

INCH-POUND

MIL-M-45945A
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SUPERSEDING
MIL-M-45945
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MILITARY SPECIFICATION
MACHINE GUN, 7.62MM:M60D

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

1. SCOPE

1.1 Scope. This specification covers the requirements, examinations and tests for one type of 7.62mm gas operated air cooled, link belt fed, lightweight machine gun furnished with one spare interchangeable barrel assembly with bipod assembly. machine gun is designed to be fired with the M23, M24, M41 and M44 Helicopter Subsystems (see 6.1) .

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specification, standards and handbooks. The following specifications, standards, and handbooks from a part of this document to o the extend specified herein. Unless otherwise specifiied the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solicitation (see 6.2) .

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 ARDEC, ATTN: SMCA-BAC-S Picatinny Arsenal, New Jersey 09806-5000 by using the Standardization Document Improvement Proposal (DD Form 1426 appearing at the end of this document or by letter.

AMSC N/A

FSC 1005

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MIL-M-45945A

SPECIFICATIONS

MILITARY

MIL-P-116 - Preservation, Methods of
MIL-I-8754 - Inhibitors, Corrosion, Volatile,
Utilization of
MIL-w-13855 - Weapons, Small Arms and Aircraft Armament
Subsystems, General Specification for
MIL-L-45403 - Link, Cartridge, Metallic Belt, 7.62mm
M1 3
MIL-I-45607 - Inspection Equipment, Acquisition
Maintenance and Disposition of
MIL-L-46000 - Lubricant, Semi-Fluid (Automatic WeaPons)
MIL-C-46477 - Cartridge, 7.62mm, Nate, Test, High
Pressure, M60
MIL-C-46931 - Cartridge, 7.62mm, Nate, Ball, M80
MIL-D-60573 - Dummy Cartridge, 7.62mm, M172, Inert
Loaded
MIL-W-63150 - Weapons and Support Materiel, Standard
Quality Assurance Provisions for
MIL-A-70625 - Automated Acceptance Inspection Equipment
Design, Testing and Approval of

STANDARDS

MILITARY

MIL-STD-109 Quality Assurance Terms and Definitions
MS 16562-151 Pin, Spring - Tubular, Slotted
MS 17990-C519 pin, Quick Release, Positive Locking,
Double Acting, Ring Handle
MS 24665-18 Pin, Cotter (Split)
MS 39086-81 Pin, Spring-Tubular, Coiled, Heavy Duty
MS 51923-105 Pins, Spring-Tubular, Coiled, Standard
Duty

(Unless otherwise indicated, copies of federal and military specifications standards and handbooks are available from the DODSSP- Customer Service, Standardization Documents Order Desk, Bldg. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.1.2 Other Government documents, drawings and Publications

The following other Government documents, drawings and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issue are those cited in the solicitation.

MIL-M-45945A

DRAWINGS (see 6.11)

US ARMY ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING
CENTER (ARDEC)

PRODUCT DRAWINGS

11699750 - Machine Gun, 7.62mm: M60D

(Part drawings referenced in this specification form a part
of drawing 11699750.)

INSPECTION EQUIPMENT DRAWINGS

7273907 - Fixture, Targeting and Accuracy
7273911 - Specification, Belt Clearance
Requirements
7273920 - Gage, Timer, Firing Cycle
7273925 - Fixture, Fire, Proof, Function and
Endurance
7274136 - Instruction Sheet for Measuring Headspace
7274295 - Gage, Flush Pin
7274381 - Gage, Fixture, Holding
7274459 - Gage, Indicator
7274515 - Fixture, Holding
7318984 - Gage, Indicator
8440920 - Cylinder, pressure
11017785 - Fixture, Targeting and Accuracy Firing
11703783 - Fixture, Fire, Proof Function and
Endurance
11703790 - Fixture, Trigger pull

PACKAGING DATA SHEET

P11699750 - Packaging Data Sheet for Machine Gun,
7.62mm: M60D, with Equipment

PUBLICATIONS

Us. ARMY

TM-9-1005-224-24P - Organizational, Direct Support,
and General Support Maintenance
Manual for Machine Gun, 7.62mm:
M60 w/e (1005-00-605-7710);
Mount, Tripod/ Machine Gun,
7.62mm, M122 (1005-00-710-559);
and Machine Gun, 7.62mm, M60D w/e
(1005-00-909-3002)

MIL-M-45945A

(Copies of other Government documents, drawings and publications required by contractors 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 document and the references cited herein (except for related associated detail specifications, specification sheets, or MS standards) , the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained. (See contract provisions for additional precedence criteria.)

3. REQUIREMENTS

3.1 First article. Requirements for submission of a first article by the contractor shall be as specified in the contract (see 6.2). Unless otherwise specified (see 6.2) the first article shall include the pilot pack (see 5.1) .

3.2 Material and construction. Machine-guns and parts shall conform to the materials and construction requirements specified herein, on Drawing (dwg) 11699750 and drawings applicable thereto, and shall be in accordance with the applicable materials and construction processes of MIL-W-13855.

3.3 Design. Machine guns and parts shall conform to the design specified herein, on dwg 11699750 and drawings applicable thereto, and shall be in accordance with the applicable design provisions of MIL-W-13855

3.3.1. Barrel assembly with bipod assembly (7269027). The barrel assembly with bipod assembly shall be capable of being manually assembled to and disassembled from the receiver assembly (11686308) when the barrel lock (11010184) is in the vertical position and when the bolt assembly (11010357) is fully retracted. The barrel assembly with bipod assembly shall be so fabricated that when the machine gun is completely assembled, the requirements for targeting and accuracy (3.4.6) shall be met.

3.3.1.1 Barrel assembly (7269028). The barrel assembly shall be free of cracks and seams and the bore and chamber shall be free of pits. The chromium plating shall be free of nodules, flaking, stripping, anode burns and evidence of etched base steel . No mechanical methods for removal of chromium plating are permitted in the tube bore. Burrs and sharp edges shall be

MIL-M-45945A

removed from chamber edges and scratches or marks, occurring in a chamber which otherwise meets the surface roughness requirements shall be permitted provided they do not cause marks on the case of a M60 High Pressure Test Cartridge (MIL-C-46477) fired in the chamber. The barrel assembly shall be proof and magnetic particle inspection marked in accordance with dwg 7269028.

- a. Tube assembly (7269042). The tube assembly shall be proof, magnetic particle inspection and manufacturing identification marked in accordance with dwg 7269042.
- b. Gas CYLINDER (7269036). The gas cylinder shall be fastened securely on the tube assembly (7269042) by the gas cylinder rivets (7269039) so that there shall be no relative movement. With the barrel assembly with biped assembly (7269027) disassembled from the receiver assembly (11686308), the gas piston (7791247) shall move of its own weight through its full range of travel in the gas cylinder.
- c. Front sight (7269040). The front sight shall be fastened securely on the tube assembly (7269042) by the front sight rivets (7269038) so that there shall be no relative movement.
- d. Socket (7269041). The socket shall be assembled to the tube assembly to meet headspace requirements, and torqued to the requirement of dwg 7269028. The socket shall be locked in position by a key (7269037) which is staked in two places. The manufacturer's material and heat treatment lot numbering shall be visible on the socket.

3.3.1.2 Bipod assembly (7793009). The biped assembly shall be retained on the barrel assembly (7269028) by the flash suppressor (7269034) and when assembled shall be capable, by its own weight, of rotating on the tube assembly (7269042) between its stop positions. The leg assemblies (7269046 and 7269047) shall lock in place in the open or folded positions and shall be capable of being manually released from each position by a pull action within the load limits specified on dwg. 7793009. The foot assemblies (7269055 and 7269061) shall be capable of being manually released from each position by a pull action within the load limits specified on drawings 7269046 and 7269047 respectively and shall lock under spring action of the retainer spring (7269059) in any of the five locking positions. The foot assemblies shall not retract from any locked position unless the retainer springs are manually depressed.

MIL-M-45945A

3.3.1.3 Flash supressor (7269034). The flash suppressor shall be fastened securely to the barrel assembly (7269028) by the staked pin (12599983) so that there shall be no relative movement.

3.3.1.4 Gas cylinder extension (7269030), nut (7269031 and plug assembly (9362515). The gas cylinder extension and nut shall be assembled securely to the gas cylinder (7269036) so that there shall be no relative movement and shall be retained by the lock washers (7269035). The gas cylinder plug assembly shall be assembled to the gas cylinder and shall be retained by the captive lock washer (9362513).

3.3.2 Rear sight assembly (11699796). The rear sight base (11699797) shall be staked securely to the dovetail recess of the receiver assembly (11686308), after targeting and accuracy firing test, so that there shall be no relative movement of the rear sight base. The rear sight (11699799) shall be retained by the rear sight screw (11699798) and nut (11699763) so that there shall be no relative movement of the rear sight on the screw. The rear sight shall move manually between the horizontal and vertical positions and shall be held in the vertical position under spring action until manually changed.

3.3.3 Barrel lock (11010184). When in the locked position, the barrel lock shall be capable of being manually unlocked by the application of finger pressure to the barrel lock retaining ring (11010377) so that the barrel lock is moved through its full range of travel to the right. When unlocked, the barrel lock shall be capable of being pivoted manually between the closed (horizontal) and open (vertical) Positions. It shall be held in the open position by spring action permitting the barrel assembly with biped assembly (7269027) to be assembled to or disassembled from the receiver assembly (11686308). When the barrel lock is returned to the closed position it shall lock under spring action. When in the closed position, the barrel lock shall be capable of retaining the barrel assembly with biped assembly in the receiver assembly.

3.3.4 Bolt assembly (11010357). With the cover assembly (7269114) opened and the bolt assembly disengaged from the operating rod yoke (9362509), the bolt assembly shall move of its own weight through its full range of travel in the slideways of the receiver assembly (11686308). Firing pin protrusion shall be as specified on dwg 11010357. The bolt assembly shall be proof and magnetic particle inspection marked in accordance with dwg 11010358.

MIL-M-45945A

3.3.4.1 Cam actuator assembly (7269063). The cam actuator assembly shall be retained on the bolt assembly (11919357) by the bolt plug assembly (9362505) and shall rotate without binding on the bolt assembly (9362505) and shall rotate without binding on the bolt assembly. The bolt guide roller (7269091) and the cam actuator roller (7269090) shall be retained on the cam actuator assembly by the roller rivet (7269089) and shall rotate without binding on the cam actuator assembly.

3.3.4.2 Ejector (11010375). The ejector shall be retained in the bolt (11010358) by the spring pin (MS39086-81) and shall be held in the forward position by spring action. The ejector shall move through its full range of travel under spring action without binding.

3.3.4.3 Extractor (7790907). The extractor shall be retained in the bolt (11010358) by the extractor plunger (7269083) and spring (7269086). The extractor shall move through its full range of travel under spring action without binding.

3.3.4.4 Firing pin (11010376). The firing pin shall move through its full range of travel in the bolt (11010358) under Spring action without binding.

3.3.5 Buffer assembly (11010518). The buffer assembly shall be retained in the receiver assembly (11686308) by the buffer retaining yoke (11699786). The buffer retaining yoke and the buffer assembly shall disassemble from the receiver assembly without the use of tools. The plunger (11010541) shall be capable of being moved through its full range of travel in the buffer body (11010543) and shall return to its original position by spring action after partial or full travel.

3.3.6 Back plate assembly spade grip (11699751). The back plate assembly shall be securely retained on the receiver assembly (11686308) by the knob and pin assembly (11699769) so there shall be no relative movement. The back plate assembly shall readily assemble to and disassemble from the receiver assembly without the use of tools.

3.3.6.1 Knob and pin assembly (11699769). The knob and pin assembly shall be retained in the back plate assembly by the retaining ring (11699772)

3.3.6.2 Knob lock pin (11699768). The knob lock pin shall be retained in the trigger and frame assembly (11699752) by the spring pin (MS 16562-151) and shall move through its full range of travel without binding. The knob lock pin shall be normally

MIL-M-45945A

returned to and held in the protruding position by spring action. The knob lock pin shall lock the knob and pin assembly (11699769) securely in place when the knob and pin assembly is tightened to retain the back plate assembly to the receiver assembly (11686308).

3.3.6.3 Machine gun grips (11699764). The machine gun grips shall be securely retained on the trigger and frame assembly (11699752) by the rivets(11699766) and the plate (11686664) so that there shall be no relative movement of the machine gun grips.

3.3.6.4 Trigger and frame assembly (11699752). The trigger and frame assembly shall be securely retained on the back plate assembly (11699769) by the rivets (11699766) so that there shall be no relative movement. The trigger assembly (11699758) shall rotate on the straight headed pins (11699757) through its full range of travel without binding and shall be returned to its original position under spring action after partial or complete trigger pull.

3.3.7 Carrying handle assembly (7260231). The carrying handle assembly shall be retained on the receiver assembly (1168308) by the ring (11010377) and spring pin (MS39086-81). The carrying handle assembly shall be held in the side position or in the carrying position by spring action and shall move manually from one position to the other.

3.3.8 Cartridge feed tray assembly (7792096). The cartridge feed tray assembly shall be retained on the receiver assembly (11686308) by the cover hinge pin (7269247).

3.3.8.1 Cartridge retainer pawl (7269332). The cartridge retainer pawl shall be retained in the frame assembly (7792097) by the shaft (7790724). The cartridge retainer pawl shall be held normally in position by the spring (7269335) and shall be returned to the original position by spring action after partial or full travel. The pawl shall move through its full range of travel under spring action without binding and shall retain the linked cartridges in the feed mechanism.

3.3.8.2 Cartridge rollers (72693333). The cartridge rollers shall be retained in the frame assembly by the shaft (7790724) and shall rotate without binding on the shaft.

MIL-M-45945A

3.3.9 Cocking handle assembly (7791621) and cocking handle guide (11010155). The cocking handle assembly shall be retained on the receiver assembly (11686308) by the cocking handle guide and shall move without binding through its full range of travel in the slideways of the receiver assembly. The cocking handle assembly shall be held in the forward stop position by the spring action of the retaining latch (7269243). When retracted, the cocking handle assembly shall engage the operating rod assembly (11686309) and shall retract the operating rod assembly and the bolt assembly (11010357). The cocking handle guide shall be fastened securely to the receiver assembly by the screw with lock washer (7790559) so that there shall be no relative movements

3.3.10 Cover assembly (7269114). The cover assembly shall be retained on the receiver assembly (11686308) by the cover hinge pin (7269247). The cover assembly shall be capable of being locked in the closed position by the latch (7269136) only when the bolt assembly (11010357) is fully retracted. The cover assembly shall open when the latch is released, and shall be retained in the fully open position by spring action. All welded, riveted and brazed parts shall be tight, undamaged and without relative movement.

3.3.10.1 Latch lever assembly (7269137). The latch lever assembly shall rotate manually to disengage the cover assembly (7269114) from the receiver assembly (11686308) and shall be returned to the stop position by spring action after partial or full travel. The latch lever assembly shall rotate the cover latch to lock and unlock the cover assembly.

3.3.10.2 Cartridge guides (7269116 and 7269117). The cartridge guides shall be retained in the cover housing assembly (7269118) by the cartridge guide shaft (11010152) and cotter pin (MS24665-18). The cartridge guides shall operate through their full range of travel under spring action without binding and shall be so positioned as to properly guide cartridges into the chamber.

3.3.10.3 Feed cam assembly (11699814). The feed cam assembly shall be retained in the cover housing assembly (7269118) by the feed cam retainer (7269124) and shall move through its full range of travel under spring action without binding. The feed cam assembly shall return to its stop position by spring action after partial or full travel. Movement of the feed cam assembly shall operate the feed pawl assembly (7269120).

MIL-M-45945A

3.3.10.4 Feed pawl assembly (7269120). The feed pawl assembly shall be retained in the cover housing assembly (7269118) by the chassis assembly (7269149) and when disengaged from the feed level assembly (7269119) shall move of its own weight through its full range of travel. The feed pawl assembly shall be capable of feeding linked cartridges into the feed mechanism.

3.3.11 Gun adapter and quick release pin (11699793) and MS (17990-C519). The gun adapter shall be securely retained on the receiver assembly (11686308) by the spring pin (MS16562-151) and quick release pin. With the quick release pin removed, the gun adapter shall be capable of being manually rotated throughout its full range of travel. The quick release pin shall readily assemble to and disassemble from the receiver assembly and gun adapter and when assembled shall be retained in position by action of ball detents. The quick release pin shall be securely attached to the rear sight base by the cable (8427869-27) as specified on drawing 11699750.

3.3.12 Operating rod assembly (93625010).

3.3.12.1 Free Operation - operating rod assembly with bolt assembly. With the cover assembly (7269114) opened, the driving spring (9362511) and driving spring guide (9362512) disassembled from the operating rod assembly and the sear (7269209) disengaged, the operating rod assembly, together with the bolt assembly (11010357) shall slide from the open to closed position by its own weight.

3.3.12.2 Normal operation - operating rod assembly with receiver assembly. The operating rod assembly shall manually assemble to and disassemble from the slideways of the receiver assembly (11686308). The yoke (9362509) and head (7791596) shall be retained on the tube (7259274) by staked rivets (7269272 and 7269271) respectively) so that there shall be no relative movement of these parts. The roller (9362506) shall be retained on the yoke by the yoke roller pin (9362507) and shall rotate without binding. The yoke roller pin shall be retained securely by the spring pin (MS51923-105). With the trigger assembly (11699758) released and the operating rod assembly retracted into the cocked position, the sear engagement notch (primary and secondary, each individually) on the operating rod shall be engaged by the sear (7269209) and the operating rod assembly shall be held in the cocked position (both by primary and secondary sear notches, each individually) until the trigger assembly is pulled.

MIL-M-45945A

3.3.13 Receiver assembly (11686308). The slideways of the receiver assembly shall be smooth and free of burrs. The rear mounting pin (7792975) shall be retained on the receiver assembly by the staked pins (7792971). All rivets parts shall be tight, undamaged and without relative movement.

3.3.13.1 Dust seal sleeve (11699787). The dust seal sleeve shall fit snugly on the receiver by the resilient action of the rubber.

3.3.14 Sear and safety housing assembly (11699773). The sear and safety housing assembly shall be retained on the receiver assembly (11686308) by the retaining pin (7269205) and shall disassemble from the receiver assembly without the use of tools. The retaining pin shall be locked in place by the lock spring (11699785). Use of a tool will be permitted, when required to assist in disassembly of the spring lock.

3.3.14.1 Safety (11699777). The safety shall move manually between the safe and fire positions, and shall remain in the position set under spring action until reset manually. The firing mechanism shall operate when the safety is positioned at the letter "F" and shall not operate when the safety is positioned at the letter "S".

3.3.14.2 Sear (7269209). The sear shall be capable of full engagement with the sear engagement notch on the operating rod assembly (9362510) and capable of holding the operating rod assembly in a cocked position. When the safety (11699777) is in the firing position and the trigger assembly (11699758) is pulled, the sear shall disengage from the sear engagement notch (primary and secondary, each individually) on the operating rod assembly allowing the operating rod assembly to move forward under spring action. When the trigger assembly (11699758) is released, the sear shall return to the engaging position by spring action of the sear plunger (7269207) .

3.3.14.3 Sear actuator assembly (11699780). The sear actuator assembly shall readily assemble to and disassemble from the sear link rod assembly (11699790) without the use of tools and when assembled shall be securely retained on the sear link rod assembly by action of the sear link spring (11699792) .

3.3.14.4 Sear link rod assembly and sear link rod connector (11699790 and 11699789). The sear link rod connector shall be attached to the trigger assembly. The sear link rod assembly and the sear link rod connector shall be lockwired together as specified on the applicable drawing.

MIL-M-45945A

3.4 Performance characteristics.

3.4.1 Headspace. The headspace in the assembled machine gun (see dwg 11699750) shall not be less than 1.6315 inch and not more than 1.6365 inch when measured to the 0.400 diameter datum on the first shoulder of the chamber (see dwg 7269028) . Testing shall be as specified in 4.4.3.1.

3.4.2 Firing Pin indent. The firing pin indent shall be 0.030 inch minimum and shall not be off center more than one-half the diameter of the firing pin indent (see 11699750). Testing shall be as specified in 4.4.3.2.

3.4.3 Trigger pull. The trigger pull (see 11699750) shall be greater than 10 pounds but shall not exceed 20 pounds. Testing shall be as specified in 4.4.3.2.

3.4.4 High pressure resistance. Every barrel assembly with biped assembly, 7269028 and bolt, 11010358 supplied as a repair part, spare part or as an end item's component shall be subjected to a high pressure resistance tests as specified on their respective drawings. Each of these components shall be capable of withstanding the firing of one standard 7.62mm M60 High pressure Test Cartridges (MIL-C-46477) . After firing, all components proof tested shall be free of cracks, seams, and defects. Testing shall be as specified in 4.4.3.3.

3.4.5 Functioning. The machine gun shall operate with Government standard 7.62m, M80 Ball Cartridges (MIL-C-46931) 7.62mm, M13 Links (MIL-L-45403) and without malfunctions or unserviceable parts and the cyclic rate of fire shall be within 500 to 650 rounds minute. Testing shall be as specified in 4.4.3.3.

3.4.6 Targeting and accuracy. Using Government standard 7.62mm, M80 Ball Cartridges (MIL-C-46931) and 7.62mm, M13 Links (MIL-L-45403), nine rounds of a 10 round burst fired from the machine gun at a range of 100 yards shall be within the extreme spread and targeting area specified on dwg 7269214 or 7269414. Testing shall be as specified in 4.4.3.3.

3.4.7 Interchangeability. Unless otherwise specified on the drawings, all parts shall be interchangeable. Testing shall be as specified in 4.4.3.4.

3.4.8 Endurance. Machine guns shall be capable of firing 10,000 rounds of Government standard 7.62mm, M80 Ball Cartridges (MIL-C-46931) linked with M13 Links (MIL-L-45403) without

MIL-M-45945A

incurring more than three immediately clearable malfunctions and the cyclic rate of fire shall be within the limits specified in 3.4.5. No unserviceable parts, or uncontrolled fire-are allowed. No malfunctions which require disassembly of the machine gun or in excess of one minute to correct are allowed. Malfunctions not attributable to the machine gun, as substantiated by the contractor failure analysis and acceptable to the Government, shall be reported and shall not be chargeable. A malfunction is defined as any unplanned cessation of firing or the inability to commence firing. Testing shall be as specified in 4.4.3.5.

3.4.9 Reliability. The machine gun shall demonstrate a Mean Round Between Stoppage (MRBS) of 1538 rounds and a Mean Round Between Failure (MRBF) of 4444 rounds over a minimum receiver service life of 50,000 rounds. Barrel life shall be 15,000 round minimum Testing shall be in accordance with 4.4.3.6.

3.4.9.1 Mean round between stoppage. MRBS is determined by dividing the total number of rounds fired by the total number of stoppages. A stoppage is defined as any unplanned cessation in firing or the inability to commence or cease firing attributable to the gun. All incidents shall be recorded and any considered as' not chargeable to the machine gun shall be substantiated by the contractor.

3.4.9.2 Mean round between failure. MRBF is determined by dividing the total number of rounds fired by the total number of failures. A failure is defined as any stoppage (as described in 3.4.9.1) which involves part replacement or requires in excess of one minute correct; or involves any unserviceable part detected during scheduled preventive maintenance, the replacement of which is not authorized at the crew or organizational level of maintenance as prescribed by Source Maintenance Recoverability Code and TM-9-1005-224-24P. (NOTE: MRBF is a subset of MRBS). Only parts determined unserviceable may be replaced. Simultaneous replacement of unserviceable parts is treated as one changeable failure. Incidents attributable to personnel, test equipment, or unserviceable parts found at the conclusion of testing are not chargeable. However, all parts replacement, whether chargeable or not shall be recorded.

3.4.9.3 Unserviceable barrel. A barrel is considered unserviceable when: a) 20 percent of any burst exhibits yaw of 15 degrees or more or, b) a mean velocity of a burst drops 200 feet per second below the mean of the velocity initially recorded at the start of the test. Barrels failing to meet the minimum life criteria shall be considered failures for the MRBS/MRBF computations. Testing for barrel life shall be in accordance with 4.4.3.6.

MIL-M-45945A

3.5 Marking. Marking shall be in accordance with the applicable drawings and MIL-W-13855. The bar code label shall be firmly affixed to the weapon receiver. The bar coding shall be clearly defined on the label and shall agree with the serial number stamped on the receiver.

3.6 Workmanship. Workmanship shall be in accordance with the workmanship requirements of MIL-W-63150. Inspection shall be as specified in 4.4.2.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements (examinations and tests) as specified herein. Expected as otherwise specified in the contract or purchase order, the contractor 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 this specification where such inspections are deemed necessary to ensure supplies and services conform to prescribed requirements.

4.1.1 Responsibility for compliance. All items shall 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 ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material.

4.1.2 General provision. Unless otherwise specified herein, the provisions of MIL-W-63150 apply and form a part of this specification. Reference shall be made to MIL-STD-109 to define quality assurance terms used herein.

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

- a. First article inspection (see 4.3) .
- b. Quality conformance inspection (see 4.4).

4.3 First article inspection.

4.3.1 Submission. The contractor shall submit a first article sample as designated by the Contracting Officer for evaluation in accordance with provisions of 4.3.2. The first article sample shall be representative of the production processes to be used during quantity production. Unless otherwise specified, the pilot pack (see 5.1) shall include all the examinations and tests of MIL-P-116 including the comparability requirements of MIL-I-8754.

4.3.2 Inspections to be Performed. As determined by the Government, the first article assemblies, components and test specimens may be subjected to any or all of the examinations and tests specified in this detail specification and be inspected for compliance with any or all requirements of the applicable drawings.

4.3.3 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 inspection upon any failure of an assembly, component or test specimen to comply with any of the requirements.

4.4 Quality conformance inspection.

4.4.1 Inspection lot formation. The term "inspection lot" is defined as a homogeneous collection of units of product from which a representative sample is drawn or which is inspected 100 percent to determine conformance with applicable requirements. Units of product selected for inspection shall represent only the inspection lot from which they are drawn and shall not be construed to represent any prior or subsequent quantities presented for inspection. Homogeneity shall be considered to exist provided the inspection lot has been produced by one manufacturer, in one unchanged process, using the same materials and methods in accordance with the same drawings, same drawing revisions, same specifications and same specification revisions. All

MIL-M-45945A

material submitted for inspection in accordance with this specification shall comply with the homogeneity criteria specified herein, regardless of the type of inspection procedure which is being applied to determine conformance with requirements.

4.4.1.1 Machine guns. The number of machine guns in an inspection lot shall be either 200 or one month's production, whichever is smaller. Machine guns shall be assembled from lots of component parts that have met all inspection requirements specified herein. Endurance test and interchangeability test lot sizes shall be as specified in 4.4.3.5.1 and 4.4.3.4.1.1 respectively.

4.4.2 Examinations and test.

a. Classification of characteristics. Quality conformance examinations and tests are specified in the following paragraphs. The contractor's quality program or detailed inspection system shall provide assurance of compliance of all characteristics with the applicable drawing and specification requirements utilizing as a minimum the conformance criteria specified.

b. Alternative quality conformance provisions. Unless otherwise specified herein or provided for in the contract, alternative quality conformance procedures, method or equipment, such as statistical process control, tool control, other types of sampling plans, etc., may be used by the contractor when they provide, as a minimum, the level of quality assurance required by the provisions herein. Prior to applying such alternative procedures, methods or equipment, the contractor shall describe them in a written proposal submitted to the Government for evaluation (see 6.13). When required, the contractor shall demonstrate that the effectiveness of each proposed alternative is equal to or better than the specified quality conformance provisions(s) herein. In case of dispute as to whether the contractor's proposed alternative(s) provides equivalent assurance the provisions of this specification shall apply. All approved alternative provisions shall be specifically incorporated into the contractor's quality program or inspection system, as applicable.

MIL-M-45945A

4.4.2.1 Component parts and concurrent repair parts.

Examination of parts shall be performed in accordance with the criteria specified in the contract (see 6.2). The contractor's examination of parts shall be accomplished prior to their assembly into the end item or submission for acceptance as repair parts.

4.4.2.2 Machine guns. Final examination of machine guns shall be performed after completion of all testing and just prior to preservation and packaging. Each machine gun shall be examined as specified below. Unless otherwise specified all requirements for examination are classified as Major. Each step in the examination shall include a visual examination for proper cleaning and presence of the specified protective coating. Machine guns failing to meet the requirements shall be rejected.

4.4.2.2.1 Visual and manual examination. Visually examine machine gun for cleanliness workmanship, and completeness of manufacturing, assembly finish, and marking (identification, bar code marking, proof firing, and magnetic particle inspection) . Manually examine the machine gun for functioning of operating parts and visually examine markings for clarity and legibility. (see 3.2 through 3.3.14.5, 3.4, 3.5 and 3.6).

4.4.2.2.2 Spade grip back plate assembly

- a. Disassemble spade grip back plate assembly from the receiver examining for ready disassembly (see 3.3.6) .
- b. Visually and manually examine all riveted Parts for secure riveting.
- c. Visually and manually examine the knob and pin assembly to determine compliance with 3.3.6.1.
- d. Manually examine retention, free movement, and spring action of knob lock pin to determine compliance with 3.3.6.2.
- e. Visually and manually examine the machine gun grips to determine compliance with 3.3.6.3.
- f. Visually and manually examine trigger and frame assembly to determine compliance with 3.3.6.4.
- g. Visually and manually examine the sear link rod and the sear link connector to determine compliance with 3.3.14.4.

MIL-M-45945A

4.4.2.2.3 Buffer assembly.

- a. Manually examine for secure retention of buffer assembly in receiver.
- b. Disassemble buffer assembly from receiver by pushing forward and removing buffer retaining yoke. Manually examine to assure that yoke disassembles from receiver freely.
- c. Examine spring action of buffer assembly for compliance with 3.3.5.
- d. Visually examine buffer assembly to assure freedom from burrs, cracks, detonations and leakage of hydraulic fluid.

4.4.2.2.4 Operating rod assembly and bolt assembly action.
Examine action of operating rod assembly and bolt assembly for compliance with 3.3.12.1.

4.4.2.2.5 Operating rod assembly.

- a. Disassemble operating rod assembly from bolt assembly and visually and manually examine operating rod assembly for compliance with 3.3.12.2.
- b. Visually examine rod for excessive wear or mutilations on both sear engagement notches.
- c. Visually examine yoke for mutilation or burrs on bolt camming surfaces.
- d. Visually examine roller for excessive wear or mutilations.

4.4.2.2.6 Bolt assembly.

- a. Visually and manually examine the bolt assembly for proper functioning and for presence of proof, magnetic particle inspection and manufacturer's identification marks (drawing 11010358).
- b. Examine firing pin protrusion using the inspection equipment in accordance with drawing 7274295 (see 11010357) .

MIL - M - 45945A

- c. Visually examine to assure that ejector face is flush with or below front of bolt (See 11010357)
- d. Manually examine cam actuator assembly for compliance with 3.3.4.1.
- e. Manually examine retention and spring action of ejector for compliance with 3.3.4.2.
- f. Manually examine spring action of extractor for compliance with 3.3.4.3
- g. Manually examine firing pin compliance with 3.3.4.4

4.4.2.2.7 Disassembly of bolt assembly

- a. Disassemble all parts except ejector from bolt assembly
- b. Visually and manually examine all parts for mutilations, breaks, or cracks.
- c. Visually and manually examine bolt luds, operating cam cut rollers, guideways, cam actuator assembly, extractor lips, and ejector face cracks burrs, sharp edges, deformations.
- d. Visually examine firing pin striker point it shall be smooth and free of pits and burrs. Examine fillet radii at spools for cracks and deformation
- e. Reassemble bolt assembly, assuring that cam actuator assembly is properly assembled with roller end forward on bolt and that extractor is securely retained by the plunger and spring.

4.4.2.2.8 Sear and safety housing assembly

- a. Disassemble the sear and safety housing assembly examining to determine compliance with 3.3.14
- b. Manually examine safety for movement between the safe and fire positions to determine compliance with 3.3.14.1.
- c. Manually examine free movement of sear under spring action to determine compliance with 3.3.14.2.

MIL-M-45945A

- d. Disassemble the sear actuator assembly from the sear link rod assembly examining to determine compliance with 3.3.14.3.
- e. Visually and manually examine the sear link rod assembly and the sear link rod connector for compliance with 3.3.14.4.

4.4.2.2.9 Cover assembly. Visually and manually examine cover assembly for compliance with 3.3.10.

- a. Visually and manually examine spring action of latch lever assembly for compliance with 3.3.10.1.
- b. Visually and manually examine retention and spring action of cartridge guides for compliance with 3.3.10.2.
- c* Visually examine cartridge guides for cracks, burrs, sharp edges, or deformations.
- d. Visually and manually examine feed cam assembly for compliance with 3.3.10.3.
- e. visually examine feed cam assembly for burrs, cracks, sharp edges, or deformations.
- f. Visually and manually examine retention and free travel of feed pawl assembly for compliance with 3.3.10.4.
- g. Visually examine feed pawl assembly for cracks, burrs, sharp edges or deformations.

4.4.2.2.10 Cartridge feed tray assembly

- a. Visually examine the cartridge feed tray assembly for compliance with 3.3.8.
- b. Visually examine feed plate guideways and cartridge stops for cracks, burrs, sharp edges or deformations.
- c. Visually and manually examine retention, spring actions, and free travel of cartridge retaining pawl for compliance with 3.3.8.1.
- d. Visually examine the cartridge retaining pawl for cracks, burrs, sharp edges, or deformations.

MIL-M-45945A

- e. Visually and manually examine the cartridge rollers for compliance with 3.3.8.2.

4.4.2.2.11 Barrel assembly with bipod assembly (two per gun). Disassemble barrel assembly with bipod assembly from the receiver assembly. Assure that with barrel lock in the vertical position, disassembly from the receiver is readily accomplished. Assemble and disassemble spare barrel assembly with bipod to and from the receiver.

- a. Examine the barrel assembly for compliance with 3.3.1.1.
- b. Visually examine the barrel assemblies for mutilations, cracks, and seams. Visually examine bore and chamber for foreign matter, corrosion, pits, burrs, bulges, and deformations. The chrome plating shall be free of nodules, anode burns and flaking or stripping.
- c. Visually examine barrel assemblies for presence of proof and magnetic particle inspection marks on the barrel assembly and tube assembly (see drawing 7269028 and 7269042).
- d. Visually and manually examine gas cylinder for compliance with 3.3.1.1 paragraph b.
- e. Disassemble gas cylinder nut and extension, lock washers and piston. Visually examine piston and lock washers for cracks, burrs, or deformations. Reassemble assuring that head of piston is assembled toward breech (rear) end.
- f. Examine front sight for compliance with 3.3.1.1 paragraph c.
- g. Visually examine the socket for compliance with 3.3.1.1 paragraph d and presence of manufacturer's identification in accordance with drawing 7269041.
- h. Manually examine bipod assembly for compliance with 3.3.1.2 except that load requirements shall not be checked during this examination.
- i. Examine flash suppressor for compliance with 3.3.1.3.

4.4.2.2.12 Gun adapter and quick release pin. Visually and manually examine the gun adapter and quick release pin for compliance with 3.3.11.

MIL-M-45945A

4.4.2.2.13 Receiver assembly group

- a. Visually and manually examine receiver assembly group for compliance with 3.3.13.
- b. Visually and manually examine cocking handle guide, screw and lock washer for. compliance with 3.3.9.
- c. Manually examine retention and free movement of cocking handle assembly for compliance with 3.3.9.
- d. Visually and manually examine spring action of retaining latch on cocking handle assembly for compliance with 3.3.9.
- e. Examine carrying handle assembly for compliance with 3.3.7.
- f. Visually and manually examine barrel lock for compliance with 3.3.3.
- g. Visually and manually examine rear sight assembly for compliance with 3.3.2.
- h. Manually examine dust seal sleeve for compliance with 3.3.13.1.

4.4.2.2.14 Headspace. Prior to reassembly of machine gun, check for headspace requirement (see 3.4.1) using the methods specified in 4.5.1.

4.4.2.2.15 Reassembled machine gun.

- a. Reassemble the machine gun examining to assure that the barrel assembly with biped assembly, the buffer assembly, the sear and safety housing assembly, and the spade grip back plate assembly assemble to the machine gun without the use of tools.
- b. While reassembling the barrel assembly with biped assembly to receiver assembly, examine to assure that when barrel lock lever is latched in the closed position, the barrel is retained in the receiver (see 3.3.3) .
- c. While reassembling the spade grip back plate assembly, examine to assure that the knob lock pin engages in the knob and pin assembly securely retaining the knob and pin assembly in the tightened position (see 3.3.6.2).

MIL-M-45945A

- d. while reassembling the sear and safety housing assembly, examine to assure that the sear actuator assembly is retained on the sear link rod assembly by the sear link spring (see 3.3.14.3).
- e. Examine to assure retention of the sear and safety housing assembly by the retaining pin lock spring (see 3.3.14).
- f. Cock the machine gun, examine to assure that the sear engages the operating rod and holds the operating rod in the cocked position (see 3.3.14.2) Manually examine safety for proper function. with are safety set in the "s" position, examine to assure that when the trigger is pulled, the sear shall not release the operating rod (see (3.3.1.4.2) With the safety in the "F" position, examine to assure that when the trigger is pulled, the sear disengages from the operating rod and allows the operating rod to move forward (see 3.3.14.1 and 3.3.14.2).
- g. Visually examine the machine gun for presence of proof marks (see 4.5.4).

MIL-M-45945A

4.4.2.3 Packaging. Examination of packaging of machine guns shall be performed in accordance with the classification of characteristics specified in 4.4.2.3.1. Sample size and acceptance criteria for each lot shall be in accordance with Table I. A visual inspection shall be performed to assure that the criteria specified in the contract (see 6.2) result in the Parts and packages meeting the acceptance criteria. Packages opened for examination shall be repackaged by the contractor at the contractor's expense (see 6.2) .

TABLE I. Attributes sampling inspection.

Lot Size	Majors	Minors
2 to 8	*	*
9 to 15		8
16 to 25	20	8
26 to 50	20	8
51 to 90	20	8
91 to 150	20	12
151 to 280	20	19
281 to 500	47	21
501 to 1,200	47	27
1,201 to 3,200	53	35
3,200 to 10,000	68	38

Numbers under Majors or Minors indicate sample size; asterisks indicate one hundred percent inspection. If sample size exceeds lot size, perform one hundred percent inspection. Accept on zero and reject on one or more for all inspection levels.

MIL-M-45945A

4.4.2.3.1 Classification of characteristics for packaging

Category characteristic

Critical: None defined.

Major:

- 101. Marking is legible and correct
- 102. Correct location of marking
- 103. Proper level of packaging and packing
(See procurement documents)
- 104. Adequate cleaning and drying
- 105. Proper preservative application and drainage
- 106. proper closure of interior packages
- 107. proper closure and strapping of shipping containers
- 108. All items of equipment present
- 109. Proper assembly of package: position of assemblies
in supports, position of separator between supports
and assembly of cells

Minor:

- 201. Workmanship

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

4.4.3 Testing

4.4.3.1 Headspace testing. The contractor shall test each machine gun for headspace using the test method specified in 4.5.1. The machine gun failing to meet the requirements shall be rejected and a failure analysis (see 6.2) performed by the contractor.

4.4.3.2 Firing pin indent and trigger pull testing the contractor shall test a sample of ten machine guns selected by the Government representative from each inspection lot for firing pin indent and trigger pull using the test methods specified in 4.5.2 and 4.5.3 respectively.

4.4.3.2.1 Firing Pin indent. If any firing pin indent is not within the requirements (3.4.2), it shall be disregarded and three more impressions shall be taken. The average depth of the three indents of each test shall be within requirements. All firing pin indent impressions shall not be off center more than

MIL-M-45945A

one-half the diameter of the firing pin point as evidenced by visual examination. Failure of any machine gun in the sample to meet the requirements shall cause rejection of the represented lot and a failure analysis (see 6.2) performed by the contractor.

4.4.3.2.2 Trigger pull. Failure of a machine gun to meet the trigger pull requirement (3.4.3) shall cause rejection of the represented lot and a failure analysis (see 6.2) performed by the contractor.

4.4.3.3 High pressure resistance functioning, and targeting and accuracy firing testing. The contractor shall test each machine gun for high pressure resistance, functioning, and targeting and accuracy with its assigned and spare barrel assembly with its biped assembly using the test methods specified in 4.5.4, 4.5.5, 4.5.6, respectively. A machine gun failing to meet the requirements shall be rejected and a failure analysis (see 6.2) performed. The contractor shall test five machine guns from each inspection lot for functioning with the M4 Bandoleer, using the test methods specified in 4.5.5.2. Failure of any machine gun in the sample to meet the requirements shall cause the rejection of the represented lot and a failure analysis (see 6.2) performed by the contractor.

4.4.3.4 Interchangeability testing

4.4.3.4.1 In plant

4.4.3.4.1.1 Machine guns. Ten machine guns with only the assigned barrel assembly with biped assembly, selected by the Government representative from each inspection lot shall be tested by the contractor for interchangeability testing and shall have been found satisfactory in all other examinations and tests. Test frequency may be reduced to not less than one test of ten machine guns each month when a record of consistently satisfactory results has been established. The ten machine guns shall be tested for and shall comply with the requirements for headspace, firing pin indent, and trigger pull before and after interchange of parts using the test methods specified in 4.5.1, 4.5.2, and 4.5.3, respectively. In addition, the machine guns shall be tested for functioning and targeting and accuracy requirements after interchange of parts using the test methods specified in 4.5.5 and 4.5.6. No failures shall be allowed in the function firing test. Targeting results shall be recorded and shall not be basis for rejection and the sights shall not be adjusted. At the completion of the interchangeability test, the barrel assembly with biped assembly shall be reassembled to the original machine gun. Failure of the interchangeability test shall cause retest or rejection of the represented lot and a

MIL-M-45945A

failure analysis (see 6.2) performed by the contractor. At the discretion of the Government representative, an interchangeability retest may be allowed without reconditioning the lot of machine guns. Failure in the retest shall cause rejection of the represented lot subject to performance of a failure analysis and reconditioning and further test. A sample of ten machine guns from each retest or reconditioned lot shall be tested using the same procedure described above. Failure of any machine gun in the sample to meet the interchangeability requirement shall cause rejection of the represented lot.

4.4.3.4.1.2 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 4.5.7.1.2. 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 4.5.7.1.2.

4.4.3.4.2 Interplant. When machine guns are manufactured concurrently by more than one contract, each contractor shall forward six machine guns monthly, for the interplant interchangeability test specified in 4.5.7.2 (see 6.2). The contractor will be informed of any failure of the machine guns to meet prescribed requirements. Upon completion of the inspection by the testing agency, samples may be commercially packaged and will be returned to the contractor for packaging in accordance with the contract at the contractor's expense.

4.4.3.5 Endurance testing.

4.4.3.5.1 Lot size. The first five endurance test lots shall each consist of 200 machine guns or a month's production, whichever is smaller. When five successive lots meet the endurance requirements, the lot size shall be increased to 500 machine guns or a month's production, whichever is smaller. When five successive lots of the increased size have met the endurance requirements, the lot size shall be further increased to 1,000 machine guns 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.

4.4.3.5.2 Procedure. One machine gun selected by the Government representative from each endurance test lot shall be tested by the contractor for endurance using the test method specified in 4.5.8. If the endurance requirements are not met.

MIL-M-45945A

the represented lot shall be rejected subject to a failure analysis (see 6.2) by the contractor and retest Or reconditioning and further test as a reconditioned lot. An endurance retest of two other machine guns from the same lot shall be made without reconditioning the represented lot, unless in the opinion of the responsible Government representative, the failure indicates serious defects or safety hazards in the item (see 6.4.3 and 6.4.4), in which case retest shall be made only when authorized by the procuring agency. Failure of either machine gun in the retest to meet the requirements shall cause rejection of the represented lot subject to performance of a failure analysis by the contractor, reconditioning and further testing as a reconditioned lot. Prior to submission of a lot of machine guns as a reconditioned lot, the cause of failure shall be determined in the lot. Sample size and test methods for reconditioned lot shall be the same as for retests.

4.4.3.6 Reliability testing. Three machine guns randomly selected by the Government shall be each tested to 50,000 rounds using the test method specified in 4.5.9. Barrel life testing shall be performed concurrently as part of reliability testing. Failure of the machine guns to meet collectively the MRBS and MRBF requirements (3.4.9), shall be cause for deferment of acceptance of product and shall cause the contractor to perform a failure analysis (see 6.2) to determine that cause(s). of test failure and to perform the necessary corrective action on all products in house, both finished items and items in process. If test failure occurs and is believed to be attributed to other causes than machine guns, the contractor shall submit in his failure analysis report, documentation supporting his contention to the contracting officer for review and final resolution.

4.4.3.7 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 material, 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.

4.4.3.8 Certification. Unless otherwise specified, the contractor shall furnish the Government representative with certified statements that each inspection lot conforms to the materials and processes specified on the applicable drawings and specifications.

MIL-M-45945A

4.4.3.9 Machine guns.

- a. The contractor shall furnish the Government representative with certification that the packaging materials conform to the applicable packaging data sheets and specification.
- b. The contractor shall test items from each inspection lot as specified in MIL-P-116.

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

4.4.4 Inspection equipment. The inspection equipment required to perform the inspections specified herein is identified in 4.4.2.2. Contractor inspection equipment designs shall be submitted for Government approval as specified in the contract. Designs which provide variable measurements instead of attributes data are preferred in order to facilitate the use of statistical process control. The provisions of MIL-A-70625 shall apply to all automated acceptance inspection equipment. See 6.2 herein.

4.4.4.1 Responsibility. Unless otherwise specified in procurement documents (see 6.2), responsibility for acquisition, maintenance and disposition of measuring and test equipment required to perform inspections prescribed by applicable specifications shall be in accordance with MIL-I-45607

4.4.4.2 Accuracy of standard measuring test equipment (SMTE) When commercial and modified commercial test equipment is used it shall be capable of repetitive measurement by various experienced inspection/test personnel to an accuracy of 10 percent of the total tolerance of the characteristic being inspected. Accuracy is a term which describes the closeness of test measurements to the true (lab) measurement. Accuracy is normally defined by the two factors, systematic error (or bias) and precision (repeatability). Systemic error (bias is the difference between the average (means) reading in a series of measurements and the true lab measurement. Precision (repeatability) is a measurement of the closeness together of a series of measurements. For the purpose of this effort, the precision will be defined as the standard deviation of the group of data being analyzed.

MIL-M-45945A

4.4.4.3 Ammunition and links (see 6.2).

4.4.4.3.1 Ammunition. Unless otherwise specified in procurement documents, the Government standard 7.62mm, M60 High-Pressure Test Cartridge (MIL-C-46477) shall be used for the high pressure resistance test; the 7.62mm, M80 Ball Cartridge (MIL-C-46931) linked with the M13 Link (MIL-L-45403) shall be used for all other firing tests; and the M172 Dummy Inert Loaded Cartridge (MIL-D-60573) linked with the M13 Link shall be used as required in the functioning firing test to separate belts of linked M80 Ball Cartridges.

4.4.4.3.2 Link. The Government standard 7.62mm, M13 Link (MIL-L-45403) shall be used for linking ammunition required for firing tests.

4.5 Methods of inspection.

4.5.1 Headspace test. Each machine gun with both its assigned and spare barrel assembly with biped assembly shall be gaged for headspace requirement (see 3.4.1) before and after high pressure resistance firing, prior to acceptance, in accordance with instructions specified on drawing 7274136 using the inspection equipment conforming to drawing 7274515 and 7274459.

4.5.2 Firing pin indent test Each sample machine gun with both its assigned and spare barrel assembly with biped assembly shall be tested for firing pin indent requirement (see 3.4.2) using the inspection equipment in accordance with drawing 7274381 and 7318984. The machine gun shall be cocked and then held in a horizontal position with the cover assembly opened. The holding fixture containing the copper compression cylinder (8440920) shall be inserted into the barrel chamber, the cover closed, and the trigger pulled to release the bolt and indent the copper cylinder. The holding fixture shall be removed from the machine gun and the depth of the indent in the copper cylinder computed by measuring the distance from the original surface of the copper cylinder (before indentation) to the bottom of the firing pin impression. If any firing pin indent is not within the requirements, three more impressions shall be taken and the average depth of the three indents of each test shall be calculated to determine whether the requirement has been met. Each indent shall be visually examined to determine whether the concentricity requirement has been met.

MIL-M-45945A

4.5.3 Trigger pull test. Machine guns shall be tested for trigger pull requirement (see 3.4.3) using the inspection equipment in accordance with drawing 11603790. The machine gun shall be cocked and the safety shall be in the "fire" position to pull the trigger and disengage the sear from the operating rod. The loads shall then be gradually applied to the trigger in the direction specified on the applicable drawing. When the minimum load is applied, the sear shall not be disengaged from the operating rod and when the maximum load is applied, the sear shall be disengaged from the operating rod. The trigger pull 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.

4.5.4 High pressure resistance test. Machine guns shall be tested by firing one high-pressure test cartridge (see 4.4.4.2.1). Machine guns shall be tested using the firing fixture conforming to drawings 7273925 and 11703783. Each tube assembly shall have been proof fired and magnetic particle inspected in accordance with the applicable drawing and other applicable documents. Bolts and barrel assemblies to be assembled into production machine guns shall be proof fired only as part of the completed machine guns and magnetic particle inspected and marked in accordance with the applicable drawing and other applicable documents. Bolts and barrel assemblies to be used as repair parts shall be proof fired independently of the production machine gun and magnetic particle inspected and marked in accordance with the applicable drawings and other applicable documents. After proof firing, machine guns shall be examined for cracks, deformations, and other evidence of damage, and cartridge cases visually examined for bulges, splits, rings and other defects caused by defective barrels. A 1/8 inch high letter "P" shall be applied to the receiver adjacent to and in line with the area allocated for the Department of Defense complete inspection approval stamp indicated on drawing 11699750 on machine guns that have passed this test.

4.5.5 Functioning firing test.

4.5.5.1 Firing schedule. Machine guns shall be tested for functioning requirement (see 3.4.5) in accordance with the schedule specified in Table II. The machine guns shall be tested using the firing fixture conforming to drawing 7273925. For the first 500 machine guns, the ammunition shall be linked together in 100-round belts with a dummy cartridge separating each 50 rounds (see 4.4.4.3). The belts of ammunition shall hang unsupported vertically from the firing fixture feed tray for a

MIL-M-45945A

distance of not less than 4 feet with an equivalent weight and ammunition (see drawing 7273911) . Subsequent machine guns shall be tested using M172 Dummy Inert Loaded Cartridges every 20 rounds (see Table II) .

TABLE II Functioning firing test schedule.

	First 500 Machine Guns	All Other Machine Guns	Type of Firing
Assigned Barrel	50 rounds	20 rounds	Interrupted Bursts <u>1/</u>
	50 rounds	20 rounds	One Continuous Burst <u>2/</u>
Spare Barrel	50 rounds	20 rounds	Interrupted Burst <u>1/</u>
	50 rounds	20 rounds	One Continuous Burst <u>2/</u>

1/ The trigger shall be intentionally released to stop firing a least five times during the 50-round and at least two times during the 20-round interrupted burst firing.

2/ Rate of fire shall be measured and recorded on every tenth machine gun during the continuous burst firing of each barrel using a timer gage conforming to drawing 7273920. Failure of any sample machine gun to meet the cyclic rate of fire requirement shall be cause for measurement of the cyclic rate of fire on the other nine machine guns represented. If any one of the other nine machine guns fail the cyclic rate requirement, the ten machine guns are rejected, and the contractor shall perform a failure analysis and contact the Procuring Agency for instructions. If none of the other nine machine guns fail the cyclic rate requirement only the sample machine gun that failed shall be rejected.

4.5.6 Targeting and accuracy firing test.

4.5.6.1 Sight setting. Each machine gun shall be tested with both its assigned and spare barrel assembly with biped assembly with the same sight setting for compliance with the targeting and accuracy requirements of 3.4.6. The ammunition and links shall be in accordance with 4.4.4.3.

MIL-M-45945A

4.5.6.2 Firing fixture. Machine guns shall be tested using the test fixture conforming to drawing 7273907 and 11017785. With the rear sight set at zero windage and the elevation scale set so that the scale retaining screw is approximately at the midpoint in the slot, the sight aperture slide shall be brought to the elevation setting indicated on the targeting and accuracy diagram. With the sights aligned at 6 o'clock on the sighting image of the targeting and accuracy diagram, a 10-round burst shall be fired for the targeting and accuracy measurement. The barrel assembly with biped assembly shall be replaced by the spare barrel assembly with biped assembly and with a 6 o'clock hold on the sighting image of a new target, a 10-round burst shall be fired for the targeting and accuracy requirements. Adjustment of the sights may be made within the limitations of 4.5.6.3 to bring the two barrels within the targeting requirements with the same sight setting. A 3-round warmup burst is allowable when testing each barrel assembly with biped assembly.

4.5.6.3 Rear sight. Adjustment to the rear sight shall not cause overhanging of the rear sight base. Vertical adjustment shall be made by movement of the adjustable elevation scale and, after adjustment, determination shall be made that the required additional adjustment is available (see 3.4.6). Filing of the top of the front sight base shall be allowed to correct for vertical deviation provided that resulting bright areas are covered with an approved touch-up paint or coating.

4.5.6.4 Rear sight base. Upon satisfactory completion of the targeting and accuracy firing test, the rear sight base shall be staked in place and the adjustable elevation scale shall be set at the correct scale graduation.

4.5.7 Interchange of Parts

4.5.7.1 In plants

4.5.7.1.1 Machine guns. Machine guns shall be tested for interchange of parts (see 3.4.7) by disassembling and then reassembling parts using the parts and prearranged system prescribed below in Table II. Interchange of parts shall be accomplished by dividing the parts of each machine gun into 10 groups of nonmating parts as shown below and distributing the groups into 10 different trays until each tray contains a complete machine gun. Groups of parts from machine gun number 1 shall be taken in-order and-placed in tray 1 through 10; groups of parts from machine gun number 2 shall be taken in order and

MIL-M-45945A

placed in trays 2 through 10 to 1; groups of parts from machine gun 3 shall be taken in order and placed in trays 3 through 10 to 2; etc. Commercial parts such as screws, nuts, washers, and pins shall be placed in the same tray as their mating or associate part. Any commercial part rendered unserviceable or disassembly shall be replaced without penalty to the interchangeability test. The machine guns shall be reassembled using only those parts which are in the same tray.

MIL-M-45945A

TABLE III. Groups of nonmating parts for interchangeability

Group I	Actuator assembly, cam (7269063) Barrel assembly w/biped assembly (7269027) (with gas cylinder extension, nut, plug, and lock washers removed) Bearing, firing pin (7269065) Clip, spring lever (7269146) Extension, gas Cylinder (7269030) Shaft, cartridge guide (11010152) Spring, helical compression (11699767) (use with pin, knob lock 11699768)
Group II	Actuator assembly, sear (11699780) Pin, knob lock (11699768) Pin, straight, headed (11699788) (used with connector (11699789) plunger, safety (11699776) Receiver assembly (11686308) Ring, retaining (11699772) (used with knob and pin assembly 11699769) Roller, cartridge feed (7269333)
Group III	Extractor (7790907) Guide, drive spring (9362512) Handle assembly, cocking (7791621) Housing assembly (7269118) Housing sear (11699774) Knob and pin assembly (11699769) Pin, latch (7792069) Screw, rear sight (11699798) Spring, helical torsion (11686315) (used with feed lever assembly 7269119) "
Group IV	Cam assembly, feed (11699814) Latch, magazine (7790553) Rod assembly, operating (9362510) Shaft, cartridge pawl (7790724) Spring, firing pin (7269087) Spring, helical, compression (7269086) (used with extractor plunger (7269083) Spring, helical, compression (11699775) (used with plunger, safety 11699776)

MIL-M-45945A

TABLE III. Groups of nonmating parts for interchangeability
(Continued)

Group V	Buffer assembly (11010518) Guide, cartridge, front (7269116) Guide, cocking handle (11010155) Latch hinge pin (7269243) Lever, feed (7269145) Lock, Barrel (11010184) Nut, gas cylinder (7269031) Spring, helical compression (7269211) (used with sear plunger 7269207)
Group VI	Adapter, gun (11699793) Latch, magazine release (7790554) Pin, hinge cover (7269247) Plug assembly, bolt (7791523) Plunger, extractor (7269083) Rod assembly, link (11699790) Sear (7269209) Spring, drive (9362511)
Group VII	bushing, sear (11699778) Guide, cartridge, rear (7269117) Pawl assembly, feed (7269120) Pawl, cartridge retainer (7269332) pin, catch forearm (7269184) Pin, firing (11010376) pin, retaining (7269205) Spring, helical, compression (11010197) (used with barrel lock 11010184)
Group VIII	Bolt (11010358) plate back assembly, spade grip (11699751) (with knob and pin assembly 11699769, pins 11669757 and 11699768, ring, retaining 11699772, springs 11699756 and 11699767 removed) plunger, sear (7269207) Safety (11699777) Spring helical compression (7790551) (used with latch 7790554) Spring, helical, torsion (7269335) (used with pawl 7269332) Spring, lock, retaining pin (7792398)

MIL-M-45945A

TABLE III. Groups of nonmating parts for interchangeability
(Continued)

Group IX	Pin, shoulder, headed (11699779) (used with bushing 11699778) Pin, straight, headed (11699757) (used with trigger assembly 11699758) Pin, straight, headless (7792920) (used with bolt plug assembly 7791523) Piston, gas (7791247) Plug retaining (11010377) (used with lock, barrel 11010184) Gas cylinder plug assembly (9362515)
Group X	Connector, link, sear, rod (11699789) Frame assembly, cartridge feed (7792097) Sleeve, dust seal (11699787) Spring, helical, compression (11699756) (used with trigger assembly 11699759) Spring, helical torsion (7269301) (used with pin 7269247) Washer, lock (7269035) Yoke, buffer retaining (11699786)

4.5.7.1.2 Concurrent repair parts. Concurrent repair parts shall be tested for interchangeability requirement (see 4.4.3.4.1.2 or 3.4.7) by disassembling two machine guns, previously tested in 4.4.3.4.1.1, as necessary, and then reassembling them using the concurrent repair parts. No hand refinement of parts will be allowed, and the machine guns shall operate and function properly. This test may be performed independently of machine gun interchangeability test specified in 4.4.3.4.1.1 and at more frequent intervals using accepted machine guns taken from current production.

4.5.7.2 Interplant. Machine guns to be subjected to the interplant interchangeability test shall be given preliminary hand functioning to assure proper operating before parts are disassembled from the machine gun. Machine guns shall be interchanged in a manner similar to the detail plan in 4.5.7.1.1 except that parts shall be divided into six groups and, that when disassembling every other machine gun shall be one produced by a different manufacturer. The machine guns shall be tested for and comply with the requirements for headspace, firing pin indent, trigger pull, functioning, and targeting and accuracy before and

MIL-M-45945A

after interchange of parts using the test methods specified in 4.5.1, 4.5.2, 4.5.3, 4.5.5, and 4.5.6, respectively. Parts shall be identified with their manufacturer throughout the test. Before machine guns are returned to the contractors, the original parts shall be reassembled to their respective machine guns and given a hand functioning test to assure proper operation.

4.5.8 Endurance test.

4.5.8.1 Firing fixture. Testing of machine guns for endurance requirements (see 3.4.8) shall be accomplished with the machine guns held in a firing fixture conforming to drawing 7273925 and 11703783.

4.5.8.2 Test duration. A total of 10,000 rounds or until failure occurs, whichever is smaller, shall be fired in the initial test machine gun from each test lot.

4.5.8.3 Firing Procedure Firing shall be accomplished using 100-round belts. Every other belt shall be fired in interrupted bursts with at least 10 intentional interruptions in firing. All other belts shall be fired in one continuous burst. The belts of ammunition shall hang unsupported vertically from the firing fixture feed tray for a distance of not less than 4 feet (see drawing 7273911). The ammunition and links shall be in accordance with 4.4.4.3.

4.5.8.4 Maintenance of test hardware The machine gun shall be cooled to ambient temperature after each 400-round series using cooling aids other than water. The cyclic rate of fire shall be measured and recorded on each fifth series. It shall be permissible to clean and oil the machine gun at intervals of not less than 2,000 rounds. At the close of each day's firing, the machine gun 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.

4.5.8.5 Firing records. Complete accurate records shall be kept for each endurance test, showing each malfunction and part replacement including the number of the round at which each occurred and corrective action taken.

4.5.8.6 Disposition of test hardware. At the completion of the endurance test, the machine guns shall be disposed of as specified in the contract (see 6.2).

MIL-M-45945A

4.5.9 Reliability test. The three machine guns are each fired 50,000 rounds in 10,000-round cycles from a Government-approved firing fixture simulating ground tripod mounting. Unless otherwise specified, the firing is conducted in 200-round complements, alternating between firing schedules No. 1 and No. 2 (below). Two barrel assemblies are to be used alternately (change after 200 rounds) with each weapon and are cooled to ambient temperature after each 200 rounds. Firing should be accomplished using 100-round belts.

4.5.9.1 Firing schedules

4.5.9.1.1 Schedule No.1; 10 + 1 round burst at a rate of one burst every 6 seconds; used for complete complement of 200 rounds.

4.5.9.2 Schedule No. 2; 25 + 1 round burst at a rate of one burst every 15 seconds; used for complete complement of 200 rounds.

4.5.9.2 Cleaning schedule. The weapons shall be cleaned, inspected and lubricated after each 2,000 rounds and relubricated after each 1,000 rounds. Semi-fluid lubricant conforming to MIL-L-46000 is to be used. .

4.5.9.3 Barrel life.

4.5.9.3.1 Initial maintenance. At the start of test during the last 30 rounds of each of the final 200-round complements for each barrel in each 10,000-round gun cycle; cyclic rate shall be measured; and accuracy Projectile velocity, and evidence of yaw or keyholding determined. Result shall be compared with the criteria in 3.4.9.3

a. Informational test measurements. For informational purposes, the cyclic rate of fire shall also be recorded over a 20-round burst. Cyclic rate instrumentation shall be the same as for function firing. The accuracy and projectile velocity and yaw of each barrel shall be measured from the firing of a 10-round burst. Targets shall be placed at a range of 100 yards. Projectile velocities shall be measured and recorded instrumentally at a point 9 yards forward of the muzzle. The yaw or keyholding shall be determined from the 10-round burst. Firing schedules No. 1 and No. 2 do not apply during these 30-round-periods.

MIL-M-45945A

b. Barrel serviceability. If a barrel is declared unserviceable, the rounds fired on the barrel shall be recorded and the barrel replaced with a new barrel. When a barrel is suspected of being unserviceable during Cycles a check of 10 projectile velocities and yaw shall be made.

c. Barrel replacement. After measurement of accuracy, projectile velocity, cyclic rate and yaw, all subsequent firing is per schedule No. 1 and No. 2 until the initial 200-round complement on the assigned barrel is complete. The assigned barrel is then replaced with the spare barrel and the above repeated.

d. Final test measurements. During the final 30 rounds of the last 200-round complement, for each barrel in each 10,000-round gun cycle; cyclic rate, accuracy, velocity, and yaw measurements shall be recorded. The initial 20 rounds of the last 30 rounds of the complement are fired in one burst and the cyclic rate recorded. The remaining 10 rounds are fired in one 10-round burst and accuracy, projectile velocity and yaw determined.

4.5.10 Packaging test. The level A sample unit packages shall be tested in accordance with the requirements of MIL-P-116.

5. PACKAGING

5.1 Pilot pack. A pilot pack consisting of a complete packed unit, shall be packaged and packed in accordance with the Packaging Data Sheet 11699750 to the level of protection specified in the contract (see 6.2) . The unit pack as specified in 3.1 shall be packed level C and forwarded with the results of all examinations and tests (see 4.3) .

5.2 Preservation, packaging Packing and marking. Machine guns with equipment shall be preserved, unit packaged, packed, and marked in accordance with the requirements of packing Data Sheet 11699750.

5.3 Repair Parts. Repair parts shall be prepared for delivery in accordance with the applicable packaging data sheets as specified in the contract (see 6.2) .

MIL-M-45945A

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. This machine gun is an infantry weapon capable of being fired from the shoulder, biped, pedestal or a tripod mount.

6.2 Acquisition requirements Acquisition documents must specify the following:

- a. Title, number and date of this specification.
- b. Issue of DODISS to be cited in the solicitation, and, if required, the specific issue of individual documents referenced (see 2.1.1) .
- c. Requirements for submission of first article sample.
- d. List of drawings and specifications pertinent to the machine gun, showing applicable revision dates.
- e. Examination criteria not specified herein (see 4.4.2.1), 4.4.2.3.2 and 4.4.3.7).
- f. That packages opened for examination shall be repackaged by the contractor at the contractor's expense.
- g. Disposition of tested machine guns (see 4.5.8.6).
- h. Packaging instructions for repair parts (see 5.3).
- i. List of Special Inspection Equipment to be furnished the contractor (see 4.4.4.1 and 4.4.2.1) and responsibilities for other Government property to be furnished the contractor.
- j. Responsibility for furnishing ammunition and links, (see 4.4.4*3).
- k. Responsibility for test firing facilities and operating procedures (see 6.5) .
- l. Shipping instructions for machine guns when an interPlant interchangeability test is required (see 4.4.3.4.2).
- m. Procedures and methods for demilitarizing and disposing of rejected material.

MIL-M-45945A

- n. Disposition of Government furnished property.
- o. Requirement to conduct reliability test.
- p. Requirements for reporting failure analysis (see 4.4.3 and 6.2 paragraphs) on failures to meet specification requirements during testing.
- q. Bar code marking requirements.
- r. Contract data requirements for inspection equipment designs (conforming to Data Item Description DI-DRP^R-81000) .
- s. Reporting requirements for failure analysis (conforming to Data Item Description DI-R-21598 Tailored) .

6.3 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 under the "Methods of Inspection" heading in Section 4. 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 6.3.2 and 6.3.3 should he elect to do so.

6.3.1 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. 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.

6.3.2 Contractor designs. Contractor designs are required for all inspection equipment for which SIE designs are not specified and may include commercial equipment which the

MIL-M-45945A

contractor proposed 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 fixture(s) required to be used with commercial equipment or with SIE designs if not otherwise covered (see 6.3.3.c). Designs shall be of the category and for (Per DOD-D-1000) specified in the Contract Data Requirements List (DD Form 1423). 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.

6.3.3 Submission of contractor inspection equipment designs 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 stipulations, time frame and distribution specified in the Contract Data Requirements Lists (DD Form 1423) or in the contract. partial submission of inspection equipment designs is permissible and encouraged. However, the completion data for design review will be based on the date of final submission of designs and the required delivery schedule as stipulated in the contract. The specific segment of ARDEC to which the contractor designs shall be sent will be SMCAR-QAF-1, Picatinny Arsenal, NJ 07806-5000. This address will be specified on the Contract Data Requirements List, DD Form 1423 in the contract.

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 numbers, etc.) .
- c. The designs remaining to be submitted and the expected date of submittal.

6.4 Definitions.

6.4.1 Contractor. Unless otherwise specified, the word "contractor" used throughout this or the item detail specification shall mean any supplier or producer of items or

MIL-M-45945A

material to the Government. This shall include commercial contractors; subcontractors; Government-Owned Contractor-operated (GOCO); and Government-Owned, Government-Operated (GOGO) plants.

6.4.2 Technical data package (TDP). A technical description of the item adequate for use in procurement. The description defines the required design configuration and assures adequacy of item performance. It consists of all applicable technical data such as plans, models, performance requirements, quality assurance provisions and packaging data.

6.4.3 Critical defect. A defect that judgment and experience indicate is likely to result in hazardous or unsafe conditions for individuals using, maintaining, or depending upon the product; or a defect that judgment and experience indicate is likely to prevent performance of the tactical function of a major end item such as an aircraft, tank, land vehicle, missile artillery, or other major weapon system"

6.4.4 Special defect. A defect, other than Critical, that judgment and experience indicate may, depending upon the degree of variance from the design requirement:

- a. Result in hazardous or unsafe conditions for individuals using, maintaining or depending upon the product, or
- b. Prevent performance of the tactical function of a major end item.

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

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

6.7 Supply of ammunition. To avoid delay in test firing, the contractor should maintain a minimum of 2 months supply of ammunition as determined by anticipated firing requirements.

MIL-M-45945A

6.8 Results of tests. Reports of the results of final examination and function firing, targeting and accuracy endurance, and interchangeability tests shall be specified for delivery on the DD Form 1423 included in the contract.

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

6.10 MIL-I-45607 and MIL-STD-45662. Unless otherwise specified (see 6.2.1), the contract should specify the application of MIL-I-45607 and MIL-STD-45662 on the Management Control Summary List DD Form 1660.

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

6.12 Subject term (keyword listing)

Air cooled
Gas Operated
Infantry Weapon
Link, Belt Fed

6.13 Submission of alternative quality conformance provisions. Unless otherwise specified in the contract, proposed alternative quality conformance provisions will be submitted by the contractor for evaluation by the technical activity responsible for the preparation of this specification.

6.14 Changes from previous issue Asterisks are not used in this revision to identify changes with respect to the previous issue due to the extensiveness

Custodian:
Army-AR
Navy-MC
Air Force-84

Preparing activity
Army-AR

(Project 1005-0824)

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL**INSTRUCTIONS**

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.

2. The submitter of this form must complete blocks 4, 5, 6, and 7.

3. The preparing activity must provide a reply within 30 days from receipt of the form.

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RECOMMEND CHANGE		1. DOCUMENT NUMBER MIL-M-45945A	2. DOCUMENT DATE (YYMMDD) 940504
3. DOCUMENT TITLE MACHINE GUN, 7.62MM: M60D			
4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets if needed.)			
5. REASON FOR RECOMMENDATION			
6. SUBMITTER			
7. ADDRESS			
8. PREPARING ACTIVITY			
a. NAME U.S. ARMY ARDEC STANDARDIZATION OFFICE		b. TELEPHONE (Include Area Code) (1) Commercial 201-724-6675 (2) AUTOVON DSN-880-6675	
a. ADDRESS (Include Zip Code) ATTN: SMCAR-BAC-S PICATINNY ARSENAL, NJ 07806-5000		IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT: Defense Quality and Standardization Office 8803 Leesburg Pike, Suite 1403, Falls Church, VA 22041-3400 Telephone (703) 738-3348 AUTOVON 888-3348	