

MIL-G-14451B(WC)  
17 April 1973  
SUPERSEDING  
MIL-G-14451A(WC)  
15 July 1966

## MILITARY SPECIFICATION

### GUN, SUBCALIBER, CALIBER .30: M9

#### 1. SCOPE

1.1 This specification covers a subcaliber gun designed for insertion into the bore of the 105mm Recoilless Rifle M27A1 and the Cannons, 106mm Recoilless Rifle: M206 and M206A1 to enable the use of smaller caliber ammunition for training purposes.

#### 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 the specification to the extent specified herein:

#### SPECIFICATIONS

##### Military

MIL-M-11472 - Magnetic-Particle Inspection Process, for Ferromagnetic Materials

MIL-C-13931 - Cannons, General Specification for

MIL-P-14232 - Parts, Equipment and Tools for Army Materiel, Packaging and Packing of

MIL-I-45607 - Inspection Equipment, Acquisition, Maintenance and Disposition of

#### STANDARDS

##### Military

MIL-STD-109 - Quality Assurance Terms and Definitions

#### PUBLICATIONS

EPL 7307568 - Engineering Parts List for Gun, Subcaliber, Cal. .30:M9  
PDS P7307568 - Packaging Data Sheet for Gun, Subcaliber, Cal. .30:M9

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(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. When specified in the contract, the contractor shall submit a first article. Unless otherwise specified (see 6.1.1), the first article shall be included in the pilot pack (see 5.1).

3.2 Materials and construction. Subcaliber guns and parts thereof shall conform to this specification, the drawings and specifications listed on Engineering Parts List 7307568 and MIL-C-13931.

3.3 Parts produced by modification of Government-furnished items.

3.3.1 Defective items. No Government-furnished item shall be modified that contains defects which will result in non-compliance of the finished part with the requirements of this specification.

3.3.2 Protective coatings. Any protective coating shall be removed from Government-furnished items and the finished modified parts shall be coated as specified on the applicable drawing.

3.4 Proof firing. Subcaliber guns shall be subject to proof firing.

3.4.1 Material soundness. All parts shall be free from cracks and fractures as evidenced by visual and magnetic-particle inspection.

3.4.2 Exterior surfaces. Exterior surfaces of the subcaliber gun and the surfaces of the chamber and the bore in the major weapon shall be free from all foreign matter prior to insertion of the subcaliber gun.

3.5 Marking. Marking shall be as required in MIL-C-13931 and applicable drawings. Marking shall be complete, correct and legible.

3.6 Workmanship. Subcaliber guns shall be completely assembled, free from discontinuities of coating, foreign material, and any visible defects. Workmanship shall also be as required in MIL-C-13931.

### 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

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Responsibility for inspection cont'd.

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 that supplies and services conform to the prescribed requirements.

4.2 Quality assurance terms and definitions. Quality assurance terms and definitions shall be as specified in MIL-STD-109.

4.3 Classification of inspections. 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. A first article shall be submitted for inspection in accordance with the 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 inspections specified herein and such other inspection as is necessary to determine compliance with the requirements of the contract.

4.5 Quality conformance inspection.

4.5.1 Examinations.

4.5.1.1 Inspection provisions. All subcaliber guns shall be inspected for conformance to requirements of the provisions of this specification, MIL-C-13931, applicable Supplementary Quality Assurance Provisions (SQAPs) and SQAP-APPENDIX-WVT.

4.5.1.2 Parts and modified parts. Parts and modified parts shall be examined prior to assembly in the end item to determine compliance with applicable drawings and specifications.

4.5.1.3 Government-furnished items. Government-furnished items which will be modified as specified by applicable drawings shall be inspected to determine that there are no defects which will result in non-compliance of the finished parts with the requirements of applicable drawings and specifications.

4.5.1.4 Protective coatings. Examinations and tests of coating shall be in conformance with the specifications referenced on the applicable drawings.

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4.5.1.5 Marking. Guns shall be examined to determine compliance with the marking requirements.

4.5.1.6 Material soundness. All parts shall be inspected visually to determine freedom from cracks and fractures. In addition, each barrel shall be magnetic particle inspected using the wet continuous method in accordance with MIL-M-11472 after finishing machining. Evidence of cracks or fractures shall be cause for rejection.

4.5.1.7 Workmanship. Workmanship shall be examined visually in accordance with MIL-C-13931.

4.5.1.8 Final examination. Final examination of each subcaliber gun shall be completed after testing and prior to preservation and packaging to determine compliance with this specification, MIL-C-13931, and as specified in the contract.

4.5.1.9 Inspection of preparation for delivery.

4.5.1.9.1 Packaging inspection. Unless otherwise specified, inspection to determine compliance with cleaning, preservation, packaging, packing and marking requirements of the applicable packaging data sheets for the level designated in the contract shall be as specified in MIL-P-14232.

4.5.2 Tests.

4.5.2.1 Materials. Materials used in the manufacture of the gun shall be tested in accordance with material specifications referenced in the part drawings.

4.5.2.2 Proof-function firing. Firing tests shall be conducted under the surveillance of the Government representative. The first 24 subcaliber guns manufactured under any contract or order shall be fired 25 rounds each, without misfire, using Cal. .30, M2 service loaded cartridges. Two out of every 50 subcaliber guns subsequently manufactured under the same contract or order shall be fired 25 rounds each without misfire using the same type cartridge.

4.5.2.2.1 Prefiring inspections. Inspection and release records shall be verified prior to firing to assure that all subcaliber guns have been examined for material soundness and are acceptable. Exterior surfaces of the subcaliber gun and the surfaces of the chamber and bore in the major weapon shall be visually examined to assure that they are free from all foreign matter prior to insertion of the subcaliber gun.

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4.5.2.2.2 Postfiring inspection. After firing tests, each subcaliber gun tested shall be examined visually for freedom from cracks, fractures and other defects. Furthermore, the outer surfaces of all barrels tested shall be magnetic particle inspected using the wet continuous method in accordance with MIL-M-11472. Barrel bores shall be examined by means of a borescope. Any evidence of cracks or fractures shall be cause for rejection and shall be considered a failure.

4.5.2.2.3 Failures. Any subcaliber gun, of the first 24 fired as above which fails the test shall be rejected. Should failures occur in any of the two which are fired as representative of each lot of 50, the remaining 48 or 49 in that lot shall be fired the required 25 rounds and all that fail shall be rejected.

4.5.2.2.4 Records. Subcaliber guns that pass the firing test shall have the applicable data entered on DA Form 2408-4, "Weapon Record Data" card by the proving ground. Subcaliber guns accepted on a proof sampling plan shall have the applicable data recorded on DA Form 2408-4 by the contractor and approved by the Government representative.

#### 4.5.3 Inspection equipment.

4.5.3.1 Acquisition, maintenance and disposition. Unless otherwise specified, responsibility for acquisition, maintenance and disposition of acceptance inspection and test equipment shall be in accordance with MIL-I-45607.

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

4.5.4 Inspection approval stamp. The application of the inspection approval stamp shall be as specified in MIL-C-13931.

### 5. PREPARATION FOR DELIVERY

5.1 Pilot pack. On each contract, a pilot pack shall be forwarded in accordance with 3.1. Pilot packs (see 6.5) for the gun 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 P7307568.

5.2 Preservation, packing, and marking. The gun shall be unit packaged, packed and marked in accordance with the requirements of Packaging Data Sheet P7307568 for the level of protection specified in the contract (see 6.1.1).

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5.3 Repair parts. Repair parts shall be unit packaged, packed, and marked in accordance with the requirements of the applicable Packaging Data Sheet.

## 6. NOTES

6.1 Ordering data. Procurement documents should specify the following:

### 6.1.1 Procurement requirements.

- a. Title, number and date of this specification.
- b. Requirements for submission and shipping instructions for the first article (see 3.1 and 4.4) and the pilot pack (see 3.1 and 5.1)
- c. Serial numbers for the guns
- d. Level of preservation, packaging and packing required.
- e. List of Government furnished items required.
- f. Extent of supplier's responsibility for Government-furnished and supplier-acquired final inspection equipment.
- g. List of inspection equipment, responsibility for acquisition, maintenance and disposition thereof, if other than as specified (see 4.5.3.1).

6.1.2 Contract data requirements. Monthly reports of the results of final examination and performance testing shall be as specified for delivery on a DD Form 1423 in the contract.

6.2 When warranted, the contract should specify the application of MIL-Q-9858 or MIL-I-45208, as appropriate, on the Management Control Systems Summary List, DD Form 1660.

6.3 Unless otherwise specified, the contract should specify the application of MIL-I-45607 and MIL-C-45662 on the Management Control Systems Summary List, DD Form 1660.

6.4 Resubmission of repaired or replacement subcaliber guns shall be as specified in the contract.

6.5 Definition of pilot pack. A requirement in conjunction with a specification or contract for a first article in order to base approval of packages.

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Project No. 1005-A461

To detach this form, cut along this line.

SPECIFICATION ANALYSIS SHEET		Form Approved Budget Bureau No. 22-R255
<b>INSTRUCTIONS:</b> This sheet is to be filled out by personnel, either Government or contractor, involved in the use of the specification in procurement of products for ultimate use by the Department of Defense. This sheet is provided for obtaining information on the use of this specification which will insure that suitable products can be procured with a minimum amount of delay and at the least cost. Comments and the return of this form will be appreciated. Fold on lines on reverse side, staple in corner, and send to preparing activity. Comments and suggestions submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or serve to amend contractual requirements.		
SPECIFICATION		
ORGANIZATION		
CITY AND STATE	CONTRACT NUMBER	
MATERIAL PROCURED UNDER A <input type="checkbox"/> DIRECT GOVERNMENT CONTRACT <input type="checkbox"/> SUBCONTRACT		
1. HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE? A. GIVE PARAGRAPH NUMBER AND WORDING.		
B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES		
2. COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID		
3. IS THE SPECIFICATION RESTRICTIVE? <input type="checkbox"/> YES <input type="checkbox"/> NO (If "yes", in what way?)		
4. REMARKS (Attach any pertinent data which may be of use in improving this specification. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity)		
SUBMITTED BY (Printed or typed name and activity - Optional)		DATE

**DD FORM 1426**

1 JAN 66

REPLACES EDITION OF 1 OCT 64 WHICH MAY BE USED.

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