

This copy is a reprint which includes current pages from Changes 1 and 2.

DEPARTMENT OF THE ARMY SUPPLY BULLETIN

FIRING DEVICE, DEMOLITION: MI, PULL TYPE AND
M3, PULL-RELEASE TYPE
SURVEIT.-ANCE FUNCTION TEST

Headquarters, Department of the Army, Washington, D.C.
20 October 1971

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

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 with CONUS and overseas with a receipt, storage, and distribution mission. This bulletin is not intended for use by organizations with stocks in basic load. Additional information pertaining to frequency of

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, U. S. Army Materiel Systems Analysis Agency, ATTN: AMXS- 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 assigned	50
Groups without lot numbers assigned	100
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 sanmple 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. *Pull Type M1.*

- (1) Remove the protector cup and screw the firing device hand tight into a holding fixture threaded to receive the coupling base.
- (2) Attach a tension recording scale to the release pin ring.
- (3) Remiove the safety pins.
- (4) Pull the scale in a direction parallel to the axis of the release pin until the firing pin is released.
- (5) Divide one of the inclosed 80 foot lengths of wire into two equal parts and the other into three equal parts.
- (6) Subject each section of trip wire to a pull of 15 pounds and record any instances of wire breaking under a tension of 15 pounds or less.

b. *Pull-Release Type M3.*

- (1) Unscrew the primed coupling base from the firing device and replace it with a coupling base from which the primer has been removed.

(2) Screw the firing device hand tight into a holding fixture threaded to receive the coupling base.

(3) Attach approximately 10 inches of trip wire to the winch by threading it through the hole in winch spindle. (Wire should be long enough to permit several turns of the winch spindle).

(4) Attach a tension recording scale to the other end of the wire.

(5) Remove the positive safety pin.

(6) Pull the scale in a direction parallel to the axis of the release pin until it is possible to withdraw the head safety pin and hold it there.

(7) Remove the head safety pin.

(8) Pull the scale in the same direction until the firing pin is released and record the tension required to do so.

(9) Remove the firing device from the fixture and recock it by pushing the firing pin inward with a rubber tipped blunt rod such as the eraser end of a pencil until the release pin slips into place.

(10) Insert the head safety pin and reassemble the device with its primed coupling base.

(11) Remove the protector cup and screw the firing device back into the holding fixture.

(12) Pull on the winch assembly in a direction parallel to the axis of the release pin until it is possible to remove the head safety pin and hold it there.

(13) Remove the head safety pin.

(14) Function the firing device by cutting the trip wire.

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 as follows:

a. Tension (to the nearest one-half pound) required to release the firing pin by pulling on the trip wire.

b. All instances of any of the following:

(1) Nonstandard marking. State whether misleading, incomplete, or unidentifiable.

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

(3) The occurrence of any 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.

- (1) All safety pins missing.
- (2) All safety pins insecurely assembled to the extent that the handling and/or storing of the firing device is rendered unsafe.

b. Major.

- (1) Any of the following components missing or damaged (to the extent which would preclude proper use of the firing device).
 - (a) One safety pin.
 - (b) Coupling base assembly.
 - (c) Primer.
 - (d) Threads.
 - (e) Winch assembly or any of its parts (M3

only).

- (2) Major rust.
- (3) Major corrosion.
- (4) Head safety pin not removable by hand when the tension on the trip wire is adjusted for easy removal (M3 only).

c. Minor.

- (1) Any of the following missing or damaged to the extent that the use of the component is precluded but not the use of the firing device.
 - (a) Small cotter pin from the head safety pin (M3 only) .
 - (b) Anchor cord.
 - (c) Positive safety pin cord.
 - (d) Head safety pin cord (M3 only).
 - (e) Protector cup.
 - (j) Pull wire spools, one or both.
 - (g) Pull ring (M1 only).
- (2) Primer cocked.
- (3) Primer loose.
- (4) Flash hole obstructed.
- (5) Minor rust.
- (6) Minor corrosion.

(7) Marking misleading or unidentifiable.

11. Functional Defects.

a. Critical. Firing device functions prior to actuation by pulling or cutting as required.

b. Major.

- (1) Tension required to release the firing pin is less than that in column A of table 1.
- (2) Tension required to release the firing pin is greater than that in column D of table 1.
- (3) Trip wire breaks at a tension of 15 pounds or less.
- (4) Firing pin does not recock (M3 only).
- (5) Firing pin does not release.
- (6) Primer does not fire.
- (7) 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.

c. Minor.

- (1) Tension required to release the firing pin is less than that in column B but not less than that in column A of table 1.
- (2) Tension required to release the firing pin is greater than that in column C but not greater than that in column D of table 1.

Table 1.

Firing device	Tension required to release the firing pin (pounds)			
	A	B	C	D
M1	2	3	6	9
M3	3	6	12	15

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

(1) *Nonfunctional codes.*

(a) *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.

1. Not more than 2 major defectives.
2. Not more than 4 minor defectives.

(b) *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.

1. Not more than 7 major defectives.
2. Not more than 10 minor defectives.

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

(2) *Functional codes.*

(a) *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.

1. Not more than 2 major defectives.
2. Not more than 4 minor defectives.

(b) *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.

1. Not more than 7 major defectives.
2. Not more than 10 minor defectives.

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

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

(1) *Nonfunctional codes.*

(a) *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.

1. Not more than 5 major defectives.
2. Not more than 9 minor defectives.

(b) *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.

1. Not more than 14 major defectives.
2. Not more than 21 minor defectives.

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

(2) *Functional codes.*

(a) *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.

1. Not more than 5 major defectives.
2. Not more than 9 minor defectives.

(b) *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.

1. Not more than 14 major defectives.
2. Not more than 21 minor defectives.

(c) *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:

W. C. WESTMORELAND,
General, United States Army,
Chief of *Staff*.

Official:

VERNE L. BOWERS,
Major General, United States Army,
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NG: None.

USAR: None

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

Changes in Force: C1 and C2

CHANGE

No. 2

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, 15 February 1990

**FIRING DEVICE, DEMOLITION: M1, PULL TYPE AND
M3, PULL-RELEASE TYPE
SURVEILLANCE FUNCTION TEST**

SB 742-1375-26, 20 October 1971, is changed as follows:

1. *Page 2.* Paragraph 7b(2) is changed as follows:

(2) Firing device 26-50 will be tested as follows:

(a) Remove protector cup and screw firing device hand tight into holding fixture threaded to receive coupling base.

(b) Attach approximately 10 inches of tripwire to winch by threading wire through hole in winch spindle. (Wire should be long enough to permit several turns of winch spindle.)

(c) Pull on the other end of wire in a direction parallel to axis of release pin until the head of safety pin can be withdrawn. Secure wire in this position.

(d) Remove head safety pin.

(e) Function device by cutting trip wire.

2. *Page 2.* Paragraphs 7b(3) through 7b(14) are rescinded.

3. *Page 3.* Paragraph 11b(4) is rescinded.

4. File this change sheet in front of the publication for reference purposes.

By Order of the Secretary of the Army:

Official:

WILLIAM J. MEEHAN II
Brigadier General, United States Army
The Adjutant General

CARL E. VUONO
General, United States Army
Chief of Staff

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To be distributed in accordance with DA Form 12-34, Requirements for Ammunition Surveillance Procedure Firing Devices, Demolition.

Change in Force: C 1

**DEPARTMENT OF THE ARMY SUPPLY BULLETIN
FIRING DEVICE, DEMOLITION: AII. PULL TYPE
AND A13, PULL-RELEASE TYPE
SURVEILLANCE FUNCTION TEST**

Headquarters, Department of the Army, Washington, DC
30 June 1988

SB 742-1375-26, 20 October 19-1. is changed as follows:

Page 2, paragraph 7b. Change as follows:

b. Pull-release type, M%3

(1) Firing devices 1-25 will be tested as follows:

(a) Remove protector *cup* and screw firing device hand tight into holding fixture threaded to receive coupling base.

(b) Attach approximately 10 inches of trip wire to winch by threading , wine through hole in winch spindle. wire should be long enough to permit several turns of winch spindle.)

(c) Attach a tension recording- scale to other end of wire.

(d) Remove positive safety pin.

(e) Pull scale in a direction parallel to axis of release pin until head safety pin can be withdrawn. Secure wire in this position.

(f) Remove head safety pin.

(g) Continue pulling on scale in same direction until firing pin is released. Record tension required to release pin.

By Order of the Secretary of the Army:

Official:

R. L. DILWORTH

Brigadier General, United States Army

The Adjutant General

CARL E. VUONO
General, UNITED STATES ARMY
Chief of staff

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