

MIL-P-46463C (MU)

14 November 1966

SUPERSEDING

MIL-P-46463B (MU)

31 August 1964

MILITARY SPECIFICATION

PRIMER, PERCUSSION, M71A1 PARTS FOR

1. SCOPE

1.1 This specification covers the parts for one type of percussion primer designated as Primer, Percussion, M71A1.

2. APPLICABLE DOCUMENTS

2.1 The following documents of the issue in effect on date of invitation for bids or request for proposals, form a part of this specification to the extent specified herein.

SPECIFICATIONS

MILITARY

- MIL-A-2550 - Ammunition and Special Weapons; General Specification for
- MIL-P-10025 - Packaging, Packing and Marking for Interplant Shipment of Inert Ammunition Components, General Specification for
- MIL-I-45607 - Inspection Equipment, Supply and Maintenance

STANDARDS

MILITARY

- MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes (ABC-STD-105)
- MIL-STD-109 - Quality Assurance Terms and Definitions
- MIL-STD-1168 - Lot Numbering of Ammunition
- MIL-STD-1235 - Single and Multilevel Continuous Sampling Procedures and Table for Inspection by Attributes

FSC 1390

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DRAWINGS

ARMY

7549174 - Head
7549175 - Plug, Firing
7549176 - Body
7549178 - Disc, Closing

PUBLICATIONS

ARMY

ET-7289968 - Equipment Tabulation

(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 Material.-Materials shall be in accordance with applicable drawings and specifications.

3.2 Parts.-The parts shall comply with all requirements specified on Drawings (dwgs.) 7549174, 7549175, 7549176 and 7549178, as applicable, and with all requirements specified in applicable specifications.

3.3 Workmanship.-All parts shall be fabricated and finished in a thorough workmanlike manner. They shall be free of burrs, chips, sharp edges, cracks, unblended radii, surface defects, dirt, grease, rust, corrosion products and other foreign matter. The cleaning method used shall not be injurious to any part nor shall the parts be contaminated by the cleaning agent. All required markings shall be neat and sharply defined.

3.4 First article inspection.-This specification makes provisions for first article inspection. Requirements for the submission of first article samples by the contractor shall be as specified in the contract.

4. QUALITY ASSURANCE PROVISIONS

4.1 General quality assurance provisions.-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, the supplier may

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utilize his own facilities or any commercial laboratory acceptable to 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. Reference shall be made to Standard MIL-STD-109 in order to define terms used herein. The provisions of Specification MIL-A-2550 shall apply.

4.1.1 Submission of product.--At the time the completed lot of product is submitted to the Government for acceptance the contractor shall supply the following information accompanied by a certificate which attests that the information provided is correct and applicable to the product being submitted:

- a. A statement that the lot complies with all quality assurance provisions specified within this specification.
- b. Number of units of product inspected.
- c. Results obtained, by defect code, for all inspection performed.
- d. Drawing, specification number and date, together with an identification and date of changes.
- e. Certificates of conformance on all material purchased by the contractor when such material is controlled by Government or commercial specifications referenced in any of the contractual documents.
- f. Number of items in the lot.
- g. Date submitted.

The certificate shall be signed by a responsible agent of the certifying organization. The initial certificate submitted shall be substantiated by evidence of the agent's authority to bind his principal. Substantiation of the agent's authority will not be required with subsequent certificates unless, during the course of the contract, this authority is vested in another agent of the certifying organization.

4.1.2 Government verification.--Using the contractor's written quality assurance procedure, this detail specification, the applicable drawings and other contractual documents as a guide, the Government inspector shall verify at unscheduled intervals all quality assurance operations performed by the contractor. Verification will be performed to the extent necessary to assure compliance with the contractual requirements. Severity of Government inspection of individual characteristics will be directly related to the seriousness of the classification assigned. In no instance will a characteristic classified "critical" be accepted solely on the basis of the contractor's records.

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4.2 First Article Inspection

4.2.1 Submission.-The contractor shall submit a first article sample as designated by the contracting officer for evaluation in accordance with the provisions of 4.2.2. The first article sample shall consist of 25 complete sets of parts (i.e. 25 each of every component and every subassembly) which have been produced by the contractor or furnished by a supplier and which have been manufactured using the same production processes, procedures and equipment which will be used in fulfilling the contract. All parts and materials, including packaging and packing, shall be obtained from the same source of supply as will be used in regular production. Prior to submission, the contractor shall inspect the sample to the degree necessary to assure that it conforms to the requirements of the contract and submit a record of this inspection with the sample, including statements of findings for materials, processes and tests. A sample containing known defects will not be submitted unless specifically authorized, by the Contracting Officer. A first article sample, or portion thereof, as directed by the contracting officer, shall also be submitted whenever there is a lapse in production for a period in excess of 90 days or whenever a change occurs in manufacturing process, material used, drawing or specification such as to significantly affect product uniformity as determined by the Government.

4.2.2 Rejection.-If any assembly or component fails to comply with any of the applicable requirements, the first article sample shall be rejected. The Government reserves the right to terminate its inspection upon any failure of an assembly or component to comply with any of the stated requirements.

4.3 Inspection Provisions

4.3.1 Lot formation.-The term "lot" as used throughout this specification refers to an inspection lot, which is defined as an essentially homogeneous collection of units of product from which a representative sample is drawn and inspected to determine conformance of the lot with applicable requirements. The sample selected shall represent only that quantity of units from which the sample was drawn and shall not be construed to represent any prior or subsequent quantities presented for inspection. Homogeneity shall be considered to exist provided the lot has been produced by one manufacturer, in one unchanged process, in accordance with the same drawing, specification, or revision thereof. Changes to either the process, specification, or drawing

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not affecting safety, performance, interchangeability, or storage, as determined by the Government inspector, shall not be deemed to alter the homogeneity of the lot. Inspection lots shall comply with MIL-STD-105 and shall be numbered in accordance with MIL-STD-1168.

Unless otherwise approved by the contracting officer, the inspection lot size of major assemblies or end items deliverable under the contract shall be not less than the smallest weekly estimate of quantities contractually scheduled for production during the contract period nor more than the largest quantity contractually scheduled for delivery during any month of the contract period. Inspection lots for components or sub-assemblies, other than the items of delivery, shall be homogeneous and of a size convenient to the contractor.

4.3.2 Examination.--Inspection for critical defects, (and Major defects, when so specified), shall be 100 percent. Sampling plans and procedures for Major and Minor defects shall be in accordance with MIL-STD-105 except that continuous sampling plans in accordance with Standard MIL-STD-1235 may be used if approved by the procuring activity. Also, at the option of the procuring activity, AQL's and sampling plans may be applied to individual characteristics listed using an AQL of 0.65 percent for each Minor defect and an AQL of 0.40 percent for each Major defect. Equipment necessary for the performance of the inspections listed shall be in accordance with 4.3.3.

4.3.2.1 Body (see dwg. 7549176)

Categories	Defects	Method of Inspection	Code No. (see 6.2)
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Critical: None defined.

Major:	AQL 1.5 percent		
101.	Diameter of percussion element cavity	Gage	01001
102.	Depth of percussion element cavity	Gage	01002
103.	Pitch diameter of threads, minimum, (min)	Gage	01003
104.	Major diameter of threads, min.	Gage	01004
105.	Depth of pellet cavity, max..	Gage	01005
106.	Diameter of pellet cavity, max.	Gage	01006
107.	Diameter of closing disc recess, max.	Gage	01007

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108.	Depth of closing disc recess.	Gage	01008
109.	Length from percussion element end to shoulder	Gage	01009
110.	Diameter of flash hole	Gage	01010
111.	Coating missing on interior surface of pellet cavity	Visual	01011
112.	Flash hole missing or obstructed	Visual	01012
Minor: AQL 4.0 percent			
201.	Pitch diameter of threads, max.	Gage	01013
202.	Major diameter of threads, max.	Gage	01014
203.	Depth of pellet cavity, min..	Gage	01015
204.	Diameter of pellet cavity, min.	Gage	01016
205.	Diameter of closing disc recess, min.	Gage	01017
206.	Length	Gage	01018
207.	Diameter	Gage	01019
208.	Evidence of poor workmanship (see 3.3)	Visual	01020

4.3.2.2 Head (see dwg. 7549174)

Categories	Defects	Method of Inspection	Code No.
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Critical: None defined.

Major: AQL 1.0 percent			
101.	Pitch diameter of external threads, min.	Gage	02001
102.	Major diameter of external threads, min.	Gage	02002
103.	Pitch diameter of internal threads, max.	Gage	02003
104.	Minor diameter of internal threads, max.	Gage	02004
105.	Diameter of flange, min.	Gage	02005
106.	Length of thread undercut ...	Gage	02006

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107.	Diameter of large portion of firing plug hole	Gage	02007
108.	Diameter of small portion of firing plug hole	Gage	02008
109.	Length from open end to small portion of firing plug hole .	Gage	02009
110.	Total length	Gage	02010
111.	Length of internal threads, min.	Gage	02011
Minor: AQL 2.5 percent			
201.	Pitch diameter of external threads, max.	Gage	02012
202.	Major diameter of external threads, max.	Gage	02013
203.	Pitch diameter of internal threads, min.	Gage	02014
204.	Diameter of flange, max.	Gage	02015
205.	Length from open end to flange	Gage	02016
206.	Wrench slots missing	Visual	02017
207.	Evidence of poor workmanship (see 3.3)	Visual	02018

4.3.2.3 Plug, firing (see dwg. 7549175)

Categories	Defects	Method of Inspection	Code No.
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Critical: None defined.

Major: AQL 1.0 percent			
101.	Large diameter	Gage	03001
102.	Small diameter	Gage	03002
103.	Length of tip	Gage	03003
104.	Total length including tip ..	Gage	03004
105.	Length from tip to small diameter	Gage	03005
106.	Radius improper	Gage	03006
Minor: AQL 0.65 percent			
201.	Evidence of poor workmanship (see 3.3)	Visual	03007

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4.3.2.4 Disc, closing (see dwg. 7549178)

Categories	Defects	Method of Inspection	Code No.
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Critical: None defined.

Major:	AQL 0.40 percent		
101.	Diameter, min.	Gage	04001
102.	Coating incomplete or inadequate	Visual	04002
Minor:	AQL 1.0 percent		
201.	Diameter, max.	Gage	04003
202.	Evidence of poor workmanship (see 3.3)	Visual	04004

4.3.3 Inspection Equipment.-Equipment Tabulation Number ET-7289968 identifies the inspection equipment required to perform the examinations and tests prescribed in this section. The contractor shall design inspection equipment in accordance with the instructions in paragraph 6.3.

4.3.3.1 Government rights to documentation.-Inspection equipment drawings and lists provided and revised in accordance with the requirements of the ET may be used by DOD activities for design, procurement, manufacture, testing, evaluation, production and receiving inspection, overhaul, shipping, storage, identification of stock, ordering and storage of replacement of parts, inspection of items at overhaul, general maintenance of equipment, construction, survey and wherever inspection equipment drawings are needed.

4.3.3.2 Supply and maintenance.-Supply and maintenance of the equipment listed in the ET shall be in accordance with Specification MIL-I-45607.

4.3.3.3 Government use of contractor's inspection and test equipment.-The contractor shall make available to the Government all inspection and test equipment necessary for determining conformance with contract requirements. Personnel for operating the equipment, and verification of its accuracy, shall be supplied by the contractor for the performance of examination or test by the Government.

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5. PREPARATION FOR DELIVERY

5.1 Packing and marking

5.1.1 Level C.-The parts shall be packed and marked in accordance with Specification MIL-P-10025.

6. NOTES

6.1 Ordering data.-Procurement documents shall specify the following:

- a. Title, number and date of this specification.
- b. Data cards.-Data cards shall be prepared for each lot in accordance with the information specified in Standard MIL-STD-1167.
- c. Provisions for submission of first article samples.

6.2 Inspection code numbers.-The five digit code numbers assigned to the inspections herein are to facilitate future data collection and analysis by the Government.

6.3 Inspection equipment.-The contractor shall design inspection equipment as required by the referenced inspection Equipment Lists (EL) in accordance with the instructions of paragraphs 6.3.1 through 6.3.5.

6.3.1 Inspection equipment lists.-Inspection equipment lists indicate the availability of inspection equipment designs by showing in the "number" column of the list of inspection equipment (Form SIMUPA 1010) the numbers of drawings or Federal Stock Numbers of existing equipment designs, or codes as indicated in paragraph 6.3.2. Design action required of the contractor is described in paragraphs 6.3.3 and 6.3.4. The contractor will be required to prepare detailed drawings in accordance with 6.3.4 for all the equipment coded as "Contractor Design" in the number column. These contractor designs must be approved by the Government prior to fabrication or procuring of the equipment. Designs shall be submitted for approval as specified in 6.3.5.

6.3.2 Inspection equipment list codes.-The inspection equipment as defined in 6.3.3 and 6.3.4 will be designated in the EL by the following codes:

- CD - Contractor design on controlled contractor format and/or commercial equipment.
- MU - Army design, mandatory for use.

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6.3.3 Army designs.-Army designs are reflected on detailed drawings which completely depict all the information necessary for the fabrication of the item of inspection equipment. The contractor need provide no design when an Army design is listed for an item of inspection equipment. Army designs fall into two basic classifications; mandatory (designated "MU") and non-mandatory (indicated by drawing or Federal Stock Number). When an inspection equipment list references mandatory Army designs, the contractor shall comply with, and use these designs accordingly. The contractor may, however, in connection with non-mandatory designs, and with the approval of the Government, design alternate inspection equipment or use comparable commercial equipment to facilitate his operations. Such contractor prepared designs or commercial equipment selections must be approved by the Government prior to fabrication or procuring of the equipment. Designs shall be submitted for approval as specified in 6.3.5.

6.3.4 Contractor designs.-Contractor designs are designs of inspection equipment for which the Government has assigned design responsibility to the contractor. Contractor designs shall be supported by detailed drawings which depict all information necessary to completely fabricate, calibrate and operate an item of inspection equipment. This requires that the necessary views, dimensions, materials, finish, notes, operating and calibration instructions be properly depicted in accordance with approved practices to the extent that further calculation or clarification will not be required. Unless otherwise specified, contractor designs may be developed on the format the contractor normally employs in his equipment design procedure provided such format reflects the detail and information specified above, subject to the following controls: All submitted contractor designs shall conform to MIL-D-1000, Category E, Form 2. Legibility and reproducibility shall permit conventional making of clearly understandable, high contrast reproductions. Contractors shall submit one copy of final designs as a rolled set. Designs shall be submitted for approval as specified in 6.3.5.

6.3.5 Submission of contractor designs.-Unless otherwise specified on the EL, all designs of equipment for inspection of defects classified as critical and major shall be submitted for approval to the Commanding Officer, Picatinny Arsenal, ATTN: SMUPA-ND1. All other designs of inspection equipment shall be approved by the inspection element of the agency administering the contract; submission shall be as directed by the contracting officer. Partial submission of inspection equipment designs is permissible and encouraged. However, the Arsenal completion date for design review will be based on the date of the final submission of designs. Picatinny Arsenal design review will be accomplished normally within one month after receipt.

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6.4 Submission of initial production samples.-Instructions as to the location for evaluation of initial production shall be obtained from the contracting officer. Upon receipt of such request, the contracting officer shall advise Picatinny Arsenal and instructions will be issued accordingly. All inquiries should be forwarded to: Commanding Officer, Picatinny Arsenal, ATTN: SMUPA-ND7, Dover, New Jersey.

Custodian:
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Preparing Activity:
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