DEPARTMENT OF THE ARMY SUPPLY BULLETIN

IGNITER, TIME BLASTING FUSE: WEATHERPROOF, M2 SURVETIJ,ANCE 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 igniters only. The provisions of this bulletin are mandatory for use by all Department of the Army organizations within CONUS and oversea within 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 Analysis Agency, A T TN: 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 igniters 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 igniters will be selected in accordance with the provisions of SB 742-1 with the exception that not more than 10 igniters may be selected from any one box.

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

7. Test Procedure. The test will be performed in two parts as follows:

a. Load Test for Fuse Retainer Clip. This test is performed to determine the capability of the fuse retainer prongs to support a load of 15 pounds applied to a safety fuse inserted in the fuse retainer clip. The 50 igniters from each lot will be tested as directed below:

(1) Remove the paper tube and pull out the rubber plug.

(2) Insert a freshly cut end of a six-inch length of safety fuse into the open end of the igniter. Either M700 (Specification MIL-F-15144) or other safety fuse standard for use with the M2 igniter may be used for this test.

(3) Push the safety fuse up hard and pull back to assure that the spring clips are holding.

(4) To insure proper grip by the retainer prongs, the end of the safety fuse may be frayed.

(5) Suspend a 15 pound load from the other end of the safety fuse for five minutes. Apply the load gently so that no sudden force is exerted on the retaining prongs.

b. Igniting Test for Igniter. This test is performed to determine the ability of the igniter to ignite a black powder safety fuse having a diameter of 0.200 inch + 0.005 inch. The 50 igniters from each lot will be tested as directed below:

(1) Examine the 50 sample igniters and if the fuse retainer prongs failed to engage or hold the safety fuse in the load test, insert a new length of safety fuse into the igniter as directed in a (2), (3), and (4) above. Otherwise, the safety fuse is not to be disturbed.

(2) Work the plastic sealing material (furnished as a part of the igniter) into the joint between the safety fuse and the igniter.

(3) Attach a tension recording scale to the release ring and pull on the scale until a tension of 3 pounds is obtained. If the release pin has not been withdrawn, remove the scale and, by means of the forefinger inserted into the pull ring over its doubled portion, pull on the release pin with a twisting motion until it is withdrawn. If the ring pulls apart or breaks, function the device by means of pliers or other handtool.

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 of the nonstandard conditions or malfunctions classified as defects in paragraphs 10 and 11.

d. 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. Major.

(1) Any of the following missing:

(a) Plastic sealing material.

(b) Release ring.

(c) Stopper.

(d) Any other item that precludes the use of the igniter.

(2) Major damage to components such as:

(a) Plastic sealing material.

(b) Release ring.

(c) Any other item that precludes the use of the igniter.

(3) Major rust.

(4) Major corrosion.

b. Minor.

(1) Stakes missing or improper to the extent that staked parts are easily separable.

(2) Rubber adhesive missing or inadequately spread around the joint between the stopper and the end of the holder.

(3) Minor rust.

(4)Minor corrosion

11. Functioning Defects.

a. Critical.

(1) Premature functioning attributable to the igniter, e.g., functioning before the release pin is pulled.

(2) Tension required to withdraw the release pin is 3 pounds or less, and the primer fires when the release pin is withdrawn.

b. Major.

(1) Fuse retainer prongs fail to engage safety fuse.

(2) Fuse retainer prongs fail to hold safety fuse.

(3) Fuse retainer assembly is pulled out of the igniter.

(4) Release ring fails (breaks or separates from release pin without withdrawing it).

(5) Striker binds and does not strike primer.

(6) Striker functions but primer fails to fire.

(7) Primer functions but fuse of known good quality is not ignited.

(8) Tension required to withdraw the release pin is 3 pounds or less, but the primer does not fire when the release pin is withdrawn.

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 igniters by attributes.

(a) Not more than 4 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 igniters by attributes,

(a) Not more than 8 major defectives.

(b) Not more than 13 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 igniters.

(a) Not more than 4 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 igniters.

(a) Not more than 8 major defectives.

(b) Not more than 13 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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NG: None
USAR: None
For explanation of abbreviations used, see AR 310-50.

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