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MIL-R-9979A (USAF)
30 July 1969

SUPERSEDING
MIL-R-9979 (USAF)
16 October 1963

MILITARY SPECIFICATION

REVOLVER, CALIBER .38 SPECIAL 2 AND 4 INCH BARREL, SIX SHOT

1. SCOPE

1.1 Scope. This specification covers one type of caliber .38 special revolver, six shot, double action, 2 or 4 inch barrel, solid frame, with the following options: adjustable rear sight, quick draw ramp front sight, low spur target hammer, and target trigger.

2. APPLICABLE DOCUMENTS

* 2.1 The following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of the specification to the extent specified herein:

SPECIFICATIONS

Federal

QQ-S-624	Steel Bars, Alloy, Hot Rolled, Cold Finished (General Purpose)

Military

MIL-W-13855	Weapons, Small Arms, General Specification for
MIL-P-14313	Revolvers, Packaging of, General Specification for

STANDARDS

Military

MIL-STD-105	Sampling Procedures and Tables for Inspection of Attributes
MIL-STD-109	Quality Assurance Terms and Definitions
MIL-STD-130	Identification Marking of U.S. Military Property

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

2.2 Other Publications. The following publications, of the issue in effect on date of invitation for bids, form a part of this specification:

National Bureau of Standards

Handbook H28, Screw-Thread Standards for Federal Services (Application for copies should be addressed to Superintendent of Documents, Government Printing Office, Washington D. C.)

3. REQUIREMENTS

3.1 Performance and Product Characteristics. The revolver shall be new and shall have the capability of holding three bullets within a two inch diameter group at 25 yards when mounted in a machine rest.

3.1.2 Manufacturer's Models. The contractor shall forward the procuring agency three manufacturer's models of each type of revolvers to be manufactured in accordance with Military Specification MIL-W-13855.

3.2 Design. The design of the revolver shall be of the latest double action type and shall be machined, finished and assembled to the highest quality practical.

3.2.1 Requirements. Components and assemblies shall conform to the requirements of this specification and Specification MIL-W-13855.

3.3 Materials. Materials shall be as specified herein. Materials not specifically designated shall be of the highest commercial quality.

3.3.1 Metal Parts. All parts of the revolver which will be subjected to high stress loads such as the frame, cylinder and barrel shall be manufactured from steel, Federal Specification QQ-S-624, or a suitable substitute equal to or better than. Parts other than those subjected to high stress loads will be manufactured from good quality steel.

3.3.2 Wood Parts. All wood used for revolver stocks shall be good quality black walnut.

3.4 Construction.

3.4.1 Forgings. Forgings shall be free from scale, cold shuts, mismatching, and other defects that may adversely affect the structural strength of the parts involved. Strength and other essential physical properties of the forgings shall be adequate to meet the performance requirements specified herein. No castings of any type shall be permissible.

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3.4.2 Threads. All threaded parts shall conform to requirements of Handbook H28 and be of American Standard thread form.

3.4.3 Interchangeability. All parts shall be manufactured to definite standards, clearances, and tolerances in order that any such parts of the model furnished can be replaced or adjusted without requiring modification.

3.4.4 General Characteristics. General characteristics shall be in accordance with Table I and Table II.

TABLE I

Barrel Length	2 inches
Overall Length	7 inches (approx)
Total Weight	Not less than 25 nor more than 29 ounces

TABLE II

Barrel Length	4 inches
Overall Length	9 inches (approx)
Total Weight	Not less than 32 nor more than 36 ounces

3.4.5 Barrel. The barrel bore shall be smooth and free of scratches, pits, rings, and other defects. The lands shall be sharp and well defined. Steel used in the manufacture of barrels shall conform to the physical properties specified in Table III. Chemical properties shall be as specified in 3.3.1.

TABLE III

Tensile Strength	140,000 psi min.
Reduction in Area	40 per cent min.
Elongation in 2 inches	15 per cent min.
Rockwell Hardness C Scale	31 to 35

3.4.6 Cylinder. Cylinder chambers shall be smooth and free of burrs, scratches, pits, rings and other defects that may affect proper functioning. Steel used in the manufacture of cylinders shall conform to the physical properties specified in Table III. Chemical properties shall be as specified in 3.3.1.

3.4.7 Firing Pin. The point of the firing pin shall be smooth and well formed and shall give proper protrusion to ensure proper cartridge ignition.

3.4.8 Front Sight. Revolvers shall be equipped with a quick draw front sight with blade round or ramped to prevent catching in the holster when the revolver is withdrawn. The front sight shall be an integral part of the barrel, machined from the same piece of steel during manufacture.

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3.4.9 Rear Sight. Revolvers shall be equipped with a positive click type adjustable rear sight so designed as to provide for both horizontal and vertical adjustment.

* 3.4.10 Hammer. The hammer shall be the low spur target type or the conventional spur type (see 6.1). The crosshatch finger grip on the top of the spur shall be well defined by machine knurling with a mill cutter or cutters and shall not be stamped or rolled. The hammer shall rebound back to a safe position after the trigger is released. When the revolver is cocked and the hammer is pushed forward, the hammer shall not experience sear disengagement at applied forces less than 14 pounds.

* 3.4.11 Trigger. The trigger shall be the wide target type or the conventional type (see 6.1).

3.4.12 Trigger Pull. The trigger pull shall be smooth and within the range of 2-3/4 to 3-1/2 pounds for single action and not more than 14 pounds for double action. Single action trigger pull shall be free of perceptible creep. Creep shall be interpreted to mean any perceptible dragging or slipping action of the trigger which prevents the normal releasing of the hammer immediately when the proper pressure is applied.

3.4.13 Marking. Unless otherwise specified, revolvers shall be marked in accordance with Standard MIL-STD-130 (see 6.1). The letters "USAF" shall be marked on the frame of each revolver below the cylinder on the right side when viewed from the muzzle end.

* 3.4.14 Hammer Block. The hammer block shall prevent accidental firing of the revolver when the trigger is inadvertently trigged. The revolver shall meet the requirements of 4.4.7.

3.5 Cylinder Action. Cylinder action shall be smooth and shall not hang or bind during normal operating conditions when using standard loads and shall meet cylinder action test as specified in 4.4.2.

3.6 Proof Firing. Each revolver shall be proof tested as specified in 4.4.3. Revolvers shall function without any noticeable difference in operation other than recoil.

3.7 Endurance. Revolvers shall be capable of passing an endurance test of 2,000 rounds without malfunctions and unserviceable parts in excess of the limits shown in Table IV.

3.8 Final Protective Finish. The exterior metallic surfaces shall be polished and blued, blacked, or finished in such other manner as may be approved by the procuring agency. The finish shall be applied so as not to draw the temper or alter the form or dimensions of components sufficiently to affect functioning. The finish shall be uniform in texture and appearance, and it shall not wipe off.

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* TABLE IV

Malfunctions, Non-Acceptable Conditions, and Unserviceable Parts

Malfunctions and Non-Acceptable Conditions	Number Permitted in the Endurance Test	
	First 1000 Rounds	Second 1000 Rounds
Bent or Sticky Extractor Rod	1	2
Hangfires (see 4.5.2)		
Loose Barrel	0	0
Misfires (see 4.5.2)		
Pierced Primers	1	2
Sear Disengagement	0	0
Hammer Block Failure	0	0
Cylinder Action Failure	0	0
Other Malfunctions	2	4
Unserviceable Parts		
Barrel	0	0
Cylinder	0	0
Extractor	0	0
Extractor Ratchet	0	0
Frame	0	0
Hand	0	0
Latch Spring	0	0
Main Spring	0	0
Striker (Firing Pin)	0	1
Other Parts	1	2

4. QUALITY ASSURANCE PROVISIONS

4.1 General Quality Assurance Provisions. The supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified, the supplier may utilize his own or any other inspection facilities and services acceptable to the government. Inspection records of the examination and tests shall be kept complete and available to the government as specified in the contract or order. The government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

* 4.1.1 Quality Assurance Terms and Definitions. Quality assurance terms and definitions used herein are in accordance with Standard MIL-STD-109.

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4.2 Lot. Unless otherwise specified, a lot shall consist of not more than 500 revolvers.

4.2.1 Inspection Sample. Inspection sample size shall be in accordance with Military Standard MIL-STD-105. Portions of lots not practicable to inspect as per MIL-STD-105 shall be individually inspected. However, the inspector may subject all or part of any lot or lots of components or assemblies to such inspection as he deems necessary to determine compliance with this specification.

4.2.2 Test Samples. Unless otherwise specified, the number of test samples shall be as specified for each test.

4.3 Inspection. Revolvers shall be visually inspected for completeness of manufacture, assembly, finish and workmanship. The revolvers shall be examined for rust, pits, powder fouling, burrs, and other defects. Each revolver shall be operated by hand to ascertain that the final adjustments have been made to assure proper operation. Before final acceptance of any lot, the inspector shall make whatever final visual inspection deemed necessary to assure that the revolvers have been thoroughly cleaned and prepared for shipment as required by section 5. Approved manufacturing models shall be utilized as standards in the above inspection and shall be delivered as part of the final quantity.

4.4 Test.

4.4.1 General.

4.4.1.1 Ammunition. Unless otherwise specified, revolvers shall be tested with commercial caliber .38 special ammunition. Proof firing ammunition shall be as specified in 4.4.3.1.

4.4.1.2 Concurrent Tests. The functioning test and the targeting and accuracy test may be fired concurrently.

* 4.4.2 Cylinder Action Test. Each revolver shall be tested for cylinder action. The cylinder shall not rotate when a rotational force is applied alternately in the clockwise and counter-clockwise directions. When the revolver is cocked, the cylinder shall rotate and lock into firing position. When locked into firing position, a chamber shall be aligned with the striker and the bore of the barrel. The cylinder shall not rotate or move linearly when the trigger (single action) is pulled.

4.4.3 Proof Firing Test. Each assembled revolver shall be subjected to the firing of one proof cartridge under supervision of the inspector. In addition, 25 revolvers taken at random from each lot shall have each chamber of the cylinder loaded separately and proof fired. Failure of any one cylinder to satisfactorily pass the proof firing test shall be cause for proof firing of each cylinder in the lot. Failure of a second cylinder to pass the proof firing test shall be cause for rejection of the lot.

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4.4.3.1 Ammunition. Cartridges containing the standard commercial proof load of 27,000 to 30,000 psi shall be used in the high pressure test. Ammunition to be used for all other firing tests shall be as specified in procurement documents (see 6.1); the ammunition specified for these firing tests shall be of the same type intended for use to ensure targeting performance in service use consistent with that obtained during acceptance testing.

4.4.4 Function Firing Test. Each revolver shall be tested for functioning by firing at least six rounds of ammunition. The first three rounds shall be fired single action, and the last three rounds shall be fired double action.

4.4.5 Accuracy Test. At a range of 25 yards, and using a machine rest, each revolver shall be fired a series of three rounds for accuracy. All shots shall be within or cut the edge of a circle two inches in diameter centered on the point of aim.

4.4.6 Endurance Test.

4.4.6.1 One revolver selected by the inspector from the first 500 revolvers and at least one revolver so selected from each successive 3,000 revolvers, found satisfactory in other tests, shall be considered as a representative weapon and shall be subjected to an endurance test of 2,000 rounds. Five hundred rounds shall be fired single action and the remainder shall be fired double action.

* 4.4.6.2 The revolver may be cleaned and oiled after each 500 rounds or at the close of a day's firing. No part shall be replaced except those parts broken or worn to the extent that they are unserviceable. Records shall be kept of each malfunction and part replacement.

4.4.6.3 Unless otherwise specified, endurance tested revolvers shall be shipped to the procuring agency for further examination. These revolvers shall be in addition to the quantity to be delivered specified in the contract.

* 4.4.7 Hammer Block Test. Each revolver shall be tested to determine the effectiveness of the hammer block. Place a dummy cartridge head (smooth surface, with no provision for a primer) in the cylinder and a piece of masking tape over the area where the primer is normally located. Cock the revolver and strike the trigger sharply and sufficiently for the sear to disengage the hammer. The tape shall not be scarred.

4.5 Re-inspection and Retests.

4.5.1 Rejections. Revolvers rejected individually or by lots because of inspection or any test except the endurance test may be conditioned and resubmitted for inspection or test in which failure occurred and such other inspection tests deemed necessary by the government inspector.

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4.5.2 Hangfires and Misfires. If hangfires and misfires occur during any of the tests, the revolver shall be checked for proper firing pin protrusion and shape. The main spring shall also be checked for correct tension. If these tests reveal a nonacceptable condition, the revolver shall not be accepted until properly corrected.

4.5.3 Defective Ammunition. Malfunctions in any tests assignable to defective ammunition shall not count against the revolver being tested.

4.5.4 Endurance Retest. If the revolver representing any lot or lots fails to meet the specified requirements in the endurance test, a retest shall be made, unless in the opinion of the inspector the failure indicates serious defects in the revolvers, in which case retest shall be made only if authorized by the procuring agency. In case a retest is made, the inspector shall select another revolver for the purpose from the lot under consideration. If a retest is not made or the revolver selected therefor fails in the retest, the lot or lots shall be rejected subject to conditioning and further test. Two revolvers from each conditioned lot shall be subjected to the endurance test.

5. PREPARATION FOR DELIVERY

5.1 Revolvers shall be prepared for shipment as specified in specification MIL-P-14313.

6. NOTES

6.1 Ordering Data. Procurement documents should specify the following:

a. Title, number and date of this specification

b. Length of barrel (see 1.1 and 3.4.4)

c. Type of trigger (see 1.1 and 3.4.11)

d. Type of Hammer (see 1.1 and 3.4.10)

e. Markings on revolver (if other than specified in 3.4.13)

f. Type of ammunition to be used (see 4.4.3.1)

* 6.2 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 last previous issue.

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Custodian:

Air Force - (84)

Reviewer:

Air Force - (84)

Preparing Activity:

Air Force - (84)

Project Number:

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SPECIFICATION ANALYSIS SHEET

Form Approved Budget Bureau No. 119-R004

INSTRUCTIONS

This sheet is to be filled out by personnel either Government or contractor, involved in the use of the specification in procurement of products for ultimate use by the Department of Defense. This sheet is provided for obtaining information on the use of this specification which will insure that suitable products can be procured with a minimum amount of delay and at the least cost. Comments and the return of this form will be appreciated. Fold on lines on reverse side, staple in corner, and send to preparing activity.

SPECIFICATION

ORGANIZATION	CITY AND STATE

CONTRACT NO.	QUANTITY OF ITEMS PROCURED	DOLLAR AMOUNT
		$

MATERIAL PROCURED UNDER A

☐ DIRECT GOVERNMENT CONTRACT ☐ SUBCONTRACT

1. HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?

A. GIVE PARAGRAPH NUMBER AND WORDING

B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES

2. COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID

3. IS THE SPECIFICATION RESTRICTIVE?

☐ YES ☐ NO IF "YES" IN WHAT WAY?

4. REMARKS (*Attach any pertinent data which may be of use in improving this specification. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity*)

SUBMITTED BY (*Printed or typed name and activity*)	DATE

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