D-R-1187C/GEN
June 28, 1974
SUPERSEDING
Int. Fed. Spec. D-R-001187B(WC)
September 15, 1972 and
Fed. Spec. D-R-1187
May 22, 1968

FEDERAL SPECIFICATION

REVOLVER, CALIBER .38 SPECIAL, DOUBLE ACTION, 5 SHOT AND 6 SHOT, COMMERCIAL AND MILITARY; GENERAL SPECIFICATION FOR

This specification was approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

The complete requirements for procuring the revolvers described herein shall consist of this document and the applicable specifications sheet.

1. SCOPE

1.1 Scope. This specification covers commercial and military, 5 shot and 6 shot, double action, caliber .38 special revolvers.

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 this specification to the extent specified herein.

Federal Standards

Fed. Std. No. 123 - Marking for Domestic Shipment (Civil agencies)

(Activities outside the Federal Government may obtain copies of Federal Specifications, Standards, and Handbooks as outlined under General Information in the Index of Federal Specifications and Standards and at prices indicated in the Index. The Index which includes cumulative monthly supplements as issued, is for sale on a subscription basis by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

(Single copies of this specification and other product specifications required by activities outside the Federal Government for bidding purposes are available without charge from Business Service Centers at the General Services Administration Regional Offices in Boston, New York, Washington DC, Atlanta, Chicago, Kansas City, MO., Fort Worth, Denver, San Francisco, Los Angeles and Seattle, WA.

(Federal Government activities may obtain copies of Federal Specifications, Standards, and Handbooks and the Index of Federal Specifications and Standards from established distribution points in their agencies.)

Military Specifications

MIL-P-14313	-	Pistols and Revolvers, Packaging of.
MIL-I-45607	-	Inspection Equipment, Acquisition, Maintenance and Disposition of.
MIL-C-45662	-	Calibration System Requirements.

Military Standards

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

Drawings

B5039436	-	Copper Compression Cylinder.
B8595796	-	Fixture, Holding.
B8596142	-	Gage, Indicating, Firing Pin.
B8648605	-	Gage, Headspace, .060.
B8648609	-	Gage, Headspace, .064.

(Copies of Military Specifications, Standards, and Drawings required by contractors 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 documents form a part of this specification to the extent specified herein. Unless a specific issue is identified, the issue in effect on date of invitation for bids or request for proposal shall apply.

Sporting Arms And Ammunition Manufacturers Institute:

Firearms Proof Recommendations.

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

3. REQUIREMENTS

3.1 Specification sheets. The individual item requirements shall be as specified herein and in accordance with the applicable specification sheet.

3.2 Materials, construction, design (MCD). The revolvers shall conform to materials, construction and design requirements, specified herein and on the applicable specification sheet.

3.2.2 Barrel. The barrel shall be made of steel. The breech face shall be smooth and perpendicular to the bore. The throat shall be concentric to the bore and free of any defects which would cause bullet shaving and leading in the barrel breech.

3.2.3 Cylinder. The cylinder shall be made of steel. The cylinder shall be a swing out type cylinder and shall swing open and closed without binding. The cylinder latch shall positively retain the cylinder in the closed position. The cylinder shall not be capable of being opened when the hammer is cocked. When the cylinder stop is engaged in the cylinder notch with the hammer forward and the trigger held to the rear and the cylinder is then rotated in either direction by the application of light finger pressure, alinement of the chambers and the bore shall be such that a cylindrical plug 1-1/2 inches long and 0.0008 to 0.0012 inches smaller than the minimum bore diameter will enter the alined chamber without binding. This requirement applies to all chambers of the cylinder.

3.2.3.1 Longitudinal movement. Longitudinal movement of the cylinder prior to the 10.000 round endurance firing (see 3.3.4) shall be such that the gap between the end of the barrel and the front face of the cylinder shall be not less than 0.003 inch when the cylinder is held in its forward position, and shall be not more than 0.008 inch when the cylinder is held in its rear most position. The longitudinal movement of the cylinder throughout the 10,000 round endurance firing (see 3.3.4) shall be such that the gap between the end of the barrel and the front face of the cylinder shall be not less than 0.001 inch when the cylinder is held in its forward position, and shall be not more than 0.015 inch when the cylinder is held in its rear most position.

3.2.4 Safety device. The safety device shall prevent firing of the revolver at any time, except when the trigger is drawn past the sear release position in either double or single action modes and restrained in a rearward position.

3.2.5 Extractor. The extractor shall eject spent cartridge cases without sticking or binding and shall return to the forward position under spring action.

3.2.6 Trigger. The trigger shall function throughout its range of travel and shall return to its normal forward position immediately upon release after partial or complete trigger pull.

3.2.7 Trigger pull. The trigger pull shall be as specified on the applicable specification sheet.

3.2.8 Headspace. The headspace shall be not less than 0.060 inch and not more than 0.064 inch. Headspace shall be defined as the distance between the surface of the cylinder on which the cartridge rim seats when pushed forward and the area of the frame or recoil plate that stops rearward movement of the cartridge case.

3.2.9 Hammer. Hammers shall be of the exposed type. The grooves or checkering on the top of the spur shall be well defined to provide for gripping the hammer for single action cocking (see 3.3.3.1).

3.2.10 Stocks. The stocks (grips) shall be round or square butt type as specified in the contract (see 6.2). Unless otherwise specified (see 6.2), the stocks shall be made of black walnut wood. The wood shall be hard, straight grained, thoroughly sound and free of all injurious defects which may affect appearance or serviceability. The exterior surface shall be checkered.

3.2.11 Finishes.

3.2.11.1 Machine finishes. Machine finishes shall be in accordance with good commercial practice for the type, class and style of revolver specified.

3.2.11.2 Final protective finish. Unless otherwise specified (see 6.2), exterior 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.

3.3 Performance.

3.3.1 High-pressure resistance. The revolvers shall withstand the firing of cartridges containing the Sporting Arms and Ammunition Manufacturers' Institute (SAMMI) standard commercial proof load of 27,000 to 30,000 pounds per square inch (psi) with no evidence of cracks, seams or other injurious defects.

3.3.2 Targeting and accuracy. The revolvers shall meet the following targeting and accuracy requirements using applicable ammunition. At a range of 15 yards, a series of three shots shall fall within or cut the edge of a 3 inch diameter circle with the point of aim a six o'clock hold on that circle.

3.3.3 Functioning. The revolver shall function both single and double action as specified herein using ammunition as specified on the applicable specification sheet.

3.3.3.1 Single action. As the hammer is drawn to the rear, the cylinder locking bolt shall retract from the cylinder lock bolt notch and the cylinder shall rotate. As the chamber approaches alinement with the barrel, the cylinder lock bolt shall release against the cylinder and as the hammer is cocked, the cylinder lock bolt shall engage a cylinder lock bolt notch. When the revolver is cocked and the hammer is pushed forward, the hammer shall not experience sear disengagement (push off) at applied forces less than 14 pounds. As the trigger is pulled, the hammer shall be released prior to any creep of the trigger and return to firing position under spring action. Creep shall be interpreted as any perceptable movement felt by the trigger finger between the time positive resistance is met and the hammer is released.

3.3.3.2 Double action. As the trigger is slowly or rapidly pulled completely rearward, the cylinder and cylinder lock bolt shall function as specified in 3.3.3.1 and the hammer shall move rearward and at approximately the extreme rearward position of the trigger, the sear shall disengage and the hammer shall return to firing position under spring action.

3.3.4 Endurance. The revolvers shall be capable of firing 10,000 rounds for endurance with not more than the malfunctions, nonacceptable conditions, and unserviceable parts allowed in Table I, using ammunition as specified on the applicable specification sheet. Twenty-five hundred rounds shall be fired single action and the remainder shall be fired double action. Revolvers may be cleaned and oiled after each 500 rounds or at the end of a day's firing.

TABLE I

Malfunctions, Nonacceptable Conditions and Unserviceable Parts

Malfunctions and Nonacceptable Conditions	Number Permitted in 10,000 Rounds	
	First 5,000 Rounds	Second 5,000 Rounds
Excessive longitudinal movement of cylinder (see 3.2.3.1)	0	0
Bent or sticky extractor rod	0	1
Excessive backlash of cylinder	0	0
Failure of cylinder to latch	0	0
Failure of cylinder to rotate properly	0	0
Loose barrel	0	0
Misalinement of cylinder with bore or striker	0	0
Misfires	0	0
Pierced primers	0	0
Sear disengagement (push off)	0	0
Safety failure	0	0
Side plate screw(s) loosening	2	2
Ejector rod screw loosening	2	2
Other malfunctions	1	2
Unserviceable parts [1]		
Barrel	0	0
Cylinder	0	0
Extractor	0	0
Extractor ratchet	0	0
Frame	0	0
Hand	0	0
All springs	0	0
Striker	0	1
Other parts	1	2

[1] When malfunctions are traceable to particular parts, it is permissible to replace such parts and record them as unserviceable subject to limitations of Table I. When it is definitely established by the Government that previously recorded malfunctions are attributable to an unserviceable part, such malfunctions shall not be counted against the revolver being tested, provided that they occurred not more than 200 rounds prior to replacement of the unserviceable part. These 200 rounds shall have been fired with the unserviceable part. However, such malfunctions shall remain recorded and properly identified. An unserviceable part is one that causes malfunctions or impairs the safety of the weapon. Malfunctions attributable to ammunition shall not be counted against the revolver being tested, however, such malfunctions shall be recorded.

3.4 Handbook of instructions. A handbook of instructions for cleaning and maintenance and a parts list shall be provided with each revolver.

3.5 Marking. Each revolver shall be marked with the following in accordance with MIL-STD-130:

Manufacturer's name
Serial number.
Model number identification.
"U.S. (Mark on the backstrap of the frame of the revolver or on the side of the frame near the trigger guard).

3.6 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 procuring activity, the contractor shall apply a new model number identification to the new procurement.

3.7 Workmanship. Workmanship and finish shall be in accordance with the highest grade practice used in manufacturing military or commercial weapons as applicable. 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 barrel or cylinder) or other similiar practices shall not be permitted without prior approval of the procuring activity.

4. QUALITY ASSURANCE PROVISIONS

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

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

4.3 Quality conformance inspection.

4.3.1 Inspection lot. The formation, size and presentation of inspection lots shall be in accordance with MIL-STD-105.

4.3.2 Examination.

4.3.2.1 Sampling. The acceptance inspection sample size for examination shall be in accordance with MIL-STD-105 and an AQL of 1.5. The units in the sample shall be selected at random, by the Government representative, or as directed by the Government representative.

4.3.2.2 Inspection methods. 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.

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 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, and 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 and/or testing equipment approved by the Government.

4.3.2.3 Revolvers. Revolvers shall be examined in accordance with Table II. 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 that the characteristic has not been changed, degraded or damaged by subsequent manufacturing, assembly or handling and that adequate inspection records are maintained.

TABLE II

EXAMINATIONS

Characteristic	Requirements	Inspection Method
Materials, construction and design (MCD)	3.2	Visual
Barrel	3.2.2	SMTE
Cylinder	3.2.3 and 3.2.3.1	SMTE
Safety device	3.2.4	Visual
Extractor	3.2.5	Visual
Trigger	3.2.6	SMTE
Hammer	3.2.9	Visual
Stocks	3.2.10	Visual
Finish		
Machine	3.2.11.1	Visual
Protective	3.2.11.2	Visual
Handbook of Instructions	3.4	Visual
Marking	3.5	Visual
Identification	3.6	Visual
Workmanship	3.7	Visual

4.3.2.4 Packaging. Examination of packaging of revolvers shall be in accordance with MIL-P-14313.

4.3.3 Testing. Revolvers shall be tested as specified herein and in accordance with the applicable specification sheet.

4.3.3.1 Failure data. Unless otherwise specified herein, all tests shall be conducted on a complete revolver. If test requirements cited herein are not met, acceptance of the revolver 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 revolvers, partially assembled revolvers, 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 revolvers for retest.

4.3.3.2 Trigger pull, headspace, hammer safety testing. Each revolver in the inspection lot shall be tested for trigger pull, headspace and hammer safety in accordance with test methods 4.4.1, 4.4.2, 4.4.3 respectively to determine compliance with applicable requirements. Revolvers failing to meet any of these requirements shall be cause for rejection and the contractor shall perform the corrective action as specified in 4.3.3.1.

4.3.3.3 High-pressure resistance testing. Twenty-five revolvers shall be selected at random from each inspection lot and tested for high-pressure resistance (see 3.3.1) in accordance with test method 4.4.4. Each chamber shall be high-pressure proof-fired. If no failures occur, all other revolvers in the lot shall be tested by firing one high-pressure round in one chamber. Failure of any one revolver to satisfactorily pass the high-pressure resistance test shall be cause for testing each chamber of each revolver in the lot. Failure of the second revolver to pass the high-pressure test shall be cause for rejection of the lot and the contractor shall perform corrective action as specified in 4.3.3.1. After high-pressure resistance testing each revolver shall be retested for headspace in accordance with test method 4.4.2. Revolvers failing to meet the headspace requirement shall be rejected and the contractor shall perform the corrective action as specified in 4.3.3.1.

4.3.3.4 Targeting, accuracy and functioning testing. Each revolver in the inspection lot shall be tested for targeting, accuracy and functioning in accordance with test method 4.4.5 to determine compliance with applicable requirements. Revolvers failing to meet any of these requirements shall be cause for rejection and the contractor shall perform the corrective action specified in 4.3.3.1.

4.3.3.5 Endurance. One revolver selected at random from each inspection lot and found satisfactory in all other tests shall be tested for endurance (see 3.3.4) in accordance with test method 4.4.6. Failure of the revolver shall be cause for retest or rejection of the represented lot. A retest of one other revolver from the same lot shall be made, unless, in the opinion of the Government representative, the failure indicates serious defects in the item. If serious defects exist a retest shall be made only if authorized by the procuring agency. If a second retest is not made or the revolver selected fails in the first retest, the lot shall be rejected and the contractor shall perform the corrective action as specified in 4.3.3.1. Two revolvers from each reconditioned lot shall be subjected to the endurance test and failure of either revolver shall be cause for rejection of the reconditioned lot.

4.3.3.6 Packaging testing. Testing of packaging of revolvers shall be in accordance with MIL-P-14313.

4.3.4 Inspection equipment.

4.3.4.1 Acquisition, calibration, maintenance and disposition. Unless otherwise specified, responsibility for acquisition, calibration, maintenance and disposition of acceptance inspection and test equipment shall be in accordance with MIL-I-45607 and MIL-C-45662 (see 6.4).

4.3.4.2 Accuracy of standard measuring equipment. 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 charac :

4.4 Test methods.

4.4.1 Trigger pull test. Revolvers shall be tested using a contractor designed, Government approved measuring device. The load shall be gradually applied to the center of the trigger and exerted in a line parallel to the axis of the bore. A load test shall be performed for both single action and double action on each revolver. In addition, single action trigger pull shall be checked manually on each chamber by snapping the trigger at least six times on an empty cylinder and any questionable trigger pull shall be rechecked with the specific weight. Single action trigger pull shall also be tested for creep by applying a steadily increasing pressure manually to the trigger over a period of not less than three seconds.

4.4.2 Unless otherwise specified (see 6.2), revolvers shall be tested by inserting headspace gage 8648605 in cylinder hole, cylinder must be capable of revolving 360°. Repeat for each cylinder. Remove gage and insert headspace gage 8648609 in cylinder hole, cylinder must not be capable of revolving. Repeat for each cylinder.

4.4.3 Hammer safety test. Revolvers shall be tested using Fixture, Holding B8595796 and Copper Compression Cylinder B5039436 or other approved equipment. The equipment shall be placed into a chamber that will align with the barrel when the revolver is cocked. The revolver shall be cocked and the frame struck in the grip area with a rawhide or rubber mallet so as to cause the trigger to disengage the hammer. The copper compression cylinder shall not be marked by the firing pin.

4.4.4 High-pressure resistance test. Revolvers shall be tested by loading as specified in 4.3.3.3 and high-pressure proof firing using cartridges containing the standard commercial proof load specified in 3.3.1. Revolvers passing the high-pressure resistance test shall be stamped with the contractor's identification mark.

4.4.5 Targeting, accuracy and functioning test. Revolvers shall be dry-fired (no ammunition) by hand, prior to loading. Six shot revolvers shall be dry-fired three chambers single action and three chambers double action. Five shot revolvers shall be dry-fired two chambers single action and three chambers double action. Revolvers shall be tested for sear disengagement (push off) (see 3.3.3.1). Revolvers shall then be loaded with applicable ammunition. A series of three rounds (both 5 shot and 6 shot revolvers) shall be fired single action at a target at a range of 15 yards using a contractor designed, Government approved test fixture. The balance of the rounds (three for 6 shot revolvers and two for 5 shot revolvers) shall be fired double action off the target by hand. The target shall be checked to determine whether the requirements have been met.

4.4.6 Endurance test. Revolvers shall be tested by firing 10,000 rounds of applicable ammunition. Type of firing, cleaning and oiling shall be as specified in 3.3.4. No parts shall be replaced except that parts broken or worn to the extent that they are unserviceable shall be replaced. Records shall be kept of each malfunction and part replacement for comparison with the limits shown in Table I. Disposition of endurance tested revolvers shall be as specified in the contract (see 6.2).

5. PREPARATION FOR DELIVERY

5.1 Preservation, packaging and packing. Revolvers shall be preserved, unit packaged and packed in accordance with MIL-P-14313 for the level of protection specified in the contract (see 6.2).

5.2 Marking.

5.2.1 Civil agencies. Marking shall be in accordance with Fed. Std. No. 123 and as specified in the contract (see 6.2).

5.2.2 Military agencies. Marking shall be in accordance with MIL-P-14313 and as specified in the contract (see 6.2).

6. NOTES

6.1 Intended use. This specification is intended for use with specification sheet D-R-1187/1 for procurement of Cal. .38 Commercial Revolvers or specification sheet D-R-1187/2 for procurement of Cal. .38 Military Revolvers.

6.2 Ordering data. Purchasers should select the preferred options permitted herein and include the following information in procurement documents:

a. Title, number and date of this specification.

b. Type of stocks, round or square butt (see 3.2.10).
c. Material stocks to be made from, if different (see 3.2.10).
d. Final protective finish, if different (see 3.2.11.2).
e. Headspace gages, if different (see 4.4.2).
f. Disposition of endurance tested revolvers (see 4.4.6).
g. Selection of applicable levels of preservation, packaging and packing (see 5.1.
h. Additional marking required (see 5.2.1 and 5.2.2).

6.3 Contract data requirements. The requirements for reports of the results of final examination, functioning, targeting and accuracy and endurance testing will be listed on a DD Form 1423 included in the contract.

6.4 Unless otherwise specified (see 4.3.4.1), the contract should specify the application of MIL-I-45607 and MIL-C-45662 on the Management Control Systems Summary List, DD Form 1660.

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

Military Custodians:
Army - WC
Navy - OS
Air Force - 84

Review Activities:
Navy - OS
Air Force - 84

User Activities:
Air Force - 11

Preparing Activity:
Army - WC

Civil Agency Coordinating Activities:
JUSTICE - FPI
TREASURY - IRS
DC GOVT - DCG
GSA - FSS
DOT - FIS
POSTAL - POS
INTERIOR - GES

Project Number:
1005-482-1

Orders for this publication are to be placed with General Services Administration, acting as an agent for the Superintendent of Documents. See section 2 of this specification to obtain copies and other documents referenced herein. Price 35 cents each.