

MIL-C-45931A(WC)

30 May 1973

SUPERSEDING

MIL-C-45931(WC)

25 May 1971

MILITARY SPECIFICATION

CLIP, CARTRIDGE: 5.56MM, 10 ROUND

1. SCOPE

1.1 This specification covers one type of 10 round cartridge clip used with the M16 and M16A1, 5.56mm rifles.

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

<u>Military</u> MIL-P-116	-	Preservation, Methods of.
MIL-W-3688	-	Wax Emulsion (Rust Inhibiting).
MIL-W-13855	-	Weapons, Small Arms and Aircraft Armament Subsystems, General Specification for.
MIL-I-45607	-	Inspection Equipment, Acquisition, Maintenance and Disposition of.

STANDARDS

<u>Military</u> MIL-STD-105	-	Sampling Procedures and Tables for Inspection by Attributes.
MIL-STD-109	-	Quality Assurance Terms and Definitions.
MIL-STD-171	-	Finishing of Metal and Wood Surfaces.

FSC 1305

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DRAWINGS

U.S. Army Weapons Command
 C11010483 - Clip, Cartridge: 5.56mm, 10 Round.

PUBLICATIONS

U.S. Army Weapons Command
 P11010483 - Packaging Data Sheet for Clip, Cartridge:
 5.56mm, 10 Round.
 IEL11010483 - Inspection Equipment List.

(Acceptance Inspection Drawings referenced in this specification form a part of IEL11010483.)

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

3. REQUIREMENTS

3.1 First article. Requirements for submission of first article shall be as specified in the contract (see 6.1). Unless otherwise specified (see 6.1) the first article shall include the pilot pack (see 5.1).

3.2 Materials, construction and design. Clips shall conform to the materials, construction, and design requirements specified herein, on Drawing C11010483 and in MIL-W-13855.

* 3.2.1 Assembleability.

3.2.1.1 Spring-Body. When assembled, the spring shall be retained in the body by engagement of its embossments in the spring retaining holes in the body. End play of the spring in the body shall not exceed 0.04 inch in either direction.

3.2.1.2 Clip-Magazine Filler. The clip shall readily assemble to the magazine filler, Part No. 11010484.

3.2.2 Functioning.

* 3.2.2.1 Loading. With 10 Government standard 5.56mm cartridges loaded into the cartridge clip, the cartridge retaining tabs shall withstand a 90° upward bend without evidence of cracking or breaking. Testing shall be as specified in 4.4.

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* 3.2.2.2 Unloading. When a cartridge clip, loaded as specified in 3.2.2.1 is manually unloaded into a magazine, the cartridge retaining tabs shall not break off. Testing shall be as specified in 4.4.

* 3.3 Marking. The clips shall be clearly marked in accordance with MIL-W-13855.

3.4 Workmanship. Workmanship shall be in accordance with MIL-W-13855.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for 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.

4.2 Quality assurance terms and definitions. Quality assurance terms and definitions used herein are in accordance with MIL-STD-109.

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

- a. First article inspection (see 4.4).
- b. Quality conformance inspection (see 4.5).

* 4.4 First article inspection. The first article shall be selected from first inspection lot and submitted for inspection in accordance with contract requirements. The first article shall be representative of the production processes to be used during quantity production. The first article shall be subjected to the quality conformance inspection specified herein, the function tests specified in 4.6.1 and such other inspection as is necessary to determine compliance with the requirements of the contract.

4.5 Quality Conformance inspection.

* 4.5.1 Inspection Lot. Unless otherwise specified, the formation, size and presentation of inspection lots shall be packaged and applicable samples shall be withdrawn from the packaged clips in accordance with MIL-STD-105. Inspection lots shall not exceed 500,000 clips per inspection lot. Lots shall be from the same heat of steel and within limitations of MIL-W-13855.

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* 4.5.2 Examination. Examination of clips and packaging shall be as specified herein and in MIL-W-13855.

* 4.5.2.1 Classification of defects. Classification of defects and acceptable quality levels (AQL's) for examination in accordance with MIL-STD-105 shall be as specified herein and shall include the following provisions:

- a. Unless otherwise specified, AQL's apply to each listed characteristic.
- b. Where a Government drawing is listed as the method of inspection, the contractor shall use inspection equipment fabricated in accordance with the applicable drawings. In the event the contractor desires to use alternate equipment which equals or exceeds the accuracy requirements of the specified drawing, it shall be submitted to the Government representative for approval.
- c. Where "Visual" is specified as the method of inspection of protective coating, the coating must be complete, uniform in color, free from pits, corrosion, scratches and worn or bare spots.
- d. Where SME (Standard Measuring Equipment) is specified as the method of inspection, the contractor may use any type of industry developed, commercially available, multi usage equipment or special inspection equipment approved by the Government.
- e. Where "Visual-Manual" is specified as the method of dimensional inspection, the characteristic should be visually inspected for completeness and manually operated functioning requirements specified on the applicable drawing.
- f. Examination for packaging defects specified in 4.5.2.1.2 shall apply to each cartridge clip or container as applicable. Sample size shall be in accordance with MIL-STD-105, using inspection level I.
- g. Where Visual is specified as the method of dimensional inspection, the characteristics should be either scaled or compared with a specimen of known acceptable quality.

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* 4.5.2.1.1 Clip, cartridge: 5.56mm, 10 round (Drawing C11010483).

<u>Class</u>	<u>Characteristics</u>	<u>AQL</u>	<u>Inspection Method</u>
Critical:	None defined		
Major:			
101	Improper edges of cartridge guide lips.	0.65	Visual
102	Improperly assembled parts (see 3.2.1).	0.65	Visual-Manual
103	Assembleability of cartridge clip to magazine filler .	0.65	D11704211
104	Assembleability of cartridges to cartridge clip.	0.65	C11704210
105	Location of ends from stop nib (both ends).	1.0	D11704212
106	Bent retaining tabs.	1.5	Visual
Minor:			
201	Missing or defective protective coating.	2.5	Visual
202	Missing or defective wax coating.	2.5	Visual
203	Improper height and distance between stiffening ribs.	2.5	SME
204	Improper radius of body	2.5	SME
205	End play of spring in body (see 3.2.1.1).	2.5	SME
206	Missing or improper marking (Part No. Mfr. Ident. Mark)	4.0	Visual
207	Workmanship (see 3.4).	4.0	Visual

Special Sampling: A sample of 32 spring cartridge clips (p/n 11010482) shall be selected at random from each machine extending over not more than one eight hour shift prior to assembly into Body Cartridge Clip (p/n 11010481). Failure of any spring to meet the following characteristics shall be cause for rejection of the represented production.

301	Length of retaining tab (2).	0.0	Visual
302	Height of four corner bends.	0.0	SME

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* 4.5.2.1.2 Packaging. Unless otherwise specified in each listed characteristic, the packaging requirements are specified in Packaging Data Sheet P11010483 (see 5.2).

<u>Class</u>	<u>Characteristics</u>	<u>AQL</u>
Critical:	None defined.	
Major:		
101	Improper level of packaging and packing (see procurement documents).	1.0
102	Incorrect or illegible marking.	1.0
103	Missing or improper VCI liners.	1.0
104	Inadequate cleaning.	1.5
105	Improper containers.	1.5
106	Improper closure of unit packages.	1.5
107	Incorrect quantity of clips per unit package.	1.5
108	Container interior contaminated with dirt, lint or other foreign matter.	1.5
Minor:		
201	Workmanship (see 3.4).	

4.5.3 Testing.

4.5.3.1 Material testing. Tests required by applicable drawings and specifications shall be performed on materials used in the manufacture of cartridge clips. The contractor shall furnish the Government representative certified statement of findings of chemical analysis and reports of physical tests as may be required for each lot or each material used. The contractor shall also furnish the Government representative certification that the materials used in packaging conform to the applicable specifications.

4.5.3.2 Accelerated corrosion testing. Accelerated corrosion testing shall be in accordance with applicable drawings and specifications.

4.5.4 Inspection equipment.

4.5.4.1 Acquisition, maintenance and disposition. Unless otherwise specified, responsibility for acquisition, maintenance and disposition of acceptance inspection and test equipment prescribed on the Inspection Equipment List IEL11010483, and for all other inspection equipment required to perform inspection prescribed by the applicable specifications, shall be in accordance with MIL-I-45607.

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4.5.4.2 Accuracy of standard measuring equipment. When commercial and modified commercial inspection and test equipment is used, it must be capable of repetitive measurements to an accuracy of 10 percent of the total tolerance of the characteristic being inspected.

4.6 Test methods.

4.6.1 Function tests.

4.6.1.1 Loading. The sample clips shall be tested by loading each clip with ten M232, 5.56mm dummy cartridges. After loading, the cartridge tabs shall be bent upward (at both ends of the cartridge clips) 90° and visually examined to assure compliance with 3.2.2.1.

* 4.6.1.2 Unloading. The loaded clips shall be unloaded by insertion into the filler, Part No. 11010484 positioned on the applicable magazine. A manual load shall be gradually applied to the cartridge at the top-end of the clip until all the cartridges are stripped from the clip into the magazine. After unloading, the clips shall be visually examined to assure compliance with 3.2.2.2. Clips subjected to this test shall be scrapped.

5. PREPARATION FOR DELIVERY

5.1 Pilot pack. A pilot pack shall be forwarded in accordance with the contract (see 6.1). Pilot packs shall be packaged to the level of packaging specified in the contract and packed level C in accordance with the requirements of Packaging Data Sheet P11010483.

5.2 Preservation, packaging, packing and marking. Clips shall be preserved, packaged, packed and marked in accordance with the requirements of Packaging Data Sheet P11010483 for the level of protection specified in the contract (see 6.1).

6. NOTES

6.1 Ordering data. Procurement documents should specify:

6.1.1 Procurement requirements.

- a. Title, number and date of this specification.
- b. List of drawings and specifications pertinent to the cartridge clips, showing the applicable revision dates.

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- c. List of inspection drawings pertinent to the cartridge clips, showing the applicable revision dates.
- d. Requirements for submission of first article (see 3.1).
- e. Inspection lot requirements if different (see 4.5.1).
- f. Responsibilities for acquisition, maintenance, and disposition of acceptance inspection equipment if different (see 4.5.4.1).
- g. Selection of applicable levels of preservation, packaging, and packing (see 5.2).

* 6.1.2 Contract data requirements. The requirements for the records of examination and all tests will be listed directly on a DD Form 1423 incorporated into the contract.

* 6.1.3 Management control systems requirement. When warranted, the contract should specify the application of MIL-I-45208 on Management Control Systems Summary List, DD Form 1660.

* 6.1.4 Unless otherwise specified (see 6.1.1 f), the contract should specify the application of MIL-I-45607 and MIL-C-45662 on the Management Control Systems Summary List, DD Form 1660.

* 6.2 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 contractors 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.

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