage.
Inverted trailers, chassis, and trailer dollies	3.2.24.1	Solid plugs not used in master cylinder. Improper packaging and packing. No warning tag.
Winch and derrick assemblies	3.2.25	Improper lubricant level in gear case. Improper application or omission of preservative.
Gear chain drives	3.2.26	Improper application or omission of preservative.

TABLE II. Processing defects - Continued.

Item	Paragraph	Defects
Batteries and cables	3.2.27	Improperly secured. Improper sealing of vents.
Electrolyte	3.2.28	Improperly packaged and packed.
Intervehicular jumper cable, air lines, and safety chains	3.2.29	Improperly secured.
Heaters, fuel operated	3.2.30 3.2.30.1 3.2.30.2	Improperly packaged and packed. No warning tags.
Rail shipment	3.3.1	Not in accordance with AAR.
Highway shipment	3.3.2	Not in accordance with DOT, Federal Motor Carrier Safety Regulations.
Ship loading	3.3.3	Warning label not applied or improperly applied on vehicles destined for ship transport.
Marking	3.4	Incomplete or omitted.

4.6 Failure. Failure of any processed vehicle to pass any of the specified quality conformance inspection shall be cause for the Government to refuse acceptance of the processed vehicle quantity represented, until action taken by the contractor to correct defects and prevent recurrence has been approved by the Government.

4.7 Methods of inspection.

4.7.1 Materials. Except for materials which have been inspected by the Government at source, all materials to be used in processing of vehicles shall be inspected in accordance with the materials specification; or certified inspection and test reports shall be provided which show that furnished materials conform to the detailed specifications. When materials are listed on a Qualified Product List, they shall be obtained from one of the approved sources indicated.

4.7.2 Defects. Conformance to 3.2 through 3.4.5 shall be determined by examination for the defects listed in table II. Examination shall be visual, tactile, or by measurement with standard inspection equipment.

4.7.3 Tests.

4.7.3.1 Cooling system. To determine conformance to 3.2.11, the engine coolant in vehicles selected in accordance with 4.5.1.3 shall be tested using a solution testing hydrometer for checking the coolant.

4.7.3.2 Fuel and oil mixture (oil conforming to MIL-L-21260). To determine conformance to 3.2.14.1, the drained preservative oil from the fuel tank of every fifth vehicle shall be tested as follows:

4.7.3.2.1 American Petroleum Institute (API) gravity. The API gravity of the oil conforming to MIL-L-21260, as received and unused, shall be determined by the contractor. This information may also be obtained in written form from the supplier of the oil.

4.7.3.2.1.1 Gravity value. An API hydrometer with thermometer plus corrective values for the temperature differential above or below the established base temperature shall be used to determine the API degrees that determine a 10% dilution. The resultant gravity value determined by this test shall then be used as the control for all oils used which have the same basic, unused oil, gravity. Oils, conforming to MIL-L-21260 of different API gravity will not be mixed.

4.7.3.2.2 Mixture. To nine parts of the new, unused oil, add an equal part of fuel. Fuel shall be to the same specification as is used in vehicles concerned. Materials shall be thoroughly mixed before testing.

4.7.3.2.3 Equipment and procedure. The equipment and procedure for conducting the test shall be strictly in accordance with ASTM D287. All results shall be adjusted to 60°F as specified in the Petroleum Measurement Tables of the same ASTM.

4.7.3.3 Fuel and oil mixture (P-9 oil of MIL-P-116). The drained oil recovered after processing as specified in 3.2.23.6.1, from every fifth vehicle, shall be tested to determine conformance to 3.2.23.6.1. The procedures described in 4.7.3.2 shall be used to calculate the purity points of the P-9 preservative oil specified and fuel mixture. A 10% contamination is indicated when the difference in purity points, tested at the same temperature, exceeds 1.0 degree API, for diesel fuel and 3.4 degrees API, for gasoline.

5. PREPARATION FOR DELIVERY

This section is not applicable to this specification.

6. NOTES

6.1 Intended use. This specification is intended to be used in conjunction with the implementing documents for the processing, marking, and inspection of wheeled vehicles. The proper maintenance of equipment during storage is a part of the care of supplies in storage (COSIS) program, AR 740-3. The preferred storage environment for vehicles is controlled humidity warehouses. Under COSIS, the condition of equipment is determined by cyclic inspection procedures and the condition of equipment is maintained in accordance with appropriate maintenance procedures, including preventive maintenance. Storage serviceability standard, SB740-98-1, tracked vehicles, wheeled vehicles and component parts is the document to use in assuring the true condition of stored USATACOM materiel is known; recorded; and maintained in a condition to meet supply demands.

6.2 Ordering data. Acquisition documents should specify the following:

a. Title, number and date of this specification.
b. Official applicable equipment preservative data sheets (see 1.2.1) shall be those designated in procurement documents by the contracting officer.
c. If first article inspection is not required (see 3.1).
d. If engine crankcase oil shall be other than as specified (see 3.2.13).
e. Applicable torque requirements for reinstalling any disassembled parts when required (see 3.2.15.3.3.2).
f. If responsibility for inspection shall be other than as specified (see 4.1).
g. If responsibility for inspection equipment shall be other than as specified (see 4.1.2).
h. If inspection conditions shall be other than as specified (see 4.3).

6.3 Definitions.

6.3.1 Recovered materials. "Recovered materials" means materials that have been collected or recovered from solid waste (see 6.3.2).

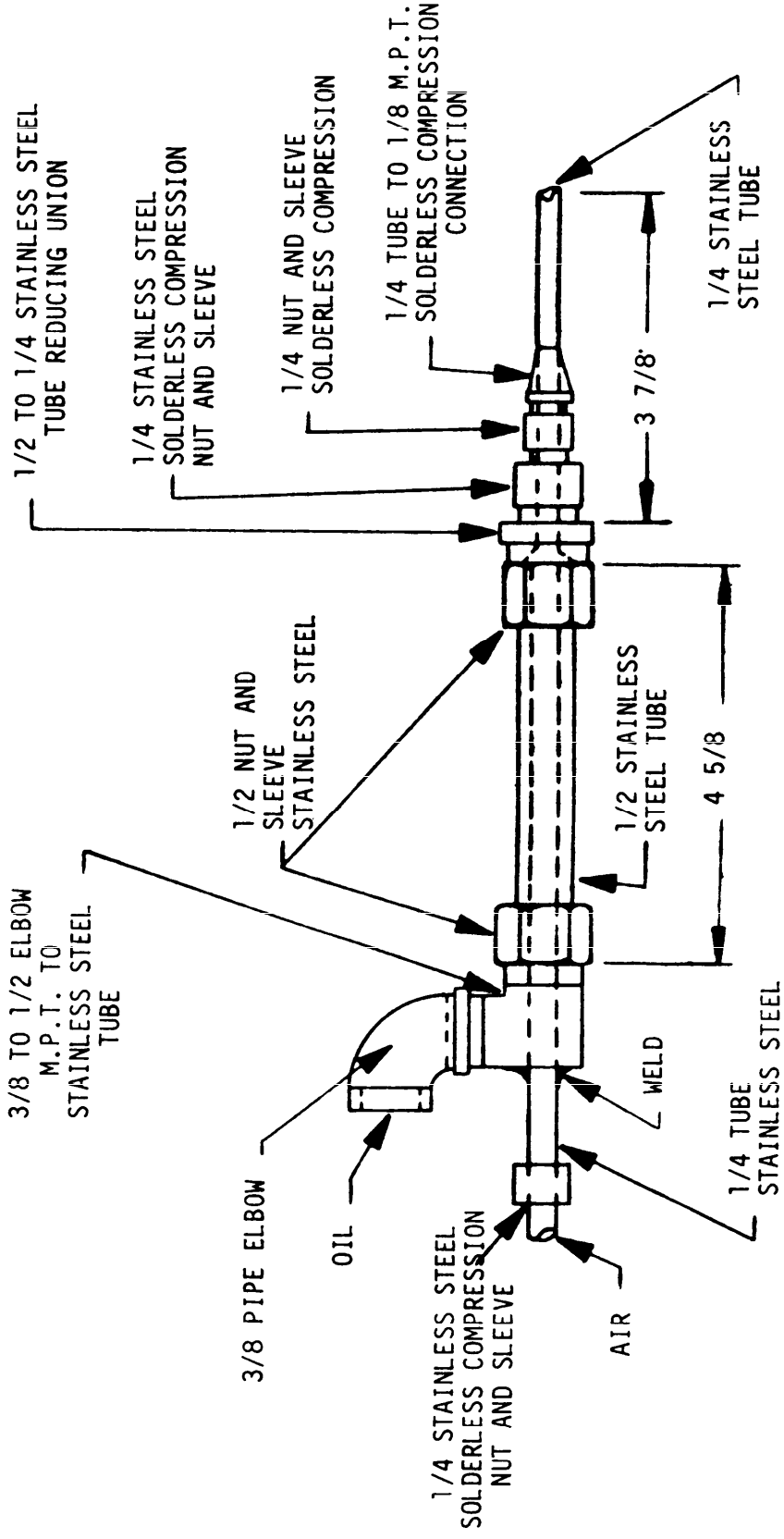
6.3.2 Solid waste. "Solid waste" means (a) any garbage, refuse, or sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility; and (b) other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities. It does not include solid or dissolved material in

domestic sewage, or solid or dissolved material in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Clean Water Act, (33 U.S.C. 1342 et seq.), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.) (Source: Federal Acquisition Regulations, section 23.402).

6.4 Subject term (key word) listing.

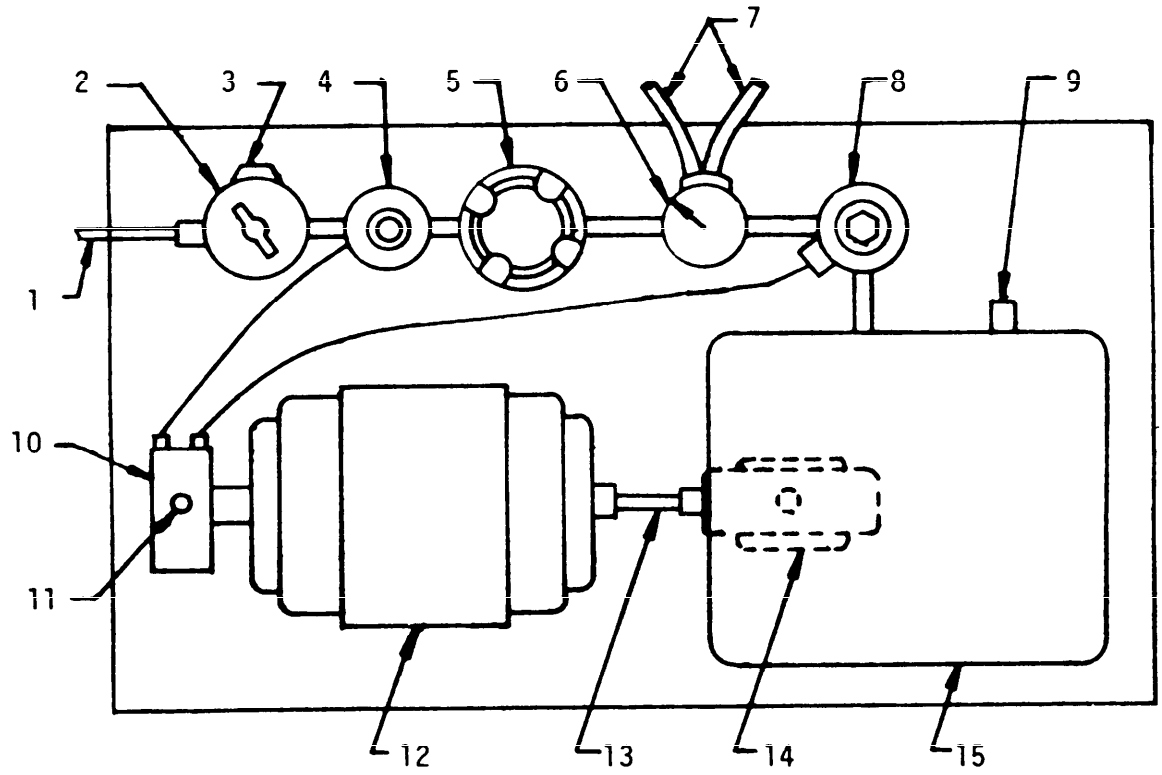
Preparation for shipment of wheeled vehicles.
Preparation for storage of wheeled vehicles.
Shipment and storage of wheeled vehicles.
Storage and shipment of wheeled vehicles.
Wheeled vehicles, preparation for shipment and storage.

6.5 Changes from previous issue. Asterisks are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.



NOTE: ALL DIMENSIONS ARE IN INCHES

FIGURE 1. Fabrication details for oil spray atomizing nozzle.



1. AIR LINE
2. AIR PRESSURE REGULATOR
3. AIR PRESSURE GAGE
4. SOLENOID VALVE
5. MOISTURE SEPARATOR
6. OIL PRESSURE GAGE
7. TWO DOUBLE TAPED LINES
8. SOLENOID VALVE
9. OIL TANK LEVEL GAGE
10. ELECTRIC JUNCTION BOX
11. ELECTRIC LINE
12. MOTOR, 1/4 HP
13. SHAFT
14. POSITIVE DISPLACEMENT OIL PUMP
15. OIL TANK

NOTE: THIS EQUIPMENT HAS PROVEN SATISFACTORY FOR PROCESSING ENGINE THRU SPARK PLUG OPENINGS IN CONJUNCTION WITH FIGURE 1.

FIGURE 2. Pressure pump.

EQUIPMENT PREservation DATA SHEET
PREPARATION FOR SHIPMENT AND STORAGE
(MIL-V-62038)

FSCM	PART NUMBER	NATIONAL STOCK NUMBER
19027		

EQUIPMENT NOMENCLATURE: TRUCK, CARGO

SHEET NO.	NO. OF SHEETS
1	8

REVISION	DATE

SPECIFICATION REFERENCE: MIL-V-62038 NOTE 1

SNL OR CLASS: AWV-

REQUIREMENT	NOTES	LEVEL A	LEVEL B	REQUIREMENT	NOTES	LEVEL A	LEVEL B	REQUIREMENT	NOTES	LEVEL A	LEVEL B
3.1		X	X	3.2.22.3		X	X				
3.2.1		X	X	3.2.22.3.1		X	X				
3.2.2.		X	X	3.2.23.1	5	X	X				
3.2.3.		X	X	3.2.25		X					
3.2.4	2	X	X	3.2.27							
3.2.6		X	X	3.2.28							
3.2.7		X	X	3.2.29		X	X				
3.2.8*	3	X	X	3.3		X	X				
3.2.9		X	X	3.4	6	X	X				
3.2.10		X	X	3.5		X	X				
3.2.11		X	X	4		X	X				
3.2.12		X									
3.2.13											
3.2.14											
3.2.15.3.1											
3.2.15.3.2											
3.2.15.4.1											
3.2.15.5.1											
3.2.15.6											
3.2.15.7											
3.2.15.8											
3.2.16.2		X	X								
3.2.17		X	X								
3.2.18.2		X	X								
3.2.20											
3.2.20.2	4										
3.2.21											

WEIGHT AND CUBE DATA

	NON-REDUCED	
LENGTH	27.67	FT
WIDTH	8.12	FT
HEIGHT	10.08	FT
CUBE	2255	CU FT
	REDUCED	
LENGTH	27.67	FT
WIDTH	8.12	FT
HEIGHT	7.83	FT
CUBE	1759	CU FT
WEIGHT	23,175.	LBS
BILI WT	62	LBS
TOTAL WT	23,237	LBS
SHIP TONS	43.98	

PREPARING AGENCY: AKZ

APPROVAL:

NOTES. 1. THIS EQUIPMENT PRESERVATION DATA SHEET SHALL BE USED AS THE IMPLEMENTING DOCUMENT FOR SPECIFICATION MIL-V-62038 WHEN THE EQUIPMENT IDENTIFIED ON THIS FORM IS BEING PREPARED FOR SHIPMENT AND STORAGE. THE EQUIPMENT SHALL BE PREPARED IN ACCORDANCE WITH THE REQUIREMENTS PARAGRAPHS, SUBPARAGRAPHS AND NOTES INDICATED ON THIS FORM IN ADDITION TO THE APPLICABLE GENERAL REQUIREMENTS AND QUALITY ASSURANCE PROVISIONS OF SPECIFICATION MIL-V-62038.

*SEE NOTE PAGE 3

STA FORM 1 JUL 70 4895

FIGURE 3. Preservation data sheet.

EQUIPMENT PRESERVATION DATA SHEET PREPARATION FOR SHIPMENT AND STORAGE (CONTINUATION)	FSCM 19207	PART NUMBER		NATIONAL STOCK NUMBER	
EQUIPMENT NOMENCLATURE		REVISION	DATE	SHEET NO.	NUMBER OF SHEETS
TRUCK, CARGO				2	8

2. PARA. 3.2.4. DISASSEMBLY: IN ADDITION TO THE REQUIREMENTS OF PARA. 3.2.4., THE FOLLOWING ITEMS SHALL BE REMOVED, PRESERVED, PACKAGED, PACKED AND STOWED IN ACCORDANCE WITH THE SPECIFIC INSTRUCTIONS LISTED BELOW.

A. SOFT TOP INSULATED CAB SHALL BE REMOVED AND THOROUGHLY DRIED, FOLDED OR ROLLED IN A MANNER TO AVOID CREASING OF PLASTIC WINDOW, AND PACKAGED IN A BAG FABRICATED OF 8 MIL POLYETHYLENE CONFORMING TO TYPE II OF L-P-378. CLOSURE SHALL BE ACCOMPLISHED BY HEAT SEALING.

FOLD SOFT TOP TO 42 X 22 X 7 INCHES, BAG SIZE 52 X 27. SOFT TOP CAB BOWS AND SUPPORTS SHALL BE REMOVED, DISASSEMBLED AND PACKED INTO THE EXTERIOR CONTAINER, EXCEPT BAR 12255938 AND 12255939-2 SHALL BE TAPED TOGETHER WITH PP-T-60, SIZE 2 X 12 INCHES, 3 PIECES REQUIRED. STOW BARS IN CAB IN ACCORDANCE WITH SHEET NO. 6.

B. WINDSHIELD WIPER ARMS AND BLADES SHALL BE REMOVED AND WRAPPED IN MIL-P-17667, TYPE II, CLASS 1, SIZE 24 X 6 INCHES. SECURE WRAP WITH PPP-T-42 TAPE, SIZE 2 X 2, 2 PIECES. PLACE IN EXTERIOR CONTAINER.

C. REMOVE MIRRORS AND MIRROR BRACES FROM VEHICLE. WRAP MIRRORS TOGETHER, FACE TO FACE, WITH MIL-P-17667, TYPE II, CLASS 1, 24 X 18, SECURE WITH 3 PIECES PPP-T-42 TAPE, SIZE 2 X 2. CONTAINER PPP-B-636, RSC, TYPE CF, GRADE W6c, CLASS WR, 6-3/4 X 3-1/2 X 19-1/4 I.D. CLOSURE PPP-T-60, TYPE III, CLASS 1, SIZE 2 X 13, 2 PIECES. REMOVE MAIN BRACES. LOOSEN BOLT IN REMAINING BRACES AND COMPRESS FLAT TO FIT IN EXTERIOR CONTAINER. WRAP MIRROR PRONGS ON BRACES WITH PPP-P-291, TYPE I, STYLE I, 4 PIECES 3 X 6. WRAP MAIN BRACES, 2 PIECES, TOGETHER WITH MIL-P-17667, TYPE II, CLASS 1, SIZE 30 X 12, SECURE WITH PPP-T-42 TAPE, SIZE 2 X 2, 2 PIECES. PLACE IN EXTERIOR CONTAINER.

D. UPPER SECTION OF VERTICAL TAIL PIPE, UPPER SECTION OF INTAKE PIPE, SPARE TIRE DAVIT, AND TROLLEY SHALL BE REMOVED. SECURE AIR INTAKE CAP ON REMAINING PIPE AS SHOWN ON DRAWING 12256313. WRAP TROLLEY WITH MIL-P-17667, TYPE II, CLASS 1, SIZE 18 X 12. SECURE WITH PPP-T-42 TAPE, SIZE 2 X 2, 2 PIECES. CONTAINER, PPP-B-636, RSC, TYPE CF, GRADE W6c, CLASS WR, SIZE 4-1/4 X 3 X 7-3/4 CLOSURE PPP-T-60, TYPE III, CLASS 1, SIZE 2 X 8, 2 PIECES. WRAP STRAIGHT END OF EXHAUST TUBE WITH MIL-P-17667, TYPE II, CLASS 1, SIZE 24 X 24, SECURE WITH PPP-T-42 TAPE, SIZE 2 X 2, 2 PIECES. PLACE EXHAUST TUBE INSIDE OF INTAKE TUBE. REMOVE 1 GASKET, 12255817 AND 1 COUPLING 11609348-11 WITH SCREW AND LOCKNUT FROM EXHAUST. PLACE GASKET BETWEEN STIFFENER, PPP-F-320, TYPE CF, CL, DOM. SECURE WITH PPP-T-42 TAPE. PLACE GASKET, COUPLING, SCREW AND LOCKNUT INTO BAG, MIL-B-117, STYLE 2, TYPE I, CLASS B, 6 MIL. HEAT SEAL CLOSURE. PLACE INTO EXTERIOR CONTAINER.

APPROVAL

STA FORM 1 JUL 76 4895-1

FIGURE 3. Preservation data sheet - continued.

EQUIPMENT PRESERVATION DATA SHEET PREPARATION FOR SHIPMENT AND STORAGE (CONTINUATION)	FSCM 19207	PART NUMBER		NATIONAL STOCK NUMBER	
EQUIPMENT NOMENCLATURE TRUCK, CARGO		REVISION	DATE	SHEET NO. 3	NUMBER OF SHEETS 8

2. CONTINUED: PACK ALL DISASSEMBLY ITEMS INTO CONTAINER, PPP-B-621, STYLE 4, CLASS 2. CONTAINER TOP SHALL BE ONE PIECE CONSTRUCTION FROM PLYWOOD 1/2" THICK, GRADE CDX, AMERICAN PLYWOOD ASSOCIATION (APA), TIMBER ENGINEERING COMPANY (TECO), OR EQUIVALENT APPROVED PLYWOOD WITH SPAN RATING OF 32/16. STOW IN CARGO BODY WITH PLYWOOD TOP UP IN ACCORDANCE WITH SHEET NO. 6. USING 2 PCS. 3/4 X .035 STRAPPING, QQ-S-781, TYPE I, FINISH B. PLACE WEATHER RESISTANT FIBER BOARD AT CONTACT POINTS BETWEEN PANELS AND STRAPPING. IDENTIFICATION REQUIRED.

* SPECIAL NOTE: THE BII/OVE, AND PECULIAR ITEMS, IF APPLICABLE, SHOWN ON THIS EQUIPMENT PRESERVATION DATA SHEET (EPDS) WILL BE PACKAGED, PACKED AND MARKED AS PRESCRIBED. ANY ITEM LISTED ON THIS EPDS THAT IS NOT PROCURED UNDER THE TERMS OF THE CONTRACT FOR WHICH THIS EPDS APPLIES WILL BE DELETED AS A REQUIREMENT AND NOT BE INCLUDED AS PART OF THE BII/OVE, PECULIAR ITEMS PACKAGE. ANY BII/OVE, PECULIAR ITEM NOT IDENTIFIED ON THIS EPDS THAT IS BEING PROCURED UNDER THE TERMS OF THE CONTRACT FOR WHICH THIS EPDS APPLIES WILL BE REPORTED TO THE PROCUREMENT CONTRACTING OFFICER, REQUESTING A PACKAGING REQUIREMENTS CHANGE.

3. PARA. 3.2.8. BASIC ISSUE ITEMS: DELETE PARA. 3.2.8. IN ITS ENTIRETY AND SUBSTITUTE THE FOLLOWING.

BII/OVE SHALL BE PROCESSED, PACKAGED, PACKED AND STOWED IN ACCORDANCE WITH SHEET NO. 3. THROUGH 6.

A. JACK 12300922 1 EA.
EXTEND JACK SCREW, PRESERVE WITH MIL-G-10924, APPLY TO UNPAINTED METALLIC SURFACES. TURN DOWN JACK SCREW, PLACE INTO FIBERBOARD CONTAINER PPP-B-636, TYPE CF, GRADE W6c, CLASS WR. CLOSURE PPP-T-60, TYPE III, CLASS 1 TAPE, CATEGORY B5B1, METHOD III, INSPECTION PLAN R.

B. JACK HANDLE. WRAP WITH MIL-P-17667, TYPE II, CLASS 1, SECURE WITH PPP-T-60 TAPE. CATEGORY E5B1, METHOD III, INSPECTION PLAN R.

C. GAGE AND HOSE ASSEMBLY 11677140-5 1 EA.
COIL HOSE AND GAGE 10 X 10 X 3 INCHES, SECURE WITH STRING MIL-S-12091, THREE PIECES, 12 INCHES LONG. PLACE IN BAG, MIL-B-117, TYPE I, CLASS C, STYLE 1, SIZE 18 X 24 INCHES, CLOSURE HEAT SEAL. PLACE INTO CONTAINER PPP-B-636, TYPE CF, GRADE W6c, CLASS WR, SIZE 11-3/4 X 3 X 22-3/4 INCHES, CLOSURE PPP-T-60, TYPE III, CLASS 1, 2 X 18 INCHES, 2 PIECES. IDENTIFICATION REQUIRED. CATEGORY G3B4, METHOD IC-3, INSPECTION PLAN H.

APPROVAL

STA FORM 1 JUL 76 4895-1

FIGURE 3. Preservation data sheet - continued.

EQUIPMENT PRESERVATION DATA SHEET PREPARATION FOR SHIPMENT AND STORAGE (CONTINUATION)	FSCM 19207	PART NUMBER		NATIONAL STOCK NUMBER	
EQUIPMENT NOMENCLATURE: TRUCK, CARGO		REVISION	DATE	SHEET NO. 4	NUMBER OF SHEETS 8

D. CHAIN ASSEMBLY 12302917 1 EA.
HOIST ASSEMBLY CHAIN 12301088 1 EA.

PRESERVATIVE MIL-C-16173, GRADE 4. PRESERVE BARE FERROUS METAL ONLY.
PLACE IN CONTAINER PPP-B-636, RSC, TYPE CF, GRADE W6c, CLASS WR, SIZE 7-1/2 X 4-1/8 X 10.
CLOSURE PPP-T-60, TYPE III, CLASS 1 TAPE, SIZE 2 X 14, 2 PIECES.
CATEGORY B5B4, METHOD I, INSPECTION PLAN A.
IDENTIFICATION REQUIRED.

E. BAR 6196147 1 EA. WRAP SIZE 6 X 36

WRENCH 11677000-3 1 EA. WRAP SIZE 9 X 24

PRESERVATIVE: MIL-C-16173, GRADE 4, APPLY TO BARE METALLIC SURFACES ONLY.
WRAP: MIL-B-121, TYPE II, GRADE A, CLASS 2, SIZE LISTED ABOVE. SECURE WRAPS WITH PPP-T-60 TAPE. SIZE 2 X 2, 4 PIECES REQUIRED. IDENTIFICATION REQUIRED. CATEGORY A5B1, METHOD I, INSPECTION PLAN A.

F. B.I.I. TOOL KIT

1.

ITEM	PART NAME	PART NUMBER	QUANTITY	WRAP SIZE	PPP-T-42 TAPE SIZE	PCS.
1.	SCREWDRIVER - FLAT TIP	11655777-2	1 EA.	6 X 12	2 X 6	2
2.	SCREWDRIVER - CROSS TIP	11655777-12	1 EA.	6 X 12	2 X 6	2
3.	PLIERS	11655775-3	1 EA.	6 X 12	2 X 6	2
4.	WRENCH, OPEN END, ADJUSTABLE	11655778-3	1 EA.	6 X 12	2 X 6	2
5.	WRENCH, OIL DRAIN PLUG	MS20066-543	1 EA.	4 X 4	2 X 4	1

PRESERVATIVE: MIL-C-16173, GRADE 4, APPLY TO ALL BARE METALLIC SURFACES ONLY.
WRAP: MIL-B-121, TYPE II, GRADE A, CLASS 2 (SIZES CALLED OUT ABOVE). SECURE WITH PPP-T-42 TAPE (SIZE AND NUMBER OF PIECES CALLED OUT ABOVE). IDENTIFICATION REQUIRED. CATEGORY C8B1, METHOD 1, INSPECTION PLAN A.

2.

ITEM	PART NAME	PART NUMBER	QUANTITY
6.	TOOL BAG	7724142	1 EA.
7.	PAMPHLET BAG	7961712	1 EA.

PACKAGE IN A BAG PER MIL-B-117, STYLE 2, TYPE I, CLASS B, 6 MIL POLYETHYLENE, SIZE 6 X 12. HEAT SEAL.
IDENTIFICATION REQUIRED. CATEGORY F7A4, METHOD IC-3, INSPECTION PLAN H.

APPROVAL

STA 1 FORM 4895-1 JUL 78

FIGURE 3. Preservation data sheet - continued.

EQUIPMENT PREservation DATA SHEET PREPARATION FOR SHIPMENT AND STORAGE (CONTINUATION)	FSCM 19207	PART NUMBER	NATIONAL STOCK NUMBER	
EQUIPMENT NOMENCLATURE: TRUCK, CARGO		REVISION	DATE	SHEET NO. 5 / NUMBER OF SHEETS 8

3.

ITEM	PART NAME	PART NUMBER	QUANTITY
8	PADLOCK	MS-21313-160	1 EA.

DOUBLE WRAP EACH ITEM WITH 2 PIECES MIL-P-17667, TYPE II, CLASS 1, SIZE 6 X 6. SECURE WITH PPP-T-42 TAPE, SIZE 2 X 4, 2 PIECES. PLACE IN CONTAINER PER PPP-B-566, STYLE II, TYPE D, CLASS A, SIZE 3-1/8 X 1-7/8 X 1. SEAL WITH PPP-T-42 TAPE, SIZE 2 X 1, 2 PIECES. PLACE PADLOCK INTO A BAG PER MIL-B-117, STYLE 2, TYPE I, CLASS B, 4 MIL POLYETHYLENE. HEAT SEAL BAG. IDENTIFICATION REQUIRED. CATEGORY C3A1, METHOD IC-2, INSPECTION PLAN H.

4. PACKAGE TOOL KIT ITEMS 1 THROUGH 8 INTO BOX PPP-B-636 OPF, TYPE CF, CLASS WR, GRADE W6c, SIZE 14-1/4 X 5-1/2 X 3. SECURE WITH PPP-T-60 TAPE, SIZE 2 X 23, 1 PIECE. IDENTIFICATION REQUIRED. CATEGORY G8B1, METHOD IC-3, INSPECTION PLAN H.

G. MANUALS

ITEM	NAME	IDENTIFICATION NUMBER	QUANTITY
A.	LUBRICATION ORDER	TM 9-2320-272-12	1 EA.
B.	OPERATOR'S MANUAL	TM 9-2320-272-10	1 EA.

PACKAGE ABOVE ITEMS A & B, INTO BAG, PER MIL-B-117, STYLE 2, TYPE I, CLASS B, 4 MIL, SIZE 10 X 14. HEAT SEAL. IDENTIFICATION REQUIRED, METHOD IC-3, INSPECTION PLAN H.

H. STRAP ASSEMBLY 11682088-1, 1 EA. FOLD TO 2 X 3 X 18. PLACE INTO BAG MIL-B-117, STYLE 2, TYPE I, CLASS B, 4 MIL, SIZE 6 X 24, HEAT SEAL. IDENTIFICATION REQUIRED. CATEGORY G8B4, METHOD IC-3, INSPECTION PLAN H.

PACK BI[illegible]/OVE ITEMS A THROUGH H INTO CONTAINER, PPP-B-621, STYLE 4, CLASS 2, WITH CONTAINER TOP PLYWOOD 1/2" THICK, GRADE CDX, AMERICAN PLYWOOD ASSOCIATION (APA), TIMBER ENGINEERING COMPANY (TECO), OR EQUIVALENT APPROVED PLYWOOD WITH SPAN RATING OF 32/16. STOW IN CAB COMPARTMENT WITH PLYWOOD TOP UP IN ACCORDANCE WITH SHEET NO. 6.

4. PARA. 3.2.20.2. AIR BRAKES. DELETE PRESERVATIVE OIL INSIDE AIR RESERVOIRS INTERIOR SURFACES ARE PAINTED.

APPROVAL

STA FORM 1 JUL 76 4895-1

FIGURE 3. Preservation data sheet - continued.

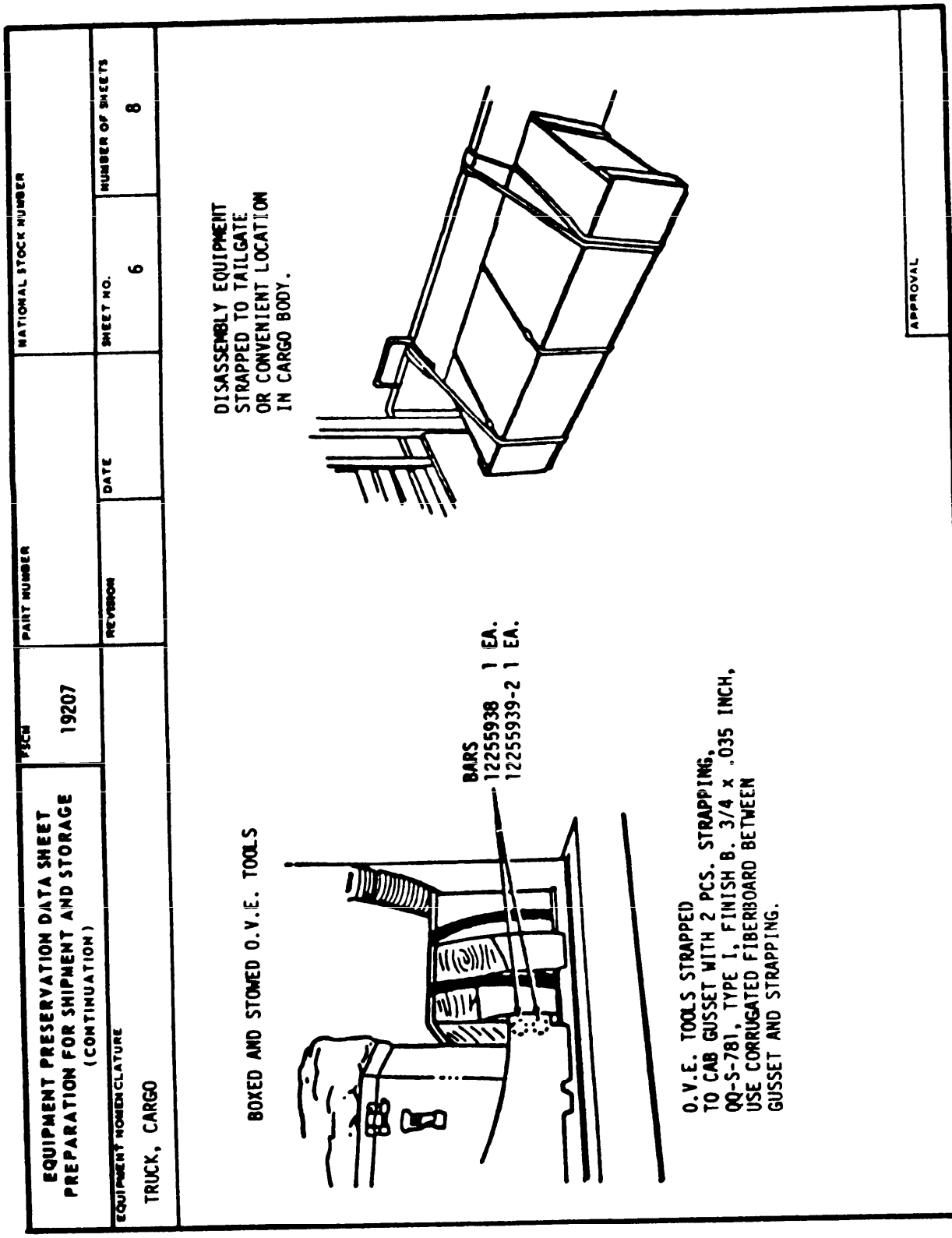


FIGURE 3. Preservation data sheet - continued.

EQUIPMENT PRESERVATION DATA SHEET PREPARATION FOR SHIPMENT AND STORAGE (CONTINUATION)	FSCM 19207	PART NUMBER		NATIONAL STOCK NUMBER	
EQUIPMENT NOMENCLATURE TARGO, CARGO		REVISION	DATE	SHEET NO. 7	NUMBER OF SHEETS 8

5. PARA. 3.2.22.3.1. WINDSHIELD COVER:
IN ADDITION TO THE REQUIREMENTS OF PARA 3.2.22.3.1., FABRICATION OF WINDSHIELD COVER SHALL BE IN ACCORDANCE WITH SHEET NO. 8. STRAP WINDSHEILD COVER TO WINDSHIELD WITH 2 PIECES STRAPPING QQ-S-781, TYPE I, FINISH B, 3/4 X .035 INCH, USE WEATHER RESISTANT FIBERBOARD BETWEEN WINDSHIELD AND STRAPPING.

6. PARA. 3.4.1. RAIL SHIPMENT - DELETE THE REQUIREMENTS OF PARAGRAPH 3.4.1. AND SUBSTITUTE:
"LOADING OF WHEELED VEHICLES ON OPEN TOP SINGLE OR MULTI-LEVEL RAILCARS SHALL BE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF SECTION 1, ASSOCIATION OF AMERICAN RAILROADS MANUAL, "LOADING OF COMMODITIES ON OPEN TOP CARS" AND FIGURE NUMBER(S) 88, 88A, 88B OF SECTION 6 OF THE AAR RULES, "LOADING OF DEPARTMENT OF DEFENSE MATERIAL ON OPEN TOP CARS." THE QUANTITY OF UNITS TO BE LOADED ON EACH RAILCAR, THE TYPE OF RAILCAR AND THE APPLICABLE TRANSPORTATION SHALL BE AS AUTHORIZED BY THE RESPONSIBLE GOVERNMENT TRANSPORTATION OFFICE."

APPROVAL

STA. FORM 1 JUL 70 4095-1

FIGURE 3. Preservation data sheet - continued.

EQUIPMENT PRESERVATION DATA SHEET
PREPARATION FOR SHIPMENT AND STORAGE
(CONTINUATION)

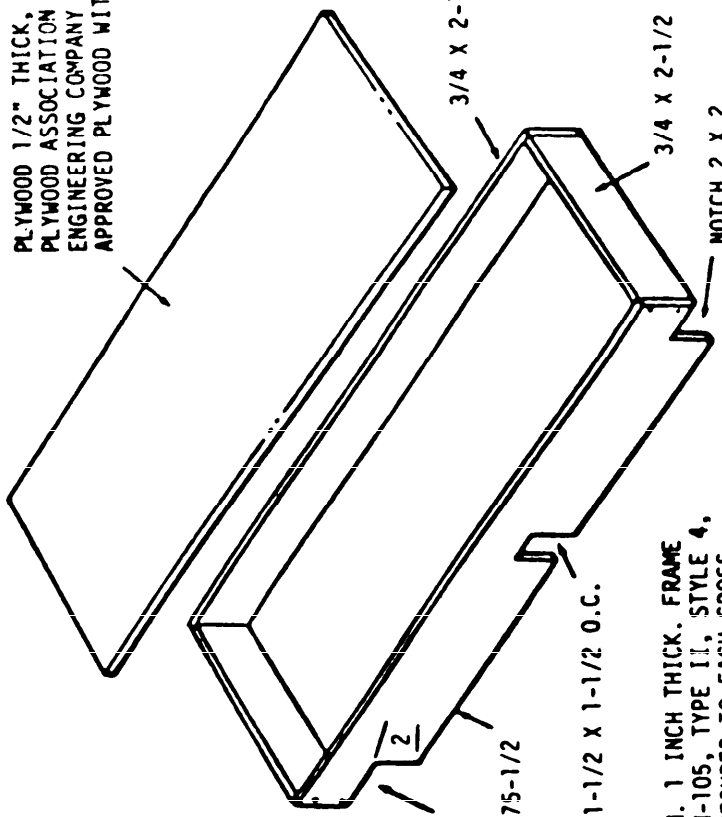
FSCM	PART NUMBER		NATIONAL STOCK NUMBER
19207			

EQUIPMENT NOMENCLATURE	REVISION	DATE	SHEET NO.	NUMBER OF SHEETS
TRUCK, CARGO			8	8

WINDSHIELD COVER

MATERIAL

PLYWOOD 1/2" THICK, GRADE CDX, AMERICAN PLYWOOD ASSOCIATION (APA), TIMBER ENGINEERING COMPANY (TECO), OR EQUIVALENT APPROVED PLYWOOD WITH SPAN RATING OF 32/16.



NOTE:
FRAME MEMBERS SHALL BE NOM. 1 INCH THICK. FRAME SHALL BE SECURED WITH FF-N-105, TYPE II, STYLE 4, 8d NAILS. SIDES SHALL BE SECURED TO EACH CROSS MEMBER WITH TWO NAILS EACH. PLYWOOD SHALL BE SECURED TO FRAME WITH SAME TYPE NAILS SPACED AT 8 INCH INTERVALS.

APPROVAL

STA 1 JUL 78 FORM 4895-1

FIGURE 3. Preservation data sheet - continued.

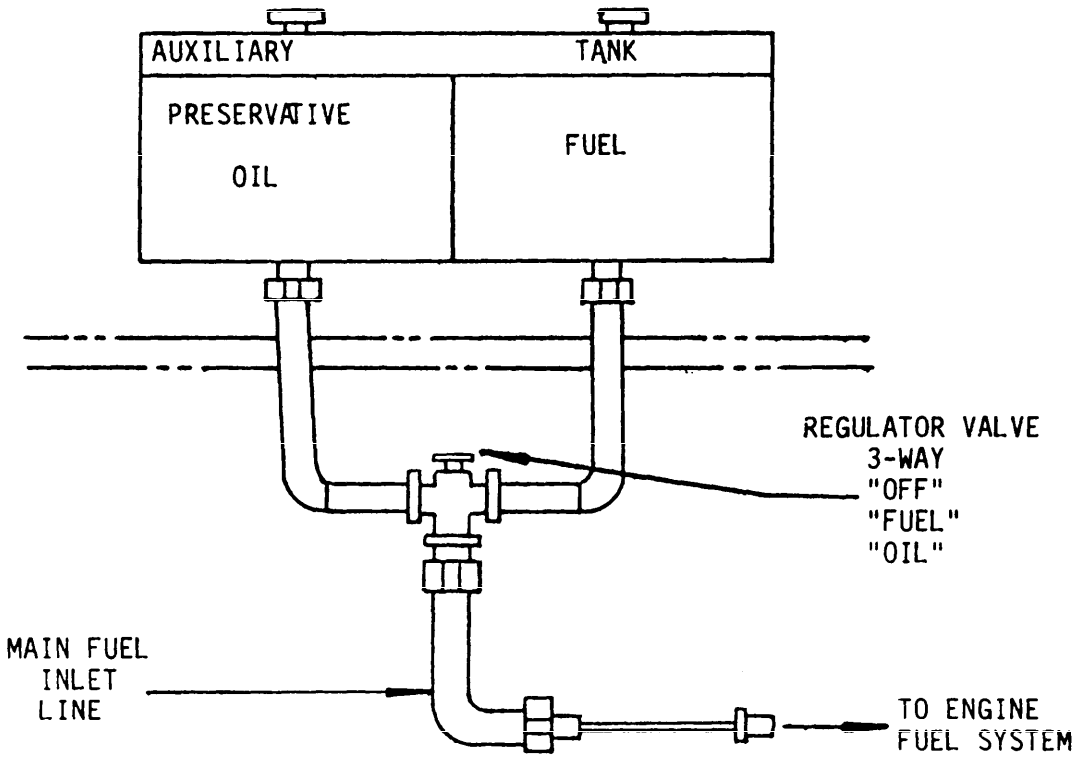


FIGURE 4. Auxiliary fuel container.

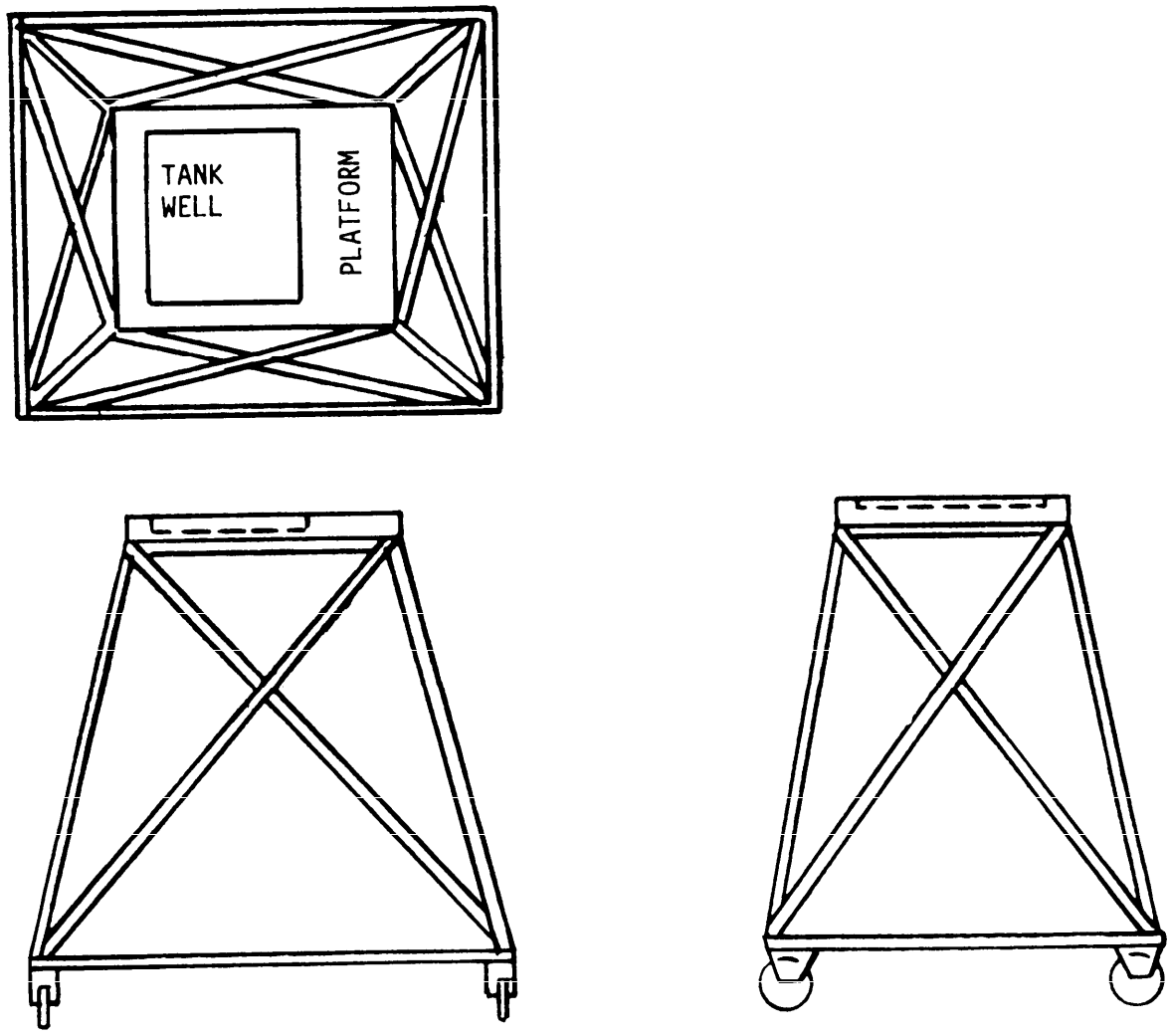


FIGURE 4. Container support- continued.

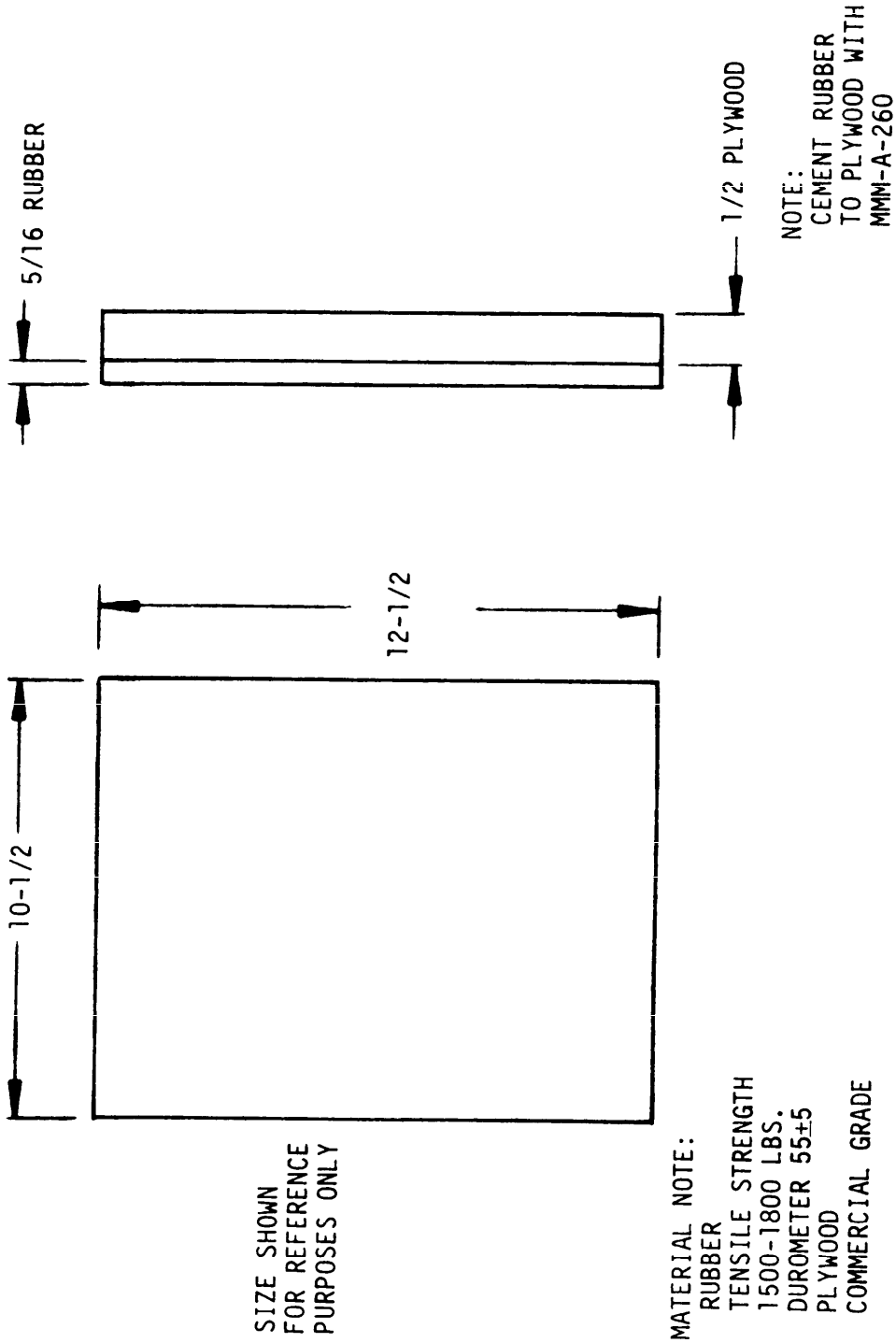


FIGURE 5. Air restrictor plate.

Custodian:
Army - AT

Preparing activity:
Army - AT

(Project No. PACK-A344)

INSTRUCTIONS: In a continuing effort to make our standardization documents better, the DoD provides this form for use in submitting comments and suggestions for improvements. All users of military standardization documents are invited to provide suggestions. This form may be detached, folded along the lines indicated, taped along the loose edge *(DO NOT STAPLE)*, and mailed. In block 5, be as specific as possible about particular problem areas such as wording which required interpretation, was too rigid, restrictive, loose, ambiguous, or was incompatible, and give proposed wording changes which would alleviate the problems. Enter in block 6 any remarks not related to a specific paragraph of the document. If block 7 is filled out, an acknowledgement will be mailed to you within 30 days to let you know that your comments were received and are being considered.

NOTE: This form may not be used to request copies of documents, nor to request waivers, deviations, or clarification of specification requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document*(s)* or to amend contractual requirements.

(Fold along this line)

(Fold along this line)

DEPARTMENT OF THE ARMY

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE $300

BUSINESS REPLY MAIL
FIRST CLASS PERMIT NO. 12062 WASHINGTON D. C.
POSTAGE WILL BE PAID BY THE DEPARTMENT OF THE ARMY

Commander
US Army Tank-Automotive Command
ATTN: AMSTA-GDS
Warren, MI 48397-5000

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

(See Instructions – Reverse Side)

1. DOCUMENT NUMBER	2. DOCUMENT TITLE

3a. NAME OF SUBMITTING ORGANIZATION	4. TYPE OF ORGANIZATION *(Mark one)*
	☐ VENDOR
	☐ USER
b. ADDRESS *(Street, City, State, ZIP Code)*	☐ MANUFACTURER
	☐ OTHER *(Specify)*:

5. PROBLEM AREAS

a. Paragraph Number and Wording:

b. Recommended Wording:

c. Reason/Rationale for Recommendation:

6. REMARKS

7a. NAME OF SUBMITTER *(Last, First, MI)* – Optional	b. WORK TELEPHONE NUMBER *(Include Area Code)* – Optional
c. MAILING ADDRESS *(Street, City, State, ZIP Code)* – Optional	8. DATE OF SUBMISSION *(YYMMDD)*

DD FORM 82 MAR 1426

PREVIOUS EDITION IS OBSOLETE.