DEPARTMENT OF THE ARMY SUPPLY BULLETIN

GRENADE, HAND: INCENDIARY, TH-3, AN-Ml4 AMMUNITION SURVEILLANCE PROCEDURES (1330–G900)

Headquarters, Department of the Army, Washington, DC
30 December 1987

SB 742–1330–94–321, 8 November 1982, is changed as follows:

Page 2, paragraph 5. Change "thirty (30)" to "thirty-two (32)."

Page 2, paragraph 8a. Change "30" to "32."

Page 2, paragraph 8*d*, line 1. First line of first sentence is changed to read as follows:

"Submerge grenades 1-16 upright in water for at"

Page 3, paragraph 12b. Add following defect:

"(5) Fuze loose; not in full contact with gasket."

Page 3, paragraphs 14a(**1)** and 14a(2). Change "30" to "32."

Page 3, paragraphs 14b(1) and 14b(2). Change "30" to "32."

This copy is a reprint which includes current pages from Change 1.

C 1, SB 742–1330–94–321

By Order of the Secretary of the Army:

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

Official:

R. L. DILWORTH
Brigadier General, United States Army
The Adjutant General

DISTRIBUTION:

To be distributed in accordance with DA Form 12–34, requirements for Ammunition Surveillance Procedure Hand Grenades.

*SB 742-1330-94-321

DEPARTMENT OF THE ARMY SUPPLY BULLETIN

GRENADE, HAND: INCENDIARY, TH-3, AN-M14 AMMUNITION SURVEILLANCE PROCEDURES (1330-G900)

Headquarters, Department of the Army, Washington, DC
8 November 1982

1. Purpose and Scope. This bulletin, when used in conjunction with SB 742-1, provides a method for determining the serviceability of Grenade, Hand: AN-M14, Incendiary, with fuze M201A1 (1330-G900). The function testing in this procedure will be accomplished under a centralized program managed by the US Army Armament Materiel Readiness Command (ARRCOM), DRSAR-QAS, Rock Island, IL 61299. This bulletin is to be used in the serviceability assessment of grenade lots based on the inspection and testing of individual grenades only. The provisions of this bulletin are mandatory for use by all Department of the Army organizations within CONUS and OCONUS with an ammunition 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 is contained in SB 742-l.

2. Errors, Omissions, and Recommended Changes. Direct reporting of errors, omissions, and recommendations for improving this bulletin is authorized and encouraged. DA Form 2028 (Recommended Changes to Publications and Blank Forms) may be completed and forwarded to Commander, ARRCOM, ATTN: DRSAR-QAS, Rock Island, IL 61299.

3. Safety. Inspections and 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. A Standing Operating Procedure (SOP) is required and will delineate specific safety requirements for these visual examinations and tests.

4. Personnel. All visual examinations and function tests will be conducted under the control of a Quality

***This bulletin supersedes SB 742-1330-94-8, 16 January 1974.**

Assurance Specialist (Ammunition Surveillance) hereinafter referred to as a QASAS.

5. Size of Sample. Unless otherwise directed, a sample size of thirty (30) grenades is required to make up a representative sample from a lot for a visual inspection and surveillance function test. To satisfy the requirements of the periodic inspection prescribed in conjunction with this examination and function test, additional sampling of inner and outer packing is required in accordance with SB 742-l.

6. Sample Selection. Sample grenades will be selected in accordance with the provisions of SB 742-l with the exception that not more than five grenades may be selected from any one box.

7. Surveillance Test Equipment. The following equipment is to be used in testing grenades in accordance with this procedure.

a. *Ammunition Peculiar Equipment (APE).*

APE 1901, Tank, Immersion;
APE 1912, Thermometer, Cup-cased;
APE 1914, Anemometer; or
APE 1915, Indicator, Wind Speed;
APE 1917, Gage, push-pull;
APE 1922M1, Launcher, Pneumatic, Grenade;
APE 1937, Shelter, Personnel Protection.

b. Additional Test Equipment.

Two stopwatches each accurate to one-tenth of a second; Polarized (Shade 2) protective lens.

8. Preparation for Inspection and Test. *a.* Number the grenades 1 through 30 and identify them as to the box from which they were drawn.

b. Complete the periodic inspection in accordance with SB 742-l and record the appropriate observations as instructed in paragraphs 10 and 12. Grenades with such defects as leaking filler, uncovered emission holes or loose fuzes will (after they are recorded) have these defects corrected if possible prior to water conditioning (i.e., fuzes tightened and emission holes properly covered with pressure sensitive tape).

c. Temperature condition the grenades at 70° ± 10° F. (21.1 ° ± 5.6" C.) for at least twelve hours.

d. Submerge the grenades upright in water for at least 30 minutes to a depth of 1 to 2 inches (2 to 5 centimeters) measured from the top surface of the grenades. The temperature of the water shall be at least equal to, but no greater than, 10" F. (5.6" C.) above the temperature of the grenades at the time of submersion. The APE 1901 should be used for this purpose.

e. Remove the grenades from the water and wipe them dry. The grenades will be functioned within one hour after removal from the water.

9. Test Procedure. This test is to determine the amount of tension required to extract the safety pin, and the ability of the grenade to ignite and burn continuously for the required period of time. Function testing will be conducted during daylight hours only and in an area that is clear of explosive material, combustible fumes, or flammable material such as wood, grass, etc. Testing will not be conducted during an electrical, rain, or snow storm or during any other conditions that might adversely affect the test results. The test shall be performed using the pneumatic grenade launcher, APE 1922M1.

WARNING

The AN-Ml4 grenade burns with intense heat; therefore, personnel conducting or observing the test must wear polarized (Shade 2) protective lens for eye protection.

a. Set up the grenade launcher in accordance with the APE 1922M1 Operational Manual and regulate the air pressure to obtain the desired trajectory for grenades.

b. Lock the firing lanyard in the lanyard control box of the personnel protection shelter, APE 1937. The person assigned to function the launcher will carry the key at all times to prevent unauthorized access to the lanyard.

c. Place a grenade in the launcher and attach the push-pull gage, APE 1917, to the safety pin pull ring.

d. Position the arm of the support bracket alongside the fuze body.

e. Attach the lanyards to the launcher as shown in the APE 1922M1 Operational Manual and take cover in the personnel shelter.

f. From inside the shelter, unlock the lanyard control box and pull on the lanyard attached to the pull gage until the safety pin is withdrawn.

g. Observe the grenade from the shelter to assure that the safety pin has been withdrawn.

h. Continue pulling on the lanyard to open the quick-release valve and launch the grenade.

i. Record the observations as instructed in paragraphs 10 and 13.

j. In the event of dud, personnel shall remain inside the protection shelter for 15 minutes. After the waiting period has lapsed, the dud will be carefully checked to assure that the primer has been struck. If the primer has not been struck, the grenade will be removed to a controlled burning area for destruction. If the primer has been struck, the grenade will be recovered and examined to determine the cause of malfunction. If the starter mix has not been ignited, or if the foil located on the ignition end of the fuze has not been ruptured, refuze the grenade (using a fuze lot of known good quality) and retest it. Record all information pertinent to the cause of the malfunction and the lot number of both the fuze that failed initially and the fuze used in the retest. Record the retest results. Refuzing and retesting shall be accomplished to determine the feasibility of reworking the lot and not to determine its serviceability.

WARNING

The recovery, examination, defuzing, refuzing and destruction of dud grenades shall be accomplished in accordance with applicable safety regulations and Standing Operating Procedures. All necessary protective equipment will be used (such as asbestos gloves, full face shield, flame resistant clothing, etc.).

10. Observations. All observations of nonstandard conditions and malfunctions, especially those not included among the defects listed in paragraphs 12 and 13, or in SB 742-1, should be described in full detail. Pictorial evidence of nonstandard conditions should be included whenever pertinent and practical. The observations to be reported are as follows:

a. Tension, to the nearest half pound (quarter kilogram), required to extract the safety pin;

b. Delay time in seconds to the nearest tenth of a second, which is the time between grenade launch and the functioning of the fuze ignition charge.

c. Burning time to the nearest second, which is measured from the time the grenade begins to burn until the incendiary mixture is completely consumed or ceases to burn;

d. Dud, which is a grenade which fails to ignite for any reason;

e. Incomplete burner, which is a grenade in which the incendiary mixture is not completely consumed by burning;

f. All instances of any of the following:

(1) Marking misleading, incomplete, or unidentifiable,

(2) Rust or corrosion (give location and extent),

g. The occurrence of any of the nonstandard conditions or malfunctions classified as defects in paragraphs 12 and 13 or in SB 742-l; and the occurrence of any nonstandard condition or malfunction not specifically classified as a defect but which, in the opinion of responsible personnel, merits consideration.

11. Classification of Defects. Defects observed during inspection and testing will be classified in accordance with paragraphs 12 and 13 and with SB 742-l. Any defects observed which are not listed in paragraphs 12 and 13 or in SB 742-l will be described fully and reported with the recommendations of the **QASAS** as to classification.

12. Non-Functioning Defects.

a. Critical.

(1) Unauthorized fuze is installed (other than M201A1 or E7R6 fuze).

(2) Safety pin is missing.

(3) Safety pin is broken or insecurely assembled to the extent that it endangers the user.

b. Major.

(1) Tape is loose or does not completely cover emission hole.

(2) Grenade body seams are split.

(3) Marking is incorrect.

(4) Major rust or corrosion is present.

c. Minor.

(1) Marking is missing or illegible.

(2) Grenade body is swollen.

(3) Minor rust or corrosion is present.

13. Functioning Defects.

a. Critical. Fuze delay time is less than 0.5 second.

b. Major.

(1) Grenade burns in excess of 50 seconds.

(2) Pull required to remove safety pin is less than 5 pounds (2.25 kilograms).

(3) Grenade incendiary mixture fails to ignite for any reason.

(4) Incendiary mixture burning is incomplete.

c. Minor.

(1) Pull required to remove safety pin is greater than 35 pounds (16 kilograms).

(2) Fuze delay time is more than 3.5 seconds.

14. Evaluation. Using the following criteria, and considering functional codes and nonfunctional characteristics separately, and interim condition code will be assigned in accordance with SB 742-1. A lot will be classified Condition Code J and reported in accordance with SB 742-l if any critical defect is observed.

a. Nonfunctional Characteristics.

(1) *Serviceable for unrestricted issue and use.* A lot classified as Condition Code J shall qualify as serviceable for unrestricted issue and use if it meets the following requirements on inspection 30 grenades by attributes:

(a) Not more than 1 major defective.

(b) Not more than 2 minor defectives.

(2) Serviceable for priority of issue. **A** lot not classified as Condition Code J or as serviceable for unrestricted issue and use shall qualify as serviceable for priority of issue if it meets the following requirements on inspection of 30 grenades by attributes:

(a) Not more than 4 major defectives.

(b) Not more than 6 minor defectives.

(3) Unserviceable. **A** lot not classified as serviceable for unrestricted issue and use or for priority of issue shall be classified as unserviceable.

b. Functional Codes.

(1) *Code* A. A lot not classified as Condition Code J shall qualify for Functional Code A if it meet? the following requirements in the test of 30 grenades:

(a) Not more than 1 major defective.

(b) Not more than 2 minor defectives.

(2) *Code B.* A lot not classified as Condition Code J or Functional Code A shall qualify for Functional Code B if it meets the following requirements in the test of 30 grenades:

(a) Not more than 4 major defectives.
(b) Not more than 6 minor defectives.

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

15. Records and Reports. The visual inspection and functin test results will be recorded and reported on DA Form 984 and other appropriate forms as outlined in SB 742–1.

By Order of the Secretary of the Army:

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Distribution:

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