

MIL-P-48655 (AR)
16 December 1987

MILITARY SPECIFICATION

PISTOL, SEMIAUTOMATIC, 9MM: M9

This Specification is approved for use within the U.S. Army Armament Munitions and Chemical Command, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification establishes the Design performance, quality assurance, and packaging requirements for the Pistol, Semiautomatic, 9MM: M9.

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications, standards and handbooks. The following specifications, standards and handbooks form a part of this specification to the extent specified herein. Unless otherwise specified, the issue of these documents shall be those listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solicitation.

SPECIFICATIONS

MILITARY

MIL-P-116	-	Preservation-packaging, Methods of
MIL-I-6866	-	Inspection, Penetrant, Method of
MIL-W-13855	-	Weapon, Small Arms and Aircraft Armaments
MIL-L-14107	-	Lubricating Oil, Weapons, Low Temperature
MIL-I-45607	-	Inspection Equipment Acquisitions
MIL-W-63150	-	Weapons and Support Material Standard Quality Assurance Provisions for
MIL-L-63460	-	Lubricant, Cleaner and Preservation for Weapons and Weapon Systems

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, U.S. Army Armament, Munitions and Chemical Command, Attn. AMSMC-QA, Picatinny Arsenal, New Jersey 07806-5000 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1428) appearing at the end of this document or by letter.

MIL-P-48655 (AR)

STANDARDS

MILITARY

- MIL-STD-105 - Sampling Procedures and Table for Inspection by Attributes
- MIL-STD-109 - Quality Assurance Terms and Definitions
- MIL-STD-1949 - Inspection, Magnetic Particle
- MIL-STD-45662- Calibration System Requirements

2.1.2 Other Government documents, drawings and publications.
The following other Government documents, drawings and publications form a part of this specification to the extent specified herein. Unless otherwise specified, the issues shall be those in effect on the date of solicitation.

DRAWINGS

U.S. ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
(ARDEC)

- F9346412 - Pistol, Semiautomatic, 9MM: M9
- PDS9346412 - Packaging Data Sheet for Pistol, Semi-automatic, 9mm: M9
- F9346485 - Slide Assembly
- F9346500 - Gage, Indicator
- F9346501 - Gage, Indicator
- C9346502 - Gages, Headspace, 9mm
- F9346503 - Gage, Fixture
- D9346504 - Gage, Receiver
- C9346585 - Gage, Plug, Flat
- F9346586 - Gage, Fixture
- F9346587 - Gage, Fixture

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

2.2 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein, (except for associated detail specifications, specification sheets or MS standards) the text of this specification shall take precedence. Nothing in this specification, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

MIL-P-48655 (AR)

3. REQUIREMENTS

3.1 First article. When specified in the contract or purchase order, a sample shall be subjected to first article inspection in accordance with the technical provisions herein (see 4.4 and 6.2). Unless otherwise specified (see 6.2) the first article shall include the pilot pack.

3.2 Materials and construction. Pistols and parts shall conform to the materials, dimensions, conditions and construction requirements specified herein, and on Drawing 9346412 and drawings applicable thereto, and shall be in accordance with the applicable material and construction provisions of MIL-W-13855.

3.3 Design. Pistols and parts shall conform to the design specified by drawing 9346412 and drawings applicable thereto and be in accordance with the applicable design provisions of MIL-W-13855.

3.3.1 Magazine and magazine catch. The magazine shall be free of dents, cracks, sharp edges and other defects which may affect functioning of either the magazine or the pistol. The magazine follower and the magazine catch shall function without binding throughout their full range of travel under spring action. The magazine shall fit in the receiver and shall be positively retained in place by the magazine catch. When the last round is fired, the magazine follower shall automatically position the slide stop to engage in the slide. When the magazine catch is depressed, it shall disengage the magazine and the magazine shall drop out of the receiver of its own weight.

3.3.2 Disassembly lever. The disassembly button shall be spring loaded to retain the disassembly lever in its horizontal (locked) position. Manually depressing the disassembly button shall allow the disassembly lever to be rotated to the vertical (unlocked) position. Both the button and the lever shall move throughout their full ranges of travel without binding. When the lever is in the horizontal position, the slide shall be securely retained on the receiver. Rotating the lever to the vertical position shall allow the slide to be removed from the receiver.

3.3.3 Slide. The slide shall function without binding through its full range of travel on the receiver guide ways.

3.3.4 Barrel. The barrel shall be free of cracks and seams. The chromium plating shall be free of nodules, flaking, pits, stripping, anode burns and evidence of etched base steel. There shall be no machining, such as honing or grinding, after application of the chromium plating. Burrs and sharp edges shall be removed from chamber edges and scratches or marks, occurring in a chamber which otherwise meets the surface roughness

MIL-P-48655 (AR)

requirements, shall be permitted provided they do not cause marks on the case of a high-pressure test cartridge fired in the chamber. The barrel shall be so fabricated that when the pistol is completely assembled, the requirements for targeting and accuracy as specified herein shall be met.

3.3.5 Barrel Assembly. The locking block shall move into the locked and unlocked positions when the pistol is function fired or manually operated. The locking block and locking block plunger shall move throughout their full ranges of travel without binding. The locking block plunger spring pin shall not protrude through either side of the barrel.

3.3.6 Sights. The rear sight shall be fastened securely to the slide so that there shall be no relative movement. The front sight shall contain an appropriately centered white dot and the rear sight a centered white bar. Both sights shall be free of mutilation or deformation.

3.3.7 Safety. The safety and trigger bar detents shall function without binding throughout their full ranges of travel. The safety shall be retained in both extreme positions by its spring loaded detent. When the safety is in the downward (safe) position, the striker shall be rotated out of alignment with the hammer and firing pin. When the safety is in the horizontal (fire) position, dots of red paint in recesses on each side of the slide shall be exposed. The right safety lever shall be securely retained by two spring pins.

3.3.8 Firing pin block. The firing pin block shall mechanically block the firing pin from protruding through the breech face of the slide. The firing pin block shall return to its lower (safe) position under spring pressure even when the slide is held upside down. The firing pin block shall be disengaged from the firing pin only by deliberate movement of the trigger towards its most rearward position. The firing pin block spring pin shall not protrude from either side of the slide.

3.3.9 Firing pin and firing pin spring. The firing pin and the firing pin spring shall be retained in the slide. The firing pin spring shall hold the firing pin to the rear of the face of the firing pin hole in the slide before the hammer is released for firing and shall retract the firing pin into the slide after firing. The firing pin shall be blocked from forward movement until the trigger is pulled rearward of its normal single action rest position.

3.3.10 Extractor. The extractor shall move throughout its full range of travel without binding. It shall be held in the

MIL-P-48655(AR)

closed position by spring pressure. It shall contain a dot of red paint which is visible when a cartridge is being held against the breech face by the extractor. The extractor pin shall not protrude from either the top or bottom of the slide. The extractor pin shall be securely staked in place.

3.3.11 Slide stop. The slide stop shall move readily throughout its full range of travel and shall be held spring loaded toward the lower position.

3.3.12 Trigger. With the magazine assembled to the pistol, the trigger shall move through its full range of travel under spring action without binding. After partial or complete trigger pull (single and double action) the trigger shall return to its normal forward position under spring action immediately upon release.

3.3.13 Hammer. The hammer shall move without binding throughout its full range of travel under spring action in both single and double action, and shall be securely engaged by the sear in the full cock position when the pistol is function fired or manually operated.

3.3.14 Sear spring. The sear spring shall rotate the sear to engage the hammer.

3.3.15 Trigger bar. The trigger bar shall disengage the sear from the hammer when the trigger is pulled, and shall be disengaged from the sear by recoil of the slide when the pistol is function fired or manually operated.

3.3.16 Grips. Grips shall be fastened securely on the receiver. There shall be no relative movement of these parts. The grips shall be free of splits, cracks or other defects which may affect appearance or serviceability.

3.3.17 Lanyard loop. The lanyard loop shall be fastened securely to the receiver.

3.3.18 Receiver. The trigger pin shall be retained by the leg of the slide stop spring. The hammer release lever pin shall be staked securely. The hammer release lever pin and the ejector spring pin shall not protrude from either side of the receiver. The hammer release lever and the firing pin block lever shall rotate freely on the hammer release lever pin.

3.3.19 Pistol assembly.

3.3.19.1 Slide stop function. The slide stop shall be capable of being positioned to hold the slide in the rearward position manually and automatically by the action of the magazine follower after the last round has been fired. The slide stop shall hold the slide in the rearward position until it is manually released.

MIL-P-48655(AR)

3.3.19.2 Safe hammer release. Rotating the safety to the downward (safe) position shall cause a fully cocked or half cocked hammer to fall to the fired position.

3.3.19.3 Hammer release and trigger function (single action). With the magazine removed from the pistol and the slide fully retracted, the hammer shall not release when the slide is released and allowed to spring forward into battery position. After the slide is in battery position and the trigger is depressed, the hammer shall release.

3.3.19.4 Out of battery safety. With the hammer in full cock position, the slide retracted approximately one (1) centimeter (one-third inch), and the trigger depressed, the hammer shall not release when the slide is released and allowed to move forward into battery position.

3.3.19.5 Safety function. The hammer shall not move rearward from the fired position and release when the trigger is depressed with the safety in the "safe" position.

3.3.19.6 Hammer release and trigger function (double action). The hammer shall cock from the full down position and release when the safety is in the "fire" position and the trigger is depressed.

3.3.19.7 Extraction. The extractor shall extract both empty cartridge cases and loaded cartridges from the barrel chamber when the pistol is function fired or manually operated.

3.3.19.8 Ejection. The ejector shall eject both empty cartridge cases and loaded cartridges completely out of the pistol when the pistol is function fired or manually operated.

3.4 Performance characteristics.

3.4.1 Headspace. The headspace shall be 1.915 cm (.754 inches) to 1.930 cm (.760 inches) when tested as specified in 4.5.3.2 and 4.6.1.

3.4.2 Trigger pull. The trigger pull shall be within 1.80 KG (4 lbs.) to 2.90 KG (6.4 lbs.) single action and 4.50 KG (9.9 lbs.) to 7.30 KG (16.1 lbs.) for double action when tested as specified in 4.5.3.2 and 4.6.2. In the single action mode, the trigger pull shall be free of creep. Creep shall be interpreted to mean any perceptible movement between the time positive resistance is met and the hammer is released.

3.4.3 Firing pin indent. The firing pin indent shall be within .030 cm (.0118 inches) to .043 cm (.0169 inches), and it shall not be off center more than .070 cm (.0275 inches) when tested as specified in 4.5.3.3 and 4.6.3.

MIL-P-48655 (AR)

3.4.4 High-pressure resistance. The slide, barrel and locking block of each pistol shall withstand one high-pressure resistance test as specified in 4.5.3.1 and 4.6.4. Parts shall be free of cracks, seams and other injurious defects after proof firing as evidenced by visual and magnetic particle inspection.

3.4.5 Functioning. Pistols shall operate without malfunctions or unserviceable parts when tested as specified in 4.5.3.1 and 4.6.5.

3.4.6 Targeting and accuracy.

3.4.6.1 Targeting. At a range of 50 meters (54.7 yards) all rounds of a 10-round shot group shall fall within, or touch the outline of, a figure whose width is 47 cm (18.5 in.) and whose maximum height is 56 cm (22.0 in.). The sides of the figure shall be straight, parallel and vertical. The top and bottom ends of the figure shall be full convex radii. The point of aim shall be at the center of the figure. Testing shall be as specified in 4.5.3.1 and 4.6.6.

3.4.6.2 Accuracy. At a range of 50 meters (54.7 yards), the mean radius for a 10-round shot group shall be no more than A) 8.0 centimeters (3.15 inches), or B) 4.6 centimeters (1.81 inches) greater than that for the same ammunition when fired from a test barrel, whichever is greater. Testing shall be as specified in 4.5.3.1 and 4.6.6. The ammunition accuracy baseline shall be as defined in 6.5.2.

3.4.7 Interchangeability. Unless otherwise specified on the drawings, all parts shall be interchangeable. Pistols and repair parts shall be capable of meeting the interchangeability tests specified in 4.5.3.4 and 4.6.7.

3.4.8 Reliability. Pistols shall be capable of passing a 5,000-round reliability test as specified in 4.5.3.5 and 4.6.8 with not more than the number of malfunctions and unserviceable parts allowed in Table I.

TABLE I. Malfunctions and unserviceable parts.

<u>TYPE</u>	<u>TOTAL NUMBER PERMITTED 3/ IN EACH TEST</u>		
	<u>Reliability</u>	<u>Low Temp</u>	<u>High Temp</u>
Trigger bar fails to function (3.3.15 and 3.3.19.4)	0	0	0
Failure of sear to function	0	0	0
Safety fails to function	0	0	0
Uncontrolled fire (Doubling)	0	0	0

MIL-P-48655 (AR)

TABLE I. Malfunctions and unserviceable parts-continued

<u>TYPE</u>	<u>TOTAL NUMBER PERMITTED ^{3/} IN EACH TEST</u>		
	<u>Reliability</u>	<u>Low Temp</u>	<u>High Temp</u>
Receiver, broken or cracked	0	0	0
Slide, broken or cracked	0	0	0
Barrel, broken or cracked	0	0	0
Other malfunctions <u>1/</u>	12	5	4
Other unserviceable parts <u>2/</u>	4	1	0

1/ A malfunction is defined as any incident resulting in system stoppage (unplanned cessation in firing or inability to commence firing). A malfunction also includes system stoppages which are traceable or chargeable to an unserviceable part. Malfunction descriptions include failures to feed, extract, eject, close, fire, or failure to function of the magazine catch or slide stop. Malfunctions attributed to ammunition, as substantiated by a contractor failure analysis acceptable to the Government representative, shall not be counted against the pistol/magazine being tested. However, they shall be recorded and properly identified with supporting analysis.

2/ An unserviceable part is a subset of "Other Malfunctions" and is defined as any part which fails to perform its intended function, impairs the safety of the weapon or is broken and includes broken or set springs, a burred or broken extractor, ejector, firing pin, etc, loose grip screws, and magazine failures such as bent side walls, bent or cracked lips, or a distorted follower. This includes all parts replaced whether during corrective or preventive maintenance. Multiple replacement of parts to restore the system to operation shall only be charged as one malfunction and one unserviceable part provided the replacements are deemed related to the corrective maintenance necessary. Unrelated replacement of unserviceable parts detected during corrective maintenance or replacement of unserviceable parts during preventive (scheduled) maintenance are also chargeable under both "Other Malfunctions" and under "Other Unserviceable Parts".

3/ The malfunctions and unserviceable parts shall not exceed those specified for the pistols combined. As an example for the reliability pistols combined, five (5) unserviceable parts total or thirteen (13) total malfunctions would each be failures to

MIL-P-48655 (AR)

achieve the requirement. When malfunctions are traceable to particular parts, it is permissible to replace such parts and record them as unserviceable, subject to the limitations of Table I. When it is definitely established by the contractor through failure analysis and agreed to by the Government representative that previously recorded malfunctions are attributable to an unserviceable part, such malfunctions shall not be counted against the pistol being tested, provided 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. For example, if failures to fire occur on rounds 2200, 2285, 2350, 2375, and 2425, and at round 2425 the pistol is disassembled and a burred firing pin tip is determined as the cause (and replaced and later confirmed in subsequent testing), two malfunctions would be chargeable. The stoppage at 2200 rounds is beyond the 200 rounds preceding the detection of the cause; the stoppages at 2285, 2350, and 2375 are considered repetitive and not chargeable, and the stoppage at 2425 at which time a part was replaced is chargeable as a malfunction and as an unserviceable part.

3.4.9 Environmental.

3.4.9.1 High temperature (60°C). Pistols shall be capable of passing a 1,000-round high temperature test as specified in 4.5.3.7 and 4.6.9.1 with not more than the number of malfunctions and unserviceable parts allowed in Table I. (Table I contains total malfunctions allowable in a two-gun test.)

3.4.9.2 Low temperature (-40°C). Pistols shall be capable of passing a 2000-round low temperature test as specified in 4.5.3.7 and 4.6.9.2 with not more than the number of malfunctions and unserviceable parts allowed in Table I. (Table I contains total malfunctions allowable in a two-gun test.)

3.5 Marking. Each pistol shall be clearly marked in accordance with the applicable drawings and Specification MIL-W-13855.

3.6 Workmanship. Workmanship shall be in accordance with the workmanship requirements of MIL-W-63150. In addition, the pistol shall be free of dust, grease, rust, corrosion products and other foreign matter. The cleaning method used shall not be injurious to any parts nor shall the parts be contaminated by the cleaning agent. All markings and stampings shall be neat and clearly defined.

MIL-P-48655 (AR)

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 purchase 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. The provisions of MIL-W-63150 shall apply. Packages opened for examination shall be repackaged by the contractor at the contractor's expense.

4.1.1 Responsibility for compliance. All items must meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of assuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling in quality conformance does not authorize submission of known defective material, either indicated or actual nor does it commit the Government to acceptance of any defective material.

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. The first article shall be selected from pistols produced prior to the beginning of quantity production and submitted for testing in accordance with the contract requirements (see 6.2). The first article shall be representative of production processes to be used during quantity production. The first article shall be subjected to all examinations and tests specified in 4.4.2 and such other inspection as necessary to determine that all the requirements of the contract have been met.

4.4.1 First article sample. Unless otherwise specified in the contract, the first article sample shall consist of 10 each Pistol, Semiautomatic, 9MM: M9 per drawing 9346412 and sets of components as specified in 6.2.

MIL-P-48655(AR)

4.4.2 First article inspection. The first article sample shall be subjected to the following tests, in the quantities specified. Prior to testing, the first article pistols shall be subjected to the examinations specified in 4.5.2. Component parts shall be inspected as specified in 4.5.2.2.

<u>Test</u>	<u>Quantity to be tested</u>	<u>Requirement</u>	<u>Test Method</u>
a. Headspace	10	3.4.1	4.6.1
b. Trigger Pull	10	3.4.2	4.6.2
c. Firing Pin Indent	10	3.4.3	4.6.3
d. High Pressure Resistance	10	3.4.4	4.6.4
e. Functioning	10	3.4.5	4.6.5
f. Targeting and Accuracy	10	3.4.6	4.6.6
g. Interchangeability	10	3.4.7	4.6.7
h. Reliability	3	3.4.8	4.6.8

4.4.3 Rejection. If any assembly, component or test specimen 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 any assembly, component, or test specimen in the sample to comply with any of the stated requirements.

4.5 Quality conformance inspection.

4.5.1 Inspection lot.

4.5.1.1 Pistols.

4.5.1.1.1 Formation and presentation. The formation and presentation of inspection lots shall be in accordance with MIL-STD-105. Lot formation shall be established after final examination of pistols by the contractor and prior to conducting tests specified in 4.5.3.3 thru 4.5.3.5.

4.5.1.1.2 Lot sizes. Unless otherwise specified herein, an inspection lot shall consist of 500 weapons or a month's production, whichever is smaller. These weapons shall be assembled from lots of component parts that have met all inspection requirements.

4.5.1.1.3 Lot identification. Each inspection lot shall be identified with a lot number. The serial number of each weapon in a lot shall be recorded on the individual weapon record. The reason for rejection of any inspection lot shall be recorded. When a rejected inspection lot is resubmitted after reconditioning, it shall be identified as such.

MIL-P-48655(AR)

4.5.1.2 Parts and packaging. The formation, size, and presentation of inspection lots of parts and packaging shall be in accordance with MIL-STD-105. Inspection lots shall be as large as practical in consideration of quality history, manufacturing conditions, contractor's delivery schedule and shall be within the limitations of MIL-W-13855.

4.5.2 Examination.

4.5.2.1 Pistols. Final examination of weapons shall be performed by the contractor after completion of all testing of 4.5.3.1 and 4.5.3.2. Unless otherwise specified herein, each weapon shall be examined as specified below. All non-conforming weapons shall be rejected and the reason for rejection recorded.

4.5.2.1.1 Rejected pistols. Rejected weapons shall be corrected by the contractor and the corrective action taken shall be recorded. The weapons shall be reexamined as specified below.

4.5.2.1.2 Magazine and magazine catch. Visually and manually examine the magazine and the magazine catch to determine compliance with 3.3.1.

4.5.2.1.3 Disassembly lever. Manually examine the disassembly lever to determine compliance with 3.3.2.

4.5.2.1.4 Slide.

(a) With the magazine, barrel and recoil spring removed from the pistol, manually examine the slide to determine compliance with 3.3.3.

(b) Visually examine for presence and legibility of the manufacturer's identification, part number markings, proof mark, magnetic particle inspection mark, "U.S.", "9mm", and "M9".

4.5.2.1.5 Barrel.

(a) Disassemble the slide and the barrel from the receiver and visually examine the barrel to determine compliance with 3.3.4.

(b) Visually examine the barrel for presence of proof and magnetic particle inspection marks.

4.5.2.1.6 Barrel Assembly.

(a) Visually and manually examine the barrel Assembly to determine compliance with 3.3.5.

(b) Visually examine locking block for presence of proof and magnetic particle inspection marks.

MIL-P-48655(AR)

4.5.2.1.7 Sights. Visually and manually examine the rear sight to determine compliance with 3.3.6.

4.5.2.1.8 Safety. Visually and manually examine the safety to determine compliance with 3.3.7.

4.5.2.1.9 Firing pin block. Visually and manually examine the firing pin block for compliance with 3.3.8.

4.5.2.1.10 Firing pin and firing pin spring. Visually and manually examine the firing pin and the firing pin spring to determine compliance with 3.3.9.

4.5.2.1.11 Extractor. Visually and manually examine to determine proper retention of the extractor (see 3.3.10).

4.5.2.1.12 Slide stop. Manually examine the slide stop to determine compliance with 3.3.11.

4.5.2.1.13 Trigger. Manually examine the trigger to determine compliance with 3.3.12.

4.5.2.1.14 Hammer. Manually examine the hammer to determine compliance with 3.3.13.

4.5.2.1.15 Sear spring. Manually examine the sear spring to determine compliance with 3.3.14.

4.5.2.1.16 Trigger bar. Visually and manually examine the trigger bar to determine compliance with 3.3.15.

4.5.2.1.17 Grips. Manually examine the grips to determine secure retention to the receiver (see 3.3.16).

4.5.2.1.18 Lanyard loop. Manually examine the lanyard loop to determine compliance with 3.3.17.

4.5.2.1.19 Receiver assembly.

a. Visually examine the receiver assembly to determine compliance with 3.3.18.

b. Visually examine the receiver for presence and legibility of serial number, "U.S.", "9mm", "M9", the manufacturers name and code, and part number.

4.5.2.1.20 Pistol assembly. Manually examine the pistol assembly for compliance with 3.3.19.1 through 3.3.19.8.

MIL-P-48655 (AR)

4.5.2.1.21 Rear sight deflection. Gage the rear sight deflection for compliance with drawing 9346412 using inspection equipment per drawing 9346504.

4.5.2.1.22 Extractor clearance. Gage the extractor clearance for compliance with drawing 9346485 using inspection equipment per drawing 9346585.

4.5.2.1.23 Firing pin and firing pin striker protrusion. Gage the firing pin protrusion and firing pin striker protrusion for compliance with drawing 9346485 using inspection equipment per drawings 9346586 and 9346587.

4.5.2.2 Component parts and concurrent repair parts. Examination of component parts and concurrent repair parts shall be performed in accordance with the criteria as specified in the contract (see 6.2) and MIL-W-63150. Examination of these parts shall be accomplished prior to their assembly into the end item or submission for acceptance as repair parts.

4.5.2.3 Packaging. Examination of packaging of pistols shall be performed in accordance with the classification of defects and acceptable quality levels (AQL's) specified in 4.5.2.3.1. Sample size shall be in accordance with MIL-STD-105, using inspection level I. The following provisions shall apply:

- a. The AQL's are specified as percent defective.
- b. An individual AQL is specified for each listed defect, not for a group of defects.
- c. Examination for packaging defects specified in 4.5.2.3.1 shall apply to each item of the applicable sample of pistols, interior packages, or exterior containers, as applicable.

4.5.2.3.1 Classification of defects for packaging. (Unless otherwise specified in each listed defect, the packaging requirements are specified in Section 5.)

<u>Categories</u>	<u>Defect</u>	<u>AQL</u>
Critical: None defined.		
Major:		
101.	Illegible or incorrect marking.	1.0%
102.	Improper location of marking.	1.0%
103.	Improper level of packaging for packing (see procurement documents.)	1.0%
104.	Inadequate cleaning and drying.	1.5%

MIL-P-48655 (AR)

105.	Improper preservative application and drainage.	1.58
106.	Improper closure of bags and interior packages.	1.58
107.	Improper cushioning and wrapping.	1.58
108.	Improper closure and strapping of shipping containers.	1.58
109.	Improper packing in exterior container.	1.58
110.	Pistol serial number not visible through barrier material	1.58

Minor:

201	Workmanship.	4.08
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4.5.2.3.2 Repair part packaging. Examination of packaging of repair parts shall be performed in accordance with the criteria specified in the contract (see 6.2).

4.5.3 Testing.

4.5.3.1 High-pressure resistance, functioning, and targeting and accuracy testing. The contractor shall test each pistol for high-pressure resistance (unless the barrel, locking block and slide have successfully passed the high-pressure resistance test at the component level (see 3.4.4)), functioning, and targeting and accuracy using the test methods specified in 4.6.4, 4.6.5, and 4.6.6 respectively. Pistols failing to meet any of the requirements shall be rejected. The cause of the failure shall be determined for each rejected pistol and corrective action shall be taken and recorded prior to resubmittal for acceptance testing. Unless otherwise specified, retesting shall be performed following the test methods in 4.6.4, 4.6.5, and 4.6.6, as applicable. If the corrective action performed affects the validity of previous test/inspections, those test so affected must also be repeated and successfully passed for acceptance. Those tests not affected by the corrective action need not be repeated, unless directed otherwise by the government representative.

4.5.3.2 Trigger pull and headspace testing. The contractor shall test each pistol for trigger pull and headspace using the test method specified in 4.6.1 and 4.6.2. Pistols failing to meet the requirements shall be rejected. The cause of the failure shall be determined for each rejected pistol and corrective action shall be taken and recorded prior to resubmittal for acceptance testing. Retesting of corrected pistols shall be performed using the test methods in 4.6.1 and 4.6.2, as applicable. If the corrective action performed affects the validity of previous test/inspections, those test so affected must also be repeated and successfully passed for acceptance. Those tests not affected by the corrective action need not be repeated, unless directed otherwise by the government representative.

MIL-P-48655 (AR)

4.5.3.3 Firing pin indent testing. The contractor shall test a sample of thirty pistols selected by the Government representative from each inspection lot for firing pin indent using the test methods specified in 4.6.3. Failure of any pistol in the sample to meet the requirements in either single or double action shall cause rejection of the represented lot. After failure analysis and corrective action are implemented and recorded, the rejected lot may be resubmitted for acceptance as a reconditioned lot. A sample of sixty pistols from each reconditioned lot shall be tested for acceptance using the procedures of 4.6.3.. After five (5) consecutive inspection lots successfully meet the firing pin indent test requirements, the lot size for the firing pin indent test may be increased, if approved by the Government representative, to three thousand (3,000) pistols or a month's production, whichever is smaller. When five (5) successive lots of the increased lot size have met the firing pin indent test requirement, the lot size may be further increased to six thousand (6,000) pistols or a month's production, whichever is smaller. If rejection of a lot occurs at any time, the next smaller test lot size criteria shall be reinstated, and the above procedure repeated in returning to the larger lot size.

4.5.3.4 Interchangeability testing.

4.5.3.4.1 Pistols. The contractor shall subject a sample of ten pistols selected by the Government representatives from each inspection lot to interchangeability testing using the test method specified herein (4.5.3.4.1) and in 4.6.7. Pistols selected for interchangeability testing shall have been found satisfactory in all other individual examinations (4.5.2.1) and tests (4.5.3.1 and 4.5.3.2). After five (5) consecutive inspection lots successfully meet the interchangeability requirements, the lot size for the interchangeability test may be increased, if approved by the Government representative, to three thousand (3000) pistols or a month's production, whichever is smaller. When five successive lots of the increased lot size have met the interchangeability requirements, the lot size may be further increased to six thousand (6,000) pistols or a month's production, whichever is smaller. The ten pistols shall be tested for and shall comply with the requirements for headspace, trigger pull, and firing pin indent before and after interchange of parts, using the test methods specified in 4.6.1, 4.6.2, and 4.6.3, respectively. In addition, the pistols shall be tested for, and shall comply with, functioning and targeting and accuracy requirements after interchange of parts using the test methods specified in 4.6.5 and 4.6.6. Failure of any sample pistol to successfully complete all of the testing/inspections specified herein (4.5.3.4.1) shall constitute a failure of the interchangeability test and shall cause retest or rejection of the represented lot. At the discretion of the Government representative, an interchangeability retest may be allowed without reconditioning the lot of pistols.

MIL-P-48655(AR)

Failure in the retest shall cause rejection of the represented lot subject to reconditioning and further test as a reconditioned lot. The next smaller test lot size criteria shall be reinstated for subsequent lot testing and the above procedures repeated in returning to the larger size lot. A sample of 20 pistols from each retest or reconditioned lot shall be tested using the same procedure described above.

4.5.3.4.2 Concurrent repair parts. The contractor shall subject at least two parts from each inspection lot of concurrent repair parts to the interchangeability test specified in 4.6.7.2. Failure of any part to meet the requirements shall be cause for rejection of the represented lot of parts subject to reconditioning and further test as a reconditioned lot. A sample of double the number of parts used in the original test shall be tested from each reconditioned lot using the test method specified in 4.6.7.2.

4.5.3.5 Reliability testing.

4.5.3.5.1 Lot size. The first five reliability test lots shall each consist of 500 pistols or a month's production, whichever is smaller. When five successive lots meet the reliability requirements, the lot size shall be increased to 3,000 pistols or a month's production, whichever is smaller. When five successive lots of the increased lot size have met the reliability requirements, the lot size shall be further increased to 6,000 pistols or a month's production, whichever is smaller. If rejection of a lot occurs at any time, the next smaller test lot size criteria shall be reinstated and the above procedure repeated in returning to the larger lot size. All changes to the reliability lot sizes must be approved by the Government representative.

4.5.3.5.2 Procedure. Three (3) pistols and thirty magazines selected by the Government representative from each reliability lot shall be tested by the contractor for reliability using the test method specified in 4.6.8. Pistols selected for reliability testing shall have been found satisfactory in all other individual examinations (4.5.2.1) and tests (4.5.3.1 and 4.5.3.2). Failure of the pistols shall be cause for rejection of the representative lot. If the lot is rejected, the contractor shall conduct a thorough failure analysis to determine the cause of failure and shall effect the necessary corrective action on all pistols of the lot and, as necessary, parts/subassemblies in-process. Following these actions, and if authorized by the procuring agency, the reconditioned lot may be resubmitted for the reliability test. Sample size and test methods for reconditioned lots shall be the same as for new lots.

MIL-P-48655 (AR)

4.5.3.6 Component parts and concurrent repair parts testing. Raw material testing, part testing, and certification shall be performed in accordance with the criteria specified in the contract (see 6.2). This will include chemical analysis and physical tests of materials, and tests of protective finish, heat treatment, bonding, and function of parts as applicable. The contractor shall accomplish these tests prior to assembly of parts into the end item.

4.5.3.7 Environmental. At the discretion of the Government, two pistols randomly selected by a Government representative from test samples submitted for Government-conducted Initial Production or Comparison Tests (if specified in the contract) shall be tested to the environmental requirements of 3.4.9 using the general test methods specified in 4.6.9.1 and 4.6.9.2. Failure of the two pistols combined to meet either the high or low temperature test criteria shall be considered an environmental test failure subject to corrective action as required by the contract.

4.5.3.8 Packaging testing.

4.5.3.8.1 Pistols.

4.5.3.8.1.1 Certification. The contractor shall furnish the Government representative with certification that the packaging materials conform to the applicable packaging data sheets and specifications.

4.5.3.8.1.2 Determination of cleanliness testing. The contractor shall test items from each inspection lot for determination of cleanliness using the test method specified in 4.6.10.1. Sampling shall be in accordance with the Specification MIL-P-116.

4.5.3.8.1.3 Preservation testing. The contractor shall test level A and level B unit packages from each inspection lot in accordance with the requirements of MIL-P-116 and 4.6.10.2.

4.5.3.8.2 Repair parts. Testing of packaging of repair parts shall be performed in accordance with the criteria specified in the contract (see 6.2).

4.5.3.9 Test ammunition. Requirements for ammunition used in acceptance test firing shall be as specified in 6.5.

4.5.4 Inspection equipment. Unless otherwise specified in procurement documents (see 6.2), responsibilities for acquisition, maintenance, and disposition of all inspection equipment required to perform inspection prescribed by applicable specifications, shall be in accordance with Specifications MIL-I-45607 and MIL-STD-45662.

MIL-P-48655 (AR)

4.6 Test methods.

4.6.1 Headspace test. Pistols shall be gaged for headspace requirement (see 3.4.1) after proof firing, prior to acceptance, using inspection equipment per drawing 9346502. The pistol shall be held in a horizontal position, the gage inserted in the barrel chamber while the slide is held open, and the slide manually returned to battery position. The minimum gage and the maximum gage shall be used on each pistol. When the minimum gage is used, the slide shall fully close and when the maximum gage is used the slide shall not fully close. Only light finger pressure shall be applied to the slide during this test.

4.6.2 Trigger pull test. Pistols shall be tested for trigger pull requirement in both the single action and double action modes (see 3.4.2) using inspection equipment per drawing 9346503. The hammer shall be brought to the full cock position by fully retracting and then releasing the slide, the safety shall be in the "fire" position, and the load shall be gradually applied at the middle of the trigger bow and exerted in a line parallel to the axis of the barrel bore. When the minimum load is applied the hammer shall not release and when the maximum load is applied the hammer shall release. The test shall be repeated in the double action mode using the same procedure with the exception that the hammer shall be in the uncocked position prior to trigger pull. The trigger pull in the single action mode shall also be tested for creep by applying pressure manually to the trigger at a uniform rate of increase over a period of not less than 3 seconds.

4.6.3 Firing pin indent test. Pistols shall be tested for firing pin indent requirement (see 3.4.3) in both the single action and double action modes using inspection equipment per drawings 9346500 and 9346501. The pistol shall be held in a horizontal position (approximately) and the holding fixture containing the copper compression cylinder shall be inserted in the barrel chamber while the slide is held open. The slide shall be manually returned to battery position and the trigger pulled to release the hammer. The indent shall be taken on one compression cylinder in each mode for each pistol. The indent shall be computed by measuring the distance from the original surface of the cylinder (before indentation) to the bottom of the firing pin impression. The test shall be repeated in the double action mode using the same procedure with the exception that the hammer shall be manually returned to the uncocked position prior to trigger pull. Any pistol which fails the test may be retested using three compression cylinders in each mode. The average of the three indents shall be computed and the resulting value shall be the basis for acceptance or rejection. The location of each indent shall be measured and each measurement shall be within the location requirement of 3.4.3.

MIL-P-48655 (AR)

4.6.4 High-pressure resistance (proof-firing) test. The slide (9346444), barrel (9346426) and locking block (9346425), either as individual parts or as parts of a complete pistol, shall be tested for high-pressure resistance requirement (see 3.4.4) by being subjected to the firing of one Government standard M905 high-pressure test cartridge. Proof firing shall be accomplished with the pistol, or a pistol simulator, held in a contractor designed, Government approved fixture having a protective shield (see 4.5.4.). After proof firing, complete pistols or the individual parts noted above shall be visually examined for cracks, deformation, and other evidence of damage and cartridge cases shall be visually examined for bulges, splits, rings, and other defects caused by defective barrels. The barrel, locking block and slide of each pistol shall be magnetic particle inspected as prescribed on the applicable drawings after proof firing, prior to acceptance, for evidence of cracks, seams, and other injurious defects. Proof marks and magnetic particle inspection marks shall be applied as indicated on the applicable drawings on parts that have passed this test.

4.6.5 Function firing test. The pistols shall be tested for functioning requirement (see 3.4.5) by firing a fully loaded magazine of ammunition. Function firing shall be accomplished with the pistol hand-held or held in a fixture simulating hand firing of the contractor's design. The magazine used shall be one to be shipped with the pistol. The first three rounds shall be fired slowly (each shot being deliberately spaced at approximately 2 second intervals) in the double action mode, with the hammer being manually returned to the uncocked position prior to each shot; the second three rounds shall be slowly fired in the single action mode; and the remaining rounds shall be fired in rapid succession in the single action mode.

4.6.6 Targeting and accuracy firing test. Each pistol shall be tested for targeting and accuracy requirement (see 3.4.6). Targeting and accuracy firing shall be accomplished hand-held or held in a contractor-designed, government approved fixture which simulates hand-held conditions. Each pistol may be fired with not more than 18 rounds of contractor furnished ammunition to settle the pistol in the rest and to allow optimization of the rear sight positioning within the dimensional limits stated on drawing 9346412. During this time, the pistol may be disassembled as necessary to facilitate rear sight adjustment. However, the receiver must remain in the rest, and no parts may be replaced. One ten shot target shall be fired for record using ammunition in accordance with 6.5.1. The point of aim shall be the center of the targeting figure. The target shall then be checked to determine whether the targeting and accuracy requirements have been met. At the contractor's option and expense, a pistol which fails the targeting or accuracy requirement initially may be

MIL-P-48655 (AR)

refired, without adjusting the pistol, one additional 10-shot target using the same ammunition. If the pistol meets the targeting and accuracy requirement in the retest, the pistol will be considered to have passed.

4.6.7 Interchange of parts.

4.6.7.1 Pistols. Pistols shall be tested for interchange of parts (see 3.4.7) by disassembling and then reassembling parts using the parts and pre-arranged system specified below. Interchange of parts shall be accomplished by dividing the parts of each pistol into 10 groups of nonmating parts as shown below and distributing the groups into 10 different trays until each tray contains parts for a complete pistol. Groups of parts from the first pistol shall be taken in order and placed in trays 1 through 10; groups of parts from the second pistol shall be taken in order and placed in trays 2 through 10 to 1; groups of parts from the third pistol shall be taken in order and placed in trays 3 through 10 to 2; etc. Commercial parts such as screws, spring pins, etc., shall be placed in the same tray as their mating or associate part. Any commercial part rendered unserviceable by disassembly shall be replaced without penalty to the interchangeability test. The pistols shall be reassembled using only those parts which are in the same tray.

Groups of non-mating parts

Group I

Sear (9346467)
Spring, firing pin (9346441)
Spring, magazine catch (9346475)
Detent, trigger bar (9346432)
Block, locking (9346425)
Pin, extractor (9346437)

Group II

Barrel, pistol (9346426)
Pin, firing (9346440)
Pin, shoulder, headless: lanyard loop (12556375)
Spring, extractor (9346439)
Lever, firing pin block (9346470)
Pin, spring: ejector (D63477/5-170P)

Group III

Mainspring (9346461)
Guide, recoil spring (9346421)
Spring, safety detent (9346434)
Pin, spring: locking block plunger (D63477/8-5P)
Receiver with bushings (9346481)

MIL-P-48655 (AR)

Group IV

Strut, hammer (9346464)
Button, disassembly (9346446)
Screw, grip (4 each) (9346448)
Slide (9346444)
Pin, trigger (9346456)

Group V

Loop, lanyard (9346460)
Extractor (9346438)
Magazine, cartridge (9346413)
Spring, slide stop (9346455)
Spring, disassembly (9346447)
Lever, hammer release (9346471)

Group VI

Detent, safety (9346433)
Spring, sear (9346466)
Grip, right (9346451)
Grip, left (9346450)
Lever, disassembly (9346445)
Block, firing pin (9346429)
Sight, rear (9346443)

Group VII

Hammer (9346463)
Stop, slide (9346454)
Trigger (9346458)
Bushing, magazine catch (long) (9346477)
Washer, lock (4 each) (9346449)
Lever, right safety (9346431)
Bushing, magazine catch (short) (9346476)

Group VIII

Pin, sear (9346465)
Striker, firing pin (9346435)
Spring, trigger (9346457)
Pin, spring: right safety lever (2 each) (D63477/5-124P)
Pin, hammer release lever (9346469)

Group IX

Safety (9346436)
Plunger, locking block (9346424)
Spring, recoil (9346420)
Bar, trigger (9346453)
Spring, block and detent (2 each) (9346428)

MIL-P-48655(AR)

Group X

Catch, magazine (9346478)
Pin, hammer (9346462)
Spring, trigger bar (9346452)
Pin spring: firing pin block (D63477/8-37P)
Ejector (9346472)

4.6.7.2 Concurrent repair parts. Concurrent repair parts shall be tested for interchangeability requirement (see 3.4.7) by disassembling two pistols, previously tested in 4.5.3.4.1., as necessary and then reassembling them using the concurrent repair parts. No hand refinement of parts will be allowed, and the pistols shall operate and function properly. This test may be performed independently of the pistol interchangeability test specified in 4.5.3.4.1 and at more frequent intervals using accepted pistols taken from current production.

4.6.8 Reliability test.

4.6.8.1 Firing procedures. Pistols shall be tested for reliability requirement (see 3.4.8) by firing 5,000 rounds of ammunition in each pistol. Firing shall be accomplished with the pistol hand-held or held in a fixture simulating hand firing of the contractor's design. Firing shall be in series of approximately 500 rounds using fully loaded magazines whenever possible. The first series shall be fired slowly (each shot being deliberately spaced at approximately 2 second intervals); and the remaining series shall be fired slowly or in rapid succession at the discretion of the Government representative. The first round of each magazine shall be fired double action. The hammer shall be lowered before the first round by use of the safety lever. The barrel shall be cooled after each 250 rounds. Ten (10) magazines shall be utilized during the test of each pistol (approximately 500 rounds shall be fired through each magazine).

4.6.8.2 Cleaning and lubrication. The pistol shall be cleaned and lubricated with lubricant per MIL-L-63460 after each series of approximately 500 rounds, and at the close of each day's firing the pistol shall be protected against corrosion. No parts shall be altered and only parts broken or worn to the extent that they are unserviceable shall be replaced.

4.6.8.3 Recording of data. A complete record shall be kept for each reliability test, showing each malfunction and part replacement including the number of the round at which each occurred and the pistol identification.

4.6.8.4 Inspection. Upon completion of the reliability test, the barrel and slide shall be magnetic particle inspected in accordance with MIL-STD-1949 and the receiver shall be dye

MIL-P-48655 (AR)

penetrant inspected in accordance with MIL-I-6866 to determine their compliance with Table I. Upon approval of the government representative, the reliability weapons shall be scrapped. Components other than the slide, barrel, receiver, springs and spring pins from these reliability test weapons, may be refurbished and, if they meet all drawing requirements, may be used in subsequent assembly of pistols.

4.6.9 Environmental test.

4.6.9.1 High temperature test. Pistols shall be tested for the high temperature requirement (see 3.4.9.1) by firing 1,000-rounds each. Each pistol, with its seven magazines and at least 1,000 rounds of ammunition for each, shall be initially conditioned at +60°C for at least 4 hours. The pistols shall be fired hand-held, in 100 round cycles. If the pistols are fired outside of the hot chamber, they shall be returned to the hot chamber for a minimum dwell time of two hours between each cycle to allow the pistol to return to the conditioned temperature. Each magazine shall be coded and maintained with its assigned pistol; each magazine shall be used once per cycle with the seventh magazine containing 10 rounds in lieu of 15 rounds. The first round of each magazine shall be fired double action. Cleaning and lubricating with lubricant per MIL-L-63460 shall be accomplished prior to the test and at 500 rounds. After the 1,000 rounds have been fired on each pistol, the pistol shall be cleaned and subjected to magnetic particle inspection (slide and barrel) and dye penetrant inspection (receiver). All malfunctions and unserviceable parts shall be recorded and scored in accordance with Table I to assess if the requirement has been met.

4.6.9.2 Low temperature test. Pistols shall be tested for the low temperature requirement (see 3.4.9.2) by firing 2,000-rounds each. Each pistol, with its seven magazines and a minimum of 500 rounds for each, shall be initially conditioned at -40°C for at least 4 hours. Additional ammunition required will also be conditioned a minimum of 8 hours prior to use in the test. The pistols shall be fired handheld, in 100 round cycles, with a minimum dwell time of two hours between each cycle to allow the pistol to return to the conditioned temperature. Each magazine shall be coded and maintained with its assigned pistol; each magazine shall be used once per cycle with the seventh magazine containing 10 rounds in lieu of 15 rounds. The first round of each magazine shall be fired double action. Cleaning and lubrication shall be accomplished prior to the test and at 500 round intervals. The lubricant for this test shall be in accordance with MIL-L-14107 (LAW). After the 2,000 rounds have been fired on each pistol, the pistol shall be cleaned and subjected to magnetic particle inspection (slide and barrel) and dye penetrant inspection (receiver). All malfunctions and unserviceable parts shall be recorded and scored in accordance with Table I to assess if the requirement has been met.

MIL-P-48655 (AR)

4.6.10 Packaging tests.

4.6.10.1 Determination of cleanliness. The applicable surfaces (except for barrel bore and chamber) of each sample unit shall be subjected to the determination of cleanliness test in accordance with Specification MIL-P-116. The barrel bores and chambers shall be wipe tested for cleanliness using clean white bore cleaning swabs and the degree of cleanliness shall be verified by comparison of test swabs with standard clean/new swab samples furnished by the contractor and approved by the Government.

4.6.10.2 Seam strength. The level A and B sample unit packages shall be subjected to a seam strength test in accordance with the test procedures specified in MIL-P-116 for a heat-sealed seam test with the exception that the seams shall be cold sealed. A 1/2 pound weight shall be used in conducting the seam strength test.

5. PACKAGING.

5.1 Preservation, packing and marking. Preservation, packing and marking shall be in accordance with Packaging Data Sheet 9346412 for the level of protection specified in the contract (see 6.2).

5.2 Pilot pack. A pilot package shall be required prior to quantity production.

6. NOTES

6.1 Intended use. The M9 pistol is intended for use as a personal defense weapon by military personnel who are not issued rifles.

6.2 Ordering data. Procurement documents should specify the following:

- a. Title, number and date of this specification.
- b. Lists of drawings and specifications pertinent to the weapon showing applicable revision dates.
- c. Examination and testing criteria for components (see 4.5.2.3.2, 4.5.3.6, 4.5.3.8.2).
- d. Disposition of interchangeability and reliability tested weapons.
- e. Selection of applicable levels of preservation, packaging, and packing (see 5).

MIL-P-48655(AR)

- f. Shipping, instructions for first article sample (see 3.1 and 4.4)
- g. Place of final inspection and acceptance.
- h. Lists of acceptance inspection equipment to be furnished the contractor (see 4.5.4) and responsibilities for other Government property to be furnished the contractor.
- i. Responsibility for furnishing ammunition and associated certification..
- j. Procedures and methods for demilitarizing and disposing of rejected material.
- k. Disposition of Government furnished property.
- l. Responsibility for test firing facilities and operating procedures.

6.3 Test firing facilities. Test firing facilities and operating procedures shall be designed by the contractor in conformance with local, state, and Federal regulations and suitable for carrying out prescribed firing tests with safety of operating and visiting personnel. Copies of these contractor designs shall be forwarded to the contracting officer. Government facilities may be viewed upon application to the contracting officer.

6.4 Testing agency. When action by a testing agency is required, work programming will be affected with the testing agency at the earliest practicable date.

6.5 Ammunition for test firing. To avoid delay in test firing, the contractor should maintain a minimum of two month's supply of ammunition as determined by anticipated firing requirements.

6.5.1 Ammunition requirements. All firing test for acceptance testing shall utilize M882 cartridges per MIL-C-70508 except the high pressure resistance testing, which shall utilize M905 cartridges per MIL-C-70509.

6.5.2 Ammunition accuracy. For computation of ammunition accuracy necessary to establish the acceptance value for pistol accuracy (see 3.4.6.2) a minimum of three 10-shot targets shall be fired from each of two Standard NATO approved test barrels in conformance with NATO procedures or equivalent. The average of the mean radius from each target (after linear adjustment to 50 meters) and the associated sample standard deviation shall be

MIL-P-48655(AR)

computed. The assessed accuracy value of the ammunition shall be the computed mean radius plus two (2) sample standard deviations. The accuracy baseline of the ammunition intended for acceptance testing shall be subject to approval by the U.S. Government.

6.6 Quality program. 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.

6.7 Inspection equipment designs. Inspection equipment designs are of two types - Government special inspection equipment (SIE) designs and contractor designs. SIE designs are designated by drawing numbers in Section 4 or in the Quality Assurance Provisions. Design responsibility for all other inspection equipment is assigned to the contractor. However, the contractor need not furnish any design when a complete Government SIE is part of the Technical Data Package (TDP). Unless otherwise specified, the contractor may submit alternate or modified contractor designs of SIE in accordance with 6.7.2 and 6.7.3 should he elect to do so.

6.7.1 SIE Designs. SIE designs may consist of any of the following:

a. Detailed drawings which completely depict all information necessary for the fabrication and use of the item of inspection equipment.

b. A source control drawing or a specification control drawing as defined in DOD-STD-100.

c. An envelope drawing, as defined in DOD-STD-100, which established the criteria which a detailed design shall meet. When envelope drawings are specified, the contractor shall prepare designs which comply with the criteria therein.

6.7.2 Contractor designs. Contractor designs are required for all inspection equipment for which SIE designs are not specified and may include commercial equipment which the contractor proposes to use. (Commercial equipment is defined as unmodified equipment which is cataloged and available for purchase by the general public). Contractor designs shall include appropriate operating instructions, calibration procedures and maintenance procedures. Commercial equipment shall be fully described by catalog listings or other means which provide sufficient information to permit identification and evaluation by the Government and may include illustrations and engineering data. Designs shall be prepared for any special fixtures(s) required to be used with commercial equipment, or with SIE designs

MIL-P-48655 (AR)

if not otherwise covered thereby. Designs shall be of the category and form (per DOD-D-1000) specified in the Contract Data Requirements Lists (DD Form 1423). The specification number, paragraph number, and defect number from Section 4 shall be referenced on each contractor design together with the component or assembly drawing number, revision letter and date to which the specific design applies.

6.7.3 Submission of designs for approval. Contractor designs shall be approved by the Government prior to fabricating or procuring the equipment. Designs shall be submitted for approval in accordance with the stipulation, time frame and distribution specified in the Contract Data Requirements List (DD Form 1423) or in the contract. Partial submission of inspection equipment designs is permissible and encouraged. However, the completion date for design review will be based on the date of the final submission of designs and the required delivery schedule as stipulated in the contract. The address for submission of contractor designs will be specified on the contract Data Requirements list, DD Form 1423 in the contract. Unless otherwise specified, data item DI-R-1714 will apply.

When the contractor submits inspection equipment designs to the Government for approval, he shall give the following information in his letter of transmittal.

- a. The contract number.
- b. The contract item (name, model number, etc.)
- c. The designs remaining to be submitted and the expected date of submittal.

6.8 Drawings. Drawings listed in Section 2 of this specification under the heading US Army Armament Research, Development and Engineering Center (ARDEC) may also include drawings prepared by, and identified as Edgewood Arsenal, Frankford Arsenal, Rock Island Arsenal, Picatinny Arsenal, US Army Armament Research and Development Command (ARRADCOM) or US Army Armament Research and Development Center (ARDC) drawings. Technical data originally prepared by these activities are now under the cognizance of ARDEC.

6.9 Subject term (key word) listing.

Military Specification
M9
Pistol, Semiautomatic, 9mm
Small arms

Custodian:
Army-AR

Preparing activity:
Army-AR

(Project 1005-A711)

INSTRUCTIONS: In a continuing effort to make our standardization documents better, the DoD provides this form for use in submitting comments and suggestions for improvements. All users of military standardization documents are invited to provide suggestions. This form may be detached, folded along the lines indicated, taped along the loose edge (*DO NOT STAPLE*), and mailed. In block 5, be as specific as possible about particular problem areas such as wording which required interpretation, was too rigid, restrictive, loose, ambiguous, or was incompatible, and give proposed wording changes which would alleviate the problems. Enter in block 6 any remarks not related to a specific paragraph of the document. If block 7 is filled out, an acknowledgement will be mailed to you within 30 days to let you know that your comments were received and are being considered.

NOTE: This form may not be used to request copies of documents, nor to request waivers, deviations, or clarification of specification requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

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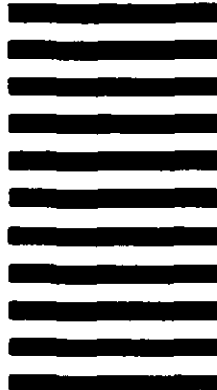
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