

INCH-POUND

MIL-C-48656A (AR)
 20 March 1989
 SUPERSEDING
 MIL-C-48656 (AR)
 20 June 1986

MILITARY SPECIFICATION

CARTRIDGES, SHOTSHELL

This specification is approved for use within the U.S. Army Armament, Munitions and Chemical Command and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification establishes quality assurance requirements for the testing, inspection and packaging for shotshell cartridges specified as Type I and Type II:

Type I - Tactical Applications

Type II - Training and Marksmanship Applications

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

PPP-B-636 - Boxes, Shipping Fiberboard

MILITARY

MIL-P-116 - Preservation, Methods of
 MIL-B-117 - Bags, Sleeves and Tubing-Interior Packaging
 MIL-A-2550 - Ammunition, General Specification for

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, U.S. Army Armament, Munitions, and Chemical Command, Attn. AMSMC-QA, Picatinny Arsenal, New Jersey 07806-5000 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

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MIL-A-48078 - Ammunition, Standard Quality Assurance Provisions, General Specification for

STANDARDS

MILITARY

MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes
 MIL-STD-129 - Marking for Shipment and Storage
 MIL-STD-636 - Visual Inspection Standards for Small Arms Ammunition through Caliber .50
 MIL-STD-1168 - Ammunition Lot Numbering

(Unless otherwise indicated, copies of federal and military specifications, standards and handbooks are available from the Naval Publications and Forms Center, (ATTN: NPODS), 5801 Tabor Avenue, Philadelphia, PA 19120-5099.)

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

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

Type I Cartridges:

9390438 - Cartridge, 12 Gauge, No. 00 Buckshot
 9395772 - Wirebound Box Assembly
 9396196 - Carton, Paperboard
 9396197 - Packing and Marking for M2A1 Ammo Box for Cartridge, Shotshell
 9396198 - Packing and Marking for Box, Wirebound for Cartridges, Shotshell

Type II Cartridges:

9390439 - Cartridge, 12 Gauge, No. 7 1/2 Shot
 9390440 - Cartridge, 12 Gauge, No. 9 Shot

(Application for copies should be addressed to the COMMANDER, US Army Armament Research, Development and Engineering Center, (ARDEC), ATTN: ARD-SMCAR-BAC-OR, Picatinny Arsenal, NJ 07806-5000).

2.2 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, (except for related associated detail specifications, specification sheets or MS standards), the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

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3. REQUIREMENTS

3.1 Cartridge. The cartridge shall comply with all requirements specified on the applicable drawing, all associated drawings and with all requirements specified in applicable specifications and standards.

3.2 Material. Materials shall be in accordance with the applicable drawings and specifications.

3.3 Primer sensitivity. The energy imparted by a steel ball, 1.94 + 0.02 ounces, falling 12 inches onto a simulated firing pin shall cause initiation of the primer. The energy imparted by a steel ball, 1.94 + 0.02 ounces, falling 2 inches onto a simulated firing pin (simulated firing pin shall have a nominal weight of 70 grains (0.160 ounces) and a spherical end radius of .0500 + .0025 inches) shall not cause initiation of the primer (see section 4.6.1).

3.4 Velocity. The mean velocity and the standard deviation from the mean velocity shall be as follows, for the sample cartridges temperature conditioned (unpackaged cartridges) for four hours minimum:

3.4.1 Ambient. Conditioned at 60° to 80° Fahrenheit. The mean velocity shall be as specified on the appropriate drawing and the standard deviation from the mean shall be 25.0 feet per second maximum.

3.4.2 Hot. Conditioned at 125° + 5° F. The mean velocity shall be as specified on the appropriate drawing and the standard deviation from the mean shall be 25.0 feet per second maximum.

3.4.3 Cold. Conditioned at minus 20° + 5° F. For Type I Cartridges, the mean velocity shall be as specified on the appropriate drawing and the standard deviation shall be 30.0 feet per second maximum. For Type II Cartridges, record velocity results for information only.

3.5 Pressure. The pressure of the cartridges temperature conditioned as specified below for 4 hours minimum (unpackaged cartridges) shall be as follows:

3.5.1 Ambient. Conditioned at 60° to 80° F. The pressure shall not exceed that prescribed on the appropriate drawing.

3.5.2 Hot. Conditioned at 125° + 5° F. The pressure shall not exceed that prescribed on the appropriate drawing.

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3.5.3 Cold. Conditioned at minus $20^{\circ} \pm 5^{\circ}$ F. The pressure shall not exceed that prescribed on the appropriate drawing.

3.6 Pattern. The average percentage of pellets inside or touching a thirty (30) inch diameter circle shall be no less than that specified on the appropriate drawing.

3.7 Function and casualty. The cartridge shall function without casualty when conditioned for 4 hours minimum (unpackaged cartridges) and fired as follows:

Type I and Type II Cartridges	- Ambient, 60° to 80° F
Type I Cartridges	- Hot, $125^{\circ} \pm 5^{\circ}$ F
Type I Cartridges	- Cold, minus $20^{\circ} \pm 5^{\circ}$ F

3.8 First article test. This specification contains technical provisions for first article examination and testing. Requirements for submission of the first article sample by the contractor shall be as specified in the contract.

3.9 Workmanship. The requirements for workmanship shall be in accordance with MIL-A-2550 and as specified on the applicable drawing.

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 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

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submission of known defective material, either indicated or actual, nor does it commit the Government to accept of defective material.

4.2 Inspection equipment. In accordance with MIL-A-48078 (Inspection Equipment) and MIL-A-2550 (Test and Measuring Equipment).

4.3 Classification of inspection. The following types of inspection shall apply:

- a. First article inspection
- b. Quality conformance inspection

4.4 First article inspection.

4.4.1 First article sample. The First Article sample shall be subjected to the first article inspection and tests as specified in Table I to determine contract compliance. The first article sample shall be representative of the manufacturing methods and processes to be used for quantity production. The first article samples shall be submitted and tested prior to the beginning of production.

4.4.2 Submission. The contractor shall submit a first article sample as designated by the Contracting Officer for evaluating in accordance with provisions of Table I. The first article sample shall consist of the following items in sample quantities as indicated.

<u>Part Description</u>	<u>Drawings</u>	<u>Quantity</u>	
		<u>Type I</u>	<u>Type II</u>
Cartridge, Shotshell	(As Specified In Contract)	390	390
Empty primed shotshell Cartridges (no pro- pellant, wad or wadding, shot, etc.	(As Specified In Contract)	30	30

4.4.3 Inspection to be performed. First article cartridges shall be tested in accordance with Table I. Any test samples may additionally be subjected, by the government, to any or all of the examinations and tests specified herein, or in the contract or on the applicable drawings.

4.4.3.1 Rejection. If any cartridge samples fail to comply with any of the applicable requirements, the First Article sample shall be rejected. MIL-A-48078 shall apply.

TABLE I. First article inspection

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CLASSIFICATION OF DEFECTS & TESTS

PARAGRAPH	TITLE	SHEET		DRAWING NUMBER
		NO. OF SAMPLE UNITS	AQL OR 100%	
	Cartridge, Shotshell Type I (Type II)	2	2	As appropriate NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH
	Examination for defects	390 (390) <u>1/</u>		4.5.5.1 or 4.5.5.2
	Primer Sensitivity <u>4/</u>	30 (30) <u>1/</u>		4.6.1
	Velocity, Pressure, Ambient <u>2/</u> , <u>5/</u>	20 (20) <u>1/</u>		4.6.2, 4.6.3
	Velocity, Pressure, Hot <u>2/</u> , <u>5/</u>	20 (20) <u>1/</u>		4.6.2, 4.6.3
	Velocity, Pressure, Cold <u>2/</u> , <u>5/</u> Velocity, Pressure, Cold <u>2/</u> , <u>6/</u>	20 (20) <u>1/</u> <u>6/</u>		4.6.2, 4.6.3
	Pattern <u>2/</u> , <u>5/</u>	30 (30) <u>1/</u>		4.6.4

NOTES: 1/ Numbers in parenthesis are sample size for Type II cartridges only.

2/ All sample cartridges shall be subjected to examination for defects prior to performing other tests specified.

3/ Firing defects for these tests shall be subject to the acceptance criteria specified in Table II.

4/ Empty primed shotshell cartridges (no propellant, wads, wadding, shot, etc.)

5/ Failure of any sample to comply with the applicable requirements shall be cause for rejection of the lot subject to testing of a second sample of double the quantity used in the first test for the temperature or temperatures at which the failure occurred.

TABLE I. First article inspection
CLASSIFICATION OF DEFECTS & TESTS
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PARAGRAPH	TITLE	SHEET		NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	DRAWING NUMBER	
		24	2				As appropriate	NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST						PARAGRAPH REFERENCE / INSPECTION METHOD	
	Cartridge, Shotgun Type I (Type II)							
	Function & Casualty, Ambient 2/, 3/			100 (300) 1/		3.7	4.6.5	
	Function & Casualty, Hot 2/, 3/			100	-	3.7	4.6.5	
	Function & Casualty, Cold 2/, 3/			100	-	3.7	4.6.5	
<p>NOTE 6/ Firing defects for this test shall be subjected to the acceptance criteria specified in Table II, defect 3 only.</p>								

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4.5 Quality conformance inspection.

4.5.1 Lot information.

4.5.2 Lot submission. The product shall be submitted in accordance with MIL-STD-105.

4.5.3 Lot size. Unless otherwise specified in the contract, the size of the ammunition lot shall be no more than 500,000 cartridges.

4.5.4 Lot identification. Each lot of ammunition shall be identified as to type, gauge, and model, as well as with a lot number in accordance with MIL-STD-1168.

4.5.5 Examination for defects.

a. Major and minor defects. Examination for major and minor defects shall be performed on a sampling basis in accordance with classification of defects using applicable sampling plans and acceptance criteria of MIL-STD-105, Normal Inspection Level II. The Acceptance Quality Level (AQL) for the major class and the minor class shall be as specified in the appropriate Classification of Defects and Tests criteria. All non-conforming cartridges (or components) shall be rejected.

b. Critical defects. Unless otherwise specified, one hundred percent examination shall be performed for all critical defects.

c. Order of test. All cartridges shall have been submitted to and passed the criteria specified in 4.5.5.1 or 4.5.5.2 prior to being tested in 4.5.5.3.

QUALITY CONFORMANCE INSPECTION

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CLASSIFICATION OF DEFECTS & TESTS

PARAGRAPH	TITLE	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	SHEET 1 OF 2		DRAWING NUMBER As appropriate NEXT HIGHER ASSEMBLY
				AQL OR 100%	REQUIREMENT PARAGRAPH	
CATEGORY	PARAGRAPH REFERENCE / INSPECTION METHOD					
4.5.5.1	Cartridge, Shotgun (Type I Cartridges only)					
CRITICAL						
1.	No primer			100%		Visual
2.	Cocked primer			100%		Visual
3.	Inverted primer			100%		Visual
4.	Mashed head $\bar{1}/$			100%		Visual
5.	Head split $\bar{1}/$			100%		Visual
MAJOR						
101.	Perforated or split case $\bar{1}/$.25%		Visual
102.	Open crimp $\bar{1}/$.25%		Visual
103.	Defective head $\bar{1}/$.25%		Visual
104.	Sheared case over head $\bar{1}/$.25%		Visual
105.	Defective body $\bar{1}/$.25%		Visual
106.	Battery cup defects $\bar{1}/$.25%		Visual
NOTE: $\bar{1}/$	Refer to cartridge section of MIL-STD-636 for Visual Standards of defects.					

QUALITY CONFORMANCE INSPECTION

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CLASSIFICATION OF DEFECTS & TESTS

PARAGRAPH	TITLE	SHEET 2 OF 2		NO. OF SAMPLE UNITS	EXAMINATION OR TEST	AQL OR 100%	REQUIREMENT PARAGRAPH	DRAWING NUMBER	
								As appropriate	NEXT HIGHER ASSEMBLY
CATEGORY								PARAGRAPH REFERENCE / INSPECTION METHOD	
4.5.5.1	Cartridge, Shotshell (Type I Cartridges only)								
107.	Cartridge length, max					.25%		SMTE OR GAGE	
108.	Rim, thickness, max					.25%		SMTE OR GAGE	
109.	Head diameter, max					.25%		SMTE OR GAGE	
110.	Case diameter, max					.25%		SMTE OR GAGE	
111.	Primer above flush					.25%		SMTE OR GAGE	
MINOR									
201.	Illegible or missing cartridge marking					.40%		Visual	
202.	Workmanship					.40%		Visual	
NOTE:									

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CLASSIFICATION OF DEFECTS & TESTS

DRAWING NUMBER	SHEET 1 of 2	AGL OR 100%	NO. OF SAMPLE UNITS	EXAMINATION OR TEST	REQUIREMENT PARAGRAPH	DRAWING NUMBER	
						As appropriate	NEXT HIGHER ASSEMBLY
PARAGRAPH	TITLE					PARAGRAPH REFERENCE	INSPECTION METHOD
4.5.5.2	Cartridge, Shotshell (Type II Cartridges only)						
CATEGORY							
CRITICAL							
1.	Mashed head 1/	100%				Visual	
2.	Head split 1/	100%				Visual	
MAJOR							
101.	Perforated or split case	.25%				Visual	
102.	No primer	.25%				Visual	
103.	Cocked primer	.25%				Visual	
104.	Inverted primer	.25%				Visual	
105.	Open crimp 1/	.25%				Visual	
106.	Defective head 1/	.25%				Visual	
107.	Sheared case over head 1/	.25%				Visual	
108.	Defective body 1/	.25%				Visual	
109.	Battery cup defects 1/	.25%				Visual	
NOTE 1/	Refer to cartridge section of MIL-STD-636 for Visual Standards of defects.						

QUALITY CONFORMANCE INSPECTION

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CLASSIFICATION OF DEFECTS & TESTS

PARAGRAPH	TITLE	SHEET 2 OF 2		DRAWING NUMBER
		NO. OF SAMPLE UNITS	AGL OR 100%	
CATEGORY	EXAMINATION OR TEST	PARAGRAPH REFERENCE /INSPECTION METHOD		
4.5.5.2	Cartridge, Shotshell (Type II Cartridges only)			As appropriate NEXT HIGHER ASSEMBLY
110. 111. 112. 113. 114.	Cartridge length, overall, max Rim, thickness, max Head diameter, max Case diameter, max Primer above flush	.258 .258 .258 .258 .258		SMTE OF GAGE SMTE OF GAGE SMTE OF GAGE SMTE OF GAGE SMTE OF GAGE
MINOR 201. 202.	Illegible or missing cartridge marking Workmanship	.408 .408		Visual Visual
NOTES:				

QUALITY CONFORMANCE INSPECTION

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CLASSIFICATION OF DEFECTS & TESTS

PARAGRAPH	TITLE	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	SHEET 1 OF 2		DRAWING NUMBER As Applicable NEXT HIGHER ASSEMBLY
					REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE / INSPECTION METHOD	
4.5.5.3	Testing: Type I (Type II)						
	<u>TEST</u> Primer Sensitivity <u>b/</u> Velocity, Pressure Ambient <u>2/</u>		30 (30) <u>a/</u> 20 (20) <u>a/</u>		3.3 3.4, 3.4.1, 3.5, 3.5.1 3.4, 3.4.2, 3.5, 3.5.2 3.4, 3.4.3, 3.5, 3.5.3 3.6	4.6.1 4.6.2, 4.6.3	
	Velocity, Pressure Hot <u>2/</u>		20 (20) <u>a/</u>			4.6.2, 4.6.3	
	Velocity, Pressure Cold <u>2/</u> Velocity, Pressure Cold <u>3/</u>		20 (20) <u>a/</u> <u>3/</u>			4.6.2, 4.6.3	
	Pattern <u>2/</u>		30 (30) <u>a/</u>			4.6.4	

NOTES: a/ Numbers in parenthesis are the sample size for Type II cartridges only.
b/ Empty primed shotshell cartridges (no propellant, wads, wadding, shot, etc.)
1/ Firing defects for these tests shall be subject to the acceptance criteria specified in Table II. For Type I cartridge, accept and reject criteria in Table II shall apply to combined firing defects for ambient, hot and cold Function and Casualty testing. 2/ Failure of any sample to comply with the applicable requirements shall be cause for rejection of the lot subject to testing of a second sample of double the quantity used in the first test for the temperature or temperatures at which the failure occurred. 3/ Firing defects for this test shall be subjected to the acceptance criteria specified in Table II, defect 3 only.

Quality Conformance Inspection

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CLASSIFICATION OF DEFECTS & TESTS

PARAGRAPH	TITLE	SHEET		NO. OF SAMPLE UNITS	EXAMINATION OR TEST	AQL OR 100%	REQUIREMENT PARAGRAPH	DRAWING NUMBER	
		2	2 OF					As Applicable	NEXT HIGHER ASSEMBLY
CATEGORY								PARAGRAPH REFERENCE / INSPECTION METHOD	
4.5.5.3	Testing: Type I (Type II)							4.6.5	
	Function and Casualty Ambient <u>1</u> / <u>a</u>	100 (300)					3.7	4.6.5	
	Function and Casualty, Hot <u>1</u> / <u>a</u>	100					3.7	4.6.5	
	Function and Casualty Cold <u>1</u> / <u>a</u>	100					3.7	4.6.5	

NOTE:

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TABLE II
Acceptance criteria

Firing defects. Firing defects and acceptance criteria shall be as specified in the following table:

<u>Firing Defects</u>	<u>Acceptance</u>	<u>Rejection</u>	<u>Retest</u>	
			<u>Accept</u>	<u>Reject</u>
1. Burst rim	0	1	-	-
2. Blown primer or battery cup	0	1	-	-
3. Wad or other obstruction (squib) remaining in bore	0	1	-	-
4. Head pulled off	0	2	1	2
5. Head cut off	0	2	1	2
6. Dropped primer or battery cup	0	2	1	2
7. Misfire	0	2	1	2
8. Body cut off	0	2	1	2
9. Head split	1	3	3	4
10. Partial cut off	1	3	3	4
11. Rupture	1	3	3	4
12. Partial split	1	3	3	4
13. Head start	1	3	3	4
14. Bulged rim	1	3	3	4
15. Body split	1	3	3	4
16. Powder burns	1	3	3	4
17. Primer set back	1	3	3	4
18. Battery cup set back	1	3	3	4
19. Pierced primer	1	3	3	4
20. Cumulative defects for 9-19	3	5	6	7

NOTE 1: For defects 1 through 3, no failures are permissible. There is no retest permitted, the lot is rejected.

NOTE 2: For defects 4 thru 19, if the number of failures exceeds the acceptance number but not the rejection number, the Function and Casualty tests shall be performed again with a double-size sample. The number of firing defects from retest shall be compared to retest acceptance numbers above to determine acceptance or rejection.

NOTE 3: For firing defects 1-09 and 12-20 refer to MIL-STD-636, shotshell cartridges section, for firing defect standards.

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4.6 Methods of inspection (see 6.3)

4.6.1 Primer sensitivity. The sample of empty primed shotshell cartridges shall be tested for primer sensitivity. Two-thirds of the sample shall be tested at a height of 12 inches and one-third of the sample shall be tested at a height of 2 inches. If one or more cartridge primers fail at either height, the sample fails and a sensitivity rundown test shall be conducted. The sensitivity rundown test shall consist of a 25 cartridges test at each 1 inch increment of height between 0% and 100% firing. If the average critical height (H) plus four standard deviations (4 sigma) exceeds 14 inches, or if the average critical height (H) minus 2 standard deviations (2 sigma) is less than 1 inch, the lot of cartridges shall be rejected. The average critical height (H) is defined as the mean height at which 50% of the primers being tested will fire.

4.6.2 Velocity. The velocity test shall be fired through government approved horizontally mounted test barrels. Test barrel length shall be as specified on the appropriate drawing. Two warming shots shall be fired prior to the test. The time of flight shall be measured using 100 kHz (minimum) electronic counter chronographs with coil disjunctors 3 feet apart. The first coil shall be placed 18 inches from the muzzle of the test barrel.

4.6.3 Pressure. The pressure and velocity test shall be conducted concurrently. The pressures shall be determined using piezoelectric transducers or lead crush cylinders.

4.6.4 Pattern. The pattern test shall be conducted independent of velocity and pressure, at ambient temperature (60°F to 80°F), through unaltered commercial shotguns with barrels whose length and choke are as specified on the appropriate drawing. The number of pellets contained in each of five cartridges shall be counted and the average of the five counts shall be taken as the basic pellet count. The test sample quantity shall be divided equally and fired from each of three shotguns. Each cartridge shall be fired at a separate 40" X 40" piece of paper. A circle 30" in diameter shall be drawn on each paper so as to include the greatest number of pellet perforations. The pattern percentage is the number of pellet perforations within, or touching, the 30" circle divided by the basic pellet count and multiplied by the factor 100. The average pattern percentage is the average of the percentages.

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4.6.5 Function and casualty. Cartridges shall be fired in a ratio of approximately 50% - 50% for each temperature through two unaltered shotguns per table III below. Weapons shall have a total chamber and magazine capacity of five cartridges minimum. The weapons shall be loaded to capacity and the test performed until the total test sample quantity is reached.

TABLE III
Function and Casualty Test Weapons

	Type I		Type II	
	1st Test	Retest	1st Test	Retest
Manual	2	4	1	2
Semi-Automatic	0	0	1	2

4.6.6 Defect penalty. In any ballistic test, except function and casualty, in which the occurrence of a firing defect listed in Table II, prevents the obtaining of a reliable result for the characteristic being tested an additional shot shall be fired. That particular test shall not be penalized but the total ballistic sample shall be penalized for such defects in accordance with Table II.

5. PACKAGING

5.1 Packaging. Packaging shall be either Level A or B, unless otherwise specified in the contract or order.

5.1.1 Level A. Type I cartridges shall be packed in accordance with the manufacturers best commercial practice and in accordance with the requirements of the following drawings:

9395772	-	Wirebound Box Assembly
9396196	-	Carton, Paperboard
9396197	-	Packing and Marking for M2A1 Ammo Box for Cartridge, Shotshell
9396198	-	Packing and Marking for Box, Wirebound for Cartridges, Shotshell

5.1.2 Level B. Type II cartridges shall be unit packed in accordance with the manufacturer's best commercial practice in quantities of twenty-five (25). The packed cartridges shall then be overpacked into a close fitting fiberboard box in accordance with the manufacturer's best commercial practices and closed such that the total cartridge quantity shall be five hundred (500). This should be overpacked and sealed in a Type I, Class E Bag per MIL-B-117 and conform to the requirements of Method 1A and Submethod 1A-8 of MIL-P-116. After sealing, the five hundred cartridge box shall be overpacked in close fitting fiberboard box conforming to Class Weather Resistant, Grade W5C; sealed per Method V or VI, per PPP-B-636.

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5.2 Marking. Unless otherwise specified, marking shall be in accordance with MIL-STD-129. Required UN marking for Level B packages are as follows:

<div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; flex-direction: column; align-items: center; justify-content: center;"> u n </div>	4G/Y45/S/"Insert year packed"/ USA/DOD/AYD/
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6. NOTES

6.1 Intended use. The shotshell cartridges covered by this specification are intended for use as specified in paragraph 1.1 of this specification.

6.2 Ordering data. See MIL-A-48078

6.3 Submission of inspection equipment design for approval. See MIL-A-48078. Submit equipment designs, test set-ups and appropriate test procedures as required to perform testing and inspection to Commander, ATTN: AMSMC-QAF-I (D), ARDEC, Picatinny Arsenal, NJ 07806-5000. Request letter of submittal should state contractor, contract number, specification number, item nomenclature, drawing number, classification of defects and test paragraph number. This address will be specified on the Contract Data Requirements List, DD Form 1423 in the contract. Unless otherwise specified DI-R-1714 will apply.

6.4 Drawings. Drawings listed in section 2 of this specification under the heading US Army Armament Research, Development and Engineering Center (ARDEC) may also include drawings prepared by and identified as US Army Armament Research and Development Center (ARDC), Edgewood Arsenal, Frankford Arsenal, Rock Island Arsenal or Picatinny Arsenal drawings. Technical data originally prepared by these activities is now under the cognizance of ARDEC.

6.5 Subject term (keyword) listing.

Cartridge
Shotshell
Tactical
Training

6.6 Changes form previous issue. Marginal notations are not used in this revision to identify changes with respect of the previous issue due to the extensiveness of the changes."

Custodian:
Army-AR

Preparing activity:
Army-AR

(Project 1305-A009)

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

*(See Instructions - Reverse Side)*1. DOCUMENT NUMBER
MIL-C-48656A (AR)2. DOCUMENT TITLE
CARTRIDGES, SHOTSHELL

3a. NAME OF SUBMITTING ORGANIZATION

4. TYPE OF ORGANIZATION *(Mark one)* VENDOR USER MANUFACTURER OTHER *(Specify):* _____b. ADDRESS *(Street, City, State, ZIP Code)*

5. PROBLEM AREAS

a. Paragraph Number and Wording:

b. Recommended Wording:

c. Reason/Rationale for Recommendation:

6. REMARKS

7a. NAME OF SUBMITTER *(Last, First, MI) - Optional*b. WORK TELEPHONE NUMBER *(Include Area Code) - Optional*c. MAILING ADDRESS *(Street, City, State, ZIP Code) - Optional*

8. DATE OF SUBMISSION (YYMMDD)

TO DETACH THIS FORM, CUT ALONG THIS LINE.