INCH-POUND

MIL-P-53123(ME)
14 April 1992
SUPERSEDING
(See 6.8)

MILITARY SPECIFICATION

POWER UNITS/POWER PLANTS, ELECTRIC, DIESEL ENGINE, TRAILER MOUNTED, GENERAL SPECIFICATION FOR

This specification is approved for use within the USA Belvoir Research, Development and Engineering Center, 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 covers the general requirements and tests for the power units/power plants (see 6.7) consisting of Department of Defense standard diesel-engine-driven generator sets (see 6.7), various auxiliary equipment, brackets, and hardware mounted on a modified Government-furnished 3/4 ton trailer chassis.

1.2 Classification. Sizes of power units/power plants shall be as specified in the applicable specification sheets (see 6.2).

MIL-P-53123/1(ME)	- Power Unit, Electric, 5 KW, 60 Hertz, PU-751/M.
MIL-P-53123/2(ME)	- Power Unit, Electric, 10 KW, 60 Hertz, PU-753/M.
MIL-P-53123/3(ME)	- Power Plant, Electric, 3 KW, 60 Hertz, AN/MJQ-32.
MIL-P-53123/4(ME)	- Power Plant, Electric, 3 KW, 60 Hertz, AN/MJQ-33.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: USA Belvoir Research, Development and Engineering Center, ATTN: STRBE-TSE, Fort Belvoir, VA 22060-5606 by using the Standardization Document improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A FSC 6115

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications and standards. The following specifications and standards form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

SPECIFICATIONS

FEDERAL

A-A-55057	- Panels, Wood/Wood Based Construction.
PPP-B-601	- Boxes, Wood, Cleated-Plywood.
PPP-P-291	- Paperboard, Wrapping and Cushioning.
PPP-T-76	- Tape, Packaging, Paper (For Carton Sealing).

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MIL-P-116	- Preservation, Methods of.
MIL-E-10062	- Engines: Preparation for Shipment and Storage of.
MIL-B-22191	- Barrier Materials, Transparent, Flexible, Heat Sealable.
MIL-G-28554	- Generator Sets, Mobile Electric Power and Supplemental Equipment; Packaging of.
MIL-A-46153	- Antifreeze, Ethylene Glycol, Inhibited, Heavy Duty, Single Package.
MIL-R-46164	- Rustproofing for Military Vehicles and Trailers.
MIL-P-53123/1	- Power Unit, Electric, 5 KW, 60 Hertz, PU-751/M.
MIL-P-53123/2	- Power Unit, Electric, 10 KW, 60 Hertz, PU-753/M.
MIL-P-53123/3	- Power Plant, Electric, 3 KW, 60 Hertz, AN/MJQ-32.
MIL-P-53123/4	- Power Plant, Electric, 3 KW, 60 Hertz, AN/MJQ-33.

STANDARDS

MILITARY

MIL-STD-105	- Sampling Procedures and Tables for Inspection by Attributes.
MIL-STD-129	- Marking for Shipment and Storage.
MIL-STD-209	- Slinging and Tiedown Provisions for Lifting and Tying Down Military Equipment.
MIL-STD-454	- Standard General Requirements for Electronic Equipment.
MIL-STD-642	- Identification Marking of Combat and Tactical Transport Vehicles.

MIL-STD-705	- Generator Sets, Engine-Driven, Methods of Tests and Instructions.
MIL-STD-810	- Environmental Test Methods and Engineering Guidelines.
MIL-STD-889	- Dissimilar Metals.
MIL-STD-1186	- Cushioning, Anchoring, Bracing, Blocking and Waterproofing; with Appropriate Test Methods.
MIL-STD-1474	- Noise Limits for Army Materiel.
MIL-STD-1791	- Designing for Internal Aerial Delivery in Fixed Wing Aircraft.

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.1.2 Other Government drawings and publications. The following other Government drawings and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

DRAWINGS

(The required Government drawings are specified in the applicable specification sheet.)

2.2 Non-Government publications. The following document(s) form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issues of the documents cited in the solicitation (see 6.2).

AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)

Boiler and Pressure Vessel Code, Section IX, Qualification Standard for Welding and Brazing Procedures, Welders, Brazers, and Welding and Brazing Operators.

(Application for copies should be addressed to the American Society of Mechanical Engineers, Inc., 345 East 47th Street, New York, NY 10017.)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

D 3953	- Strapping, Flat Steel and Seals.
D 4675	- Selection and Use of Flat Strapping Materials.

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

AMERICAN WELDING SOCIETY (AWS)

AWS D1.1	- Structural Welding Code - Steel.
AWS D1.2	- Structural Welding Code - Aluminum.

(Application for copies should be addressed to the American Welding Society, Inc., 550 NW LeJeune Road, P.O. Box 351040, Miami, FL 33135.)

ASSOCIATION OF AMERICAN RAILROADS (AAR)

Section 6	- Rules Governing the Loading of Department of Defense Materiel on the Open Top Cars.

(Application for copies should be addressed to the Association of American Railroads, 50 F Street, NW, Suite 7702, Washington, DC 20001.)

(Non-Government standards and other publications are normally available from the organizations that prepare or 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 document and the references cited herein (except for related associated detail specifications, specification sheets, or MS standards), the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Specification sheets. The individual item requirements shall be as specified herein and in accordance with the applicable specification sheet. In the event of any conflict between requirements of this specification and the specification sheet, the latter shall govern.

3.1.1 Drawings. The drawings forming a part of this specification are end product drawings. No deviations from the prescribed dimensions or tolerances is permissible without prior approval of the contracting officer. Where tolerances could cumulatively result in incorrect fits, the contractor shall provide tolerances within those prescribed on the drawings to insure correct fit, assembly, and operation of the power unit/power plant. Any data (e.g., shop drawings, layouts, flow sheets, processing procedures, etc.) prepared by the contractor or obtained from a vendor to support fabrication and manufacture of the production item shall be made available, upon request, for inspection by the contracting officer or his designated representative.

3.2 First article. Unless otherwise specified (see 6.2), a sample shall be subjected to first article inspection (see 6.3) in accordance with 4.3.

3.3 Materials. Materials shall be as specified herein and on the drawings. Materials not specified shall be selected by the contractor and shall be subject to all provisions of this specification.

3.3.1 Material deterioration prevention and control. The power unit/power plant shall be fabricated from compatible materials, inherently corrosion resistant or treated to provide protection against the various forms of corrosion and deterioration that may be encountered in any of the applicable operating and storage environments to which power unit/power plant may be exposed.

3.3.1.1 Dissimilar metals. Dissimilar metals shall not be used in intimate contact with each other unless protected against galvanic corrosion. Dissimilar metals and methods of protection are defined and detailed in MIL-STD-889.

3.3.1.2 Identification of materials and finishes. The contractor shall identify the specific material, material finish or treatment for use with component and subcomponent, and shall make information available upon request to the contracting officer or designated representative.

3.3.1.3 Rustproofing. The trailers shall be rustproofed in accordance with MIL-R-46164.

3.3.2 Recovered materials. For the purpose of this requirement, recovered materials are those materials which have been collected from solid waste and reprocessed to become a source of raw materials, as distinguished from virgin raw materials. The components, pieces and parts incorporated in the power unit/power plant may be newly fabricated from recovered materials to the maximum extent practicable, provided the power unit/power plant produced meets all other requirements of this specification. Used, rebuilt or remanufactured components, pieces and parts shall not be incorporated in the power unit/power plant.

3.3.3 Rubber parts. All rubber parts shall be no more than 12 months old on date of acceptance by the Government.

3.4 Noise limits. Noise levels produced by the power units/power plants shall comply with the requirements of MIL-STD-1474, with the exception of MIL-STD-1474, 5.2, 5.3, and 5.4. The noise level at the operator's position, defined to be 18 inches from the control panel, and other personnel-occupied areas of the power unit/power plant, defined to be anywhere within 1 meter from the perimeter of the generator sets at locations other than the operator's position, shall not exceed category D of MIL-STD-1474. Where the limit of category D can be documented as being clearly beyond the state of the art, per MIL-STD-1474, 5.1.1.2, selection of another noise limit shall be made by the procuring activity and the requirements of MIL-STD-1474, 5.1.1.3 shall again apply.

3.5 Safety. Any changes, deviations, and waivers to the applicable top assembly shall conform with the following requirements. All rotating or reciprocating parts and other parts subject to high operational temperatures that are of such a nature or are so located as to be a hazard to operating personnel, shall be guarded or insulated to the extent necessary to eliminate the hazard. Electrical equipment shall be effectively guarded and grounded to protect all persons and objects from electrical shock hazard.

3.6 Government-furnished property. The Government-furnished property shall be as listed in the applicable specification sheet (see 6.9).

3.7 Vehicle marking. Registration numbers and other marking of the trailer shall be in accordance with MIL-STD-642 (see 6.10).

3.8 Workmanship. Workmanship shall be of a quality to assure that the power units/power plants are free from defects resulting from defective material, incorrect manufacturing or assembly practices, incorrect treatment and painting, incomplete welds, rust, cracks, and other defects that could impair their operation or serviceability. MIL-STD-454, requirement 9, shall apply. External surfaces shall be free from burrs, sharp edges, and corners except when sharp edges and corners are specified on the applicable drawing.

3.8.1 Welders and welding operators. Before assigning any welder or welding operator to manual welding work covered by this specification, the contractor shall obtain certification that the welder has passed qualification tests as prescribed by either AWS D1.1, D1.2, or the ASME code for the materials joined and the type of welding operation to be performed and that such qualification is effective as defined. Contractors who only make horizontal welds need not qualify welders for "all position welding." The contractor is responsible for determining that automatic welding equipment operators are capable of producing quality welds in accordance with AWS and ASME codes. In the event of evidence of poor welds, the Government reserves the right to require retesting of any welder or welding operator (see 6.5).

3.9 Transportability. The power unit/power plant shall be capable of being transported (see 6.5) by military or commercial trailers, trains, vessels, aircrafts and can withstand the impact forces encountered in shipment without damage or permanent deformation. The power unit/power plant shall be equipped with tiedown and slinging provisions.

3.9.1 Tiedown provisions. The tiedown provisions shall conform to MIL-STD-209, class 2 or 3, type II equipment, and to MIL-STD-1791 for equipment resistant criteria. The tiedown provisions shall satisfactorily complete the pull testing as specified without weld failure, permanent deformation, cracking, loosening, or breaking of the provision or its connecting structural components.

3.9.2 Slinging provisions. The slinging provisions shall conform to MIL-STD-209, class 1 or 3, type II. The provisions shall enable the complete power unit/power plant to be lifted, in the normal operating position. The

provisions shall be located so that not less than one-inch clearance is maintained between slings and all exterior parts and shall be fastened to members which will withstand stresses in the amount and direction of pull specified for the provisions without weld failure, permanent deformation, cracking, loosening, or breaking of the provision or its connecting structural components. Slinging provisions may also be used as tiedown provisions when such provisions meet the requirements specified in 3.9.1. All slinging/tiedown provisions shall be labeled 'LIFT', 'TIEDOWN', or "LIFT TIEDOWN', as appropriate, in 1-inch (2.54 cm) high letters.

3.9.3 Air transportability. The power unit/power plant shall meet the requirements of MIL-STD-1791 for air transport. When required (see 6.2), the power unit/power plant being supplied can be loaded, transported in the C-130, C-141, and C-5A aircraft and lifted by helicopters (see 6.5).

3.9.4 Rail transportability. The power unit/power plant shall be rail transportable in CONUS and NATO countries without restrictions. The power unit/power plant shall have a dimensional profile within the Gabarit International de Chargement (GIC) outline diagram, in accordance with the AAR Manual, when loaded on a 50-inch (127 cm) high rail car. The power unit/power plant shall be capable of withstanding shock loads resulting from rail impact testing in accordance with 4.6.3 without failure, damage, or permanent deformation.

3.9.5 Highway transportability. The power unit/power plant, when loaded on a semitrailer/tractor, shall be within the highway permit limits of all states.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements (examinations and tests) 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 any of the inspections set forth in this specification where such inspections are deemed necessary to ensure supplies and services conform to prescribed requirements.

4.1.1 Responsibility for compliance. All items shall 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 ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements, however, this does not authorize submission of known

defective material, either indicated or actual, nor does it commit the Government to accept defective material.

4.1.2 Component and material inspection. The contractor is responsible for insuring that components and materials are manufactured, examined, and tested in accordance with referenced specifications and standards, as applicable.

4.1.3 Disassembly inspection. Failure of any examination or test by the first article model shall be cause for disassembly, in the presence of a Government representative, of the first article model to the extent necessary to determine the cause of the failure. Each disassembled part shall be examined in detail for compliance with this specification and referenced drawings in regard to materials, dimensions, tolerances, and workmanship. Parts not complying with such requirements shall be rejected and shall be cause for rejection of the first article. Reassembly with accepted parts and retesting shall be the responsibility of the contractor. Government-furnished property shall be excluded from the requirements of this paragraph.

4.2 Classification of inspections. The inspection requirements specified herein are classified as follows:

a. First article inspection (see 4.3).
b. Quality conformance inspection (see 4.4).
c. Inspection of packaging (see 4.7).

4.3 First article inspection. First article inspection shall be performed on one complete power unit/power plant when a first article sample is required (see 3.2 and 6.2).

4.3.1 Examination. The first article shall be examined as specified in 4.5.1. Presence of one or more defects shall be cause for rejection or for performing the disassembly inspection specified in 4.1.3.

4.3.2 Tests. The power unit shall be tested as specified in 4.5.2.4. The power plant shall be tested as specified in 4.5.2. Failure of the test shall be cause for rejection or for performing the disassembly inspection specified in 4.1.3.

4.4 Quality conformance inspection.

4.4.1 Examination. Each power unit/power plant shall be examined for the defects specified in 4.5.1. Presence of one or more defects shall be cause for rejection.

4.4.2 Tests. Each power unit shall be tested as specified in 4.5.2.4. Each power plant shall be tested as specified in 4.5.2. Failure of the test shall be cause for rejection.

4.5 Inspection procedure.

4.5.1 Examination. The power units/power plants shall be examined for the following defects:

101. Dimensions not as shown on drawings (see 3.1.1).
102. Components missing or not as specified (see 3.1).
103. Assembly not as shown on the drawings (see 3.1.1).
104. Treatment and painting not as specified (see 3.1.1).
105. Materials not as specified (see 3.3).
106. Materials are not resistant to corrosion or deterioration or treated to be made resistant to corrosion or deterioration for the applicable storage and operating environment (see 3.3.1).
107. Dissimilar metals as defined in MIL-STD-889 are not effectively insulated from each other (see 3.3.1.1).
108. Contractor does not have documentation available for identification of material, material finishes or treatments (see 3.3.1.2).
109. Rustproofing not as specified (see 3.3.1.3).
110. Used, rebuilt, or remanufactured components, pieces or parts incorporated in the power unit/power plant (see 3.3.2).
111. Rubber parts not as specified (see 3.3.3).
112. Safety not as specified (see 3.5).
113. Vehicle registration marking and identification plate missing, incomplete, improper location or size (see 3.7).
114. Workmanship not as specified. (see 3.8).

4.5.2 Tests.

4.5.2.1 Test conditions. The following preparations shall be made prior to testing the switch box assembly:

a. Cables running between the switch box assembly and the generator sets shall be installed to the switch box assembly rotary switch.
b. The free ends of the power input cables shall be attached to the generator sets as follows:

(1) Cable wires marked L1 shall be attached to Phase A.
(2) Cable wires marked L2 shall be attached to Phase B.
(3) Cable wires marked L3 shall be attached to Phase C.
(4) Cable wires marked L0 shall be attached to neutral.

c. Provide ground to ground terminal of switch box.
d. A 3-phase, 4-wire, 3 KW resistive load shall be connected to the output of the switch box.

4.5.2.2 Test procedures. Tests shall be conducted in accordance with MIL-STD-705 and as specified herein. Test instruments shall be of the laboratory type and shall have been calibrated within 30 days prior to the start of testing and at intervals not greater than 6 months thereafter.

4.5.2.3 Operation. The rotary switch of the switch box shall be placed in the generator No. 1 position. Start and operate the generators in accordance with the operator's manual at the rated load through the rotary switch for a minimum of 5 minutes. During this period, phase sequence (rotation) shall be tested in accordance with MIL-STD-705, method 507.1. Phase rotation shall be L1, L2, and L3. This test shall be performed at the load terminals of the switch box. At the conclusion of the generator No. 1 position test, the rotary switch shall be placed in the generator No. 2 position. Repeat the test. Inability of the switch box assembly to maintain or transfer a rated load shall constitute failure of this test. Failure of the GFE generators to operate in accordance with the operator's manual shall not constitute failure of the test. The contracting officer shall be notified immediately of any such failure.

4.5.2.4 Noise level test. Noise levels shall be measured in accordance with MIL-STD-1474 requirements and shall be recorded in the format indicated by MIL-STD-1474, figure 11. As a minimum, noise levels shall be measured when the power unit/power plant is operating under full load. MIL-STD-1474, 5.1.2.1.4 contours shall be taken at not less than 12 equal horizontal arc increments; one increment shall include data from the noisiest position. Additionally, the noise level at the typical operating position shall be provided as dB(A) level. Failure to comply with 3.4 and MIL-STD-1474 provisions shall constitute failure of this test.

4.6 Transportability tests.

4.6.1 Tiedown provisions. The tiedown provisions shall be tested in accordance with MIL-STD-209 to prove conformance to 3.9.1. Inability to meet the requirements of 3.9.1 shall constitute failure of this test.

4.6.2 Slinging provisions. The slinging provisions shall be tested in accordance with MIL-STD-209 to prove conformance to 3.9.2. Inability to meet the requirements of 3.9.2 shall constitute failure of this test.

4.6.3 Rail impact test. The first article power unit/power plant shall be tested in accordance with MIL-STD-810 to prove conformance to 3.9.4. Inability to meet the requirements of 3.9.4 shall constitute failure of this test.

4.6.4 Air transport test. The power unit/power plant shall be tested in accordance with MIL-STD-1791 to prove conformance to 3.9.3. Inability to meet the requirements of 3.9.3 shall constitute failure of this test.

4.6.5 Highway transport test. The power unit/power plant shall be tested to conform to 3.9.5. Inability to meet the requirements of 3.9.5 shall constitute failure of this test.

4.7 Inspection of packaging.

4.7.1 First article pack.

4.7.1.1 Examination. The first article pack shall be examined for the defects specified in 4.7.2.3. Presence of one or more defects shall be cause for rejection.

4.7.2 Quality conformance inspection of packaging.

4.7.2.1 Unit of product. For the purpose of inspection, a completed pack prepared for shipment shall be considered a unit of product.

4.7.2.2 Sampling. Sample size shall be determined by using MIL-STD-105, table I and table IIa. A lot shall be accepted when 0 defects are found and rejected when 1 or more defects are found.

4.7.2.3 Examination. Sample units of product selected in accordance with 4.7.2.2 shall be examined for the following defects.

114.	Preservation not as specified for all levels (see 5.2).	
115.	The bottom of the generator sets not protected with plywood shields as specified for level A (see 5.2.1).	
116.	Housing for the power unit/power plant not as specified for level A or level B (see 5.3.1 and 5.3.2).	
117.	Strapping not as specified for level A or level B (see 5.3.1 and 5.3.2).	
118.	Accessory and loose parts not packed as specified for all levels (see 5.3).	
119.	Blocking, bracing and anchoring not as specified for levels A and B (see 5.3).	
120.	Landing gear(s) on the trailer(s) is not up as specified for all levels (see 5.3).	
121.	Marking incorrect, illegible or missing (see 5.4).	
122.	Depreservation guide not preserved and secured as specified (see 5.5).	

5. PACKAGING

5.1 First article pack. The contractor shall furnish a first article pack for examination within the time frame specified (see 6.2), to prove prior to starting production packaging that the applied preservation, packing and marking comply with the packaging requirements of this specification. Examination shall be as specified in section 4 and shall be subject to surveillance and approval by the Government (see 6.4). The first article pack may be prepared utilizing either the first article model or a production model. When the first article model is utilized, any preservation and packing shall be removed by the contractor at no expense to the Government, when requested by the Government, to facilitate comparison between the first article model and production model.

5.2 Preservation. Preservation shall be level A, B or level C (see 6.2).

5.2.1 Level A. The power unit/power plant and accessory equipment shall be preserved in accordance with the level A preservation requirements of MIL-G-28554. Each generator set shall be further preserved in accordance with the requirements for method IIa of MIL-P-116 as specified in MIL-G-28554 for sheathed crated sets. The generator set shall be secured directly through the barrier material to the chassis using the required mounting bolts. Any openings in the trailer bed, through which an object may enter from below and cause damage to the method IIa barrier material, shall be completely closed off by the application of a plywood shield(s). Such shield(s) shall be constructed of 0.50-inch (1.27 cm) thick plywood meeting the requirements of A-A-55057, group A, and shall be securely attached to the bottom of the trailer bed. Internal type humidity indicators are required with inspection windows located in the barrier material for ease of access to the indicator. Cooling systems for engines with liquid coolant systems shall be preserved in accordance with the preservative and drain procedure of MIL-E-10062 and tagged accordingly. Before sealing the barrier material, the sides, ends and top of each generator set shall be wrapped with a double thick wrap of cushioning material conforming to PPP-B-291, type I, style 2, to protect the barrier material from any sharp edges or protrusions.

5.2.2 Level B. The power unit/power plant and accessory equipment shall be preserved in accordance with MIL-G-28554, level B. Cooling systems for engines with liquid coolant systems shall be filled with equal parts of clean water and antifreeze conforming to MIL-A-46153.

5.2.3 Level C. The power unit/power plant and accessory equipment shall be preserved in accordance with level C of MIL-G-28554. Cooling systems for engines with liquid coolant systems shall be filled with equal portions of clean water and antifreeze conforming to MIL-A-46153.

5.3 Packing. Packing shall be level A, B, or C (see 6.2).

5.3.1 Level A. Each power unit/power plant and accessory equipment, preserved as specified in 5.2, shall be packed in a box type housing consisting of ends, sides and top, constructed in accordance with PPP-B-601, overseas type, style I. Sides and ends shall be 0.25 inches (0.635 cm) thick plywood and the top shall be 0.50 inches (1.27 cm) thick plywood. The housing shall be secured to the trailer bed, or generator set as applicable, with mechanical fasteners, wood wedges and metal strapping. Such means of fastening shall not damage the method IIa barrier material. Metal strapping shall conform to ASTM D 3953, type 1 or 2, zinc-coated, size as applicable and ASTM D 4675. The PPP-B-601 housing may be the size necessary to encompass both generator sets as a single housing or it may consist of two separate housings each of the size necessary to encompass an individual generator set. The preserved accessory equipment shall be positioned, blocked, anchored and braced within the single housing in accordance with MIL-STD-1186. When two separate housings are utilized, preserved accessory equipment for which space is not available within the box type housing or generator set housing shall be

up of the aircraft and all mobile items of support

provided additional protection by placing them in snug-fitting boxes conforming to PPP-B-601, overseas type. Cushioning, blocking and bracing shall be applied to the contents, as applicable, to prevent movement within the boxes. The boxes shall be secured to the trailer.

Caution: Landing gear(s) on the trailer(s) is subject to damage during shipment. Do not ship trailer(s) with landing gear(s) down.

5.3.2 Level B. The power unit/power plant and accessory equipment, preserved as specified in 5.2, shall be packed for level B in the same manner as specified for level A in 5.3.1 except for the following:

a. The PPP-B-601 housing shall be domestic type.
b. The metal strapping may be zinc coated.

Caution: Landing gear(s) on the trailer(s) is subject to damage during shipment. Do not ship trailer(s) with landing gear(s) down.

5.3.3 Level C. The power unit/power plant and accessory equipment, preserved as specified in 5.2, shall be packed in accordance with MIL-G-28554, level C.

Caution: Landing gear(s) on the trailer(s) is subject to damage during shipment. Do not ship trailer(s) with landing gear(s) down.

5.4 Marking. In addition to any special or identification marking required by the contract or purchase order (see 6.2), each power unit/power plant shall be marked in accordance with MIL-STD-129.

5.5 Depreservation guide. The depreservation guide shall be preserved in accordance with MIL-P-116, method IC-1; however, barrier material shall be in accordance with MIL-B-22191, type I, and heat sealed. It shall be secured on the generator set with tape in accordance with PPP-T-76.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. The power units/power plants are intended for use by the Armed Services to supply electrical power for military operations.

6.2 Acquisition requirements. Acquisition documents should specify the following:

a. Title, number, and date of this specification.
b. Title, number, and date of the applicable specification sheet (see 1.2).

c. Issue of DODISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.1.1 and 2.2).
d. When first article is required (see 3.2).
e. Time frame required for submission of the first article pack (see 5.1).
f. Level of preservation and packing required (see 5.2 and 5.3).
g. Any special markings (see 5.4).
h. When other than DA Form 2258 is used (see 6.6).

6.3 First article. When a first article inspection is required, the item should be a preproduction model. The first article should consist of one or more complete power units/power plants. The contracting officer should include specific instructions in acquisition documents regarding arrangements for examinations, approval of the first article test results and disposition of the first articles. Invitation for bids should provide that the Government reserves the right to waive the requirement for samples for first article inspection to those bidders offering a product which has been previously acquired or tested by the Government, and that bidders offering such products, who wish to rely on such production or test, must furnish evidence with the bid that prior Government approval is presently appropriate for the pending contract. Bidders should not submit alternate bids unless specifically requested to do so in the solicitation.

6.4 First article pack. Any changes or deviations of production packs from the approved first article pack will be subject to the approval of the contracting officer. Approval of the first article pack will not relieve the contractor of his obligation to preserve, pack, and mark the power units/power plants in accordance with this specification.

6.5 Consideration of data requirements. The following data requirements should be considered when this specification is applied on a contract. The applicable Data Item Descriptions (DID's) should be reviewed in conjunction with the specific acquisition to ensure that only essential data are requested/provided and that the DID's are tailored to reflect the requirements of the specific acquisition. To ensure correct contractual application of the data requirements, a Contract Data Requirements List (DD FAR Supplement 27.475-1) exempts the requirement for a DD Form 1423.

Reference Paragraph	DID Number	DID Title
a. 3.8.1	DI-MISC-80875	Welding Procedures
b. 3.8.1	DI-MISC-80876	Welding Procedure Qualification Test Report
c. 3.9	DI-PACK-80880	Transportability Report

The above DID's were those cleared as of the date of this specification. The current issue of DOD 5010.12-L, Acquisition Management Systems and Data Requirements Control List (AMSDL), must be researched to ensure that only current, cleared DID's are cited on the DD Form 1423.

6.6 Depreservation guide. A depreservation guide should be prepared and provide, unless otherwise specified (see 6.2), DA Form 2258 "Depreservation Guide for Vehicles and Equipment" should be used (see 5.5).

6.7 Definitions. The following definitions apply to the text of this specification.

6.7.1 Generator set. A skid mounted unit capable of converting mechanical energy into electrical energy, by utilizing a gasoline or diesel combustion engine to drive an electric generator, to provide remote electric power.

6.7.2 Power plant. A mobile configuration of electrical support equipment which consists of two engine driven generator sets mounted on either one or two trailers.

6.7.3 Power unit. A mobile configuration of electrical support equipment which consists of a single engine driven generator set mounted on a trailer.

6.8 Supersession data. This specification, with related associated specification sheets, supersedes:

MIL-G-52902A, dated 17 February 1982;
MIL-G-52903A, dated 9 May 1985;
MIL-P-53087, dated 3 February 1989; and
MIL-P-53088, dated 31 July 1989.

6.9 Government-furnished property. The contracting officer should arrange to furnish the property listed in 3.6.

6.10 Registration numbers. The contracting officer should arrange to furnish a list of registration numbers to be applied to the trailer (see 3.7).

6.11 Subject term (key word) listing.

Cable wires
Generator sets
Power plants
Power units
Registration numbers
Switch box
Trailer chassis

Custodian:
Army - ME

Preparing activity:
Army - ME

Project 6115-A570

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
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I RECOMMEND A CHANGE:	1. DOCUMENT NUMBER MIL-P-53123(ME)	2. DOCUMENT DATE (YYMMDD) 92/04/14

3. DOCUMENT TITLE
Power, Units/Power Plants, Electric, Diesel Engine, Trailer Mounted, Gen Spec For

4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME (Last, First, Middle Initial)	b. ORGANIZATION	
c. ADDRESS (Include Zip Code)	d. TELEPHONE (Include Area Code) (1) Commercial (2) AUTOVON (If applicable)	7. DATE SUBMITTED (YYMMDD)

8. PREPARING ACTIVITY

a. NAME Violet Stewart	b. TELEPHONE (Include Area Code) (1) Commercial (703) 704-3467 (2) AUTOVON 654-3467
c. ADDRESS (Include Zip Code US Army Belvoir RDE Center ATTN: STRBE-TSE Fort Belvoir, VA 22060-5606	IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT: Defense Quality and Standardization Office 5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041-3466 Telephone (703) 756-2340 AUTOVON 289-2340

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