

DEPARTMENT OF THE ARMY SUPPLY BULLETIN

**GRENAD, RIFLE: SMOKE, COLORED STREAMER, M23 SERIES
SURVEILLANCE FUNCTION TEST**

Headquarters, Department of the Army, Washington, D.C.

20 October 1971

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1. **Purpose and Scope.** This bulletin when used in conjunction with SB 742-1 provides a method for determining the serviceability of the subject item. The bulletin is to be used in the assessment of the serviceability of individual rifle grenades only. The provisions of this bulletin are mandatory for use by all Department of the Army organizations within CONUS and oversea with a receipt, storage, and distribution mission. This bulletin is not intended for use by organizations with stocks in basic loads. Additional information pertaining to frequency of

test, sample selection, defect standards, reports and records are contained in SB 742-1.

2. **Errors, Omissions, and Recommended Changes.** Reporting of errors, omissions, and recommendations for improving this bulletin by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to Publications) and forwarded direct to Director, US Army Materiel Systems Agency, ATTN: AMXSY-RM-WM, Aberdeen Proving Ground, MD 21005.

3. Safety. The surveillance function testing must be conducted in accordance with the provisions set forth in appropriate safety regulations and implementing instructions, with special attention devoted to technical manuals describing the item.

4. Size of Sample. The number of rifle grenades required to make up a representative sample from a lot for a surveillance function test is as follows: For check investigation as directed For classification investigation 50 For confirmation investigation as directed

5. Sample Selection. Sample rifle grenades will be selected in accordance with the provisions of SB 7421 with the exception that no more than ten rifle grenades may be selected from any one box.

6. Preparation for Test. Number the rifle grenades 1 through 50 and identify them as to the box from which they were drawn.

7. Test Procedure.

a. Rifle grenades will be projected from a rifle grenade launcher of the M7 series attached to the muzzle of a service rifle using caliber .30 grenade cartridge M3. The rifle will be fired in a vertical position mounted on holding device APE 1902. Rifle grenades will not be fired when wind velocity exceeds 15 mph. Rifle grenades with cracked, bent, or otherwise distorted bodies or stabilizer assemblies will not be fired but will be reported by type of defect as outlined in paragraph 10.

b. Cartridges packed with corresponding rifle grenades will be used in these tests unless their use is precluded because they are not standard for the rifle being used, in which case, other rifle grenade cartridges that are standard for the rifle being used may be substituted. If substitute cartridges are used, the code for the lot will not apply to the cartridges picked with the rifle grenades.

8. Observations. All observations of nonstandard conditions and malfunctions especially those not included in paragraphs 10 and 11, should be described in full detail. Pictorial evidence of nonstandard conditions whenever pertinent and practical, should be included. The observations to be reported are as follows:

a. Approximate length of trajectory during which smoke is emitted (e.g., one-half, one-third, three-fourths, etc.).

b. Time of flight (to the nearest tenth of a second) from projection to ground impact.

c. Smoke emission time during flight only (to the nearest tenth of a second).

(5)

d. Total smoke emission time, including emission on the ground (to the nearest tenth of a second).

e. All instances of any of the following:

(1) In nonstandard marking state whether misleading, incomplete, or unidentifiable.

(2) Where rust or corrosion appear give location and extent.

(3) The occurrence of any of the nonstandard conditions or malfunctions classified as defects in paragraphs 10 and 11.

(4) The occurrence of any nonstandard conditions or malfunctions not classified as defects in paragraphs 10 and 11, but which in the opinion of responsible personnel merits consideration.

9. Classification of Defects. Defects observed during inspection and testing will be classified in accordance with paragraphs 10 and 11 and SB 742-1. Any defects observed which are not listed in paragraphs 10 and 11 will be fully described and reported with the ammunition inspector's recommendation as to classification.

10. Nonfunctioning Defects.

a. *Critical.* Propellant spills from the rifle grenade cartridge. Indicate cause of spillage such as:

(1) Missing wad.

(2) No lacquer on wad.

(3) Damaged wad.

(4) Any other cause. Specify.

b. *Major.*

(1) Major damage to components such as:

(a) Head.

(b) Stabilizer tube.

(c) Fin assembly.

(d) Any other component. Specify.

(2) Major rust.

(3) Major corrosion.

(4) Air hole missing on nose end of grenade.

(5) Rifle grenade cannot be removed from outer container even by means of handtools such as pliers.

c. *Minor.*

(1) Marking misleading or unidentifiable.

(2) Tape over smoke port holes missing.

(3) Minor rust.

(4) Minor

corrosion.

11. Functioning Defects.

a. Critical.

(1) Rifle grenade detonates on launcher or in flight.

(2) Color of smoke is incorrect.

b. Major.

(1) Stabilizer tube ruptures upon firing.

(2) Misfire.

(3) Hangfire.

(4) Rifle grenade fails to emit smoke.

(5) Rifle grenade emits smoke for less than one-half of its trajectory.

c. *Minor.* Smoke cloud is not clearly distinguishable. *

12. Evaluation. Functional and nonfunctional codes will be recommended in accordance with the following criteria and the interim condition code will be assigned in accordance with SB 700-1300-1. A lot will be classified Condition Code J and reported if one critical defect is observed.

a. Nonfunctional Codes.

(1) *Code A.* A lot not classified as Code J shall qualify for Code A if it meets the following requirements on inspection of 50 rifle grenades by attributes:

(a) Not more than 2 major defectives.

(b) Not more than 7 minor defectives.

(2) *Code B.* A lot not classified as Code J or Code A shall qualify for Code B if it meets the following requirements on inspection of 50 rifle grenades by attributes:

(a) Not more than 7 major defectives.

(b) Not more than 12 minor defectives.

(3) *Code D.* A lot not classified as Code J, Code A, or Code B shall be Code D.

b. Functional Codes.

(1) *Code A.* A lot not classified as Code J shall qualify for Code A if it meets the following requirements in the test of 50 rifle grenades:

(a) Not more than 2 major defectives.

(b) Not more than 7 minor defectives.

(2) *Code B.* A lot not classified as Code J or Code A shall qualify for Code B if it meets the following requirements in the test of 50 rifle grenades:

(a) Not more than 7 major defectives.

(b) Not more than 12 minor defectives.

(3) *Code D.* A lot not classified as Code J, Code A, or Code B shall be Code D.

13. Records and Reports. Function test results will be recorded and reported as outlined in SB 742-1.

*Not clearly distinguishable is defined as smoke of the correct color but not of sufficient volume, rendering it nondistinguishable as to color when viewed against a background of contrasting color from a distance of 2 miles on a clear day.

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ARNG & USAR: None.

For explanation of abbreviations used, see AR 310-50.

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