

INCH-POUND

MIL-C-60896A (AR)
AMENDMENT 3
04 November 1993
SUPERSEDING
AMENDMENT 2
11 March 1991

MILITARY SPECIFICATION

CARTRIDGE, 7.62MM, NATO, REFERENCE

This Amendment forms a part of Military Specification MIL-C-60896A (AR), dated 12 April 1985, and is approved for use by the U. S Army Armament, Munitions and- Chemical Command, and is available for use by all Departments and Agencies of the Department of Defense.

Delete "AMCR 715-505 Volume 3" wherever it appears in the specification and substitute "SCATP-7.62".

PAGE 2

2.1.2 In Paragraph 2.1.2 and under Drawings, delete the following drawings and their titles:

"8594374 and 8594377"

and substitute the following:

"9362607 - Packing and Marking for Box, Wirebound for Cartridge, 7.62mm

9390515 - Packing and Marking for Box, Ammunition, M2A1 for Cartridge, 7.62mm"

PAGE 3

On top of page 3, Under para 2.1.2, Delete "Code of Federal Regulations ..." cite 49CFR-100-199 (latest revision).

PAGE 4

* 3.7: Delete in its entirety and substitute the following:

"3.7 Velocity. The velocity measurement may be performed using a velocity test barrel or the Electronic Pressure Velocity Action Time (EPVAT) System. The test method employed shall be recorded on the test results."

AMSC N/A

FSC 1305

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- * Add: Paragraphs 3.7.1 and 3.7.2:

"3.7.1 Velocity measurement by velocity test barrel. The grand average of the velocities of all the sample cartridges conditioned at 70°F shall be 2750 & 20 ft/sec at 78 feet from the muzzle of the weapon. The average of the standard deviations of the velocities for fifteen 20-round series shall not exceed 20 ft/sec.

3.7.2 Velocity measurement by EPVAT System. The grand average of the velocities of all the sample cartridges conditioned at 70°F shall be 2735 & 20 ft/sec at 78 feet from the muzzle of the weapon. The average of the standard deviations of the velocities for fifteen 20-round series shall not exceed 20 ft/sec."

- * 3.8: Delete "3.8 Chamber Pressure." and substitute:

"3.8.1 Chamber pressure measurement using the copper-crush-cylinder method."

- * Add: Paragraphs 3.8 and 3.8.2:

"3.8 Chamber pressure. The chamber pressure measurement may be performed using either the copper-crush cylinder method or the EPVAT System. If the velocity was measured using the EPVAT System, the chamber r pressure shall be measured using the EPVAT.

3.8.2 Chamber pressure measurement using the EPVAT System. The average chamber pressure of the sample cartridges, conditioned at 70°F, shall not exceed 365 Megapascals (52,940 psi). The average of the standard deviations of chamber pressures for fifteen 20-round series shall not exceed 2,000 psi."

- * 3.9: Delete "3.9 Port pressure." and substitute:

"3.9.1 Port pressure measurement using the copper-crush cylinder method."

- * Add: Paragraphs 3.9 and 3.9.2:

"3.9 Port Pressure. The port pressure measurement may be performed using either the copper-crush cylinder method or the EPVAT System. If the velocity was measured using EPVAT System, the port pressure shall be measured using EPVAT.

"3.9.2 Port pressure measurement using the EPVAT System. The average port pressure of t h e sample cartridges , conditioned at 70°F shall not be greater than 85 MPa(12,238 psi) and shall not be less than 60 MPa(8,702 psi)."

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4.3.3.1, Hardness, Delete: "Head	10	<u>1/</u>	3.1
4.4.11.1" and substitute "Head	10	<u>3/</u>	3.1
4.4.11.1"			

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4.3.3.1, 5/, line 3, Delete: "Table III" and substitute "Table I".

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* 4.4.5: End of paragraph Add:

"When EPVAT System is utilized, measurement of action time, velocity, chamber pressure, and port pressure shall be performed simultaneously."

* 4.4.6: Delete in its entirety and substitute the following:

"4.4.6 Velocity. The velocity measurement shall be performed using a velocity test barrel or the EPVAT System. When the EPVAT System is utilized, measurement of velocity, chamber pressure, port pressure, and action time shall be performed simultaneously. The test method employed shall be recorded on the test results. Prior to this test, cartridges shall be conditioned at $70^{\circ}\text{F} \pm 2^{\circ}\text{F}$ for two hours minimum. The test shall be conducted in accordance with SCATP-7.62 and the following: The five barrel assemblies specified in paragraph 2.7.2.2 of the SCATP shall be selected from a quantity of eight barrel assemblies. Selection of the five barrel assemblies shall be made by firing 30 reference cartridges in each barrel. The five barrel assemblies that have the lowest standard deviation for velocity shall be selected for the test. Prior to firing of the 30 reference cartridges, each barrel assembly shall be "broken in" by firing 100 standard cartridges. Twenty cartridges shall be fired in each of five barrel assemblies. The average velocity and standard deviation of velocities for each barrel assembly and the average velocity for the five assemblies shall be computed. If the average velocity for any barrel assembly varies from the average for the five assemblies by more than plus or minus 14 feet/second on the first day of firing, then that assembly shall be discarded and another selected and firing conducted therein until the aforementioned condition is met by all five assemblies; thereafter, on the two succeeding days, the same five assemblies shall be used. An additional 20 cartridges shall be fired in the same manner in the same barrel assemblies on each of the two succeeding days. The average velocity and standard deviation of velocities for each 20-round test, the daily average velocity (20-rounds in each of five assemblies), and the grand average for the entire 15 velocity series (five assemblies on each of three days) shall be computed.

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- * 4.4.7: To beginning of paragraph Add:

"The chamber pressure measurement shall be performed using copper crush method or EPVAT System. When EPVAT System is utilized, measurement of velocity, chamber pressure, port pressure, and action time shall be performed simultaneously. The test method employed shall be recorded on the test results."

- * 4.4.8: To beginning of paragraph Add:

"The port pressure measurement shall be performed using copper crush method or EPVAT System. When EPVAT System is utilized, measurement of velocity, chamber pressure, port pressure, and action time shall be performed simultaneously. The test method employed shall be recorded on the test results."

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4.4.11.1 Delete in its entirety and substitute the following:

"Case head. The individual hardness value for each prescribed point on the head section of each sample case shall be recorded. Any value failing to meet the drawing requirement at a prescribed point(s) shall be cause for re-measurement of hardness at the corresponding point(s) on the opposite side of the primer pocket of the same head section from which the initial value was obtained. The higher of the two measurements shall be recorded as the value of the record for determination of conformance to drawing requirements."

- * Add: Paragraph 4.4.13:

"4.4.13 EPVAT System. The EPVAT test method for chamber pressure, port pressure, velocity and action time shall be performed simultaneously."

5. Delete "paragraph 5" in its entirety and substitute the following:

"5 PREPARATION FOR DELIVERY

5.1 Preservation and packing.

5.1.1 Packing, Level A. The cartridges shall be packed in accordance with drawing 9390515,

5.1.2 Marking. Markings shall be in accordance with Dwgs 9362607 and 9390515.

5.2 Shipping. When cartridges from more than one lot are shipped at one 'time, each lot shall be kept separate and the division between lots clearly indicated to prevent mixing of the lots in transit."

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The margins of this amendment are marked with an asterisk to indicate where changes (additions, modifications, corrections or deletions) from the previous amendment 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 amendment.

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