

DEPARTMENT OF THE ARMY SUPPLY BULLETIN

FIRING DEVICE, DEMOLITION: M1, RELEASE TYPE
AND M5, PRESSURE RELEASE TYPE
SURVEILLANCE FUNCTION TEST

Headquarters, Department of the Army, Washington, D.C.
19 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 firing devices only. The provisions of this bulletin are mandatory for use by all Department of the Army organizations within CONUS and overseas with a receipt, storage, and distribution mission. This bulletin is not intended for use by organizations with stock in basic loads. Additional information pertaining to frequency of test, sample selection, defect standards, reports and records are contained in SB 7442-1

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 Analysis 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 firing devices 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
 Groups with lot numbers assigned50
 Groups without lot numbers assigned100
For confirmation investigation as directed

5. Sample Selection. Sample firing devices will be selected in accordance with the provisions of SB 742-1 except as follows:

a. If lot numbers have been assigned, not more than 10 firing devices may be selected from one wooden box.

b. If lot numbers have not been assigned, then a sample of 20 firing devices from each of five wooden boxes will be selected from each group.

6. Preparation for Test. Number the firing devices -1 through 50 if from a group with a lot number assigned, or 1 through 100 if from a group to which a lot number has not been previously assigned, and identify them as to the box from which they were drawn.

7. Test Procedure. The sample firing devices will be tested as directed in *a* or *b* below depending on type.

a. Release Type M1.

(1) Remove the coupling base protector cup and screw the coupling base into the firing mechanism.

(2) Secure the firing device into the holder which will then be positioned on the Device, Testing, Pressure, Push and Pull in Pounds, APE 1907.

(3) Place a 3-pound restraining load on the firing device.

(4) Remove the cotter pin in the end of the safety pin.

(5) Gently withdraw the safety pin by pulling on its cord.

(6) Function the firing device by removing the restraining load.

b. Pressure Release Type M5. Perform this test as described in paragraph a above with the exception that a 5-pound restraining load will be used.

8. Observations. All observations of nonstandard conditions and malfunctions, especially those not included among the defects listed 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 all instances of any of the following:

a. In nonstandard marking state whether misleading, incomplete, or unidentifiable.

b. Where rust or corrosion appear give location and extent.

c. The occurrence of any nonstandard conditions or malfunctions classified as defects in paragraphs 10 and 11.

d. The occurrence of any nonstandard condition 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. Major

(1) Safety pin missing.

(2) Safety pin cannot be removed by hand (M device only).

(3) Use of the firing device is precluded because the coupling base cannot be properly assembled to the device.

(4) Major rust.

(5) Major corrosion.

b. Minor

(1) Cord comes off or is missing from safety pin.

(2) Cord comes off or is missing from cotter key (M5 device only).

(3) Cotter key not spread (M5 device only).

(4) Safety pin cannot be removed by hand (M1 device only).

(5) Protector cup missing.

(6) Minor rust.

(7) Minor corrosion.

(8) Marking misleading or unidentifiable.

11. Functioning Defects.

a. Critical. M1 firing device functions with a restraining load of 3 pounds applied or M5 firing device functions with a restraining load of 5 pounds applied.

b. Major.

(1) Striker is not released when restraining load is removed.

(2) Striker releases but primer fails to fire.

(3) Primer fires low order; would have resulted in a dud.

NOTE

Whenever the frequency of "low order primer" is such that classifying "low order" as a major defect would place the lot in Code D, the lot should be retested with blasting caps of known good quality assembled to the coupling base to determine whether these "low order primers" can or cannot detonate blasting caps.

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 I critical defect is observed.

For groups with lot numbers assigned (N = 50).

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 firing devices by attributes.

(a) Not more than 2 major defectives.

(b) Not more than 4 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 firing devices by attributes.

(a) Not more than 7 major defectives.

(b) Not more than 10 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 firing devices.

(a) Not more than 2 major defectives.

(b) Not more than 4 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 firing devices.

(a) Not more than 7 major defectives.

(b) Not more than 10 minor defectives.

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

For groups without lot numbers assigned (N=100).

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 100 firing devices by attributes.

(a) Not more than 5 major defectives.

(b) Not more than 9 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 100 firing devices by attributes.

(a) Not more than 14 major defectives.

(b) Not more than 21 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 100 firing devices.

(a) Not more than 5 major defectives.

(b) Not more than 9 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 100 firing devices.

(a) Not more than 14 major defectives.

(b) Not more than 21 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.

By Order of the Secretary of the Army:

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The Adjutant General.

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ARNG: None

USAR: None

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

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