

INCH - POUND

MIL-S-3443G (AR)

04 October 1993

SUPERSEDING

MIL-S-3443F

25 April 1993

MILITARY SPECIFICATION

SHOTGUN 12 GAGE, RIOT-TYPE

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 three types and two classes, of manually operated, slide action, hammerless, 12 gage riot-type shotguns (see 6.1) .

1.2 Classification Shotguns covered by this specification shall be of the following types and classes.

Type I. With bayonet adaptor, heat shield and-sling.

Class 1. Take-down receiver.

Class 2. Solid receiver.

Type II. With sling only.

Class 1. Take-down receiver.

Class 2. Solid receiver.

Type III. With rifle sights and sling.

Class 1. Take-down receiver.

Class 2. Solid Receiver.

Beneficial comments (recommendations, addition, deletions) and any pertinent data which may be of use in improving this document, should be addressed to : Commander, U.S. Army ARDEC, ATTN: SMCAR-BAC-S, Picatinny Arsenal, New Jersey 07806-5000 by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

FSC 1005

AMSC N/A

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

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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 document to the extent specified herein. Unless otherwise specified, 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).

SPECIFICATIONS

FEDERAL

A-A-3 79	Linseed Oil, Raw (For Use in Organic Coatings)
A-A-883	Tape, Pressure-Sensitive Adhesive, Masking
O-I-503	Insect Repellent, Clothing and Personal Application
P-D-680	Dry Cleaning Solvent
W-F-800	Fuel Oil, Diesel
W-G-1690	Gasoline, Automotive, Leaded or Unleaded
PPP-B-601	Boxes, Wood, Cleated Plywood
PPP-B-636	Box, Shipping, Fiberboard
PPP-B-640	Box, Fiberboard, Corrugated, Triple-Wall
PPP-C-843	Cushioning Material, Cellulosic
PPP-F-320	Fiberboard: Corrugated and Solid, Sheet Stock and Cut Shapes
PPP-P-1660	pallet, Expendable
PPP-T-76	Tape, Pressure Sensitive Adhesive, Packaging/Paper (for Carton Sealing)

MILITARY

MIL-P-116	Preservation, Methods of
MIL-C-372	Cleaning Compound, Solvent (for Bore of Small Arms and Automatic Aircraft Weapons)
DOD-D-1000	Drawings, Engineering and Associated Lists
MIL-L-3150	Lubricating Oil, Preservative, Medium

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MIL-A-8625	Anodic Coatings, for Aluminum and Aluminum Alloys
MIL-W-13855	Weapons: Small Arms and Aircraft Armament Subsystems, General Specification for
MIL-C-13924	Coating, Oxide, Black for Ferrous Metals
MIL-L-14107	Lubricating Oil, Weapons Low Temperature
MIL-C-16173	Corrosion Preventive Compound, Solvent Cutback Cold Application
DOD-P-16232	Phosphate Coating, Heavy, Manganese or Zinc Base (For Ferrous Metals)
MIL-B-22020	Bags, Transparent, Flexible, Sealable Volatile Corrosion Inhibitor Treated
MIL-I-45208	Inspection System Requirements
MIL-I-45607	Inspection Equipment, Acquisition/Maintenance and Disposition of
MIL-L-46000	Lubricant, Semi-Fluid (Automatic Weapons)
MIL-L-46150	Lubricant, Weapons, Semi-Fluid (High Load Carrying Capacity)
MIL-W-63150	Weapons and Support Material Standard Quality Assurance Provisions for
MIL-L-63460	- Lubricant, Cleaner and Preservative for Weapons and Weapons Systems (Metric)

STANDARDS

FEDERAL

FED-STD-595	Colors
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MILITARY

DOD-STD-100	-	Engineering Drawing Practices
MIL-STD-105	-	Sampling Procedures and Tables for Inspection & Attributes
MIL-STD-109		Quality Assurance Terms and Definitions
MIL-STD-129	-	Marking for Shipment and Storage
MIL-STD-171	-	Finishing of Metal and Wood Surfaces
MIL-STD-45662	-	Calibration System Requirements

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(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 issues are those cited in the solicitation.

DRAWINGS (see 6.8)

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

Product drawings.

6147721	Swivel, Sling, Assembly
7267767	Bore Tube
8448476	Scabbard, Bayonet - Knife: M1 0
11010009	Plate, Retaining, Bayonet
11010010	Release, Bayonet, Right Hand
11010011	Release, Bayonet, Left Hand
11010066	Blade
11010067	Blade Assembly
11010068	Grip, Left Hand
11010069	Grip, Right Hand
11010076	Guard
11010077	Bayonet, M7
12624561	Sling, Adjustable small Arms

Packaging drawing.

7266299	Bore Tube, VCI Treated
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Inspection equipment drawing.

11018988	Gage, Comparison, Color and Surface Finish for Wood Components
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(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.)

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2.2 Non-Government publications. The following document(s) form a part of this document to the extent specified herein. Unless otherwise specified, the issue of the documents which are DoD adopted shall be those listed in the issue of the DoDISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DoDISS are the issues of the documents cited in the solicitation (see 6.2).

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI B46.1 - Surface Texture

(Application for copies should be addressed to the American Society of Mechanical Engineers, United Engineering Center, 345 East 47th Street, New York, NY 10017.)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D1171 - Standard Test Method for Rubber Deterioration - Surface Ozone Cracking Outdoors or Chamber (Triangular Specimen)

ASTM D2000 - Rubber Products in Automotive Applications

ASTM D4101-82 - Propylene Plastic Injection and Extension Materials, standard Specification for

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

SPORTING ARMS AND AMMUNITION MANUFACTURER'S INSTITUTE

S.A.A.M.I. - Technical Committee Manual Vol. IV, Shotshell

(Application for copies should be addressed to the Sporting Arms and Ammunition Manufacturer's Institute, P.O. Box 838, Branford, CT 06405.)

2.3 Order of Precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

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3 . REQUIREMENTS

3.1 First article. Requirements for submission of the first article shall be as specified in the contract. Unless otherwise specified, the first article shall include the pilot pack. First article testing shall be performed in accordance with 4.4 (see 6.2).

3.2 Material, construction and design Shotguns shall conform to the materials, construction, and design requirements specified herein. parts and surfaces subject to rolling or sliding contact shall be of sufficient hardness to resist wear. Staked or dovetailed members shall have sufficient temper to retain their original fit after extended use. Screws, when firmly tightened, shall not cause binding of any of the mechanism. External pins shall be secured in position by detent or retainer approved by the procuring activity. The contractor shall furnish a list of essential repair parts (see 3.22) based on the maintenance of the shotgun over a period of 10,000 rounds of firing together with the basis used to establish such a list.

3.3 Type I shotgun The Type I shotgun shall conform to this specification. The Type I shotgun shall include the bayonet adaptor, heat shield and a sling (see 1.2) .

3.3.1 Bayonet adaptor. Type I shotguns shall be equipped with a bayonet adaptor which shall be compatible with the M7 bayonet (Dwg. 11010077). See 6.2q for a complete list of bayonet component part drawings required to establish dimensional compatibility of the M7 bayonet with the shotgun.

Type I shotguns must withstand the functioning test (see 3.17.3) and the endurance test (see 3.17.5) with an M7 bayonet and scabbard (Dwg. 8448476) attached without loosening of the bayonet or mount, or loss of retention of the bayonet, or failure of the mount.

b. Type I shotguns must withstand the rough handling test (see 3.17.6) with bayonet and scabbard attached without causing the weapon or adaptor to become unserviceable or unsafe.

c. The adaptor must secure the bayonet such that no part of the shotgun or adaptor protrudes more than 3/4 inch forward of the front of the bayonet's guard.

d. No part of the bayonet, scabbard or adaptor shall interfere with the normal sighting plane of the shotgun.

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e. With the shotgun in simulated hand held support, the bayonet adaptor shall withstand a load of 300 pounds applied to the bayonet (or bayonet simulator) at a point 5 1/2 inches ahead of the weapon's muzzle. the load shall be applied in two directions parallel to the bore axis (both inward and outward) and in four directions perpendicular to the bore (left, right, up and down).

3.3.2 Heat shield. Type I shotguns shall be equipped with a heat shield which effectively protects the hand from the hot barrel during bayonet fighting.

a. The heat shield shall extend from the front of the shotgun's receiver forward a minimum of 13 inches. The heat shield shall cover at least the upper 180 degrees of the barrel. There must be at least 1/16 inch air gap between the barrel and the heat shield except at support points.

b. Type I shotguns must withstand the functioning tests (see 3.17.3) and the endurance test (see 3.17.5) "without loosening or failure of the heat shield.

c. The heat shield shall withstand the rough handling test (see 3.17.6) without becoming unserviceable or permanently deformed such that it touches the barrel.

d. The heat shield must be a separately replaceable part.

e. The heat shield shall effectively protect the hand from a hot barrel. Testing shall be as specified in 4.6.9.

3.4 Type II shotgun. The Type II shotgun (see 1.2) shall conform to this specification (without bayonet adaptor or heat shield). Sights shall be the typical bead front sights.

3.5 Type III shotgun. The Type III shotgun (see 1.2) shall conform to this specification (without the bayonet adaptor or heat shield). The barrel shall be fitted with rifle sights.

3.6 Class I receiver. The Class 1 receiver shall be of the take-down type which is constructed so that the barrel can be easily removed from the receiver without the use of tools and without removing the stock (see 1.2) .

3.7 Class 2 receiver. The Class 2 receiver shall be of the solid type which is so constructed that the barrel is not easily removed from the receiver without the use of tools (see 1.2).

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3.8 Barrel. The bore of the barrel, at the muzzle end shall be concentric with barrel outside diameter within 0.015 inch. The barrel shall be a commercial 20-inch barrel, unless other length is required (see Table I and 6.2), except that the protective finish shall be in accordance with 3.10.13. The barrel wall thickness at the muzzle shall be .095 inches minimum. The wall thickness at any other place along the barrel length shall be equal to or greater than the thickness at the muzzle end. The barrel chamber shall be in accordance with ANSI B46.1, and have a surface finish of 63 microinches RMS or smoother.

3.8.1 Barrel Type III. The barrel for Type III shotguns shall be fitted with rifle type front and open rear sight. The rear sight shall be adjustable for both windage and elevation. It shall contain positive locking devices which preclude inadvertent misadjustment due to recoil or rough handling.

3.9 Sling swivel assembly.

3.9.1 Butt stock sling swivel assembly. Shotguns shall be equipped with a butt stock sling swivel assembly conforming to Drawing 6147721, and shall be attached to the butt stock in accordance with Figure 1. There shall be no relative movement of the swivel plate. After assembly, the sling swivel shall swivel freely 180 degrees.

3.9.2 Commercially equivalent hardware. Commercially equivalent hardware may be substituted for the butt stock sling swivel assembly provided it can sustain a 220-pound load applied perpendicular to the stock line without separation.

3.9.3 Front sling swivel. Shotguns shall be equipped with a front sling swivel on or forward of the barrel takedown mount that will accept the shotgun sling and be acceptable to the procuring activity. Load requirement is identical to 3.9.2.

3.10 General characteristics. The general characteristics of Type I, Type II and Type III shotguns shall be in accordance with Table I.

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TABLE I. General characteristics.

Weight-Type I (w/o bayonet or scabbard)	8 pounds \pm 1 pound
Weight-Type II and Type 111	7 pounds \pm 0.5 pounds
Length of barrel	20 inches \pm 1 inch unless otherwise specified (see 6.2)
Gauge of bore	.12
Boring of barrel	Cylinder
Chambered for shell length	2.75 inches (minimum)
Operation	Manual
Type of action	Slide
Feed	Tubular magazine
Ammunition capacity of weapon (including one in chamber)	5 shells (minimum)
Type of firing mechanism	Hammerless
Type of stock	Shoulder stock with pistol grip
Force to operate safely	6 pounds \pm 3 pounds .
Trigger pull	6 pounds \pm 2 pounds

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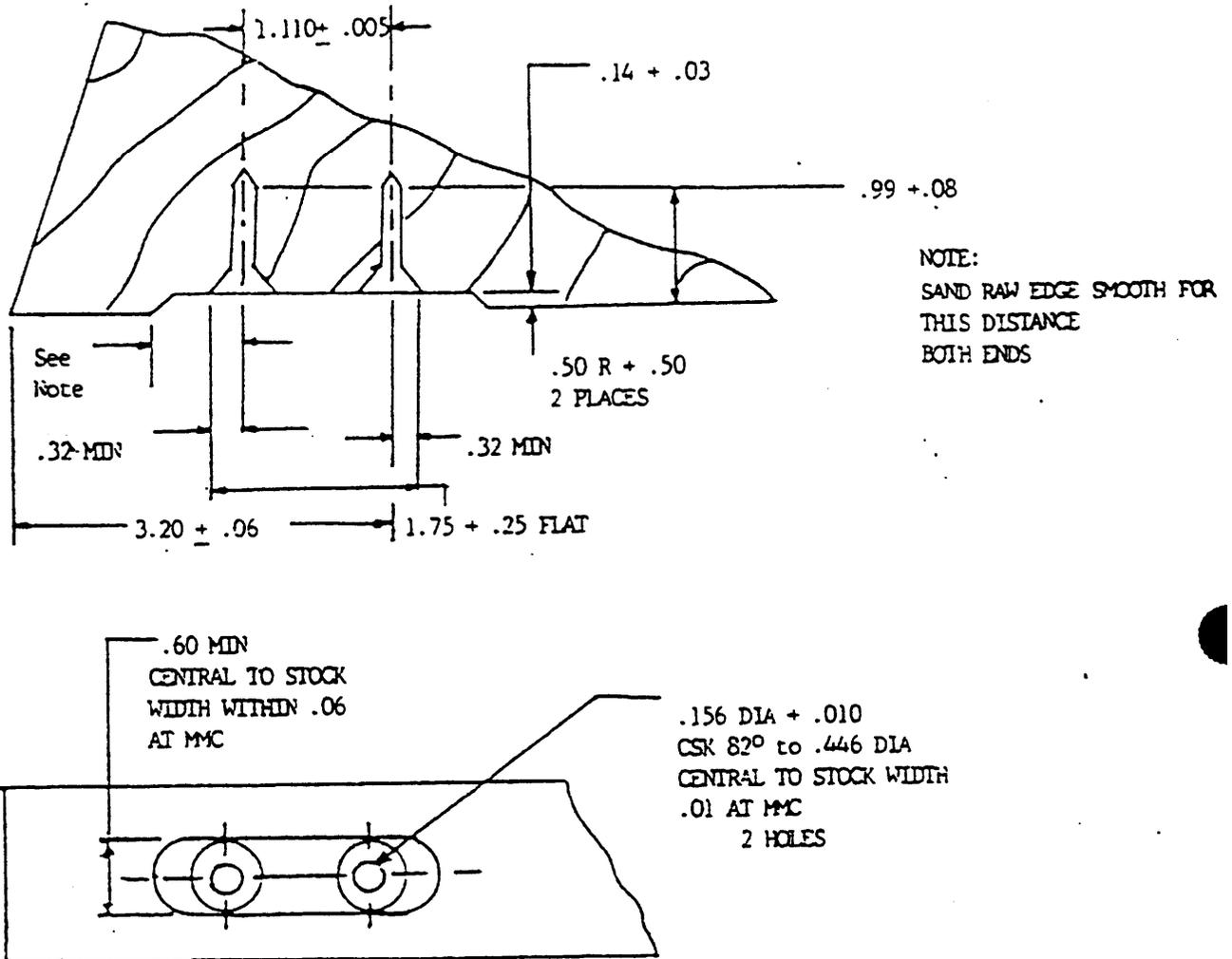


FIGURE 1. Stock swivel cut (shotgun, 12 gage, riot type).

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3.10.1 Tubular magazine. The tubular magazine shall be of such design and construction as to provide easy access to the interior for cleaning, inspection and preventative maintenance. If the tube is of a closed end design, a positive mechanical locking device, i.e., a screw, pin, spring, loaded detent, etc., shall be used to secure the magazine to the receiver. If the tube is of open end design, the magazine tube shall be positively secured to the barrel and a magazine tube removable [e.g., threaded) cap shall be provided to allow easy access for cleaning. The magazine spring shall be retained inside the magazine tube (e.g., by a removable magazine spring retaining ring) when the cap is removed.

3.10.2 Safe-fire control (disconnecter). The shotgun shall incorporate a safe-fire control feature which shall prevent releasing the firing mechanism when the slide action is operated with the trigger depressed. It shall not be possible to actuate the firing mechanism until the breech bolt is in the locked position.

3.10.3 Safety device. A positive safety device shall be provided which, when set at the safe position, shall prevent firing of the shotgun. It shall be moveable manually between the safe position and the fire position and shall remain in the position set until reset manually. The gun shall not fire when the hammer is cocked, the safety is on, and the trigger is depressed. Nor shall the gun fire after the above sequence if the trigger is released and then the safety is moved to the fire position. The safety device shall meet the force requirements specified in Table I even after repeated actuations.

3.10.4 Safe unloading. Easy and convenient unloading of live ammunition from the magazine shall be possible without cycling the ammunition through the chamber.

3.10.5 Slide and breech bolt action. The slide action shall operate smoothly throughout its full travel. When the slide action is pulled rearward, it shall cause the breech bolt to open for extraction and ejection of the fired shell. When the slide is returned to the forward position, it shall cause the breech bolt to chamber the next round and lock in the battery position. When the design of the shotgun employs the use of an aluminum receiver, the breech bolt shall lock directly to the barrel or barrel extension. When the breech bolt is in the battery position, the slide shall not be capable of being moved rearward by manual operation. However, an unlocking device shall be provided which can be manually operated to allow the slide to be manually pulled rearward for the purpose of extracting and

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ejecting an unfired shell from the chamber. After the trigger has been pulled, the slide action shall be capable of being pulled rearward without operating the unlocking device. The slide and breech bolt shall reliably feed and chamber ammunition regardless of whether the slide is operated rapidly or slowly and regardless of weapon attitude.

3.10.6 Extractor. The extractor shall extract both fired and loaded shells from the barrel chamber, regardless of whether the slide is operated rapidly or slowly and regardless of the weapon's position, i.e., pointed up or pointed down.

3.10.7 Ejector. The ejector shall eject both fired and loaded shells completely out of the weapon when the slide is operated with moderate to rapid speed regardless of the weapon's attitude.

3.10.8 Sling. Unless otherwise specified (see 6.2) shotguns shall be equipped with a sling conforming to Drawing 12624561. .

3.10.9 Stock and fore-end - wooden.

3.10.9.1 Material. The stock and fore-end shall be of walnut (black) or birch (yellow or sweet) . The grains shall be straight and in the longitudinal direction of the stock. Slight deviations in grain, small knots in the butt of the stock, slight sap streaks, small checks and small cracks shall not be cause for rejection provided they do not cause weakness, particularly in a thin section. Small checks, cracks, and knotholes shall be filled with plastic fillers or other suitable material approved by the procuring agency. Stocks shall be of solid construction except where otherwise necessary in inletting to the receiver.

3.10.9.2 Color. The stock and fore-end shall have a nonbleeding color which shall be no lighter than color standard 11018988-W (walnut) or 11018988-B (birch), as applicable (see 6.3). Black walnut sapwood and birch may be stained prior to the protective finish treatment.

3.10.9.3 protective finish. The stock and fore-end shall be treated with raw linseed oil conforming to A-A-379, or other suitable finish approved by the procuring agency.

3.10.10 Stock and fore-end - plastic. Stocks and fore-ends shall be capable of meeting all performance requirements of 3.9.1, 3.9.2, 3.17.3, 3.17.5, 3.17.6 and 3.17.7 without adverse effect. plastic stocks shall have an in-fused black color.

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Plastic stocks and fore-ends shall conform to ASTM-D-4101-82 Propylene Plastic Injection and Extrusion Materials, using a material designation of PP110 G20 or G30 A40440 or a material of equal fire resistance and non-toxicity rating.

3.10.11 Recoil pad. The stock of the shotgun shall be equipped with a one-inch thick (nominal) recoil pad which shall be fastened securely to the stock and shall match the contour of the stock within .015 inch. The screws attaching the recoil pad shall bottom securely on the steel plate of the pad. The screws attaching the recoil pad shall provide a minimum engagement in the stock of one inch.

3.10.11.1 Recoil pad material. The material for the recoil pad shall conform to the requirements of ASTM D2000 as delineated in specification ASTM D2000 M2BC 410 A₁, B₂, F₁, Z₁, Z₂, Z₃. Special requirements for Suffix Z₁, Z₂, and Z₃ are as follows:

a. Z₁. Change in tensile strength after 30 days over water at 158° ± 20°F shall be minus 30 percent maximum..

b. Z₂. No cracks shall be visible under 7X magnification after 30 days exposure in a relative humidity cabinet in which the circulating air is controlled to 100 ± 1°F and 90 ± 2 percent relative humidity. The color of the pad shall be brown, 30045 to 30140, or black, 37038 to 37056, in accordance with FED-STD-595. The hardness of the pad shall be within a Shore A Durometer reading of 35 ± 5. A suitable carbon steel plate shall be molded within the recoil pad to provide for fastening it to the stock. The exterior surfaces of the pad shall be solid without cushioning cavities and shall show no evidence of the internal metal plate. Plugs for the screw holes shall be provided of the same material as the recoil pad. They shall be designed to provide retention in the recoil pad by the resilient action of the rubber, and after assembly and bottoming on the screw head, shall be flush to 1/16 inch below the surface of the pad.

c. Z₃ requirements shall be the same as ozone chamber exposure method A of ASTM D1171 except that the test duration is 7 days.

3.10.11.2 Recoil pad - alternate design. Stell Washer molded into the recoil pad for fastening it to the stock are permissible. Self-closing holes to cover the screw heads are permissible in place of the rubber plugs to prevent the intrusion of foreign matter (dirt, water, ice, etc.).

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3.10.12 Trigger guard. The trigger guard shall be of metal construction and shall have sufficient strength to prevent manual deflection of the bow (causing actuation or blocking of the firing mechanism) or any permanent deformation of the bow under the following conditions: The bow of the trigger guard shall withstand a static load of 220 pounds applied at the outside surface of the trigger guard bow, perpendicular to the trigger guard, at the midpoint of the bow and on the vertical center plane of the shotgun.

3.10.13 Finishes.

3.10.13.1 Machine finish. Machine finishes shall be in accordance with best commercial practice for the type of shotgun furnished. In the event of a dispute over the comparison of finishes, referee comparison shall be in accordance with ANSI B46.1.

3.10.13.2 Final protective finish. Unless otherwise specified (see 6.2), the final finish of the exterior: of metal parts shall be in accordance with the applicable finishes listed below. the final protective finishes shall not apply to springs, or spring pins which may be left bright. However, exterior exposed surfaces of these parts are subject to the touchup requirements in accordance with 3.10.14.

Material	Finish
Steel (other than corrosion resisting steel)	5.3.1.2 or 5.3.2.2 of MIL-STD-171 (see Note 1 and Note 3)
Corrosion-resisting steel	3.3.2 or 3.3.3 of MIL-STD-171
Aluminum and aluminum alloys	7.1.2 or 7.2.2 (dyed black) or 7.5* (see Note 2) of MIL-STD-171 or MIL-A-8625, Type III, Class 1 or 2. Color of finished parts shall be lusterless uniform dark grey or black.

- Note 1. Finish number 5.3.2.2 shall not be used on steel parts that are subjected to rolling or sliding contact.
- Note 2. Coating thickness for finish number 7.5 shall be 0.0010 + 0.0002 inch.
- Note 3. MIL-C-16173 grade 1 of finish 5.3.2.2 shall not be used.

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3.10.14 Touchup material. Exterior surfaces on metal components which are bright or without finish after assembly operations, such as the surfaces of rivets, pins, screw heads, staking marks and the like may be refinished using materials and procedures in accordance with the touchup procedures of MIL-W-13855.

3.11 Maintainability. The stock shall not have to be removed or loosened from the receiver to permit removal, maintenance, inspection and cleaning of the following subassembly groups:

- a. Bolt/Breech Block
- b. Barrel
- c. Action Bar
- d. Trigger - Sear - Hammer

3.12 Human engineering characteristics. In addition to meeting the design requirements specified herein, shotguns shall meet with the approval of the government for human engineering characteristics such as size, shape, and balance; deemed essential for guard, riot control, and combat purposes.

3.13 Size.

3.13.1 Type I. The overall length of Type I shotgun including bayonet adaptor shall be from 39 to 44 inches.

3.13.2 Type II and Type III. The overall length of Type II and Type III shotgun shall be from 39 to 42 inches, measured with a nominal 20-inch barrel.

3.14 Stock shape. The stock shall have a drop of not less than 1 1/4 inches or more than 1 3/4 inches at the comb and not less than 2 1/4 inches or more than 2 3/4 inches at the heel. Measurements for drop shall be made from a line extending from the highest point of the barrel at the muzzle through the highest point of the receiver.

3.15 Trigger pull length. The length of pull (distance from the trigger to the butt of the stock measured parallel to the centerline of the bore) shall not be less than 13 5/8 inches and not more than 14 inches.

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3.16 Balance. The center of balance of the shotgun without the bayonet band assembly shall be 4 to 7 inches forward of the trigger.

3.17 Performance characteristics.

3.17.1 Trigger pull. The trigger pull of each shotgun shall be within the range specified in Table I.

3.17.2 High-pressure resistance and headspace. Each shotgun shall withstand the firing of one high-pressure cartridge containing the Sporting Arms and Ammunition Manufacturer's Institute (SAAMI) standard proof load of 170 to 190 Copper Units of Pressure (CUP) with no evidence of cracks, seams and other injurious defects. After proof firing, the headspace shall be 0.0576 inch minimum to .0666 inch maximum. Headspace readings shall be taken from the bolt face forward to an 0.850 inch datum diameter.

3.17.3 Functioning. Each shotgun shall cycle one magazine full of dummy shells and shall fire five rounds of shells using standard velocity commercial 12-gauge, 2 3/4-inch, 00 buckshot (9 pellets) maximum load cartridges conforming to SAAMI standards, without malfunctions, unserviceable parts, punctured or ruptured primers or shell cases, loose stock or screws or other unacceptable conditions. Malfunctions not attributed to the shotgun, as established by a contractor failure analysis, and agreed to by the Government representative, shall not be counted against the shotgun being tested. However, such malfunctions shall be recorded. When a shell is fired and the action slide handle or fore-end is not held, the breech bolt may move rearward to the extent that ejection occurs. However, ejection shall not equal or exceed in force that experienced under rapid or forceful manual ejection. There shall be no bulged, split or rim cut cartridge cases, or injury to the weapon (i.e., damage to extractor, ejector, etc.) . Type I shotguns shall include M7 bayonet and scabbard as specified in 3.3.1.a.

3.17.4 Targeting and accuracy (pattern). At a range of 40 yards (\pm one foot) aim shall be taken at the center of a pattern sheet not less than 40 nor more than 60 inches square. The shot pattern shall be such that not less than 33 1/3 percent of the shot pellets shall be within or cut the edge of a 30-inch diameter circle for accuracy (pattern), drawn entirely on the pattern sheet so as to enclose the most shot. Five patterns shall be fired from each gun and the average must be as specified. The guns shall be hand held during firing, or mounted in a fixture that simulates hand firing. Ammunition shall be as specified in 3.17.3.

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3.17.5 Endurance.

3.17.5.1 Lot acceptance. Shotguns shall be capable of withstanding the firing of 3,000 rounds with no unserviceable, or broken parts and no more than three (3) malfunctions using standard commercial 12-gauge, 2 3/4-inch, 00 buckshot (9 pellets), maximum load shells. Type I shotguns shall include M7 bayonet and scabbard as specified in 3.3.1.a.

3.17.5.2 First article test. Three shotguns shall be capable of withstanding the firing of a total of 3000 rounds each with no unserviceable, detached or broken parts, no more than three (3) malfunctions per a single weapon, and no more than six (6) malfunctions total on the three weapons. The ammunition shall be as specified in 3.17.5.1. Type I shotguns shall include M7 bayonet and scabbard as specified in 3.3.1.a.

3.17.6 Rough handling. Shotguns shall be capable of withstanding the impact when dropped from a height of four feet onto a hard surface without causing the weapon to be unsafe or unserviceable. This shall apply throughout the temperature range of -20 to +120°F. Type I shotguns shall include M7 bayonet and scabbard as specified in 3.3.1.b.

3.17.7 Chemical resistance. Plastic parts shall not be affected by standard government insect repellents (O-I-503), small arms lubricants (MIL-L-14107, MIL-L-46000, MIL-L-46150), small arms cleaner and preservative (MIL-L-63460), gasoline (VV-G-1690), diesel fuel (VV-F-800), Preservative oil (MIL-L-3150) and dry cleaning solvent (P-D-680).

3.18 Interchangeability. Unless otherwise specified, all repair parts contained on the list furnished by the contractor (see 3.2) shall be interchangeable without hand or machine fitting (see 6.2).

3.19 Model number identification. The contractor shall identify models of weapons with positive identification. If in previous commercial or military production, the manufacturer identified a weapon model with a certain designation and intends incorporation of a component or assembly change which would affect functional characteristics, reliability, safety or interchangeability, the contracting officer should be notified. Such changes may or may not require a new model designation. upon request from the contracting officer, the contractor shall apply a new model number identification to the new procurement.

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3.20 Operator's manual. An operator's manual which clearly and fully explains the operation, field stripping and maintenance shall be provided with each shotgun. This manual shall also include a parts list, including contractor part numbers, keyed to an exploded assembly drawing. The manual for Type I shotguns shall state that the shotgun is compatible with the M7 bayonet, but not with the M1917 bayonet and shall illustrate both.

3.21 Marking. Marking of shotguns shall be in accordance with MIL-W-13855. Each shotgun shall be identified by serial numbers from a range of numbers submitted by the contractor and approved by the procuring activity (see 6.2). Each shotgun shall be marked with the following:

- a. Manufacturer's name.
- b. Serial number (on the receiver).
- c. Gauge and length of shell (on the barrel).
- d. Model number identification.
- e. "U.S." (mark on the receiver near the serial number).
- f. Contract identification: year and last four digits of contract number (e.g., 91-4321). (Locate under the serial number.)

3.22 Parts list. The contractor shall provide a comprehensive parts list (see 3.2) to maintain the shotgun during its service life. This list should reflect, but need not specifically identify all data available to the contractor, such as factory replacement and repair history, contractor test and endurance test history, sales to dealer and repair stations, etc.

3.23 Workmanship. workmanship shall be in accordance with MIL-W-63150.

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. Except 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

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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 Provisions. The requirements of MIL-I-45208, MIL-I-45607, or MIL-STD-45662, if specified in the contract, shall be applicable only to those inspections and tests (including associated equipment) required to assure the end items are in conformance with the technical requirements prescribed (see 6.2p).

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

- a. First article inspection (See 4.4).
- b. Quality conformance (production shotguns) inspection (see 4.5).

4.4 First article inspection. The First Article shall be selected from items produced prior to the beginning of quantity production. Unless otherwise specified in the contract, the First Article shall be subjected to the tests and examinations of Table II, and such other inspections as specified in the contract requirements. The First Article shall be representative of the manufacturing methods and processes used in quantity production.

4.4.1 First article submission. The contractor shall submit a first article sample consisting of ten (10) shotguns.

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

TABLE II. First article inspection.
CLASSIFICATION OF CHARACTERISTICS

PARAGRAPH	TITLE	SHEET 1 OF 4		DR
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH	NE
	Shotgun, 12 Gage, Riot-type			IN
	Material, Design, and Construction	10	3.2	4.
	Type I shotgun	10	3.3	Vi
	Bayonet adaptor	3	3.3.1.a	Vi
	Bayonet adaptor	3	3.3.1.b	Vi
	Bayonet adaptor	10	3.3.1.c	SM
	Bayonet adaptor	10	3.3.1.d	Vi
	Bayonet adaptor	10	3.3.1.e	SM
	Heat shield	10	3.3.2.a	SM
	Heat shield	3	3.3.2.b	Vi
	Heat shield	3	3.3.2.c	Vi
	Heat shield	10	3.3.2.d	Vi
	Heat shield	3	3.3.2.e	4.
	Type II shotgun	10	3.4	Vi
	Type III shotgun	10	3.5	Vi
	Class 1 receiver	10	3.6	Vi
	Class 2 receiver	10	3.7	Vi
	Barrel	10	3.8	SM
	Barrel Type III	10	3.8.1	Vi
	Sling swivel assembly	10	3.9	Ma
	General Characteristics	10	3.10	Vi
			Table I	
NOTES:				

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TABLE II. First article inspection.
CLASSIFICATION OF CHARACTERISTICS

PARAGRAPH	TITLE	SHEET 2 OF 4	
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH
	Shotgun, 12 Gage, Riot-type		
	Tubular Magazine	10	3.10.1
	Safe Fire Control (disconnecter)	10	3.10.2
	Safety Device	3	3.10.3
	Safe Unloading	10	3.10.4
	Slide and breech bolt action	10	3.10.5
	Extractor	10	3.10.6
	Ejector	10	3.10.7
NOTES:			

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TABLE II. First article inspection.
CLASSIFICATION OF CHARACTERISTICS

PARAGRAPH	TITLE	SHEET 3 OF 4		DF
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH	NE
	Shotgun, 12 Gage, Riot-type			
	Stock and fore-end - wood	CTR	3.10.9.1	4.
	Material	10	3.10.9.2	Vi
	Color	CTR	3.10.9.3	4.
	Protective finish compound	10	3.10.10	Vi
	Stock and fore-end - plastic	10	2.10.11	SM
	Recoil pad	CTR	3.10.11.	4.
	Recoil pad material		1	
	Trigger guard	10	3.10.12	SM
	<u>Finish</u>			
	Machine	10	3.10.13.	Vi
			1	
	Final protective	CTR	3.10.13.	4.
			2	
	Touch-up material	CTR	3.10.14	4.
	Supplementary oil	CTR	3.10.13.	4.
			2	
	Maintainability	10	3.11	Vi
	Human Engineering Characteristics	10	3.12	Vi
NOTES:				

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TABLE II. First article inspection.
CLASSIFICATION OF CHARACTERISTICS

PARAGRAPH	TITLE	SHEET 4 OF 4	
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH
	Shotgun, 12 Gage, Riot-type		
	Rough Handling	3	3.17.6
	Chemical resistance	10	3.17.7
	Operator's manual	1	3.17.20
	Marking	10	3.21
	Workmanship	10	3.23
	<u>Performance Tests</u>		
	Trigger pull	10	3.17.1
	High-pressure resistance and headspace	10	3.17.2
	Functioning	10	3.17.3
	Targeting and Accuracy (Pattern)	10	3.17.4
	Endurance	3	3.17.5
	Interchangeability	10	3.18
NOTES:			

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4.5 Quality conformance inspection.

4.5.1 Inspection lot formation The formation, size and presentation of inspection lots of shotguns shall be in accordance with MIL-STD-105. Inspection lots shall be as large as practicable, in consideration of quality history, manufacturing conditions, contractor's delivery schedule, and within the limits of MIL-W-13855.

4.5.2 Examinations and tests.

a. Classification of characteristics. Quality conformance examinations and tests are specified in the following Classification of Characteristics 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. When cited herein, attributes sampling inspection shall be conducted in accordance with MIL-STD-105.

b. Alternative quality conformance provisions. Unless otherwise specified herein or provided for in the contract, alternative quality conformance procedures, methods 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 6.11). 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.

QUALITY CONFORMANCE INSPECTION
CLASSIFICATION OF CHARACTERISTICS

PARAGRAPH	TITLE	SHEET 1 OF 2	
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH
4.5.2.1	Shotgun, 12 Gage, Riot-type		
MAJOR:			
101.	Bayonet adaptor	100%	3.3.1
102.	Heat shield	100%	3.3.2
103.	Safe Fire Control (disconnecter)	100%	3.10.2
104.	Safety Device	100%	3.10.3
105.	Slide and breech bolt action	100%	3.10.5
106.	Extractor	100%	3.10.6
107.	Ejector	100%	3.10.7
108.	Trigger pull	100%	3.17.1
109.	High-pressure resistance and headspace	100%	3.17.2
110.	Functioning	100%	3.17.3
111.	Targeting and accuracy (pattern) 1/		3.17.4
112.	Endurance	1	3.17.5.1
113.	Interchangeability	10	3.18
NOTES:			
1/ Five (5) percent of each inspection lot of shotguns shall be tested.			

QUALITY CONFORMANCE INSPECTION
CLASSIFICATION OF CHARACTERISTICS

PARAGRAPH	TITLE	SHEET 2 OF 2	
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH
4.5.2.1	Shotgun, 12 Gage, Riot-type		
MINOR:	<u>Stock and fore-end - wood</u>		
201.	Material	CTR	3.10.9.1
202.	Protective finish compound	CTR	3.10.9.3
203.	Stock and fore-end - plastic	CTR	3.10.10
	<u>Finish</u>		
204.	Machine	1.5	3.10.13.1
205.	Final protective finish 2/	CTR	3.10.13.2
206.	Touch-up material	CTR	3.10.14
207.	Supplementary oil	CTR	3.10.13.2
	<u>Stock</u>		
208.	Distance between center of screw holes (1.110)	1.5	
209.	Diameter, screw holes (.156, 2 places)	1.5	
210.	Workmanship	2.5	3.23
NOTES: 2/ Sample size shall be in accordance with 4.5.3.5.			

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4.5.3 Testing. All ammunition for testing shall be supplied by the contractor.

4.5.3.1 Safety, trigger pull, high-pressure resistance, slide and breech bolt action, and functioning testing. Each shotgun shall be tested for safety (see 3.10.3), trigger pull (see 3.17.1), high-pressure resistance and headspace (see 3.17.2), slide and breech bolt action (see 3.10.5), and functioning (see 3.17.3) in accordance with the test methods specified in 4.6.1, 4.6.2 and 4.6.3. Failure of a shotgun to pass any of the tests shall be cause for rejection of the shotgun.

4.5.3.2 Targeting and accuracy (pattern) A sample of five percent of the first production lot of shotguns (see 4.5.1) shall be tested for targeting and accuracy (Pattern) using the test method specified in 4.6.4. This test may be performed concurrently with the functioning test. If the first production lot of shotguns meets all requirements of targeting and accuracy (pattern), subsequent lots may be tested using five (5) shotguns per lot. Failure of any shotgun to meet the requirement shall be cause for rejection of the represented lot subject to retest or reconditioning and further test as a reconditioned lot. A retest of a sample of 10 percent from the same lot may be made without reconditioning the represented lot, unless in the opinion of the Government representative the failure indicates serious defects in the item, in which case retest shall be made only if authorized by the procuring agency.

Failure of any shotgun in the retest to meet the requirement shall be cause for rejection of the represented lot subject to reconditioning and further testing as a reconditioned lot. Prior to submission of a lot of shotguns as a reconditioned lot, the cause of failure shall be determined and contractor correction shall be effected on all shotguns in the lot. Sample size and test method for reconditioned lots shall be the same as for retest.

4.5.3.3 Endurance testing.

4.5.3.3.1 Lot acceptance. one shotgun selected from each inspection lot, shall be tested for safety and endurance requirements (see 3.10.3, 3.10.5, 3.10.6, 3.10.7 and 3.17.5.1) using the test method specified in 4.6.5. Failure of the shotgun to meet the requirements shall be cause for retest or rejection of the represented lot. An endurance retest of two (2) shotguns from the same lot may be allowed without reconditioning the lot, unless in the opinion of the Government representative the failure indicates serious defect in the item, in which case

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retest without reconditioning shall be allowed only if authorized by the procuring activity. Failure in retest shall be cause for rejection of the retested lot subject to reconditioning and further test as a reconditioned lot. An unserviceable part is one that causes malfunction or impairs the safety of the weapon. Malfunctions not attributable to the shotgun, as established by a contractor failure analysis, and agreed to by the Government representative, shall not be counted against the shotgun tested. However, such malfunctions shall be recorded. Sample size and test method for reconditioned lots shall be the same as for retest.

4.5.3.3.2 First article. Three shotguns shall be tested for safety and endurance requirements (see 3.10.3, 3.10.4, 3.10.5, 3.10.6, 3.10.7 and 3.17.5.2) using the test method specified in 4.6.5. Failure of one or more of- the shotguns to meet the requirements shall be cause for rejection of the first article. Definition of an unserviceable part and scoring of malfunctions not attributable to the shotgun, are the same as paragraph 4.5.3.3.1.

4.5.3.4 Interchangeability testing. A sample of ten shotguns from each inspection lot shall be tested for interchangeability of repair parts using the test method specified in 4.6.6. Shotguns taken for interchangeability testing shall have been found satisfactory in all other examinations and tests. Hand refinement of parts will not be allowed. Failure of any part of the interchange testing specified in 4.6.6 shall be cause for retest or rejection of the represented lot. An interchangeability retest using 20 shotguns may be allowed without reconditioning the lot of shotguns. Failure in the retest shall be cause for rejection of the represented lot subject to reconditioning and further test as a reconditioned lot. A sample of 20 shotguns from a reconditioned lot shall be tested using the same procedure described above.

4.5.3.5 Certification. The supplier shall be responsible for the testing necessary to accomplish certification. Unless otherwise specified, the supplier shall provide the Government representative with certified statements of compliance, certified test report with applicable drawings, specifications and standards for the following materials and processes for each inspection lot of shotguns. The certification provision of MIL-W-63150 shall apply.

a. Phosphate coating. For each day's production from each protective finish processing tank for each type of part, the contractor shall provide the Government representative with a

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certified test report of the corrosion test on three parts and a statement of compliance with applicable finish requirements of 3.10.13.2 herein, DOD-P-16232, and the applicable provisions of MIL-W-13855. In lieu of certification, where practicable, the Government representative may witness performance of accelerated corrosion tests. Failure of any part shall cause rejection of the represented lot.

b. Black oxide coating. For each day's production from each processing tank, furnish a certified statement of Compliance with 3.10.12.2 herein, MIL-C-13924, and the applicable provisions of MIL-W-1385 (spot test not required).

c. Anodic coating. For each day's production from each processing tank, furnish a certified statement of compliance with 3.10.13.2 and MIL-A-8625.

d. Touchup material per 3.10.14. Statement of Compliance

e. Linseed oil. Certified test report

4.5.3.5.1 Materials. Test required by applicable drawings and specifications shall be performed on materials used in the manufacture of shotguns. The contractor shall furnish the Government representative certified test reports of all tests required for each lot of each material used. The contractor shall also furnish certification that the materials used in packaging conform to the applicable specifications

specified (see 6.2), the packaging examination and testing shall be in accordance with MIL-P-116

4.6 Methods of inspection

4.6.1. Trigger pull test. Shotguns shall be tested for trigger pull requirement (see 3.17.1) at both the minimum and maximum limits using a Government approved measuring device. The shotgun shall be cocked and the safety shall be in the fire position. The load shall be gradually applied to the center of the trigger and exerted in a line parallel to the axis of the bore.

4.6.2 High-pressure resistance test and headspace. Shotguns shall be tested for high-pressure resistance requirement (see 3.17.2) by firing one high pressure test shell in each shotgun. After firing, shotguns shall be visually examined for

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cracks, deformations, and other evidence of damage and shell cases shall be visually examined for bulges, splits, rings, and other defects caused by defective barrels. Headspace shall be checked using inspection equipment approved by the Government.

4.6.3 Functioning test. Shotguns shall be tested for functioning requirement (see 3.17.3) by hand functioning and function firing. In performing this test, all shells shall be fed from the magazine. Prior to firing, one magazine full of dummy shells (5 minimum) shall be chambered, extracted and ejected by hand operation of the slide without pulling the trigger. Shotguns shall then be function fired by firing at least one magazine full of rounds (5 minimum). All shells shall be fed from the magazine. Moving the slide entirely to the rear shall extract the shell from the chamber and eject it freely and completely out of the receiver. Returning the slide action forward to the closed position shall feed the next shell into the chamber. Thrusting the slide forward sharply by hand in cambering shall not fire the shell. The safe fire control feature shall be checked for compliance with 3.10.2. The safety device shall be actuated and firing attempted to determine compliance with 3.10.3 including actuating force (see Table I).

4.6.4 Targeting and accuracy (pattern) test. Shotguns shall be tested for targeting and accuracy (pattern) requirement (see 3.17.4) at a range of 40 yards \pm one foot. The pattern sheet shall not be less than 40 nor more than 60 inches square. Aim shall be taken on the pattern sheet. Five shots shall be fired at five different pattern sheets (one shot per target).

A 30-inch circle, entirely on the pattern sheet, shall be superimposed over the maximum density of the shot holes of each target. The shot holes within the 30-inch circle of each target shall be counted and the average of the five targets shall be used to determine whether the pattern requirements have been met.

4.6.5 Endurance test. Shotguns shall be tested for endurance requirement (see 3.17.5) by firing 3000 rounds of ammunition. The safety device shall be tested for endurance by being actuated and checked for compliance with 3.10.3 prior to each magazine full of shells during the firing of 3000 rounds. The force to actuate the safety device shall be measured at the start of firing and at 1000-round intervals. The speed at which slide is operated and the attitude of the gun shall be varied throughout the test to determine compliance with the requirements of 3.10.6 and 3.10.7 dealing with "fired" shells. Shotguns shall be lubricated prior to the testing and may be cleaned and lubricated at intervals of not less than each 100 rounds or at the close of the day's firing at the contractor's option. Forced

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air cooling during the cleaning cycle is permitted. Disposition of endurance tested shotguns shall be as specified in the contract. Endurance tested shotguns may be procured at the end item contract price and shall not be counted as part of the deliverable quantity required by contract (see 6.2).

4.6.6 Interchangeability test. Shotguns shall be tested for interchangeability of repair parts (see 3.18) by disassembling the shotguns and placing parts of each kind in the same container. The ten shotguns shall then be reassembled using repair parts taken at random from each container and subjected to the functioning test of 4.6.3 and the headspace test of 4.6.2.

4.6.7 Rough handling. After completion of the performance test, three weapons shall be chosen and subjected to the rough handling test. Each weapon will have the safety "on", a primed cartridge case in the chamber and a fully loaded magazine. One weapon shall be conditioned at -20°F , one at ambient and one at $+120^{\circ}\text{F}$ for a minimum of four hours prior to the test. The weapons shall be dropped a minimum distance of four feet (lowest point on the weapon to the drop surface) in each of the following five modes: butt end down, right side down, left side down, top side down, and 45 degree angle with vertical Plane - butt end down. The drop surface shall be 85 + 5 Durometer (Shore A) rubber mat, one inch thick, backed by concrete. At the test's conclusion, the weapon must be safe and serviceable and the primed shell shall not have fired.

4.6.8 Chemical resistance. One sample of each plastic material shall be submerged in each chemical listed in 3.17.7 for 24 hours at ambient temperature. The samples shall be removed, rinsed, dried, and visually and manually inspected. No sample shall display softening, checking, deformation or other adverse effects.

4.6.9 Heat shield effectiveness. Type I shotguns shall be tested for heat shield effectiveness (see 3.3.2.e). The shotgun and its ammunition shall be conditioned at $78^{\circ}\text{F} \pm 8^{\circ}\text{F}$ for a minimum of 4 hours. Then 25 rounds of standard, commercial, 12-gauge, 2 3/4-inch, 00 buckshot (9 pellets) maximum load shells shall be fired in not more than 3 minutes (rate of fire is to be approximately 1 shot every 5 seconds). Immediately after completion of the firing, the temperature of representative areas of the exterior of the heat shield shall be measured. No measurement shall exceed initial temperature plus 40°F . Areas to be measured and measuring equipment used shall be approved by the Government representative. At the discretion of the contractor, this test may be performed in conjunction with the endurance test (4.6.5).

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5. PACKAGING

5.1 Preservation. Preservation shall be levels A, B or C as specified (see 6.2). Material, methods, processes and procedures specified shall be in accordance with MIL-P-116.

5.1.1 Level A.

5.1.1.1 Cleaning. Weapons shall be disassembled as necessary to accomplish cleaning. All metallic surfaces shall be cleaned by process C-3 and the following special cleaning. Non-metallic surfaces shall be cleaned by process C-1.

5.1.1.1.1 Special cleaning. (Burned powder residue) Surfaces of components subject to burned powder residue (firing pin, barrel bore, chamber, etc.) shall be scrubbed clean with bristle brushes or swabs saturated with rifle bore cleaner MIL-C-372. Flush scrubbed surfaces with solvent P-D-680.

5.1.1.1.2 Drying. All cleaned surfaces shall be thoroughly dried prior to preservation application. Drying shall be in accordance with procedure D-1 except that barrel bore and chamber shall be dried by procedure D-4 using clean, dry, lint-free swabs.

5.1.1.1.3 Preservation application. All metallic surfaces shall be coated with P-9 applied by any process. Excess oil shall be thoroughly drained from coated surfaces.

5.1.1.1.4 Unit pack. The assembled weapon shall be unit packed per method IC-1 of MIL-P-116. Insert bore tube (Drawing 7266299) P/N 7267767 into barrel bore. Place weapon into VCI-treated barrier bag in accordance with MIL-B-22020. Place bagged weapon in the supplementary unit container with the serial number facing up. Container shall be in accordance with PPP-B-636, Grade W5C. Place packaged components in container and secure with tape A-A-883. Use PPP-F-320 or PPP-C-843 to create a tight pack. Close container and seal all seams and joints with PPP-T-76 in accordance with PPP-B-636.

NOTE : The manual and other components shall be packed as follows: Non-metallic parts method IC-3 of MIL-P-116. Metallic parts IC-1. Cleaning, drying and preservation application shall be as previously stated.

5.2 Packing. Packing shall be level A or B as specified in 6.2.

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5.2.1 Level A shipping container in accordance with PPP-B-601, OS shall be used.

5.2.2 Level B. A shipping container in accordance with PPP-B-640, WR shall be used. The packed container shall be secured to a pallet in accordance with PPP-P-1660, Type I, Class A, Grade 2.

5.3 Marking. Marking shall be in accordance with MIL-STD-129. Sensitive marking requirements apply. Serial number marking required. Packing list required.

6. NOTES

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

6.1 Intended use. The shotguns furnished to this specification are intended for military guard duty, riot control and combat.

6.2 Acquisition requirements. Acquisition documents must specify the following:

- a. Title, number and date of this specification.
- b. Type and class required (see 1.2).
- c. Requirements for first article (see 3.1)
- d. Slings, if different (see 3.10.8).
- e. Final protective finish, if other than specified (see 3.10.13.2).
- f. Interchangeability of repair parts if other than specified (see 3.18).
- g. Request for a block of serial numbers (see 3.21).
- h. Level of packaging and packing (see Section 5).
- i. Responsibilities for furnishing acceptance inspection equipment, if other than specified (see 6.4) .
- j. Disposition instructions for endurance tested shotguns and first article shotguns (see 4.6.5) subject to limitations of 3.10.13.1.

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- k. Packaging examination and testing, if different (see 4.5.4).
- l. Length of barrel if other than 20 (see Table I).
- m. software data base required see 3.2).
- n. Length of chamber if other than 2.75 (see Table I).
- o. Issue of DODISS to be cited in the solicitation (see 2.1.1 and 202).
- p. If the requirements of MIL-I-45208, MIL-I-45607 or MIL-STD-45662 are to apply to the acquisition, the procurement documents should specify such applicability including that the requirements of MIL-I-45208, MIL-I-45607 or MIL-STD-45662 shall be applicable only to those inspections and tests (including associate equipment) required to assure the end items are in conformance with the technical requirements prescribed. (see 4.1).
- q. The following drawings will be required by the contractor to establish compatibility of the M7 bayonet with shotgun 11010009, 11010010, 11010011, 11010066, 11010067, 11010068, 11010069 and 11010076.

6.3 Color standards for stocks may be obtained from:

Commander U.S. Army Armament Research, Development and Engineering Center (ARDEC) ATTN: SMCAR-QAF-S, Picatinny Arsenal, NJ 07806-5000.

6.4 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 "Method 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 design 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 6.4.2 and 6.4.3 should he elect to do so.

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6.4.1 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 establishes the criteria which a detailed design shall meet. When envelope drawings are specified, the contractor shall prepare designs which comply with the criteria therein.

6.4.2 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 in the general public.) Contractor designs shall include appropriate operating instructions, calibration procedures and maintenance procedures. Commercial equipment shall be fully described by catalog listing 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 thereby (see 6.4.1c). 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 of assembly drawing number, revision letter and date to which the specific design applies.

6.4.3 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 stipulations, 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 specific segment of

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ARDEC to which the contractor designs shall be sent will be SMCAR-QAF-I. 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 number, etc.).

The designs remaining to be submitted and the expected date of submittal.

6.5 Definitions.

6.5.1 Contractor. Unless otherwise specified, the word Contractor used throughout this or the item detail specification shall mean any supplier or producer of item or material to the Government. This shall include commercial contractors; sub-contractors, Government Owned, Contractor Operated (GOCO) and Government Owned, Government Operated (GOGO) plants.

6.5.2 Technical data package (TDP). A technical description of an 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, drawings, and associated lists, specifications, standards, models, performance requirements, quality assurance provisions, and packaging data.

6.5.3 Critical defect. A defect that judgement and experience indicate is likely to result in hazardous or unsafe conditions for individuals using, maintaining, or depending upon product; or a defect that judgement 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.

6.5.4 Special defect. A defect, other than Critical, that judgement 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.

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

6.7 Test firing facilities and operating 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.

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

6.9 Subject term (key word) listing.

Hammerless
Manually Operated Slide Action
small Arms
Take-down Receiver

6.10 Changes from previous issue. Asterisks (or vertical lines) are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

6.11 Submission of alternative inspection 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.

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

Preparing activity:
Army-AR
(project 1005-0812)

User Activity:
Navy - MC

NOTICE OF INACTIVATION
FOR NEW DESIGN

INCH-POUND

MIL-S-3443G(AR)
NOTICE 1
12 December 1995

MILITARY SPECIFICATION

SHOTGUN, 12 GAGE, RIOT-TYPE

This notice should be filed in front of MIL-S-3443G (AR), dated 4 October 1993

MIL-S-3443G(AR), dated 4 October 1993, is inactive for new design and is no longer used, except for replacement purposes.

Preparing Activity:
Army - AR

AMSC N/A

FSC 1005

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