

MIL-S-53012(ME)
9 September 1982

MILITARY SPECIFICATION

SUSPENSION KIT, 6-INCH HOSELINE

This specification is approved for use by the Mobility Equipment Research and Development 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 covers a suspension kit for use in suspending a hoseline system over rough terrain.

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications and standards. Unless otherwise specified, the following specifications and standards of the issue listed in that issue of the Department of Defense Index of Specifications and Standards (DoDISS) specified in the solicitation, form a part of this specification to the extent specified herein.

SPECIFICATIONS

FEDERAL

T-R-605	- Rope, Manila and Sisal.
FF-C-450	- Clamps, Wire Rope.
FF-T-276	- Thimbles, Rope.
FF-T-791	- Turnbuckles.
RR-C-271	- Chains and Attachments, Welded and Weldless.
RR-W-410	- Wire Rope and Strand.
GGG-B-490	- Blocks, Tackle (Manila and Nylon Rope).
PPP-B-601	- Boxes, Wood, Cleated-Plywood.
PPP-B-621	- Boxes, Wood, Nailed and Lock-Corner.
PPP-B-640	- Boxes, Fiberboard, Corrugated, Triple-Wall.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: US Army Mobility Equipment Research and Development Command, ATTN: DRDME-DS, Fort Belvoir, VA 22060 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

FSC 4610

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MILITARY

- MIL-P-116
 - MIL-T-704
 - MIL-E-52798
- Preservation-Packaging, Methods of.
 - Treatment and Painting of Materiel.
 - Enamel, Alkyd, Camouflage.

STANDARDS

MILITARY

- MIL-STD-105
 - MIL-STD-129
 - MIL-STD-130
 - MIL-STD-1188
- Sampling Procedures and Tables for Inspection by Attributes.
 - Marking for Shipment and Storage.
 - Identification Marking of US Military Property.
 - Commercial Packaging of Supplies and Equipment.

2.1.2 Other Government drawings. The following other Government drawings form a part of this specification to the extent specified herein.

DRAWINGS

ME

- A1 13226E1570
- Saddle, Hose, Fabric.

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

2.2 Other publications. The following document(s) form a part of this specification to the extent specified herein. The issues of the documents which are indicated as DoD adopted shall be the issue listed in the current DoDISS and the supplement thereto, if applicable.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

- ANSI/ASTM A 108 - Steel Bars, Carbon, Cold-Finished, Standard Quality.
- ANSI/ASTM A 575 - Merchant Quality Hot-Rolled Carbon Steel Bars.

(Application for copies should be addressed to the American National Standards Institute, 1430 Broadway New York, NY 10018.)

(Technical society and technical association specifications and standards are generally available for reference from libraries. They are also distributed among technical groups and using Federal agencies.)

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2.3 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein, the text of this specification shall take precedence.

3. REQUIREMENTS

3.1 Description. The suspension kit shall consist of the following components fitted in a chest, and shall be as specified herein:

<u>Component</u>	<u>Quantity</u>
Wire rope	350 feet
Manila rope	300 feet
Wire-rope clamps	25
Shackles	60
Hose saddles	60
Steel pickets	14
Steel blocks	4
Turnbuckles	4
Wire rope thimbles	4

3.2 First article (first produced kit). The contractor shall furnish one or more kits as specified (see 6.2) for examination within the time frame specified (see 6.2) to prove that his production methods will produce kits that comply with the requirements of this specification. Examination shall be as specified in Section 4 and shall be subject to surveillance and approval by the Government (see 6.3).

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 (see 6.4).

3.3.1 Material deteriorations prevention and control (MADPAC). The suspension kit shall be fabricated from compatible materials, suitably finished, to provide protection from corrosion and other forms of material deterioration. Assurance shall be given in the form of a finish plan which clearly identifies the specific finish or treatment to be used on the various components and assemblies, to provide protection against the various forms of material deterioration in the applicable operating and storage environments to which they may be exposed.

3.3.2 Galvanic corrosion. Dissimilar metals as defined in MIL-T-704 shall not be used in intimate contact without suitable protection to circumvent galvanic corrosion.

3.4 Components.

3.4.1 Wire rope. The wire rope shall conform to RR-W-410, Type I, Class 2, other characteristics optional, 1/2-inch diameter, and shall be furnished in one continuous length on wood or metal spool.

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3.4.2 Manila rope. Manila rope shall conform to T-R-605, Type M, Class 2, standard lay, mildew-resistant treated, 1-1/2 inches in circumference, and shall be in one continuous length on wood or metal spool.

3.4.3 Wire rope clamps. Wire rope clamps shall conform to FF-C-450, Type I, Class 2, 1/2-inch size.

3.4.4 Shackles. Shackles shall conform to RR-C-271, Type IV, Class 2, 1/2-inch size.

3.4.5 Hose saddles. Hose saddles shall be as shown on Drawing A1 13226E1570.

3.4.5.1 Drawing. The drawing forming a part of this specification is an end product drawing. No deviation 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 drawing to insure correct fit, assembly, and operation of the suspension kit. 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.

3.4.6 Steel pickets. The pickets shall be solid steel bars conforming to ANSI/ASTM A 575, UNS G10200 or ANSI/ASTM A 108, UNS G10180. The diameter shall be not less than 0.75 inch, and the length shall be not more than 36 inches. One end shall be sharpened to a 30 degree included angle point.

3.4.7 Steel blocks. Steel blocks shall conform to GGG-B-490, Type II, single sheave, 4-inch shell length and shall be fitted with rig No. 10. Center pin diameter shall be not less than 0.360 inch diameter.

3.4.8 Turnbuckles. Turnbuckles shall conform to FF-T-791, Type I, Form 1, Class 5, 1/2-inch by 12 inches.

3.4.9 Wire rope thimbles. Wire rope thimbles shall conform to FF-T-276, Type II, 1/2 inch size.

3.5 Chest. All components of the kit shall be placed in a steel chest not less than 0.073 inch in thickness. The chest shall have a hinged cover, fastening devices and handles. Bins, cradles or blocking shall be provided for components of the kit to prevent damage during shipment or handling. The chest shall not exceed 22 inches in height. A loading plan indicating the location of all items in the chest shall be furnished. The loading plan shall be permanently attached to the inside of the cover.

3.6 Identification marking. The kit shall be identified in accordance with MIL-STD-130. Identification marking shall be applied to the outside of the cover of the chest.

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3.7 Treatment and painting. The portions of the kit normally painted shall be cleaned, treated and painted in accordance with MIL-T-704, Type A, with a finish coat in accordance with MIL-E-52798, Type I, color sand.

3.8 Workmanship. Metal used in fabrication shall be free from kinks and sharp bends. The straightening of material shall be done by methods that will not damage the material. Corners shall be square. Flame-cutting, using tips suitable for the thickness of the steel, may be employed instead of shearing and sawing. All bends shall be made with controlled means to insure uniformity of size and shape. Precaution shall be taken to avoid overheating. Heated steel shall be allowed to cool slowly.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspections. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract, 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 the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

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

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

- a. First produced kit inspection (see 4.3).
- b. Quality conformance inspection (see 4.4).
- c. Inspection of packaging (see 4.6)

4.3 First produced kit inspection.

4.3.1 Examination. The first produced kit shall be examined as specified in 4.5.1. Presence of one or more defects shall be cause for rejection.

4.4 Quality conformance inspection.

4.4.1 Sampling. Sampling for examination shall be in accordance with MIL-STD-105.

4.4.2 Examination. Samples selected in accordance with 4.4.1 shall be examined for major and minor defects specified in 4.5.1. AQL shall be 0.4 percent defective for major defects and 2.5 percent defective for minor defects.

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4.5 Inspection procedure.

4.5.1 Examination. The suspension kit shall be examined as specified herein for the following defects:

Major

- 101. Material not as specified.
- 102. Finish plan not adequate.
- 103. Components missing, not packaged in chest according to loading plan, or not as specified.
- 104. Chest not as specified.
- 105. Loading plan missing.
- 106. Treatment and painting not as specified.
- 107. Dissimilar metals not in compliance with MIL-T-704.

Minor

- 201. Identification marking missing, incomplete or illegible.
- 202. Workmanship not as specified.

4.6 Inspection of packaging.4.6.1 Quality conformance inspection of pack.

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

4.6.1.2 Sampling. Sampling for examination shall be in accordance with MIL-STD-105.

4.6.1.3 Examination. Samples selected in accordance with 4.6.1.2 shall be examined for the following defects. AQL shall be 2.5 percent defective.

- 108. Unpainted metal surfaces not coated as required for level A.
- 109. Containers not as specified.
- 110. Fiberboard boxes not closed as specified.
- 111. Marking illegible, incorrect, incomplete, or missing.

5. PACKAGING

5.1 Preservation. Preservation shall be level A or commercial, as specified (see 6.2).

5.1.1 Level A. Prior to placement in the chest, unpainted metal surfaces of components of the kit requiring a contact preservative in accordance with MIL-P-116 shall be coated with type P-1 preservative. The preservative shall conform to the applicable specification listed in, and shall be applied in accordance with, MIL-P-116. The components shall be placed in the chest as specified in 3.5 and the cover closed and latched.

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5.1.2 Commercial. Commercial preservation shall be in accordance with MIL-STD-1188.

5.2 Packing. Packing shall be level A, level B, or commercial as specified (see 6.2).

5.2.1 Level A. The chest, containing the components of the kit, shall be packed in a close-fitting box conforming to PPP-B-621, Class 2 or PPP-B-601, Overseas Type, Grade B.

5.2.2 Level B. The chest, containing the components of the kit, shall be packed as specified in 5.2.1 for level A, except the box shall be domestic type, or packed in a fiberboard box conforming to PPP-B-640, Class 2. Fiberboard boxes shall be waterproof-sealed in accordance with the box specification appendix.

5.2.3 Commercial. Commercial packing shall be in accordance with MIL-STD-1188, except the chest shall not be used as the shipping container and the shipping container shall contain only one chest.

5.3 Marking. Marking shall be in accordance with MIL-STD-129 for military levels of protection. Commercial marking shall be in accordance with MIL-STD-1188, except that segregation and identification of kit components shall not be required.

6. NOTES

6.1 Intended use. The suspension kit is intended for use with a 6-inch, lightweight, collapsible hoseline system.

6.2 Ordering data. Acquisition documents should specify the following:

- a. Title, number and date of this specification.
- b. Time frame required for submission of first produced kit and number of kit required (see 3.2).
- c. Degree of preservation and degree of packing required (see 5.1 and 5.2).

6.3 First produced kit. Any change or deviation of production kit from the approved first produced kit during production will be subject to the approval of the contracting officer. Approval of the first produced kit will not relieve the contractor of his obligation to furnish kits conforming to this specification.

6.4 Recycled material. Unless otherwise specified herein, all equipment, material and articles incorporated in the products covered by this specification shall be new, and shall be fabricated using materials produced from recycled materials to the maximum extent practicable without jeopardizing the intended

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use. The term "recycled materials" means materials which have been collected or recovered from solid waste and reprocessed to become a source of raw materials, as opposed to virgin raw materials. None of the above shall be interpreted to mean that the use of used or rebuilt products is allowed under this specification unless otherwise specifically authorized (see 3.3).

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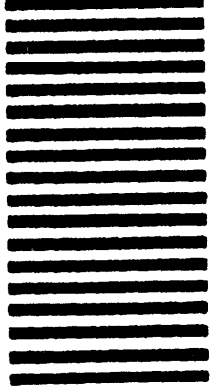


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