

DEPARTMENT OF THE ARMY SUPPLY BULLETIN

Ammunition Surveillance Procedure for USA MICOM Materiel:

EXPLOSIVE BOLT 10022224
FOR
GUIDED MISSILE LAUNCHER HELICOPTER
ARMAMENT SUBSYSTEM M22

Headquarters, Department of the Army, Washington, D. C.
23 June 1975

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**SECTION I
INTRODUCTION**

1. Purpose. This bulletin provides criteria required by AR 740-1 and SM 742-1 for utilization in determining the serviceability for guided missile ammunition items.

2. Scope. The information contained herein applies to all Department of the Army activities within CONUS and overseas, with a receipt, storage, maintenance and issue mission for the Explosive Bolt for the M22 missile system.

3. Reporting of Equipment Publication Improvements. The reporting of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes

to Publications) and forwarded direct to Commanding General, U.S Army Missile Command, ATTN AMSMI-NPM. Redstone Arsenal, AL 35809

4. Item Description. *a Explosive Bolt.* The explosive bolt is used to assemble the missile launcher to the fixed housing unit and to jettison the launcher and missile upon being energized by the pilot from within the helicopter in the event of an emergency. It contains two grams of mercury fulminate

b. Container. The explosive bolt is packaged one to a fiberboard box and 6 each to a wooden box. For nomenclature, FSN, item drawing number and marking drawing refer to appendix A.

*This bulletin supersedes SB 742-1375-92-001, 26 July 1972.

**SECTION II
STORAGE AND SURVEILLANCE**

5. Storage. (Ref TM 9-1300-206, TM 9-1400-461-20 and TM 9-1400.461-35). Prior to storage, the explosive bolt must be inspected for assurance that items are adequately painted, marked, preserved, color coded, packaged, and otherwise suitable for storage in accordance with instructions contained in above reference and applicable drawings (app A).

a. *Approved Types.*

- (1) Igloo (standard types)
- (2) Above Ground Magazine.
- (3) Open, Paulin-covered (emergency only)

b. *Class.* The explosive bolt is Quantity Distance Class 3 and Compatibility Group R

c. *Age (Issue) Control.* The explosive bolt will be Issued from storage in accordance with SB 9-219 (old stock first)

d. *Shelf-Life.*

(1) The explosive bolt is subject to deterioration during storage and is required to be inspected as directed in this publication.

(2) The tentative shelf life of the explosive bolt is 3 years.

6. Surveillance. a. *General.* The guidance furnished in TM 9-1300-206, TM 9-1400-461-20 and TM 91400-461-35 is to be used In storage quality control of the explosive bolt These references prescribe standard methods for identification, examination, evaluation of test failures, and generally encountered defects of marking, deterioration damage and packaging.

b. *Special Requirements.*

(1) The explosive bolt is packed to withstand all conditions ordinarily encountered in storage and transit Damage caused by dropping or other mishandling could cause malfunction when the explosive bolt is fired.

(2) Electrical continuity checks are performed in accordance with procedure in TM 9-1400-461-35.

(3) After the 3 years of shelf-life has expired, the explosive bolt will be function tested in accordance with procedure in TM 9-1400461-35 to determine If an additional 3 years can be added.

c. *Samples Size and Frequency.* Refer to table 1 for sample size and frequency for inspection.

d. *Inspection Method.* Inspect the explosive bolt in accordance with TM 9-1400-461-35.

e. *Defect Classification*

- (1) Defect acceptance number (table 2).
- (2) Inspection criteria (table 3).
- (3) Container, shipping and storage (table 4).

7. Other Instructions. a. *Records and Reports.* Surveillance and storage records and reports reflecting condition of the explosive bolt will be pre2 pared and kept current in accordance with TM 38750 and TM 9-1400-461-35 (see app B for list of report forms).

b. *Repackaging of Samples Inspected.* Report packaging of samples inspected and accepted to level of the lot from which the samples were taken.

8. Evaluation of Inspection Results. After evaluation of sample quality, materiel is to be classified to identify the degree of serviceability, condition, and completeness in terms of readiness for issue and use (AR 725-50). If the results of original sample examination are not conclusive, additional samples must be selected and the cumulative results used in making the final serviceability decision Report rejected lots on DA Form 2415, (Ammunition Condition Report), (reference TM 38-750).

**Table 1. Sample Sizes and Frequency for Inspection
(Inspect Annually)**

Lot size	First sample	Second sample	Accumulative sample size
0-8	3	Balance of lot	8
9-15	3	Balance of lot	15
16-25	5	Balance of lot	25
26-40	5	10	15
41-65	7	14	21
66-110	10	20	30
111-180	15	20	30
181-300	25	50	75
301-500	35	70	105
501-800	50	100	150
801-1300	75	150	225

NOTE

The sample sizes should be used in all inspections The size of sample may be increased by inspecting authority, provided that inspection is not conclusive. Materiel received from the user may have been subjected to severe conditions and should be inspected 100 percent as required to assure a conclusive inspection.

**Table 2. Sample Inspection Acceptability Criteria
Defective Acceptance Number**

Sample size	Defective acceptance number			
	Critical	Major A	Major B	Minor
1-5	0	0	0	0
6-10	0	0	1	1
11-20	0	0	2	2
21-40	0	0	3	4
41-60	0	0	3	5

NOTES

1. Critical defective acceptance number is the maximum number of hazardous type defects permitted in the sample.
2. Major A defective acceptance number is the sample's maximum number of mechanical or electrical inspection failures permitted which will cause item failure.
3. Major B defective acceptance number is the sample's maximum number of visual inspection defectives permitted which would

cause failure or materially reduce the usability of product.

4. Minor defective acceptance number is the sample's maximum number of visual inspection defectives permitted in the sample not materially reducing the usability of product.

5. Defects discovered in a sample for a lot with acceptance based on inspection criteria will be corrected prior to placing samples with the balance of the lot

Table 3. Defect Classification of the Explosive Bolt

Critical defects	Major A defects	Major B defects	Minor defects
None	Failure of Continuity Check	Presence of rust or corrosion Dents or cracks in the casing or housing	Proper Identification markings Damaged or improper package Shorting plug missing or damaged

Table 4. Defect Classification of Shipping and Storage Container

Critical defects	Major A defects	Major B defects	Minor defects
None	None	Damaged boards in outer wooden box. Defective paint and color coding	Improper marking. Damaged fiberboard box

**APPENDIX A.
NOMENCLATURE, STOCK NUMBERS AND DRAWING NUMBERS
APPLICABLE TO EXPLOSIVE BOLT AND CONTAINER**

Nomenclature	FSN	Drawing No	Marking drawing No.
Explosive Bolt	1375-885-3480	10022224	10022224
Container Shipping and Storage	N/A	8034925	8034925

**APPENDIX B.
REPORT FORMS AND REFERENCES**

Form No	Nomenclature	Reference
Transceiver EAM Cards (as prescribed in pending rev to AR 742-10)	Ammunition Inspection and Lot Number Report	AR 742-10
DA Form 2407	Equipment Improvement Recommendation	TM 38-750 chapter 5
DA Form 2415	Ammunition Condition Report	TM 38-750 chapter 5
DD Form 6	Damaged or Improper Shipment Report	AR 700-58

By Order of the Secretary of the Army:

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General, United States Army,
Chief of Staff

Official:

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Major General, United States Army,
The Adjutant General.

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SOMETHING WRONG WITH PUBLICATION



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DOPE ABOUT IT ON THIS FORM.
CAREFULLY TEAR IT OUT, FOLD IT
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PARA-
GRAPH

FIGURE
NO.

TABLE
NO.

IN THIS SPACE, TELL WHAT IS WRONG
AND WHAT SHOULD BE DONE ABOUT IT.

TEAR ALONG PERFORATED LINE

PRINTED NAME, GRADE OR TITLE AND TELEPHONE NUMBER

SIGN HERE

THE METRIC SYSTEM AND EQUIVALENTS

Linear Measure

1 centimeter = 10 millimeters = .39 inch
 1 decimeter = 10 centimeters = 3.94 inches
 1 meter = 10 decimeters = 39.37 inches
 1 dekameter = 10 meters = 32.8 feet
 1 hectometer = 10 dekameters = 328.08 feet
 1 kilometer = 10 hectometers = 3,280.8 feet

Weights

1 centigram = 10 milligrams = .15 grain
 1 decigram = 10 centigrams = 1.54 grains
 1 gram = 10 decigrams = .035 ounce
 1 dekagram = 10 grams = .35 ounce
 1 hectogram = 10 dekagrams = 3.52 ounces
 1 kilogram = 10 hectograms = 2.2 pounds
 1 quintal = 100 kilograms = 220.46 pounds
 1 metric ton = 10 quintals = 1.1 short tons

Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch
 1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. in.
 1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

Square measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. in.
 1 sq. decimeter = 100 sq. centimeters = 15.5 inches
 1 sq. meter (centare) = 100 sq. decimeters = 10.76 feet
 1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. ft.
 1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres
 1 sq. kilometer = 100 hectometers = .386 sq. miles

Liquid Measure

1 dekaliter = 10 liters = 2.64 gallons
 1 hectoliter = 10 dekaliters = 26.42 gallons
 1 kiloliter = 10 hectoliters = 264.18 gallons
 1 liter = 10 deciliters = 33.81 fl. ounces
 1 centiliter = 10 milliliters = .34 fl. ounce
 1 deciliter = 10 centiliters = 3.38 fl. ounces
 1 metric ton = 10 quintals = 1.1 short tons

Approximate Conversion Factors

To change	To	Multiply by	To change	To	Multiply by
inches	centimeters	2.540	ounce inches	newton-meters	.0070062
feet	meters	.305	centimeters	inches	.394
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
sq. inches	sq. centimeters	6.451	kilometers	miles	.621
sq. feet	sq. meters	.093	sq. centimeters	sq. inches	.155
sq. yards	sq. meters	.836	sq. meters	sq. yards	10.764
sq. miles	sq. kilometers	2.590	sq. kilometers	sq. miles	1.196
acres	sq. hectometers	.405	sq. hectometers	acres	2.471
cubic feet	cubic meters	.028	cubic meters	cubic feet	35.315
cubic yards	cubic meters	.765	milliliters	fluid ounces	.034
fluid ounces	milliliters	29.573	liters	pints	2.113
pints	liters	.472	liters	quarts	1.057
quarts	liters	.946	grams	ounces	.035
gallons	liters	3.785	kilograms	pounds	2.205
ounces	grams	28.349	metric tons	short tons	1.102
pounds	kilograms	.454	pound-feet	newton-meters	1.356
short tons	metric tons	.907			
pound inches	newton-meters	.11296			

Temperature (Exact)

°F Fahrenheit temperature

5/9 (after subtracting 32)

Celsius Temperature °C

PIN: 011858-000