

MIL-S-43013C  
29 March 1974  
SUPERSEDING  
MIL-S-43013B  
27 February 1970

MILITARY SPECIFICATION

SLING, UNIVERSAL, INDIVIDUAL LOAD CARRYING

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 This specification covers the requirements for one type of sling made from olive drab cotton-nylon webbing and miscellaneous hardware.

2. APPLICABLE DOCUMENTS

- \* 2.1 The following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein:

SPECIFICATIONS

FEDERAL

- V-T-285 - Thread, Polyester.  
UU-P-268 - Paper, Kraft, Wrapping.  
DDD-L-20 - Label; For Clothing, Equipage, and Tentage, (General Use).  
PPP-B-636 - Boxes, Shipping, Fiberboard

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- MIL-W-530 - Webbing, Textile, Cotton, General Purpose, Natural or in Colors.  
MIL-W-5665 - Webbing, Textile, Cotton Warp.  
MIL-H-9896 - Hardware, Universal Load Carrying Sling.

STANDARDS

FEDERAL

- FED-STD-751 - Stitches, Seams, and Stitchings.

FSC 8465

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- MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes.
- MIL-STD-129 - Marking for Shipment and Storage.
- MIL-STD-147 - Palletized Unit Loads for 40"x 48" Pallets.

DRAWINGS

ARMY NATICK LABORATORIES

- 2-3-141 - Sling, Universal, Individual Load Carrying; Assembly.
- 2-2-214 - Sling, Universal, Individual Load Carrying; Method of Arranging and Folding.

(Miniature reproductions of referenced drawings are attached for information only.)

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

- \* 2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless a specific issue is identified, the issue in effect on date of invitation for bids or request for proposal shall apply:

National Motor Freight Traffic Association, Inc., Agent

National Motor Freight Classification

(Application for copies should be addressed to American Trucking Associations, Inc., Tariff Order Section, 1616 P Street, N.W., Washington, DC 20036.)

Uniform Classification Committee, Agent

Uniform Freight Classification

(Application for copies should be addressed to the Uniform Classification Committee, Room 1106, 222 South Riverside Plaza, Chicago, IL 60606.)

3. REQUIREMENTS

- \* 3.1 Samples.

- \* 3.1.1 Guide sample. Guide samples of the end item, when furnished, are solely for guidance and information to the supplier (see 6.4). Variations from this specification may appear in the sample, in which case this specification shall govern.

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- \* 3.1.2 First article. When specified (see 6.2), the supplier shall furnish a sample for first article inspection and approval (see 4.3 and 6.5).

3.2 Materials.

3.2.1 Webbing, 1-3/4 inch. The 1-3/4 inch webbing shall have a cotton warp and nylon filling, shall be dyed Olive Drab 7 to match the standard sample (see 6.4), and shall conform to type X, class 2A of MIL-W-5665.

3.2.1.1 Treatment. The webbing shall be water repellent and mildew resistant treated in accordance with class 4 of MIL-W-530.

3.2.2 Thread, polyester. The polyester thread shall conform to type I, class 1, sub-class A, size FF of V-T-285.

- \* 3.2.2.1 Color. The thread shall be dyed Olive Drab S-1 (C.A. 66022) and shall show fastness to weathering equal to or better than the standard sample. When no standard sample is available, the thread shall show good fastness to weathering.

3.2.3 Buckle, quick adjustable, 1-3/4 inch. The metal buckle shall conform to type I of MIL-H-9896.

3.2.4 Buckle, quick adjustable, with eye and attached snap, 1-3/4 inch. The metal buckle, eye and attached snap shall conform to type II of MIL-H-9896.

3.2.5 Loop, slide, 1-3/4 inch. The metal slide loops shall conform to type III of MIL-H-9896.

3.2.6 Ring, V, with bar, 1-3/4 inch. The metal rings shall conform to type IV of MIL-H-9896.

3.3 Construction. The construction shall conform in all respects to the drawings listed in section 2 and as specified herein.

3.3.1 Stitches, seams, and stitchings.

3.3.1.1 All stitches, seams, and stitchings shall be performed using stitch type 301 of FED-STD-751, with 6 to 8 stitches per inch and 1/8 inch stitching margin.

3.3.1.2 Automatic stitching. Any of the stitching operations cited in this specification may be performed with an automatic machine provided the requirements for stitch pattern, stitches per inch, size and type of thread are met; and at least three tying, overlapping or backstitches are used to secure the ends of stitching.

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3.3.1.3 Type 301 stitching. Thread breaks in stitching shall be overstitched not less than 1 inch back of the break. Ends of stitching shall be backstitched or backtacked not less than 1 inch except where ends are caught in other seams and stitching. Thread tension shall be maintained so that there will be no loose or tight stitching and the lock will be imbedded in the materials sewed.

- \* 3.3.1.3.1 Repairs of type 301 stitching. Repairs of type 301 stitching shall be as follows:

a. When thread breaks or hobbin run-outs occur during sewing, the stitching shall be repaired by restarting the stitching a minimum of one inch back of the end of stitching. 1/

b. Thread breaks, or two or more consecutive skipped stitches or run-offs noted during inspection of the item (in-process or end item) shall be repaired by overstitching. The stitching shall start a minimum of one inch in back of the defective area, continue over the defective area and continue a minimum of one inch beyond the defective area onto the existing stitching. Loose or excessively tight stitching shall be repaired by removing the defective stitching, without damaging the materials, and restitching in the required manner. 1/

1/ When making the above repairs, the ends of stitching are not required to be backstitched.

- \* 3.3.1.4 All thread ends shall be trimmed to 1/4 inch maximum length.

3.4 Marking. The identification marking shall be applied in the location shown on the applicable drawing and shall conform to type IV, class 5 of DDD-L-20. The letters "US" shall be applied in the size characters and in the location indicated on the drawing and shall conform to type IV, class 9 of DDD-L-20. Fastness of the class 9 marking shall be as specified for class 5 marking.

- \* 3.5 Workmanship. The finished sling shall conform to the quality and grade of product established by this specification. The occurrence of defects shall not exceed the applicable acceptable quality levels.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the supplier 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.

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- \* **4.2 Classification of inspection.** The inspection requirements specified herein are classified as follows:
- a. First article inspection (see 4.3).
  - b. Quality conformance inspection (see 4.4).
- \* **4.3 First article inspection.** When required (see 6.2), the first article submitted in accordance with 3.1.2 shall be visually inspected as specified in 4.4.3.1 and 4.4.3.2 for compliance with design, construction, workmanship, and dimensional requirements.
- \* **4.4 Quality conformance inspection.** Sampling for inspection shall be performed in accordance with MIL-STD-105, except where otherwise indicated hereinafter.

4.4.1 **Component and material inspection.** In accordance with 4.1 above, components and materials shall be tested in accordance with all the requirements of referenced specifications, drawings and standards unless otherwise excluded, amended, modified or qualified in this specification or applicable purchase documents.

4.4.2 **Intermediate examination.**

4.4.2.1 **Examination of webbing.** Examination shall be performed prior to fabrication of the sling to determine compliance with webbing cut length requirements. The sample unit shall be one unassembled sling. The inspection level shall be S-3 and the acceptable quality level (AQL) shall be 2.5 defects per hundred units. Defects found in this examination shall be classified as follows:

Examine

Defect

Cut length of webbing

Not within specified tolerance (see Body, Side View, Drawing 2-3-141).

4.4.3 **Examination of the end item.** The defects found during examination of the end item shall be classified in accordance with 4.4.3.1 and 4.4.3.2. The sample unit for this examination shall be one completely fabricated sling. The inspection level and AQL for this examination shall be in accordance with 4.4.4.

4.4.3.1 **Examination for visual characteristics.**

<u>Examine</u>	<u>Defect</u>	<u>Classification</u>	
		<u>Major</u>	<u>Minor</u>
Webbing	Any hole, cut or tear.	X	
	Abrasion mark, or smash.	X	
	Slub, broken end or pick.		X
	Not firmly and tightly woven, edge frayed or scalloped.	X	

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Examine	Defect	Classification	
		Major	Minor
Hardware	Broken or malformed, failing to serve intended purpose; corroded area, burr or sharp edge.	X	
	Size or type not as specified.	X	
	Finish partly or totally omitted.	X	
Open seams	1/2 inch or less.		X
	More than 1/2 inch.	X	
	NOTE: A seam shall be classified as open when one or more stitches joining a seam are broken or when two or more continuous skipped stitches or run-offs occur.		
Run-offs	(See "Open seams")		
Seam and stitch type	Wrong seam or stitch type.	X	
Stitch tension	Loose, resulting in a loosely exposed top or bobbin thread; tight, resulting in tightness or puckering of webbing on seams.		X
Stitches per inch	One stitch less than minimum specified.		X
	Two or more stitches less than minimum specified.	X	
	One or more stitches in excess of maximum specified.		X
Stitching margin	Not as specified		X
Thread breaks	Backstitched less than 1 inch.		X
	NOTE: Thread break not backstitched shall be classified as an open seam.		

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Examine	Defect	Classification	
		Major	Minor
End of stitching, (not held down by other stitching or turned under in a hem)	Not backstitched or secured.	X	
	Backstitched less than 1 inch, or not secured as specified (when stitching is performed on automatic machine).		X
Components and assembly	Any component part omitted or not as specified; or any operation omitted, (unless otherwise classified herein).	X	
	One or more rows of stitching omitted.	X	
Body	Webbing not continuous, that is, spliced.	X	
Ends	Not finished as specified.		X
	Needle chews.	X	
Hardware assembly	Any hardware component reversed, that is, not assembled as shown on drawing.	X	
	Any hardware component which does not serve its intended end purpose after assembly: (for example, tongue on quick adjustable buckle snap does not open or return to a closed position when pressure is released; or slider bar on quick adjustable buckle does not slide freely, preventing adjustments of body webbing or fastening after adjustment).	X	
Thread ends	Not trimmed to 1/4 inch maximum length.		X
Marking	Omitted, incorrect, illegible, misplaced or size characters not as specified.		X
Cleanness	Stains 3/4 inch or more in longest dimension.		X

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4.4.3.2 Dimensional examination.

<u>Examine</u>	<u>Defect</u>
Dimensions	Not within specified tolerances indicated on Drawing 2-3-141

4.4.4 Inspection level and AQL. The inspection level and AQL expressed in defects per hundred units shall be as follows:

<u>Examination</u>	<u>Inspection level</u>	<u>AQL</u>
For defects applicable to 4.4.3.1	II	2.5 major 6.5 total (major and minor)
For defects applicable to 4.4.3.2	S-3	4.0 one class

4.4.5 Examination of preparation for delivery requirements.

- \* 4.4.5.1 Examination for packaging, packing and marking. An examination shall be made to determine that the packaging, packing and marking comply with section 5 requirements. Defects shall be scored in accordance with the list below. The sample unit shall be one shipping container fully prepared for delivery except that it shall not be palletized and need not be closed. The lot size shall be the number of shipping containers in the end item inspection lot. The inspection level shall be S-2 and the AQL shall be 2.5 defects per hundred units.

<u>Examine</u>	<u>Defect</u>
Marking (exterior and interior)	Omitted; incorrect; illegible; of improper size, location, sequence or method of application.
Materials	Any component missing, damaged or not as specified.
Workmanship	Inadequate application of components, such as incomplete closure of container flaps, loose strapping, improper taping, inadequate stapling. Bulged or distorted container.
Content	Number of slings per container is more or less than specified.

4.4.5.2 Examination for palletization. An examination shall be made to determine that palletization complies with section 5 requirements of this specification. Defects shall be scored in accordance with the list below. The sample unit shall be one palletized unit load fully prepared for delivery. The lot size shall be the number of palletized unit loads in the end item inspection lot. The inspection level shall be S-1 and the AQL shall be 6.5 defects per hundred units.



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<u>Examine</u>	<u>Defect</u>
Finished dimensions	Length, width or height exceeds specified maximum requirement.
Palletization	Not as specified. Pallet pattern not as specified. Interlocking of loads not as specified. Load not bonded with required straps as specified.
Weight	Exceeds maximum load limits.
Marking	Omitted; incorrect; illegible; of improper size, location, sequence or method of application.

#### 5. PREPARATION FOR DELIVERY

5.1 Packaging. Packaging shall be level A or C as specified (see 6.2).

5.1.1 Level A. Each sling shall be compactly folded to approximately 7-1/2 inches in length, 3-1/4 inches in width, and 2-1/4 inches in depth and tied as illustrated in Drawing 2-2-214.

5.1.2 Level C. Slings shall be packaged to afford adequate protection against physical damage during shipment from the supply source to the first receiving activity. The supplier may use his standard practice when it meets this requirement.

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

- \* 5.2.1 Level A. Seventy-five slings, packaged as specified in 5.1, shall be packed in a fiberboard shipping container conforming to style RSC-L, grade V2s of PPP-B-636. The inside of each shipping container shall be fitted with a box liner conforming to type CF, class weather-resistant, variety D<sup>1</sup>, grade V15c of PPP-B-636. Level A packages shall be packed flat three in length, five in width and five in depth within the shipping container. Inside dimensions of each shipping container shall approximate 23 inches in length, 16-3/4 inches in width, and 11-1/4 inches in depth. Approximate dimensions are furnished as a guide only. Each container shall have the contents completely covered on the top and bottom with a sheet of 30-pound minimum basis weight kraft paper conforming to grade B of UU-P-268. Each shipping container shall be closed in accordance with method III, waterproofed in accordance with method V, and reinforced as specified in the appendix of PPP-B-636.

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5.2.2 Level B. Seventy-five slings, packaged as specified in 5.1, shall be packed in a fiberboard shipping container conforming to style RSC-L, type CF (variety SW) or SF, class domestic, grade 275 of PPP-B-636. The inside of each shipping container shall be fitted with a box liner conforming to type CF, class domestic, variety DW, grade 275 of PPP-B-636. Level A packages shall be packed flat three in length, five in width, and five in depth within the shipping container. Inside dimensions of each shipping container shall approximate 23 inches in length, 16-3/4 inches in width, and 11-1/4 inches in depth. Approximate dimensions are furnished as a guide only. Each container shall have the contents completely covered on the top and bottom with a sheet of 30-pound minimum basis weight kraft paper conforming to grade B of UU-P-268. Each shipping container shall be closed in accordance with method II as specified in the appendix of PPP-B-636.

- \* 5.2.2.1 When specified (see 6.2), the shipping container shall be a grade V3c, V3s or V4s fiberboard box fabricated in accordance with PPP-B-636 and closed in accordance with method III as specified in the appendix of the container specification.

5.2.3 Level C. Slings, packaged as specified in 5.1, shall be packed in a manner to insure carrier acceptance and safe delivery at destination at the lowest transportation rate for such supplies. Containers shall be in accordance with Uniform Freight Classification Rules or National Motor Freight Classification Rules, as applicable.

- \* 5.3 Palletization. When specified (see 6.2), slings packed as specified in 5.2 shall be palletized in accordance with load type I of MIL-STD-147. Each prepared load shall be bonded with primary and secondary straps in accordance with bonding means K and L. Pallet patterns shall be in accordance with the appendix of MIL-STD-147. Interlocking of loads shall be effected by reversing the pattern of each course. If the container is of a size which does not conform to any of the pallet patterns specified in MIL-STD-147, the pallet pattern used shall first be approved by the contracting officer.

5.4 Marking. In addition to any special marking required by the contract or order, shipping containers, and palletized unit loads shall be marked in accordance with MIL-STD-129.

## 6. NOTES

6.1 Intended use. The sling is intended for use by the soldier to carry ammunition and crew served weapons, and for other utility carrying purposes. Slings can be used either singly or in pairs, depending on the load to be carried.

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\* 6.2 Ordering data. Procurement documents should specify the following:

- (a) Title, number and date of this specification.
- (b) When a first article is required (see 3.1.2, 4.3 and 6.4).
- (c) Selection of applicable levels of packaging and packing (see 5.1 and 5.2).
- (d) When weather-resistant grade fiberboard shipping containers are required for level B packing (see 5.2.2.1).
- (e) When palletization is not required (see 5.3).

6.3 The slings weigh approximately .94 pound each.

6.4 For access to samples, address the procuring office issuing the invitation for bids.

\* 6.5 First article. When a first article is required, it shall be inspected and approved under the appropriate provisions of ASPR-7-104.55. The first article should be a preproduction sample. The first article should consist of one completed sling. The contracting officer should include specific instructions in all procurement instruments regarding arrangements for inspection and approval of the first article.

6.6 Marginal identification. The margins of this specification are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and suppliers are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

Custodians:

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Preparing activity:

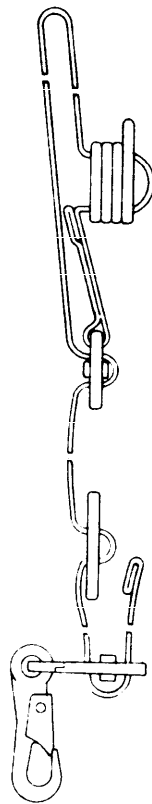
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Review activity:

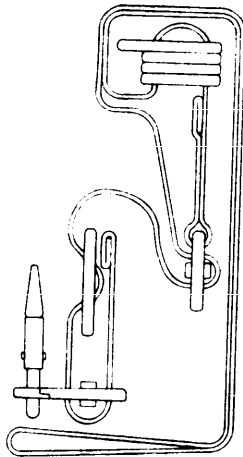
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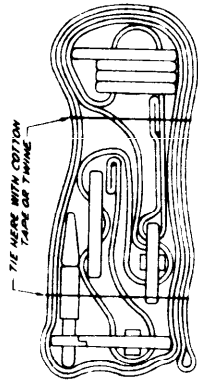
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1 - ADJUSTED POSITION OF HARDWARE PRIOR TO FOLDING



2 - GENERAL ARRANGEMENT OF PARTS DURING FOLDING



3 - COMPLETELY FOLDED AND TIED SLING

NOTE  
NO VOIDS IN ITEM AS SHOWN  
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FIGURE-2  
SLING, UNIVERSAL.  
METHOD OF ARRANGING,  
INDIVIDUAL LOAD CARRYING,  
AND FOLDING

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DOCUMENT IDENTIFIER AND TITLE MIL-S-43013C SLING, UNIVERSAL, INDIVIDUAL LOAD CARRYING		
NAME OF ORGANIZATION AND ADDRESS	CONTRACT NUMBER	
	MATERIAL PROCURED UNDER A <input type="checkbox"/> DIRECT GOVERNMENT CONTRACT <input type="checkbox"/> SUBCONTRACT	
<p>1. HAS ANY PART OF THE DOCUMENT CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE? A. GIVE PARAGRAPH NUMBER AND WORDING.</p> <p>B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES</p>		
2. COMMENTS ON ANY DOCUMENT REQUIREMENT CONSIDERED TOO RIGID		
<p>3. IS THE DOCUMENT RESTRICTIVE? <input type="checkbox"/> YES    <input type="checkbox"/> NO (If "Yes", in what way?)</p>		
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		DATE

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