DEPARTMENT OF THE ARMY SUPPLY BULLETIN

GRENADE, HAND: FRAGMENTATION, M61, M67, M33, M26 and M26A1, W/FUZE, DELAY, M204A1/A2 or M213 AMMUNITION SURVEILLANCE PROCEDURES

HEADQUARTERS, DEPARTMENT OF THE ARMY, WASHINGTON, DC
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The proponent agency of this supply bulletin is the Commander, AMCCOM. Direct reporting of errors, omissions, and recommendations for improving this bulletin is authorized and encouraged. Comments should pertain to suggested procedural changes, functioning characteristics, defects, cause of failures, remedial action, etc. A DA Form 2028 (Recommended Changes to Publications and Blank Forms) may be completed and forwarded to Commander, AMCCOM, ATTN: AMSMC-QAS-P, Rock Island, IL 61299-6000.

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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 fragmentation grenades with delay (not impact sensitive) fuzes. The visual inspections and surveillance function testing in this procedure will be accomplished under a centralized control program managed by the U.S. Army Armament Munitions and Chemical Command (AMCCOM), AMSMC-QAS-P (R), Rock Island, IL 61299-6000. This bulletin is to be used in the serviceability assess ment of grenade lots based on the inspection and test of individual grenades. The provisions of this bulletin are mandatory for all Department of the Army organizations within CONUS and OCONUS with an ammunition receipt, storage, and/or distribution mission. This bulletin is not intended for use by organizations with stocks in basic loads. SB 742-1 contains additional information pertaining to frequency of test, sample selection, defect standards, reports and records.

*This bulletin supersedes SB 742-13394-435, dated 26 January 1973.

2. Item description. a. This bulletin pertains to the following items:

(1) Grenade, Hand-Fragmentation, Delay, M61, w/Fuze, M204A1/A2, w/Safety Clip, 1330-G880.
(2) Grenade, Hand-Fragmentation, Delay, M67, w/Fuze M213, w/Safety Clip 1330-G881.
(3) Grenade, Hand-Fragmentation, Delay, M33, w/Fuze, M213, 1330-G888.
(4) Grenade, Hand-Fragmentation, Delay, M26 and M26A1 w/Fuze, M204A1/A2, 1330-G890.

b. Fragmentation hand grenades are used against enemy in close combat. Fragmentation grenades produce casualties by high velocity projection of fragments. The grenade fuze contains a primer and a pyrotechnic delay column. Assembled to the fuze are a striker, striker spring, safety lever, safety pin with pull ring, and a detonator assembly. The split end of the safety pin has an angular spread or diamond crimp. The M61 and the M67 grenades are equipped with a safety clip as an additional safety device used in conjunction with the safety pin. The safety clip (spring steel wire) consists of a loop which fits around the fuze body and a clamp which fits over the safety lever. It is designed to keep the lever in place should the safety pin be unintentionally removed from the grenade.

c. Release of the safety clip (if installed) and removal of the safety pin will release the safety lever which will then be forced away from the grenade body by a striker powered by the striker spring. The striker rotates on its axis and strikes the percussion primer which emits a small intense spit of flame igniting the delay element. After burning four to six seconds, the delay element functions the detonator which then sets off the main explosive charge. The main charge explodes rupturing the body and projecting fragments at high velocity.

3. References. a. The following publications will provide more information on the surveillance of the subject grenades. This list is not to be considered all inclusive.

(1) AR 75-1-Malfunctions Involving Ammunition and Explosives.
(2) DARCOM-R (AMC) 385-25-Radiation Protection.
(3) DARCOM-R (AMC) 702-22-Qualification and Certification of DARCOM NDT (nondestructive test) Personnel.
(4) SB 742-1-Ammunition Surveillance Procedures.
(5) SB 742-1330-94-371-Fuze, Hand Grenade: M6 Series, M204 Series, M206 Series, M213, and M215, Ammunition Surveillance Procedures.
(6) TM 9-1330-200-12-Operator's and Organizational Maintenance Manual for Grenades.
(7) TM 9-1330-200-34-Direct Support and General Support Maintenance Manual for Grenades.
(8) TM 9-1375-213-12 Operator's and Organizational Maintenance Manual (Including Repair Parts and Special Tools List) Demolition Materials.
(9) TM 43-0001-29-Army Ammunition Data Sheets for Grenades.

b. Each item of ammunition peculiar equipment (APE) has an operational manual which should be consulted prior to and during the use of that item. The manual is titled with the APE number and nomenclature of the APE item (para 9 below).

4. Safety.

a. These fragmentation hand grenades are hazard class 1.1 and require the observance of all precautions applicable to high explosive ammunition. Fragments can be dangerous up to a distance of 230 meters (252 yards). All visual inspections and surveillance function testing must be conducted according to the provisions covered in appropriate safety regulations and implementing instructions with special attention devoted to technical manuals describing the item. A standard operating procedure (SOP) is also required for this operation and will specify safety requirements. The absence of a safety requirement in this or any other publication is not to be construed as meaning that precaution is unnecessary.

b. Work benches, test equipment, fixtures, and personnel should be properly grounded to protect operations from electrostatic charges. The grenade pitch-in barricade, APE 1213M1, must be in place any time fragmentation grenades are handled. The use of APE 1213 (unimproved design) should be avoided if possible. Operators using this older barricade must wear ear plugs, ear muffs, and a full face shield. Castor wheels are not authorized with either model pitch-in barricade.

c. Before any grenade is removed from its fiber container, it must be thoroughly inspected to see that the safety pin is in place and undamaged and that the prongs of the safety pin are spread approximately 45 degrees or diamond crimped. This inspection must also ensure that the fuze lugs are not cracked or broken and the safety lever ears are properly assembled under the lugs. If the grenade is upside down in the fiber container (fuze is not visible), or if any of the above discrepancies are noted, it should remain inside the container and action taken to dispose of it safely.

d. Grenades should never be lifted or handled by the safety clip or the safety pin pull ring.

e. Personnel involved in an x-ray examination must be properly trained, certified (to include NDT certification), and familiar with all radiation safety requirements. Such requirements are covered specifically in AR 385-30 and DARCOMR 385-25.

f. A grenade that fails to function after release of the safety lever must not be approached for at least 60 minutes and then must be destroyed in place according to proper demolition procedures.