## BARBER - PRESALE R 0105406

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MIL-R-1296D

26 November 1975 SUPERSEDING MIL-R-1296C 31 August 1964

### MILITARY SPECIFICATION

RIFLE, CALIBER .22: M12

### COMMERCIAL, MATCH GRADE

**ELECEIVED** 1973. WILSON

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

1. SCOPE

1.1 This specification covers one type of manually operated, boltaction, heavy barrel, rimfired rifle of commercial design, chambered for caliber .22 long rifle cartridges, used for marksmanship matches.

### 2. APPLICABLE DOCUMENTS

2.1 <u>Issues of documents</u>. The following documents, of the issue in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein:

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### SPECIFICATIONS

<u>Federal</u> P-D-680 TT-L-215	-	Dry Cleaning Solvent Linseed Oil, Raw (for use in Organic Coatings)
UU-C-282	-	Chipboard
PP <b>P-B-6</b> 01	. 🕳	Boxes, Wood, Cleated-Plywood
PPP- <b>B-621</b>	· -	Boxes, Wood, Nailed and Lock-Corner
PPP-B-636	-	Boxes, Shipping, Fiberboard
PPP-T-42	-	Tape, Packaging/Masking Paper
<u>Military</u>		
MIL-P-116	-	Preservation-Packaging, Methods of
MIL-B-117	-	Bags and Sleeves, Interior Packaging
MIL-C-372	-	Cleaning Compound, Solvent (for Bore of Small Arms and Automatic Weapons)

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MIL-P-3420	- Packaging Materials, Volatile
	Corrosion Inhibitor, Treated,
	Opaque
MIL-I-8574	- Inhibitors, Corrosion, Volatile,
	Utilization of
MIL-F-13088	- Finish, Protective, Tung (Chinawood)
	011 Base (for Wooden Components of
	Small Arms)
MIL-P-14232	- Parts, Equipment and Tools for Army
	Materiel, Packaging and Packing of
MIL-I-45607	- Inspection Equipment, Acquisition,
	Maintenance and Disposition of

## STANDARDS

Federal Fed. Test Method Std. No. 101 Fed. Std. No 356	Packing Materials: Test Procedures
Military	
MIL-STD-109	- Quality Assurance Terms and Definitions
MIL-STD-129	- Marking for Shipment and Storage
MIL-STD-130	- Identification Marking of U.S. Military Property
MIL-STD-147	- Palletized and Containerized Unit Loads
MIL-STD-1186	<ul> <li>Cushioning, Anchoring, Bracing, Blocking, and Waterproofing; with Appropriate Test Methods</li> </ul>
DRAWINGS	

# <u>Rock Island Arsenal</u> B7265933 - Bag, Barrier w/VCI Treated Liner (for Rifles and Shotguns) B7266299 - Tube, Bore, VCI Treated C11018988 - Gage, Comparison, Color and Surface Finish for Wood Components

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

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

Sporting Arms and Ammunition Manufacturers Institute

S.A.A.M.I Technical Committee Manual Rimfire .22 Long Rifle

(Applications for copies should be addressed to the Sporting Arms and Ammunition Manufacturers Institute, 420 Lexington Avenue, New York, New York 10017.)

A REQUIREMENTS

3.1 Bid samples.

\* 3.1.1 Each bidder shall furnish the specified number of bid sample rifles (see 6.1) of the design he proposes to supply for test and evaluation for determination of compliance with this specification and other characteristics as may be desired by the Government. Rifles shall be representative of the latest commercially available design modified as necessary to meet this specification. Unless otherwise specified, bid sample rifles shall be prepared for delivery in accordance with level B requirements and shall be forwarded to the test and evaluation agency specified in the contract. Along with the submitted sample, each bidder shall indicate the commercial nomenclature and model designation of the samples submitted.

\* 3.1.2 Upon award of contract, samples submitted by the successful bidder and approved by the evaluation and test agency will be retained for use by the contractor and the Government as inspection standards. These standards shall apply to all characteristics for which definite requirements are not prescribed.

3.2 <u>Materials, design, and construction</u>. Materials, design, and construction shall conform to this specification and to the approved manufacturing models. The action and parts in rolling or sliding contact shall be hardened steel. Staked or dovetailed members shall have sufficient temper to retain their original fit after extended use.

3.2.1 <u>General characteristics</u>. General characteristics shall be in accordance with Table I.

3.2.2 Shape. The stock shall have a drop of not more than 3/8 inch at the comb and not more than 1/4 inch at the heel. Measurements shall be made from the centerline of the bore.

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## TABLE I

## General Characteristics

Weight (unloaded, with sight, without	11 to 13 pounds
accessories)	
Barrel	Free floating
Barrel length	26 to 29 inches
Overall length	46 to 48 inches
Type of sights:	
Rear	Redfield International with Merit Iris
	Shutter Delux Disc No. 3SS with flexible
	rubber shield, or approved equal
Front	Redfield Olympic, globe target front sight,
	with 16 metal interchangeable inserts:
	(13 aperture type sized 0.095 inch to
	0.155 inch in 0.005 inch increments and
	3 post type sized 0.080 inch, 0.090 inch,
	and 0.100 inch), or approved equal
Action	Turn-bolt, single shot, solid bottom
	receiver
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Stock	Target type, with full length metal rail
	on bottom fore end which will accept a
	palm rest and an adjustable fore end stop.
	Non-slip rubber butt plate (see 3.2.11).
Telescope sight bases	Mounted on rifles
Trigger pull	Adjustable in weight from 1 to 3 pounds
	in sear engagement, and in movement after release.

3.2.3 <u>Balance</u>. The length of pull (distance from the trigger to the butt of the stock measured parallel to the centerline of the bore) shall be not less than 13 inches and not more than 13 3/4 inches. The center of balance shall be 8 to 10 inches forward of the trigger.

3.2.4 <u>Barrel</u>. The barrel shall be so fabricated that, upon assembly to the receiver, the requirements for accuracy and targeting hereinafter prescribed shall be met. The bore and chamber shall be free of scratches, cracks, seams, pits, and toolmarks.

3.2.4.1 <u>Barrel and receiver assembly</u>. The barrel shall be shouldered and the shoulder shall be drawn tight against the receiver by screw threads. The nominal diameter of the screw threads shall not be less than 3/4 inch. The length of barrel supported in the receiver, consisting of threaded or a combination of threaded and unthreaded portions, shall be not less than 100 percent of the nominal thread diameter, provided that the threaded portion shall be at least equal to 65 percent of the nominal thread diameter.

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MIL-R-1296D 3.2.5 Bolt assembly. The bolt shall be free of cracks, burs, toolmarks, scratches, and mutilations. It shall move freely through its full range of travel without binding.

3.2.6 <u>Trigger</u>. The trigger shall return to its normal forward position immediately upon release after partial or complete trigger pull.

\* 3.2.7 <u>Sights</u>. The front sight component parts shall have no looseness in assembly and the front sight assembly shall have no looseness where affixed to its base. The rear sight shall be adjustable by hand; the movement from "click" to "click" shall be distinct, but not difficult to turn. The moveable parts of the rear sight shall be fitted closely enough to prevent discernible "shake" or backlash. After adjustment, the sight shall maintain its setting during firing (see 3.3.4 and 3.3.5).

3.2.8 <u>Safety device</u>. A safety device shall be provided which, when set at the safe position, shall prevent firing of the rifle. It shall be movable manually between the safe position and the fire position and shall remain in the position set until reset manually.

3.2.9 Finishes.

3.2.9.1 <u>Machine finish</u>. Machine finishes shall be in accordance with good commercial practice for the type of rifle furnished.

3.2.9.2 <u>Final protective finish</u>. The exterior metallic surfaces shall be polished and blued, or blackened and shall be uniform in texture and appearance. The finish shall be applied so as not to draw the temper or alter the form or dimensions of components sufficiently to affect functioning.

3.2.10 Stock.

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3.2.10.1 <u>Material</u>. The stock shall be of dense walnut (black) or birch (yellow or sweet). The grain 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. Stocks shall be free of patches. Small checks, cracks, and knotholes shall be filled with plastic fillers or other suitable material approved by the procuring agency.

3.2.10.2 <u>Color</u>. After protective finish treatment (see 3.2.10.3) the stocks shall have a uniform nonbleeding color which shall be no lighter than color standard 11018988-W (walnut), or 11018988-B (birch), Drawing C11018988, as applicable. Black walnut or birch may be stained prior to the protective finish treatment.

3.2.10.3 <u>Protective finish compound</u>. The stock shall be treated with tung (chinawood) oil base protective finish compound conforming to ML-F-13088, raw linseed oil conforming to TT-L-215, or other suitable finish approved by the procuring agency.

3.2.11 <u>Butt plate</u>. The butt plate shall be of soft synthetic rubber compound which is resistant to oil and cleaning solvents. It shall be approximately 5/16 inch thick, having horizontal serrations with the teeth pitching downward, spaced at approximately 3/32 inch deep. Color scheme shall be consistent with good commercial practice. Mounting screws shall be recessed below the roots of the serrations on the rear surface of the butt plate.

3.2.12 <u>Swivels</u>. The rifle shall be equipped with swivels adaptable to slings  $1 \frac{1}{4}$  inches wide and 1/8 inch thick. The front swivel shall be movable permitting adjustment of handhold with relation to the sling. After adjustment, the front swivel shall maintain its position during normal usage.

#### 3.3 Performance characteristics.

3.3.1 <u>Trigger pull</u>. The trigger pull shall be free of detectable creep and shall be capable of adjustment within the range specified in Table I (see 3.2.1). Creep shall be interpreted to mean any detectable movement between the time positive resistance is met and the firing mechanism is released. There shall be additional adjustment remaining in the adjusting davice when the trigger pull has been set to meet the specified trigger pull requirements. After adjustment of the trigger pull, the rifle shall demonstrate the ability to consistently retain the trigger pull setting within 4 ownces (see 3.3.5). Testing shall be as specified in 4.5.2.2.

\* 3.3.2 Functioning. The rifle shall operate without malfunctions, unserviceable parts, punctured or ruptured cartridge cases and loose stock or screws, using standard velocity commercial cartridges conforming to Sporting Arms and Ammunition Manufacturers' Institute (SAAMI) standards. Drawing the bolt entirely to the rear shall extract the cartridge or cartridge case from the chamber and eject it freely and completely out of the receiver. Returning the bolt forward to the closed position shall push a cartridge from the loading platform into the chamber. Thrusting the bolt forward sharply by hand in chambering a cartridge shall not fire the cartridge. Testing shall be as specified in 4.5.2.2

\* 3.3.3 <u>High-pressure resistance</u>. The rifle shall withstand the firing of one high-pressure cartridge containing the SAAMI standard commercial proof load of 310 to 330 Copper Units of Pressure (CUP) with no evidence of cracks, seams, and other injurious defects. After proof-firing the headspace shall be 0.042 inch minimum to 0.046 inch maximum. Testing shall be as specified in 4.5.2.2.

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## 3.3.4 <u>Targeting and accuracy</u>

3.3.4.1 <u>Ammunition</u>. The rifle shall meet the following targeting and accuracy requirements using selected lots of match grade ammunition conforming to SAAMI standards having an average extreme spread of all targets at 100 yards of 1.0 inch or less.

3.3.4.2 <u>Targeting</u>. Sights shall be capable of being zeroed to the rifle within the limits of the adjustable windage and elevation index plates and still have additional adjustment remaining on the index plates in both directions. A series of 5 shots fired from the rifle at a range of 100 yards shall be within or cut the edge of a bull's eye 4 inches in diameter, or a series of 5 shots fired at a range of 50 yards shall be within or cut the edge of a bull's eye shall be within or cut the edge of a bull's eye shall be within or cut the edge of a bull's eye shall be within or cut the edge of a bull's eye 1 inches in diameter. Testing shall be as specified in 4.5.2.2.

3.3.4.3 <u>Accuracy</u>. The average extreme spread, measured from center to center of shot holes, of three consecutive 10-shot groups fired at a range of 100 yards shall not exceed 1.20 inches, and no individual group shall exceed 1.30 inches, or 3 consecutive 10-shot groups fired at a range of 50 yards shall not exceed 0.50 inch average extreme spread and no individual group of the series shall exceed 0.60 inch. Testing shall be as specified in 4.5.2.2.

\* 3.3.5 Endurance. The rifle shall be capable of withstanding the firing of 2,000 rounds without malfunctions or unserviceable parts using cartridges specified in 3.3.2. Cleaning and lubrication are allowed after each 500 rounds and at the end of a day's firing. In addition, the rifle shall be capable of withstanding an additional 2,000 falls of the firing pin upon an empty chamber, without malfunctions, unserviceable parts or damage to the chamber. Lubrication is allowed after each 500 snaps. After the 2,000 rounds and 2,000 snaps, the rifles shall meet the trigger pull (see 3.3.1), and targeting and accuracy (see 3.3.4) requirements of this specification. Testing shall be as specified in 4.4.

\* 3.4 <u>Model number identification</u>. 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 an 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 identification. Upon request from the contracting officer, the contractor shall apply a new model number identification to the new procurement.

\* 3.5 <u>Handbook of instructions</u>. A handbook of instructions for cleaning and maintenance and a parts list shall be provided with each rifle.

\* 3.6 <u>Marking</u>. Each rifle shall be identified by a serial number assigned by the procuring agency (see 6.1). Each rifle shall be marked with the following in accordance with MIL-STD-130:

- a. Manufacturer's name
- b. Serial number (on the receiver)
- c. ".22 long rifle"
- d. Model number identification
- e. "U.S." (mark on the receiver near the serial number),

\* 3.7 Workmanship. Workmanship and finish shall be in accordance with the highest grade practice used in manufacturing commercial weapons. Finished items and parts shall not exhibit poor material and processing such as seams, laps, laminations, cracks, visible steps, sharp edges, nicks, scratches, burs, deformations and missing operations which may affect serviceability, functioning, operation, appearance or safety. Fins and other extraneous metal shall be removed from cast or forged parts. Hammering to shape, salvage operations (including repair by welding except that normal cosmetic welding of surface blemishes on forgings or castings prior to heat treatment shall be permissible, except on barrels) or other similar practices shall not be permitted without prior approval of the procuring activity.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 <u>Responsibility for inspection</u>. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified, the supplier may utilize his own facilities or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specifications where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.2 Quality assurance terms and definitions. Quality assurance terms and definitions used herein are in accordance with MIL-STD-109.

\* 4.3 <u>Classification of inspection</u>. The inspection requirements specified herein are classified as follows:

a. Bid sample inspection (see 4.4).
b. Quality conformance inspection (see 4.5).

\* 4.4 <u>Bid sample inspection</u>. Bid sample rifles shall be subjected to the quality conformance inspection specified herein, the endurance test (see 4.6.6) and such other inspection as necessary to determine compliance with the contract.

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4.5 Quality conformance inspection.

4.5.1 <u>Examination</u>. Each rifle shall be examined in accordance with Table II.

\* 4.5.1.1 <u>Inspection methods</u>. The following provisions shall be applicable to the prescribed inspection methods. Requests for a method other than that specified shall be submitted for Government approval. The examination provisions should be applied at the earliest practical point in manufacture at which it is feasible to inspect for acceptance without risk of change in the characteristic by subsequent operations. Reinspection of these characteristics on the completed product is not required provided assurance exists the characteristic has not been changed, degraded or damaged by subsequent manufacturing, assembly or handling and that adequate inspection records are maintained. Rifles failing to meet the requirements shall be rejected.

- a. Where "Visual" is specified as the inspection method for dimensional and machine finish inspection, the characteristic shall be scaled and compared with a specimen of known acceptable quality that has been established as an inspection standard (if applicable).
  b. Where "Visual" is specified as the inspection method
- b. Where "Visual" is specified as the inspection method for functioning requirements, the assembly shall be visually examined for completeness and manually operated for functioning requirements as specified.
- c. Where "Visual" is specified as the inspection method for protective coating, the coating shall be visually examined for completeness, uniformity in appearance and color, freedom from pits, corrosion, scratches, and worn or bare spots.
- d. Where "SMTE" (Standard Measuring and Test Equipment) is specified as the method of inspection, the contractor may use any type of industry-developed, commercially available, multi-usage equipment or special inspection equipment approved by the Government.

#### TABLE II

# Examinations

Characteristic	Requirements	Inspection Method
Materials, design, and construction	3.2	Visual
General characteristics	3.2.1	SMTE, Visual
Shape (stock)	3.2.2	SMTE
Balance	3.2.3	SMTE
Barrel	3.2.4	Visual
Barrel and receiver	3.2.4.1	SMTE
Bolt assembly	3.2.5	Visual
Trigger	3.2.6	Visual
Sights	3.2.7	Visual
Safety device	3.2.8	Visual
Finishes	3.2.9	Visual
Stock	3.2.10	Visual
Stock color	3.2.10.2	Visual (see
		4.5.4.4)
Butt plate	3.2.11	Visual
Swivels	3.2.12	SMTE, Visual
Marking	3.6	Visual
Workmanship	3.7	Visual

## 4.5.2 Testing.

\* 4.5.2.1 <u>Failure data</u>. All tests shall be conducted on a complete rifle. If test requirements cited herein are not met, acceptance of the rifle shall be deferred and the contractor shall accomplish, as applicable, the following actions:

- a. Conduct a failure analysis study performing a dimensional physical and visual examination of the components which are suspected to be the cause of failure or malfunction.
- b. Evaluate and correct the applicable production processes and procedures to prevent recurrence of the same defect(s) in future production.
- c. Examine rifles, partially assembled rifles and components (including components and subassemblies at in-process or final assembly) to insure that material containing the same defect is purged from the inventory and not presented to the Government for acceptance.
- d. Submit the results of the failure analysis and the corrective actions taken to the Government for review and approval prior to submitting a reconditioned lot or reconditioned rifle for retest.

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\* 4.5.2.2 <u>Trigger pull, functioning, high-pressure resistance, and</u> <u>targeting and accuracy firing testing</u>. Each rifle shall be tested for trigger pull (see 3.3.1), functioning (see 3.3.2), high-pressure resistance (see 3.3.3) and targeting and accuracy (see 3.3.4) using the test methods specified in 4.6.1, 4.6.2, 4.6.3, 4.6.4 and 4.6.5. The tests for functioning and targeting and accuracy may be performed concurrently. Failure of the rifle to meet any of the requirements shall cause rejection of the individual rifle.

\* 4.5.3 <u>Packaging examination and testing</u>. Unless otherwise specified (see 6.1), the packaging examination and testing shall be in accordance with MIL-P-14232.

4.5.4 Inspection equipment.

4.5.4.1 <u>Acquisition, maintenance and disposition</u>. Unless otherwise specified (see 6.1), responsibility for acquisition, calibration, maintenance, and disposition of acceptance inspection equipment required to perform inspection prescribed by applicable specifications shall be in accordance with MIL-I-45607.

\* 4.5.4.2 <u>Accuracy of standard measuring equipment</u>. When commercial and modified commercial inspection and test equipment is used, it must be capable of repetitive measurements to an accuracy of 10 percent of the total tolerance of the characteristic being inspected.

\* 4.5.4.3 <u>Ammunition</u>. Cartridges used in various tests shall be as specified in 3.3.2, 3.3.3, and 3.3.4. When functioning and targeting and accuracy tests are performed concurrently, cartridges specified in 3.3.4 shall be used. Malfunctions attributable to defective ammunition shall not be counted against the rifle being tested.

4.5.4.4 <u>Color comparison gage</u>. Color comparison gages 11018988-W (Walnut) or 11018988-B (Birch) (Drawing C11018988) shall be used for visual color comparison of stock wood finish (see 6.2).

4.6 Test methods.

4.6.1 <u>Trigger pull test</u>. The rifle shall be tested at both the minimum and maximum limits of required adjustment using a contractor designed, Government approved measuring device. The rifle 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. The trigger pull shall be tested for creep by applying pressure manually to the trigger at a uniform rate of increase over a period of not less than three seconds.

4.6.2 <u>Functioning test</u>. The rifle shall be tested by hand functioning and function firing. Prior to firing, five dummy cartridges shall be chambered, extracted, and ejected by hand operation of the bolt without pulling the trigger. Rifles shall then be function fired by firing at least 10 rounds. Chambering of each of the 10 rounds shall be accomplished by thrusting the bolt forward sharply. The safety device shall be checked (see 3.2.8) by attempting to fire the rifle with the safety device set at the safe position.

4.6.3 <u>High-pressure resistance test</u>. The rifle shall be tested by firing one high-pressure test cartridge in each rifle. After proof firing, rifles shall be visually examined for cracks, deformations, and other evidence of damage, and cartridge cases shall be visually examined for bulges, splits, rings, and other defects caused by defective bolt face, chamber, or incorrect headspace. Headspace shall be checked using a contractor designed, Government approved measuring device.

4.6.4 <u>Targeting test</u>. The rifle shall be fired with the sights set at zero windage and elevation and aligned at 6 o'clock on the bull's-eye using post-type front sight inserts. The targets shall be checked to determine whether the targeting requirements have been met, and the rifles shall be checked to determine whether additional index plate adjustment is available (see 3.3.4.2).

4.6.5 <u>Accuracy firing test</u>. The rifles shall be shoulder fired or fired using a muzzle and elbow rest or a machine rest simulating shoulder firing. Each rifle may have a 10-shot warmup, prior to test, for adjustment of test equipment and rifle. Refiring any individual target of 10 shots will be permitted to eliminate nonrepresentative results due to ammunition "flyers". A "flyer" is defined as a shot hole which is a greater distance from the nearest shot hole than the extreme spread of the other 9-shots of the 10-shot group. One refiring of any target will be permitted to eliminate nonrepresentative results induced by faulty test procedure or malfunctioning test equipment.

\* 4.6.6 <u>Endurance test</u>. The rifle shall be tested by firing 2,000 rounds of ammunition. Cleaning and lubricating shall be performed after each 500 rounds and at the end of a day's firing. In addition, the rifle shall be tested by 2,000 falls of the firing pin upon an empty chamber. Lubrication shall be performed after each 500 snaps. Upon completion of the endurance test, rifles shall be subjected to the trigger pull test and the targeting and accuracy firing tests specified in 4.6.1, 4.6.4, and 4.6.5.

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#### 5. PREPARATION FOR DELIVERY

5.1 <u>Pilot pack</u>. The pilot pack shall consist of a rifle packaged in accordance with the requirements specified herein and for the level of protection specified in the contract (see 6.1), packed level B, and forwarded in accordance with 3.1.

5.2 <u>Preservation and packaging</u>. The following is applicable to levels A and B. The front and rear sights shall be detached from the rifle prior to preservation and packaging. The rifle and sights shall be preserved and packaged in accordance with the requirements specified herein and for the level of protection specified in the contract (see 6.1). Materials, methods, processes and procedures specified herein shall conform to the requirements of MIL-P-116 and MIL-P-14232.

5.2.1 <u>Level A</u>.

5.2.1.1 <u>Cleaning</u>. The rifle shall be further disassembled as necessary, to accomplish cleaning. All metallic surfaces of the rifle and sights shall be cleaned by process C-3. Surfaces of parts subjected to burned powder residue (i.e. bore and chamber, and bolt face) shall be scrubbed clean with bristle brushes saturated with rifle bore cleaner conforming to MIL-C-372 followed by a wash of solvent conforming to P-D-680. Non-metallic ' parts of the rifle and sights shall be cleaned by process C-1.

5.2.1.2 <u>Drying</u>. All cleaned surfaces shall be dried prior to preservative application. Drying shall be accomplished in accordance with procedure D-1 except that barrel bores and chambers shall be dried in accordance with procedure D-4 using clean, dry, lint free swabs.

5.2.1.3 Preservative application.

5.2.1.3.1 <u>Oil application</u>. Oils or lubricants removed or contaminated during the cleaning process shall be reapplied as applicable in accordance with the manufacturer's standard practice.

5.2.1.3.2 <u>Volatile corrosion inhibitor (VCI) application</u>. Unless otherwise specified herein, VCI treated material shall conform to Type I, Class 1, Style C of MIL-P-3420. The procedure for use and application of VCI treated materials shall conform to the requirements of MIL-I-8574.

5.2.1.3.3 <u>Rifle</u>. All sharp corners and projections of the rifle capable of abrading or puncturing the barrier bag specified in 5.2.1.4.1 shall be cushioned with VCI treated material. A VCI treated bore tube conforming to drawing B7266299, part number 7267766, shall be inserted into the bore of the barrel. The protruding end of the tube shall be bent around the outside of the muzzle end.

5.2.1.3.4 <u>Rear sight assembly</u>. Disassemble the iris shutter assembly from the rear sight. The rubber eye shield of the iris shutter shall be secured to a stiffener conforming to VU-C-282, with .026 minimum thickness tape conforming to PPP-T-42 and then wrap with VCI treated material. Wrap the rear sight with one or more thicknesses of VCI treated material.

5.2.1.3.5 <u>Pront sight with metallic inserts</u>. The front sight shall be wrapped in one piece of VCI treated material. The inserts shall be wrapped together in one piece of VCI treated material.

5.2.1.3.6 Non-metallic inserts. No preservation required.

5.2.1.4 Unit packaging.

5.2.1.4.1 <u>Rifle</u>. Each rifle preserved in accordance with 5.2.1.3.3 shall be unit packaged method IA-8 as specified herein. The barrier bag shall conform to drawing B7265933. Due to dimensional variations in the overall length of rifles (see 3.2.1), the bag size specified on the drawing shall be adjusted to adequately inclose the rifle while providing sufficient material to permit one additional heat seal on the end of the bag.

5.2.1.4.2 <u>Rear sight</u> Each rear sight assembly preserved in accordance with 5.2.1.3.4 shall be unit packaged method IA-8 utilizing a minimum size barrier bag conforming to Type I, Class E, Style 1 of MIL-B-117.

5.2.1.4.3 <u>Front sight and metallic inserts</u>. Each front sight with metallic inserts preserved in accordance with 5.2.1.3.5 shall be unit pack-aged method IA-8 utilizing a minimum size barrier bag conforming to Type I, Class E, Style 1 of MIL-B-117.

5.2.1.4.4 <u>Non-metallic front sight inserts</u>. The inserts shall be packaged method III utilizing a minimum size barrier bag conforming to Type I, Class B, Style 2 of MIL-B-117. Closure shall be accomplished by heat sealing or stapling.

5.2.1.4.5 <u>Rifle and sights</u>. The rifle and sights packaged as specified in 5.2.1.4.1 thru 5.2.1.4.4 shall be placed in a minimum size fiberboard box conforming to PPP-B-636. Class WR. The box shall be closed in accordance with PPP-B-636. The items shall be cushioned within the container in accordance with the requirements of MIL-STD-1186. The completed package shall pass the drop test specified in Fed. Test Method Std. No. 101, Method 5007, Procedure B.

5.2.2 Level B.

5.2.2.1 <u>Cleaning, drying and preservative application</u>. Cleaning, drying and preservative application shall be the same as specified for Level A (see 5.2.1.1, 5.2.1.2 and 5.2.1.3).

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5.2.2.2 <u>Unit packaging</u>. Unit packaging of the Rifle, Rear Sight, Front Sight and Metallic Inserts and Non-metallic Front Sight Inserts shall be the same as level A (see 5.2.1.4.1 through 5.2.1.4.4).

5.2.2.3 <u>Rifle and sights</u>. The rifle and sights shall be unit packaged the same as specified for level A (see 5.2.1.4.5) with the following exception: The fiberboard box shall conform to class domestic.

5.2.3 <u>Commercial</u>. Preservation and packing shall be in accordance with Fed. Std. No. 356.

5.3 <u>Packing</u>. A uniform quantity of unit packaged rifles and sights shall be packed in a minimum size shipping container as specified herein, (see 5.3.1, 5.3.2 and 5.3.3). The maximum allowable tolerance for void shall not exceed one-half inch in any dimension (length, width and depth). Closure and reinforcement shall be in accordance with the requirements of the applicable container specification.

5.3.1 Level A. PPP-B-601, Overseas Type, Style A, B, I, or J, Grade B, or PPP-B-621, Style 2 or 4, Class 2.

5.3.2 <u>Level B</u>. Unit containers shall be palletized in accordance with the applicable requirements of MIL-SID-147 except that commercial expendable pallets may be used in lieu of those specified.

5.3.3 <u>Commercial</u>. Packing shall be in accordance with Fed. Std. No. 356.

5.3.4 <u>Odd quantities</u>. When uniform quantities cannot be maintained, the size of the shipping container or palletized load shall be adjusted to obtain minimum cube. As required, void areas of shipments shall be blocked and braced in accordance with MIL-STD-1186.

5.4 Marking.

5.4.1 <u>Levels A and B</u>. Marking of unit packages and exterior shipping containers shall be in accordance with the applicable requirements of MIL-STD-129 and as specified herein. Packing lists and serial number markings are required.

5.4.2 <u>Commercial</u>. Marking shall be in accordance with Fed. Std. No. 356.

5.4.3 <u>Special marking</u>. Concealed identification marking in accordance with MIL-STD-129 is required.

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6. NOTES

6.1 Ordering data. Procurement documents should specify the following:

- 'a. Title, number and date of this specification.
- b. Shipping instructions and quantity of bid samples (see 3.1.1).
- c. Block of serial numbers (see 3.6) d. Responsibilities for furnishing acceptance inspection equipment (see 4.5.4.1)
- e. Packaging examination and testing, if different (see 4.5.3)
- f. Selection of applicable levels of preservation, packaging and packing (see 5.1, 5.2 and 5.3)

6.2 Color standards for stocks (see 3.2.10.2 and 4.5.4.4) may be obtained from Commander, Rock Island Arsenal, ATTN: SARRI-QM, Rock Island, Illinois 61201.

6.3 Supersession data. MIL-R-1296C included the requirements of Springfield Armory Purchase Description SAPD-233A, dated 20 September 1963, which was issued in lieu of MIL-R-1296B.

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6.4 The margins of this specification are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the previous issue.

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