

MIL-P-45575

29 November 1973

Superseding

(See Section 6)

MILITARY SPECIFICATION

PISTOL, CALIBER .22, AUTOMATIC: GENERAL TRAINING GRADE

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

1. SCOPE

1.1 This specification covers hammerless (see 6.3), blowback-operated, magazine-fed rimfire pistols of commercial design, chambered for caliber .22 long rifle cartridges, used for training.

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>	pistols and Revolvers, Packaging of
MIL-I-45607	Inspection Equipment, Acquisition,
	Maintenance and Disposition of.
MIL-C-46935	Cartridges, Commercial.

STANDARDS

<u>Military</u>		
MIL-STD-105	-	Sampling Procedure and Tables for Inspection by Attributes.
MIL-STD-109	-	Quality Assurance Terms and Definitions.
MIL-STD-130	-	Identification, Marking of U.S. Military Property.

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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.)

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of incitation for bids or request for proposal shall apply.

American National Standards Institute
ANSI B46.1 Surface Texture

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

3. REQUIREMENTS

3.1 Bid samples. Unless otherwise specified in the contract, each bidder shall furnish three pistols of the design he proposes to supply for test and evaluation for determination of compliance with this specification and such other characteristics as may be desired by the Government (see 4.4). Pistols shall be representative of the latest commercially available design, modified as necessary to meet this specification. Unless otherwise specified, bid sample pistols shall be prepared for "delivery in accordance with level C requirements (see 6.2) and shall be forwarded to the test and evaluation agency specified in the contract. Along with the submitted bid sample, each bidder shall indicate the commercial nomenclature, and catalog or part number of the samples submitted.

3.1.1 Upon award of the contract, samples submitted by the successful bidder and approved by the evaluation and test agency will be retained for use by the contractor and the Government as inspection standards. These standards shall apply to all characteristics for which definite requirements are not prescribed.

3.1.2 For continuation orders when bid sample may not be required, the contractor shall furnish manufacturing models and provide the Government representative with inspection and test records attesting that the items furnished are physically and fictionally equivalent to the bid samples which were approved by the Government on prior contract.

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3.2 Materials, construction and design. The pistols shall conform to the materials, construction and design requirements specified herein, and shall be in accordance with approved inspection standards. The action and parts in rolling or sliding contact shall be of steel.

3.2.1 General characteristic. General characteristics shall be in accordance with Table I.

TABLE I

General Characteristics

Length of barrel <u>1</u>	5 1/2 to 7 3/8 inches
Overall length	9 to 12 inches
Weight (unloaded)	31 1/2 to 50 ounces
Magazine capacity	9 or 10 rounds

1. Barrel length. shall be interpreted as the length from the muzzle face to the breech face with the action closed.

3.2.2 Frame. The frame of the pistol shall be a one piece steel construction (homogeneous or welded) including the grip frame that houses the magazine.

3.2.3 Finishes.

3.2.3.1 Machine finish. Machine finishes shall be in accordance with good commercial practice for the type of pistols furnished. Approved inspection standards (see 3.1.1) shall be used as standards for machine finishes for pistols to be supplied under the contract. In the event of a dispute over the comparison of finishes of the manufacturing models and the production pistols, referee comparison shall be in accordance with ANSI B46.1.

3.2.3 Final protective finish. The exterior metallic surfaces shall be polished and blued, or finished in such other manner as approved by the Government. The finish shall be applied so as not to draw the temper or alter the form or dimensions of components sufficiently to affect functioning. The finish shall be uniform in texture and appearance. Approved inspection standards (see 3.1.1) shall be used as standards for final protective finishes for pistols to be supplied under the contract.

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3.2.4 Firing Mechanism. The firing mechanism shall not release when the slide or bolt is released and allowed to go forward into battery position.

3.2.4.1 Disconnecter. The firing mechanism shall have a disconnecter between it and the trigger to prevent the pistols from firing tiny automatic.

3.2.4.2 Firing Pin. The firing pin shall not be capable of being energized unless the bolt or slide is within .090 inch of being closed.

3.2.5 Trigger. The trigger shall function throughout its full range of travel and shall return to its normal forward position immediately upon release after partial or complete trigger pull.

3.2.6 Magazine. The magazine shall assemble readily into the pistol grip and be held firmly in place by the magazine catch. When the magazine catch is operated, it shall permit removal of the magazine.

3.2.7 Safety. When the pistol is cocked, the safety shall be movable manually between the "safe" position and the "fire" position, and it shall remain in the position set until reset manually. When the safety is in the "safe" position, it shall not be possible to fire the pistol. When the safety is in the "fire" position, the firing mechanism shall release when the trigger is pulled.

3.2.8 Sights. Pistols shall have a square-topped, vertically parallel-sided front blade and a square-notched rear sight of the patridge type. The front sight shall be fixed and shall have no looseness. The rear sight shall be adjustable for windage and elevation. *Adjustments* shall be of a positive self-locking click adjustment type such that after adjustment, the sight shall maintain its setting during normal firing conditions. The degree of adjustment per Click shall be 1/2 inch or less at 25 yards.

3.2.9 Slide or bolt stop. Pistols shall be equipped with a manual stop mechanism for locking the slide or bolt in the open (rearward) position. When the manual stop mechanism is in the "hold" position, it shall continue to hold the slide or bolt open until moved manually to the "release" position or released by pulling the slide to the rear, then letting it run forward when the magazine is withdrawn or loaded. Moving the manual stop to the "release" position shall permit the slide or bolt to return under spring action to the battery position, unless the bolt

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is held open by an independent "automatic" slide or bolt stop mechanism. After firing the last shot from the pistol, the slide shall lock automatically in the open (rearward) position.

3.2.10 Grips. The grips shall have a checkered, non-slip exterior surface. Approved inspection standards (see 3.1.1) shall be used as standards for grips for pistols to be supplied under the contract.

3.3 Performance.

3.3.1 Trigger pull. The trigger pull shall be free of creep and within 2 1/4 pounds to 3 1/4 pounds. Creep shall be interpreted to mean any detectable movement between the time positive resistance is met and the firing mechanism is released. Testing shall be as specified in 4.5.3.2.

3.3.2 High-pressure resistance. Pistols shall be capable of withstanding the firing of one high-pressure cartridge developing a mean breech pressure of 31,000 to 33,000 pounds per square inch. Parts shall be free of cracks, seams, and other injurious defects after proof-firing. Testing shall be as specified in 4.5.3.2.

3.3.3 Functioning. Pistols shall be capable of firing one fully loaded magazine each (using the magazine furnished with the pistol) of standard and high velocity, caliber .22 long rifle, commercial cart. ridges conforming to MIL-C-46935 without malfunctions, broken or unserviceable parts, ruptured or punctured cartridge cases, loose grips, loose screws, or other unacceptable conditions. Five rounds shall be fired within a time period of 1.5 seconds. Testing shall be as specified in 4.5.3.2.

3.3.4 Targeting and accuracy. At a range of 15 yards a series of five shots shall fall within or cut the edge of a three inch diameter circle centered on the point of aim for targeting. At a range of 15 yards a series of five shots shall fall within or cut the edge of a one-half inch diameter circle for accuracy. Cartridges used for targeting and accuracy shall be standard velocity, caliber .22, long rifle, commercial cartridges conforming to MIL-c-46935. With the front and rear sight centered on the axis of the barrel and receiver within .025 inch, the rear sight shall be capable of being zeroed to the pistol at a range of 15 yards and have an additional 2.4 inches of adjustment in both the horizontal and vertical plane from the center of the impact area. Testing shall be as specified in 4.5.3.3.

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3.3.5 Endurance. The pistols shall be capable of firing 10,000 rounds with not more than the malfunctions, nonacceptable conditions, and unserviceable parts allowed in Table II, using standard velocity, caliber .22, long rifle, commercial cartridges conforming to MIL-C-46935. Firing shall be in series of 2,500 rounds using fully loaded magazines. The first and third series shall be fired slowly (each shot being deliberately spaced at two second intervals); and the second and fourth series shall be fired in rapid succession (each shot less than two second intervals). pistols may be cleaned and oiled every 500 rounds or at the end of a days firing. Testing shall be as specified in 4.5.3.4.

TABLE II

Malfunctions, Nonacceptable Conditions
and Unserviceable Parts

Malfunctions, Nonacceptable Conditions and Unserviceable Parts ¹	Number permitted in 10,000 Rounds	
	1st 5,000 Rounds	2nd 5,000 Rounds
Firing Pin Failure	0	1
Failure to Extract/Eject	0	2
Magazine Catch Failure	0	1
Other Unserviceable Parts/ Malfunction Conditions	1	2

Then malfunctions are traceable to particular parts, it is permissible to replace such parts and record them as unserviceable subject to limitations of Table II. When it is definitely established by the Government that previously recorded malfunctions are attributable to an unserviceable part, such malfunctions shall not be counted against the pistol being tested, provided that they occurred not more than 200 rounds prior to replacement of the unserviceable part. These 200 rounds shall have been fired with the unserviceable part. However, such malfunctions shall remain recorded and properly identified. An unserviceable part is one that Causes malfunctions or impairs the safety of the weapon. Malfunctions attributable to ammunition or failure to clean the pistol shall not be counted against the pistol being tested, however, such malfunctions shall be recorded.

3.4 Handbook of instructions. A handbook of instructions for cleaning and maintenance and a parts list shall be provided with each pistol.

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is held open an independant. "automatic" slide or bolt stop mechanism. After firing the last shot from the pistol, the slide shall lock automatically in the open (rearward) position.

3.2.10 Grips. The grips shall have a checkered, non-slip exterior surface. Approved Inspection standards (see 3.1.1) shall be used as standards for grips for pistols to be supplied under the contract.

3.3 Performance.

3.3.1 Trigger pull. The trigger pull shall be free of creep and within 2 1/4 pounds to 3 1/4 pounds. Creep shall be interpreted to mean any detectable movement between the time positive resistance is met and the firing mechanism is released. Testing shall be as specified in 4.5.3.2.

3.3.2 High-pressure resistance. Pistols shall be capable of withstanding the firing of one high-pressure cartridge developing a mean breech pressure of 31,000 to 33,000 pounds per square inch. parts shall be free of cracks, seams, and other injurious defects after proof-firing. Testing shall be as specified in 3.5.3.2.

3.3.3 Functioning. Pistols shall be capable of firing one fully loaded magazine each (using the magazine furnished with the pistol) of standard and high velocity, caliber .22, long rifle, commercial cartridges conforming to MIL-C-46935 without malfunctions, broken or un-serviceable parts, ruptured or punctured cartridge cases, loose grips, loose screws, or other unacceptable conditions. Five rounds shall be fired within the time period of 1.5 seconds. Testing shall be as specified in A.S.3.2.

3.3.4 Targeting and accuracy. At a range of 15 yards a series of five shots shall fall within or cut the edge of a three inch diameter circle centered on the point of aim for targeting. At a range of 15 yards a series of five shots shall fall within or cut the edge of a one-half inch diameter circle for accuracy. Cartridges used for targeting and accuracy shall be standard velocity, caliber .22, long rifle, commercial cartridges conforming to MIL-c-46935. With the front and rear sight centered on the axis of the barrel and receiver within .025 inch, the rear sight shall be capable of being zeroed to the pistol at a range of 15 yards and have an additional 2.4 inches of adjustment in both the horizontal and vertical plane from the center of the impact area. Testing shall be as specified in 4.5.3.3.

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TABLE II

Malfunctions, Nonacceptable Conditions
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Malfunctions, Nonacceptable Conditions and Unserviceable parts:	Number permitted in 10,000 Rounds	
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Firing Pin Failure	0	1
Failure to Extract/Eject	0	2
Magazine Catch Failure	0	1
Other Unserviceable Parts/ Malfunction Conditions	1	2

When malfunctions are traceable to particular parts, it is permissible to replace such parts and record them as unserviceable subject to limitations of Table II. When it is definitely established by the Government that previously recorded malfunctions are attributable to an unserviceable part, such malfunctions shall not be counted against the pistol being tested, provided that they occurred not more than 200 rounds prior to replacement of the unserviceable part. These 200 rounds shall have been fired with the unserviceable part. However, such malfunctions shall remain recorded and properly identified. An unserviceable part is one that causes malfunctions or impairs the safety of the weapon. Malfunctions attributable to ammunition or failure to clean the pistol shall not be counted against the pistol being tested, however, such malfunctions shall be recorded.

3.4 Handbook of instructions. A handbook of instruction for cleaning and maintenance and a parts list shall be provided with each pistol.

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4.5.2.1.2 Each pistol in the inspection lot shall be examined in accordance with Table IV. Failure of a pistol to pass any of the examinations in Table IV shall be cause for rejection of the pistol.

TABLE IV

<u>Characteristic</u>	<u>Requirement</u>
Final protective finish	3.2.3.2
Firing mechanism	3.2.4
Firing pin	3.2.4.2
Trigger	3.2.5
Magazine	3.2.6
Safety device	3.2.7
Sights	3.2.8
Side or bolt stop	3.2.9
Grips	3.2.10
Marking	3.5
Identification	3.6
Workmanship	3.7

4.5.2.1.3 After completion of all testing and just prior to packaging, each pistol in the inspection lot shall be reexamined for Firing Pin 3.2.4.2 and Trigger 3.2.5. Pistols failing to meet the requirements shall be rejected.

4.5.2.2 Packaging. Examination of packaging shall be in accordance with MIL-P-14313.

4.5.3 Testing.

4.5.3.1 Failure data. Unless otherwise specified herein, all tests shall be conducted on a complete pistol. If test requirements cited herein are not met, acceptance of the pistol shall be deferred and the contractor shall accomplish as applicable, the following actions:

- a. Conduct a failure analysis study performing a physical and visual examination of the components which are suspected to be the cause of failure or malfunction.
- b. Evaluate and correct the applicable production processes and procedures to prevent recurrence of the same defect(s) in future production.

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- c. Examine pistols, partially assembled pistols, and components (including components and subassemblies at in-process or final assembly) to insure that material containing the same defect is purged from the Inventory and not presented to the Government for acceptance.
- d. submit the results of the failure analysis and the corrective actions taken to the Government for review and approval prior to submitting a reconditional lot or reconditioned pistols for retest.

4.5.3.2 Trigger pull high-pressure resistance, and function firing testing Each pistol in the inspection lot shall be tested for trigger pull (see 3.3.1), high-pressure resistance (see 3.3.2), and function firing (see 3.3.3), using the test methods specified in 4.6.1, 4.6.2, and 4.6.3 respectively. Pistols failing to meet any of the requirements shall be rejected and the contractor shall perform corrective action as specified in 4.5.3.1. (Testing of pistols for function firing and targeting and accuracy may be performed concurrently).

4.5.3.3 Targeting and accuracy testing. Each pistol in the inspection lot shall be tested for targeting and accuracy (see 3.3.4) using the test methods specified in 4.6.4. (Testing of pistols for targeting and accuracy and functioning firing may be performed concurrently.) Refiring any individual target of five shots will be permitted to eliminate non-representative results due to ammunition "flyers". A flyer" is defined as a shot hole which is a greater distance from the nearest shot hole than the extreme spread of the other four shots of the five-shot group. One refiring of any target will be permitted to eliminate non-representative results induced by faulty test procedure or malfunctioning test equipment. Pistols failing to meet the requirements shall be rejected and the contractor shall perform corrective action as specified in 4.5.3.1.

4.5.3.4 Enchranse testing. One pistol selected at random from each inspection lot and found satisfactory in all other tests shall be tested for-endurance (see 3.3.5) in accordance with test method 4.6.5. Failure of the pistol shall be cause for retest or rejection of the represented lot. A retest of one other pistol from the same lot shall be made, unless, in the opinion of the Government representative, the failure indicates serious defects in the item. If serious defects exist a retest shall be made only if authorized by the Government. If a second retest is not made or the pistol selected fails in the first retest, the lot shall be rejected and the contractor shall perform corrective action as specified in 4.5.3.1. Two pistols from each reconditioned lot shall be subjected

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to the endurance test and failure of either pistol shall be cause for rejection of the reconditioned lot.

4.5.3.5 Packaging. Testing of packaging of pistols shall be performed in accordance with MIL-P-14313.

4.5.4 Inspection equipment.

4.5.4.1 Acquisition, calibration, maintenance and disposition. Unless otherwise specified, responsibility for acquisition, calibration, maintenance and disposition of acceptance inspection and test equipment shall be in accordance with MIL-I4507 (see 6.2).

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 Trigger pull test. Pistols shall be tested using a Government approved measuring device. The pistol shall be cocked and the safety shall be in the "fire" position. The load shall be gradually applied to the center of the trigger and exerted in a line parallel to the axis of barrel bore. The trigger pull shall also be checked for creep by applying pressure manually to the trigger at a uniform rate of increase over a period of not less than three seconds.

4.6.2 High-pressure resistance test. pistols shall be tested by firing one high-pressure test cartridge in each pistol. After proof firing, pistols shall be visually examined for cracks, deformations, and other evidence of damage and cartridge cases shall be examined for bulges, splits, rings, and other defects caused by defective barrels.

4.6.3 Function firing test. Pistols shall be tested by firing at least one fully loaded magazine each (using the magazine furnished with the pistol) of standard and high velocity, long rifle, caliber .22, commercial cartridges. During this test the last five rounds of each magazine shall be fired within a the period of 1.5 seconds. The pistol shall also be checked for the function requirements of the safety, disconnecter, slide or bolt stop.

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4.6.4 Targeting and accuracy test. Pistols may have a five-shot warmup, prior to test, for adjustment of test equipment and pistol. With the sights aligned at six o'clock on a three-inch diameter circle, the pistol shall be fired for the targeting and accuracy requirements. Pistols shall be hand held with or without an arm rest or mounted in a machine rest for hand guns while firing. After firing, the targets shall be checked to determine whether the targeting and accuracy requirements have been met, and the pistol shall be checked to determine whether the rear sight is capable of being zeroed to the pistol and whether the sights are capable of an additional 2.4 inches of adjustment in both the horizontal and vertical plane from the center of the impact area.

4.6.5 Endurance test. Pistols shall be tested by firing 10,000 rounds of ammunition specified in 3.3.5. Firing shall be in series of 2,500 rounds using fully loaded magazines. The first and third series shall be fired slowly (each shot being deliberately spaced at approximately two second intervals):and the second and fourth series shall be fired in rapid succession (each shot less than two second intervals). pistols may be cleaned and oiled each 500 rounds or at the end of a day's firing. No parts shall be replaced except that parts broken or worn to the extent that they are unserviceable shall be replaced. Records shall be kept of each malfunction and part replacement for comparison with the limits shown in Table II. Disposition of endurance tested pistols shall be as specified in the contract (see 6.2).

5. PREPARATION FOR DELIVERY

5.1 Reservation, packaging, packing and marking. Pistols shall be preserved, packaged, packed and marked in accordance with MIL-P-14313 for the applicable level of preservation, packaging, and packing specified in the contract (see 6.2).

6. NOTES

6.1 Intended use. These weapons, of commercial design, are used by the Military for the purpose of training.

6.2 Ordering data. Procurement documents should specify the following:

- Title, number, and date of this specification.
- a. Shipping instructions for bid samples (see 3.1).
- c. Marking, if different (see 3.5).
- d. Selection of applicable levels of preservation, packaging, and packing (see 5.1).

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- e. Disposition of endurance tested pistols.
- f. Responsibilities for acquisition, maintenance and disposition of inspection equipment if different (see 4.5.4).

6.3 The term "hammerless pistol" denotes a pistol with an inclosed hammer or a pistol that does not utilize a hammer in the firing mechanism.

6.4 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.

6.5 Unless otherwise specified (see 6.2 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.

6.6 Supersession data. This specification includes the requirements of Springfield Armory Purchase Description, SAPD-143C dated 15 March 1965.

Custodians:

Army- WC
Navy - OS
Air Force - 84

Preparing activity:

Army - WC

Project No. 1005-A473

Review activities:

Navy - OS
Air Force - 84

User activities:

Navy - MC

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NOTICE OF INACTIVATION
FOR NEW DESIGN

INCH-POUND

MIL-P-45575 (AR)
NOTICE 1
12 December 1995

MILITARY SPECIFICATION

PISTOL, CALIBER .22 AUTOMATIC, GENERAL TWINING GRADE

This notice should be filed in front of MIL-P-45575 (AR), dated 29 November 1973

MIL- P-45575 (AR), dated 29 November 1973, is inactive for new design and is no longer used, except for replacement purposes.

Preparing Activity:
Army - AR

AMSC N/A

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DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.