

MIL-F-50548A (AR)  
9 November 1978  
SUPERSEDING  
MIL-F-50548 (PA)  
30 June 1970

## MILITARY SPECIFICATION

### FUZES, ROCKET, M423 AND M427 LESS BOOSTER AND BOOSTER LEAD

This specification is approved for use by the US Army Armament Research and Development Command, and is available for use by all Departments and Agencies of the Department of Defense.

#### 1. SCOPE

1.1 This specification contains requirements not covered by the drawings and provides quality assurance provisions for two point detonating fuzes designated as Fuzes, Rocket, M423 and M427, Less Booster and Booster Lead.

#### 2. APPLICABLE DOCUMENTS

2.1 The following documents of the issue in effect on date of invitation for bids or request for proposals form a part of this specification to the extent specified herein.

### SPECIFICATIONS

#### MILITARY

- MIL-A-8625 - Anodic Coatings, for Aluminum and Aluminum Alloys
- MIL-P-48077 - Primer, M104, Parts for Loading, Assembling and Packing
- MIL-A-48078 - Ammunition, Standard Quality Assurance Provisions, General Specifications for
- MIL-D-50868 - Detonator M85
- MIL-P-60412 - Packaging, Packing and Marking for Shipment of Artillery Type and Rocket Fuzes, General Specification for

### STANDARDS

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, US Army Armament Research and Development Command, Attn. DRDAR-QA, Dover, New Jersey 07801 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

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MIL-STD-331 - Fuze and Fuze Components, Environmental and Performance Tests for

DRAWINGS (See 6.5)

US Army Armament Research and Development Command (ARRADCOM)

PRODUCT AND PACKAGING DRAWINGS

- 8886810 - Box, Packing, Ammunition, for Warhead, 2.75 Inch Rocket, HE, M151, Smoke, WP, M156 and Practice XM230
- 8886811 - Container, Ammunition, Fiber, M523, for Warhead, 2.75 Inch Rocket, HE, M151, Smoke WP, M156 and Practice XM230
- 9204391 - Fuze, Rocket, Less Booster and Booster Lead
- 9254707 - Fuze, Rocket, Less Booster and Booster Lead

INSPECTION EQUIPMENT DRAWINGS

- 9201212 - Envelope Drawing, Safety and Arming Inspection Equipment

(Copies of specifications, standards, drawings, and publications required by suppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer).

3. REQUIREMENTS

3.1 Materials.—Materials shall be in accordance with the applicable drawings and specifications.

3.2 Fuze Assemblies and Parts.—The fuze assemblies and parts shall comply with all requirements specified on drawing (dwg.) 9204391 or dwg. 9254707 and with all requirements specified in applicable specifications and standards.

3.2.1 Spring Embrittlement.--None of the springs used in the fabrication of the fuze shall break when extended or distorted to the point of minimum permanent distortion.

3.2.2 Spring Set.--The setback weight spring shall return within .015 inch of the original free length when compressed and heat treated.

3.2.3 Arming and Detent Functioning.--The rotor assembly in the loaded Safety and Arming Device (S&A) shall rotate from the fully safe position to the fully armed position and the detent shall lock the rotor in the fully armed position.

3.2.4 Rotor Reset Capability. - The rotor assembly shall be capable of returning to the unarmed position on its own after the S&A device has been partially armed.

### 3.3 M423 S&A

3.3.1 Arming Time.--The rotor assembly in the loaded S&A shall rotate from the fully safe position to the fully armed position in not less than 0.67 sec. and not more than 0.81 sec. when subjected to arming acceleration of 27.00 plus or minus 0.25 g's.

3.3.2 Non-Arming Test.--The rotor assembly in the loaded S&A shall not arm when subjected to acceleration of 11.25 g's minimum for a minimum of three (3) seconds. This test shall be conducted just prior to insertion of the S&A into the fuze body, and always subsequent to the Arming Time Test.

### 3.4 M423 Fuze

3.4.1 Arming Time.--The fuze assembly shall arm in not less than 0.63 sec. or more than 0.82 sec. when subjected to arming acceleration of 27.00 plus or minus 0.25 g's and the detent shall lock the rotor in the fully armed position, as determined by radiographic inspection.

3.4.2 Non-Arming Test.--The fuze assembly shall not arm when subjected to acceleration of 11.50 g's plus or minus 0.25 g's for a minimum of three (3) seconds.

### 3.5 M427 S&A

3.5.1 Arming Time.--The rotor assembly in the loaded S&A shall rotate from the fully safe position to the fully armed position in not less than 1.13 sec. and not more than 1.30 sec. when subjected to arming acceleration of 40.00 plus or minus 0.25 g's.

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3.5.2 Non-Arming.--The rotor assembly in the loaded S&A shall not arm when subjected to an acceleration of 12.75 g's minimum for a minimum of three (3) seconds. This test shall be performed just prior to insertion of the S&A into the fuze body, and always subsequent to the Arming Time Test.

### 3.6 M427 Fuze

3.6.1 Arming Time.--The fuze assembly shall arm in not less than 1.07 sec. and not more than 1.36 sec. when subjected to arming acceleration of 40.00 plus or minus 0.25 g's and the detent shall lock the rotor in the fully armed position, as determined by radiographic inspection.

3.6.2 Non-Arming.--The fuze assembly shall not arm when subjected to an acceleration of 13.00 g's plus or minus 0.25 g's for a minimum of three (3) seconds.

3.7 S&A Position.--The safe position of the S&A shall be verified after insertion into the fuze body assembly. After insertion of the S&A, fuze handling shall be positively controlled to preclude any chance of inadvertent arming or substitution of the S&A until assembly of the booster housing.

3.8 Jolt and Jumble.--The fuze assembly shall be subjected to and must withstand the Jolt Test specified in MIL-STD-331, with the exception that the fuze shall not be disassembled and inspected after the Jolt Test. After completion of the Jolt Test, the same fuze shall be subjected to and must withstand the Jumble Test specified in MIL-STD-331.

3.9 Forty-Foot Drop.--The complete fuze assembly shall withstand the Forty-Foot Drop Test specified in MIL-STD-331. To satisfy the requirements of MIL-STD-331, the disassembled fuze must display the following conditions:

- a. No loose explosive shall be present in the fuze body assembly.
- b. The lock roller pin on the rotor shall not be broken.
- c. The rotor shall be in the safe position, secured such that it cannot be turned to the armed position with finger pressure.
- d. the g-weight shall be in the fully safe position.

3.10 Fuze Assembly Operational Test.--The unarmed fuzes shall be subjected to and must withstand the following operational tests: Five Foot Drop

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Test as specified in MIL-STD-331; Non-Environmental Test - Non-Arm and Arming Times only; Functional Test - Aircraft Vibration

See Appendix A. The vibration conditioning shall be continuously performed until completed. After completion of the Five Foot Drop Test and the Functional Test, including the acceptance criteria for these tests (Leak Test, Non-Arming Test and Arming Time Test), the same fuzes shall be tested for high order functioning.

3.11 Seal Leakage Test.—The leakage in the fuze shall not cause a pressure drop greater than 0.00072 psi in 10 sec.

3.12 Fuze Firing.—The fuze assembly shall function the explosive elements high order when a weight is dropped onto the nose of the fuze as evidenced by the lead cup being blown out.

3.13 Detonators.—All detonators, prior to assembly, shall have been subjected to and passed all requirements of MIL-D-50868.

3.14 Data Requirements.—The contractor shall generate data in accordance with the requirements of the data item description cited in 4.5.3.4.

3.15 First Article Inspection.—This specification makes provisions for first article inspection. Requirements for the submission of first article samples by the contractor shall be as specified in the contract.

3.16 Workmanship.—All parts and assemblies shall be free from burrs, chips, sharp edges, cracks, unblended radii, surface defects, dirt, grease, rust, porosity, warpage, burn marks, checks, blisters, excess flash, corrosion products and other foreign matter. The cleaning method used shall not be injurious to any part nor shall the parts be contaminated by the cleaning agents. Surface coating shall be continuous except for a few slight scratches not exposing base material. The loading and assembly operations shall be performed in a thorough, workmanlike manner consistent with the best practices of the industry. All required markings shall be neat and sharply defined.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for Inspection and Standard Quality Assurance Provisions.—Unless otherwise specified herein or in the contract, the provisions of MIL-A-48078 shall apply and are hereby made part of this detail specification.

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4.2 Classification of Inspection.-The following types of inspection shall be conducted on this item:

- a. First Article Inspection
- b. Quality Conformance Inspection

4.3 First Article Inspection

4.3.1 Submission.-The contractor shall submit a first article sample as designated by the contracting officer for evaluation in accordance with provisions of 4.3.2. The first article sample shall consist of the following items in sample quantities as indicated.

<u>Part Description</u>	<u>Drawing</u>	<u>Quantity</u>
Body, Striker Pin	8883734	25
Body, Firing Pin	8883741	25
Washer, Anti-setback	8883737	25
Sleeve, Firing Pin	8883738	25
Pin, Firing	8883739	25
Nut, Firing Pin	8883740	25
Hammer, Firing Pin	8883742	25
Housing, Booster	8883682	25
Striker Pin Assembly	8883733	25
Firing Pin Body Assembly	8883736	25
Device, Safety and Arming	9215619-1 or -2	25
Device, Safety and Arming (Detonator only)	9215617-1 or -2	10
Device, Safety and Arming	9215617-1 or -2	25
Rotor Housing Assembly	8883719	10
Fuze, Body Assembly	9215611	25
Fuze, Rocket, Less Booster and Booster Lead	9204391-1 or -2	253
Pin, Firing	9254702	10
Body, Firing Pin	9254703	25
Body	9254704	25
Firing Pin and Body Assembly	9254705	25
Fuze Body Assembly	9254706	25
Booster Lead		
Spring, Detent	8883713	10
Spring, Setback Weight	8883718	10
Gear and Pinion Assembly No. 1	8883703	25

Gear and Pinion Assembly No. 2	8883700	25
Escapement Gear and Pinion Assembly	8883710	25
Lever Assembly	8883706	30
Rotor Assembly	8883744	20
Inner Plate Assembly	8883693	20
Escapement and Gear Assembly	8883692	20

4.3.2 Inspections to be Performed.—See MIL-A-48078 and Table I specified herein.

4.3.3 Rejection.—See MIL-A-48078.

TABLE 1 - FIRST ARTICLE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

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PARAGRAPH	TITLE		SHEET 1 OF 9		DRAWING NUMBER
	Fuze, Rocket, Less Booster and Booster Lead and Components				See Below
					NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE / INSPECTION METHOD
	<u>Body, Striker Pin</u> (Dwg. 8883734) Examination for defects	25	-	3.2	4.4.2.1
	<u>Body, Firing Pin</u> (Dwg. 8883741) Examination for defects	25	-	3.2	4.4.2.2
	<u>Anti-Setback Washer</u> (Dwg. 8883737) Examination for defects	25	-	3.2	4.4.2.3
	<u>Sleeve, Firing Pin</u> (Dwg. 8883738) Examination for defects	25	-	3.2	4.4.2.4
	<u>Pin, Firing</u> (Dwg. 8883739) Examination for Defects	25	-	3.2	4.4.2.5
	<u>Nut, Firing Pin</u> (Dwg. 8883740) Examination for defects	25	-	3.2	4.4.2.6
NOTES:					



TABLE 1 - FIRST ARTICLE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

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PARAGRAPH	TITLE	SHEET 2 OF 9			DRAWING NUMBER
	Fuze, Rocket, Less Booster and Booster Lead and Components				See Below
					NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE / INSPECTION METHOD
	<u>Hammer, Firing Pin</u> (Dwg. 8883742) Examination for defects	25	-	3.2	4.4.2.7
	<u>Housing, Booster</u> (Dwg. 8883682) Examination for defects	25	-	3.2	4.4.2.8
	<u>Striker Pin Body Assembly</u> (Dwg. 8883733) Examination for defects	25	-	3.2	4.4.2.9
	<u>Firing Pin Body Assembly</u> (Dwg. 8883736) Examination for defects	25	-	3.2	4.4.2.10
	<u>Device, Safety and Arming</u> (Dwg. 9215619-1 or 9215619-2) Examination for defects	25	-	3.2	4.4.2.11 or 4.4.2.12
	<u>Device, Safety and Arming (Detonator only)</u> (Dwg. 9215617-1 or 9215617-2) Detonator Push Test	10	-	3.2	4.4.2.13 or 4.4.2.14
	<u>Device, Safety and Arming</u>				
NOTES:					

TABLE 1 - FIRST ARTICLE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

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PARAGRAPH	TITLE		SHEET 3 OF 9		DRAWING NUMBER
	Fuze, Rocket, Less Booster and Booster Lead and Components				NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE / INSPECTION METHOD
	(Dwg. 9215617-1 or 9215617-2) Examination for defects	25	-	3.2	4.4.2.13 or 4.4.2.14
	<u>Device, Safety and Arming</u> (Dwg. 9216717-1 or 9215617-2) Examination for Defects	25	-	3.2	4.4.2.13 or 4.4.2.14
	Arming Time	25	-	3.3.1	4.5.15 or 4.5.16
	Arming and detent functioning	25	-	3.2.3	4.5.12
	Setback weight	25	-	3.2	4.5.13
	Rotor reset Capability	25	-	3.2	4.5.14
	Non-Arming	25	-	3.3.2	4.5.17 or 4.5.18
	<u>Rotor Housing Assembly</u> (Dwg. 8883719) Examination for defects	10	-	3.2	4.5.2.33
	Load Test of spring stud	10	-	3.2	4.5.7.10
NOTES:					

TABLE 1 - FINAL ARTICLE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

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PARAGRAPH	TITLE	SHEET 4 OF 9			DRAWING NUMBER See Below
	Fuze, Rocket, Less Booster and Booster Lead and Components				NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE / INSPECTION METHOD
II	<u>Fuze, Body Assembly</u> (Dwg. 9215611)				
	Examination for defects	25	-	3.2	4.4.2.15
	Corrosion resistance of Anodic Coating	25	-	3.2	4.5.10
	<u>Fuze, Rocket, Less Booster and Booster Lead</u> (Dwg. 9204391-1)				
	Examination for defects	253	-	3.2	4.4.2.16
	S&A position check		100%	3.7	4.5.19
	Jolt - MIL-STD-331, Test 101	12		3.8	4.5.27
	Jumble - MIL-STD-331, Test 102			3.8	4.5.27
	Five Foot Drop - MIL-STD-331, Test III	45		3.10	4.5.28
	Aircraft Vibration - MIL-STD-810, Method 514, Curve - See Appendix 1	96		3.10	4.5.30
	Non-environmental test	219		3.10	4.5.29
	Non-arm	a		3.4.2	4.5.23
	Arming time (under minimum)	a		3.4.1	4.5.21
	Forty-Foot Drop	4b		3.9	4.5.26
	Arming time (over max or fail to arm)		a	3.4.1	4.5.21
	Leak test		9b	3.11	4.5.20
	Fuze firing test		c	3.12	4.5.25
NOTES:					

TABLE 1 - FIRST ARTICLE INSPECTION

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## CLASSIFICATION OF DEFECTS &amp; TESTS

PARAGRAPH	TITLE		SHEET 5 OF 9		DRAWING NUMBER
	Fuze, Rocket, Less Booster and Booster Lead and Components				See Below
					NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE INSPECTION METHOD
	<u>Fuze, Rocket, Less Booster and Booster Lead</u> (Dwg. 9204391-2) Examination for defects	253	-	3.2	4.4.2.16
	S&A position check		100%	3.7	4.5.19
	Jolt - MIL-STD-331, Test 101	12		3.8	4.5.27
	Jumble - MIL-STD-331, Test 102			3.8	4.5.27
	Five Foot Drop - MIL-STD-331, Test III	45		3.10	4.5.28
	Aircraft Vibration - MIL-STD-810, Method 514, Curve - See Appendix 1	96		3.10	4.5.30
	Non-environmental test	219		3.10	4.5.29
	Non-Arm	a		3.4.2	4.5.24
	Arming time (under minimum)	a		3.4.1	4.5.22
	Forty-Foot Drop	4b		3.9	4.5.26
	Arming time (over max of fail to arm)		a	3.4.1	4.5.22
	Leak test		9b	3.11	4.5.20
	Fuze firing test		c	3.12	4.5.25
	<u>Pin, Firing</u> (Dwg. 9254702) Examination for defects	10	-	3.2	4.4.2.18
NOTES:					

TABLE 1 - FIRST ARTICLE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

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PARAGRAPH	TITLE		SHEET 6 OF 9		DRAWING NUMBER See Below	
					NEXT HIGHER ASSEMBLY	
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE INSPECTION METHOD	
	<u>Body, Firing Pin</u> (Dwg. 9254703)					
	Examination for defects	25	-	3.2	4.4.2.19	
	Inside radius at bottom of nose section	20	-	3.2	4.5.9	
	<u>Body</u> (Dwg. 9254704)					
	Examination for defects	25	-	3.2	4.4.2.20	
	<u>Firing Pin and Body Assembly</u> (Dwg. 9254705)					
	Examination for defects	25	-	3.2	4.4.2.21	
	<u>Fuze Body Assembly</u> (Dwg. 9254706)					
	Examination for defects	25	-	3.2	4.4.2.22	
	Leak Test	25	-	3.2	4.5.8	
	Corrosion resistance of anodic coating	25	-	3.2	4.5.10	
	<u>Fuze, Rocket, Less Booster and Booster Lead</u> (Dwg. 9254707-1)					
	Examination for defects	253	-	3.2	4.4.2.23	
	NOTES:					

TABLE 1 - FIRST ARTICLE INSPECTION

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## CLASSIFICATION OF DEFECTS &amp; TESTS

PARAGRAPH	TITLE		SHEET 7 OF 9		DRAWING NUMBER
	Fuze, Rocket, Less Booster and Booster Lead and Components				See Below
					NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE / INSPECTION METHOD
14	See Note (a)				
	<u>Fuze, Rocket, Less Booster and Booster Lead</u> (Dwg. 9254707-2)				
	Examination for defects	253	-	3.2	4.4.2.24
	See Note (b)				
	<u>Spring, Detent</u> (Dwg. 8883713)				
	Examination for defects	10	-	3.2	4.4.2.25
	Spring embrittlement	10	-	3.2.1	4.5.5
	<u>Spring, Setback Weight</u> (Dwg. 8883718)				
	Examination for defects	20	-	3.2	4.4.2.26
	Spring embrittlement	10	-	3.2.1	4.5.5
	Spring set	10	-	3.2.2	4.5.6
<b>NOTES:</b> (a) See tests and quantities listed under Fuze, Rocket, Less Booster and Booster Lead (Dwg. 9204391-1) above. (b) See tests and quantities listed under Fuze, Rocket, Less Booster and Booster Lead (Dwg. 9204391-2) above.					

TABLE 1 - FIRST ARTICLE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

MIL-F-50548A (AR)

PARAGRAPH	TITLE		SHEET 8 OF 9		DRAWING NUMBER See Below
	Fuze, Rocket, Less Booster and Booster Lead and Components				NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE INSPECTION METHOD
15	<u>Gear and Pinion Assembly No. 1</u> (Dwg. 8883703)				
	Examination for defects	25	-	3.2	4.4.2.27
	Load Test of No. 1 gear and pinion assembly	25	-	3.2	4.5.7.1
	<u>Gear and Pinion Assembly No. 2</u> (Dwg. 8883700)				
	Examination for defects	25	-	3.2	4.4.2.28
	Load Test of No. 2 gear and pinion assembly	25	-	3.2	4.5.7.2
	<u>Escapement Gear and Pinion Assembly</u> (Dwg. 8883710)				
	Examination for defects	25	-	3.2	4.4.2.29
	Load Test of escapement gear and pinion assembly	25	-	3.2	4.5.7.3
	<u>Lever Assembly</u> (Dwg. 8883706)				
	Examination for defects	30	-	3.2	4.4.2.30
	Load Test of lever shaft	10	-	3.2	4.5.7.4
	Load Test of lever pallet	10	-	3.2	4.5.7.5
	Torque Test of lever shaft	10	-	3.2	4.5.7.8
NOTES:					

TABLE 1 - FIRST ARTICLE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

MIL-F-50548A (AR)

PARAGRAPH	TITLE		SHEET 9 OF 9		DRAWING NUMBER
	Fuze, Rocket, Less Booster and Booster Lead and Components				See Below
					NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE INSPECTION METHOD
16	<u>Rotor Assembly</u> (Dwg. 8883744)				
	Examination for defects	20	-	3.2	4.4.2.31
	Load Test of annular gear	10	-	3.2	4.5.7.6
	Lead Test of Lock Roller Pin	10	-	3.2	4.5.7.7
	<u>Inner Plate Assembly</u> (Dwg. 8883693)				
	Examination for defects	20	-	3.2	4.4.2.32
	Load Test of bridgerivet	20	-	3.2	4.5.7.9
	<u>Escapement and Gear Assembly</u> (Dwg. 8883692)				
	Examination for defects	20	-	3.2	4.4.2.34
	Load Test of Pillars	20	-	3.2	4.5.7.11
	<u>Pin, Striker</u> (Dwg. 8883735)				
	Examination for defects	25	-	3.2	4.4.2.35
	<u>Seal, Square-cut</u> (Dwg. 9254737)				
	Examination for defects	25	-	3.2	4.4.2.36
NOTES:					



#### 4.4 Quality Conformance Inspection

4.4.1 Inspection Lot Formation.-Inspection lots shall comply with the lot formation provisions of MIL-A-48078. In addition, each inspection lot of loaded fuzes shall contain:

a. Detonators from one interfix lot number from not more than three lots from one manufacturer.

b. Primers from one interfix lot number from not more than three lots from one manufacturer.

c. Metal parts from one interfix lot number from one manufacturer for each type fuze.

d. Safety and Arming devices from not more than two inspection lots for each type fuze.

#### 4.4.2 Examination.-See MIL-A-48078.

a. Sampling Plans.-Unless otherwise specified in the Classification of Defects and Test tables, sampling plans for major and minor defects shall be in accordance with MIL-STD-105, Inspection Level II.

## QUALITY CONFORMANCE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

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<b>PARAGRAPH</b> 4.4.2.1	<b>TITLE</b> Body, Striker Pin		<b>SHEET</b> 1 <b>OF</b> 1		<b>DRAWING NUMBER</b> 8883734
					<b>NEXT HIGHER ASSEMBLY</b> 8883733
<b>CATEGORY</b>	<b>EXAMINATION OR TEST</b>	<b>NO. OF SAMPLE UNITS</b>	<b>AQL OR 100%</b>	<b>REQUIREMENT PARAGRAPH</b>	<b>PARAGRAPH REFERENCE INSPECTION METHOD</b>
<u>Critical</u>  <u>Major</u> 101 102  <u>Minor</u> 201 202 203 204	None defined  Wall thickness, min Inside radius at bottom of nose section  Depth of striker pin body cavity, max. Diameter of striker pin body cavity, max. Concentricity of nose with diameter of striker pin body cavity Evidence of poor workmanship	20	0.40%    0.65% 0.65%  0.65% 0.65%	3.2    3.2 3.2  3.2 3.16	Gage 4.5.9    Gage Gage  Gage Visual
<b>NOTES:</b> NOTE: Sectioning to be performed after dimensional examinations.					

QUALITY CONFORMANCE INSPECTION  
**CLASSIFICATION OF DEFECTS & TESTS**

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<b>PARAGRAPH</b>	<b>TITLE</b>		<b>SHEET 1 OF 2</b>		<b>DRAWING NUMBER</b> 8883741
4.4.2.2	Body, Firing Pin				<b>NEXT HIGHER ASSEMBLY</b> 8883736
<b>CATEGORY</b>	<b>EXAMINATION OR TEST</b>	<b>NO. OF SAMPLE UNITS</b>	<b>AQL OR 100%</b>	<b>REQUIREMENT PARAGRAPH</b>	<b>PARAGRAPH REFERENCE INSPECTION METHOD</b>
<u>Critical</u>	None defined				
<u>Major</u>					
101	Thickness at nose wall		0.40%	3.2	Gage
102	Concentricity of minor diameter of firing pin nut thread with hammer cavity diameter		0.40%	3.2	Gage
103	Concentricity of hammer cavity diameter with striker pin assembly mating diameter		0.40%	3.2	Gage
104	Concentricity of booster cavity diameter with hammer cavity diameter		0.40%	3.2	Gage
105	Concentricity of booster cavity pitch diameter with warhead mounting pitch diameter		0.40%	3.2	Gage
106	Pitch diameter of warhead mounting thread		0.40%	3.2	Gage
107	Length from aft face to warhead mounting shoulder, max.		0.40%	3.2	Gage
108	Depth of booster cavity		0.40%	3.2	Gage
109	Diameter of S&A cavity		0.40%	3.2	Gage
110	Concentricity of S&A cavity with booster cavity		0.40%	3.2	Gage
111	Minor diameter of booster cavity thread, max.		0.40%	3.2	Gage
112	Diameter of "O" ring seat		0.40%	3.2	Gage
113	Concentricity of "O" ring seat to booster cavity pitch diameter		0.40%	3.2	Gage
114	Length of "O" ring seat from aft face		0.40%	3.2	Gage
115	Length from nose to shoulder		100%	3.2	Gage
<b>NOTES:</b>					

## QUALITY CONFORMANCE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

MIL-F-50548A (AR)

PARAGRAPH 4.4.2.2	TITLE Body, Firing Pin		SHEET 2 OF 2		DRAWING NUMBER 8883741
					NEXT HIGHER ASSEMBLY 8883736
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
Minor 201 202 203 204 205 206 207	Major diameter of warhead mounting thread min. Width of wrench slots, min. Width across wrench slots, max. Width of machine service groove, min. Diameter of machine service groove Length from warhead mounting shoulder to machine service groove Evidence of poor workmanship		0.65% 0.65% 0.65% 0.65% 0.65% 0.65% 0.65%	3.2 3.2 3.2 3.2 3.2 3.2 3.16	Gage Gage Gage Gage Gage Gage Visual
NOTES:					

## QUALITY CONFORMANCE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

MIL-F-50548A (AR)

PARAGRAPH 4.4.2.3	TITLE Anti-Setback Washer		SHEET 1 OF 1		DRAWING NUMBER 8883737
					NEXT HIGHER ASSEMBLY 8883736
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
<u>Critical</u>	None defined				
<u>Major</u>	None defined				
<u>Minor</u> 201 202 203 204	Distance between tabs Width of tabs, min. Thickness Evidence of poor workmanship		0.65% 0.65% 0.65% 0.65%	3.2 3.2 3.2 3.16	Gage Gage Gage Visual
NOTES:					

# CLASSIFICATION OF DEFECTS & TESTS

MIL-F-50548A (AR)

PARAGRAPH 4.4.2.4	TITLE Sleeve, Firing Pin	SHEET 1 OF 1			DRAWING NUMBER 8883738
					NEXT HIGHER ASSEMBLY 8883736
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE / INSPECTION METHOD
<u>Critical</u>	None defined				
<u>Major</u>	None defined				
<u>Minor</u> 201	Concentricity of outside diameter with inside diameter		0.65%	3.2	Gage
202	Evidence of poor workmanship		0.65%	3.16	Visual
NOTES:					

## QUALITY CONFORMANCE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

MIL-F-50548A (AR)

PARAGRAPH	TITLE		SHEET 1 OF 1		DRAWING NUMBER
4.4.2.5	Pin, Firing				8883739
					NEXT HIGHER ASSEMBLY
					8883736
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
<u>Critical</u>	None defined				
<u>Major</u>					
101	Overall length, min.		0.40%	3.2	Gage
102	Small outside diameter		0.40%	3.2	Gage
103	Radius of firing pin point, max.		0.40%	3.2	Gage
104	Concentricity of diameter at basic point with large outside diameter		0.40%	3.2	Gage
105	Length of firing pin head, min.		0.40%	3.2	Gage
106	Diameter of point at basic length		0.40%	3.2	Gage
107	Damaged or incomplete point		0.40%	3.2	Gage
<u>Minor</u>					
201	Inside diameter, max.		0.65%	3.2	Gage
202	Distance from tip of firing pin to bottom of cavity		0.65%	3.2	Gage
203	Large outside diameter, min.		0.65%	3.2	Gage
204	Evidence of poor workmanship		0.65%	3.16	Gage
NOTES:					

## QUALITY CONFORMANCE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

MIL-F-50548A (AR)

PARAGRAPH 4.4.2.6	TITLE Nut, Firing Pin		SHEET 1 OF 1		DRAWING NUMBER 8883740
					NEXT HIGHER ASSEMBLY 8883736
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
<u>Critical</u>	None defined				
<u>Major</u>					
101	Inside diameter, min.		0.40%	3.2	Gage
102	Concentricity of inside diameter with major diameter of thread		0.40%	3.2	Gage
<u>Minor</u>					
201	Outside diameter (at top of firing pin nut)		0.40%	3.2	Gage
202	Evidence of poor workmanship		0.65%	3.16	Visual
NOTES:					

DRDAR-QA Form 160 Jul 77 Replaces SARPA-QA Form 2567 Feb 74 Which is Obsolete



## QUALITY CONFORMANCE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

MIL-F-50548A (AR)

PARAGRAPH 4.4.2.7	TITLE Hammer, Firing Pin		SHEET 1 OF 1		DRAWING NUMBER 8883742
					NEXT HIGHER ASSEMBLY 8883736
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
<u>Critical</u>	None defined				
Major					
101	Total length, min.		0.40%	3.2	Gage
102	Large outside diameter, min.		0.40%	3.2	Gage
103	Small outside diameter, min.		0.40%	3.2	Gage
Minor					
201	Evidence of poor workmanship		0.65%	3.16	Visual
NOTES:					

## QUALITY CONFORMANCE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

MIL-F-50548A (AR)

PARAGRAPH	TITLE		SHEET 1 OF 2		DRAWING NUMBER 8883682
4.4.2.8	Housing, Booster				NEXT HIGHER ASSEMBLY 9204391/9254707
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
<u>Critical</u>	None defined				
<u>Major</u>					
101	Diameter of lead cavity		0.40%	3.2	Gage
102	Thickness at end of lead cavity		0.40%	3.2	Gage
103	Total length		0.40%	3.2	Gage
104	Location of counterbore from bottom of booster cavity		0.40%	3.2	Gage
105	Diameter of booster cavity		0.40%	3.2	Gage
106	Depth of lead cavity		0.40%	3.2	Gage
107	Height of lead		0.40%	3.2	Gage
108	Width of "O" ring groove		0.40%	3.2	Gage
109	Diameter of "O" ring groove		0.40%	3.2	Gage
110	Concentricity of thread pitch diameter with booster cavity		0.40%	3.2	Gage
111	Concentricity of lead cavity with booster cavity		0.40%	3.2	Gage
112	Major diameter of threads		0.40%	3.2	Gage
113	Concentricity of "O" ring groove with pitch diameter		0.40%	3.2	Gage
114	Finish of "O" ring groove		0.40%	3.2	Gage
115	Perpendicularity of bottom lead cavity with side wall of lead cavity		0.40%	3.2	Gage
116	Evidence of tooling indentations		0.40%	3.2	Visual
NOTES:					

## QUALITY CONFORMANCE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

MIL-F-50548A (AR)

PARAGRAPH  4.4.2.8	TITLE  Housing, Booster		SHEET 2 OF 2		DRAWING NUMBER 8883682
					NEXT HIGHER ASSEMBLY 9204391/9254707
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
Minor 201 202 203 204 205 206	Width across wrench flats Symmetry of wrench flats Inside diameter at crimp section Wall thickness at crimp section Protective finish missing or incomplete Evidence of poor workmanship		0.65% 0.65% 0.65% 0.65% 0.65% 0.65%	3.2 3.2 3.2 3.2 3.2 3.16	Gage Gage Gage Gage Gage Visual
NOTES:					

## QUALITY CONFORMANCE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

MIL-F-50548A (AR)

PARAGRAPH 4.4.2.9	TITLE Striker Pin Body Assembly		SHEET 1 OF 1		DRAWING NUMBER 8883733
					NEXT HIGHER ASSEMBLY 9204391
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
<u>Critical</u>	None defined				
<u>Major</u>					
101	Concentricity of striker pin with diameter of firing pin body cavity		0.40%	3.2	Gage
102	Striker pin loose		0.40%	3.2	Visual/Manual
103	Striker pin body assembly length from point of striker pin to end of striker pin body		100%	3.2	Gage
<u>Minor</u>					
201	Evidence of poor workmanship		0.65%	3.16	Visual
NOTES:					

## QUALITY CONFORMANCE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

MIL-F-50548A (AR)

PARAGRAPH	TITLE		SHEET 1 OF 1		DRAWING NUMBER 8883736
4.4.2.10	Firing Pin Body Assembly				NEXT HIGHER ASSEMBLY 9204391
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
<u>Critical</u>	None defined				
<u>Major</u>					
101	Depth of S&A cavity, min. (after staking)*		0.40%	3.2	Gage
102	Anti-setback washer improperly centered in firing pin cavity		0.40%	3.2	Visual
103	Firing pin improperly aligned		0.40%	3.2	Visual
104	Torque test of firing pin nut (prior to staking)		0.40%	3.2	4.5.4
105	Firing pin nut improperly staked		0.40%	3.2	Visual
<u>Minor</u>					
201	Evidence of poor workmanship		0.65%	3.16	Visual
NOTES: *SEE DWG 8883741					

# CLASSIFICATION OF DEFECTS & TESTS

MIL-F-50548A (AR)

PARAGRAPH	TITLE	SHEET 1 OF 1			DRAWING NUMBER
4.4.2.11	Device, Safety and Arming				9215619-1
					NEXT HIGHER ASSEMBLY
					9204391-1/9254707-1
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE / INSPECTION METHOD
<u>Critical</u> 1	Distance between annular gear and No. 2 gear,max.		100%	3.2	Gage
<u>Major</u> 101	Alignment of detonator cavity with the outside diameter across the rotor housing posts		0.40%	3.2	Gage
102	Torque test or rotor stop stud		0.40%	3.2	4.5.7.12
<u>Minor</u> 201	Evidence of poor workmanship		0.65%	3.16	Visual
NOTES:					

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QUALITY CONFORMANCE INSPECTION  
**CLASSIFICATION OF DEFECTS & TESTS**

MIL-F-50548A (AR)

PARAGRAPH 4.4.2.12	TITLE Device, Safety and Arming		SHEET 1 OF 1		DRAWING NUMBER 9215619-2
					NEXT HIGHER ASSEMBLY 9204391-2/925470-2
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
<u>Critical</u>  1  <u>Major</u> 101  102  <u>Minor</u> 201	Distance between annular gear and No. 2 gear,max.   Alignment of detonator cavity with the outside diameter across the rotor housing posts Torque test of rotor stop stud   Evidence of poor workmanship		100%   0.40% 0.40%  0.65%	3.2   3.2 3.2  3.16	Gage   Gage 4.5.7.12.  Visual
NOTES:					

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QUALITY CONFORMANCE INSPECTION  
**CLASSIFICATION OF DEFECTS & TESTS**

MIL-F-50548A (AR)

4.4.2.13	Device, Safety and Arming	SHEET 1 OF 2		DRAWING NUMBER 9215617-1	
				NEXT HIGHER ASSEMBLY 9204391-1/9254707-1	
PARAGRAPH	TITLE				
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
<u>Critical</u>					
1	Setback weight return capability		100%	3.2	4.5.13
2	Rotor reset capability		100%	3.2	4.5.14
3	Non-arming		100%	3.3.2	4.5.17
<u>Major</u>					
101	Height from forward face of base to top of rotor, max.		0.40%	3.2	Gage
102	Distance from rotor flat to edge of base min.		0.40%	3.2	Gage
103	Primer inverted (red disc should be observed through the top)		0.40%	3.2	Visual
104	Primer not securely staked		0.40%	3.2	Visual
105	Primer perforated or deformed by staking		0.40%	3.2	Visual
106	Detonator inverted (yellow disc should be observed through aft end)		0.40%	3.2	Visual
107	Detonator perforated or damaged by staking		0.40%	3.2	Visual
108	Foreign matter present		0.40%	3.2	Visual
109	Lubricant missing		0.40%	3.2	Visual
110	Diameter across posts of rotor housing min.		0.40%	3.2	Gage
111	Protective finish missing or incomplete		0.40%	3.2	Visual
112	Markings missing or incomplete		0.40%	3.2	Visual
113	Distance from detonator disc to bottom of S&A rotor housing (armed position)		0.40%	3.2	Gage
114	Detonator push test (detonator only)		0.40%	3.2	4.5.11
115	Arming and detent functioning		100%	3.2.3	4.5.12
116	Arming time		100%	3.3.1	4.5.15
<b>NOTES:</b> (a) Primers and detonators are to be tested in accordance with para. 4.5.2 and 4.5.3.					

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QUALITY CONFORMANCE INSPECTION  
**CLASSIFICATION OF DEFECTS & TESTS**

MIL-F-50548A (AR)

<b>PARAGRAPH</b>	<b>TITLE</b>		<b>SHEET 2 OF 2</b>		<b>DRAWING NUMBER</b> 9215617-1
4.4.2.13	Device, Safety and Arming				<b>NEXT HIGHER ASSEMBLY</b> 9204391-1/9254707-1
<b>CATEGORY</b>	<b>EXAMINATION OR TEST</b>	<b>NO. OF SAMPLE UNITS</b>	<b>AQL OR 100%</b>	<b>REQUIREMENT PARAGRAPH</b>	<b>PARAGRAPH REFERENCE /INSPECTION METHOD</b>
Minor 201	Evidence of poor workmanship		0.65%	3.16	Visual
<b>NOTES:</b>					

## QUALITY CONFORMANCE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

MIL-F-50548A (AR)

PARAGRAPH	TITLE	SHEET 1 OF 2			DRAWING NUMBER 9215617-2
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	NEXT HIGHER ASSEMBLY 9204391-2/9254707-2 PARAGRAPH REFERENCE /INSPECTION METHOD
<u>Critical</u>					
1	Setback weight return capability		100%	3.2	4.5.13
2	Rotor retest capability		100%	3.2	4.5.14
3	Non-arm		100%	3.4.2	4.5.18
<u>Major</u>					
101	Height from forward face of base to tip or rotor, max.		0.40%	3.2	Gage
102	Distance from rotor flat to edge of base, min.		0.40%	3.2	Visual
103	Primer inverted (red disc should be observed through the top)		0.40%	3.2	Visual
104	Primer not securely staked		0.40%	3.2	Visual
105	Primer perforated or deformed by staking		0.40%	3.2	Visual
106	Detonator inverted (yellow disc should be observed through aft end)		0.40%	3.2	Visual
107	Detonator perforated or damaged by staking		0.40%	3.2	Visual
108	Foreign matter present		0.40%	3.2	Visual
109	Lubricant missing		0.40%	3.2	Visual
110	Diameter across posts of rotor housing, min.		0.40%	3.2	Gage
111	Protective finish missing or incomplete		0.40%	3.2	Visual
112	Markings missing or incomplete		0.40%	3.2	Visual
113	Distance from detonator disc to bottom of S&A rotor housing (armed position)		0.40%	3.2	Gage
114	Detonator push test (detonator only)		0.40%	3.2	4.5.11
115	Arming and detent functioning		100%	3.2.3	4.5.12
116	Arming time		100%	3.4.1	4.5.16
<b>NOTES:</b> (a) Primers and detonators are to be tested in accordance with para. 4.5.2 and 4.5.3.					

## QUALITY CONFORMANCE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

MIL-F-50548A (AR)

PARAGRAPH 4.4.2.14	TITLE Device, Safety and Arming		SHEET 2 OF 2		DRAWING NUMBER 9215617-2
					NEXT HIGHER ASSEMBLY 9204391-2/9254707-2
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE / INSPECTION METHOD
Minor 201	Evidence of poor workmanship		0.65%	3.16	Visual
NOTES:					

## QUALITY CONFORMANCE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

MIL-F-50548A (AR)

PARAGRAPH	TITLE		SHEET 1 OF 1		DRAWING NUMBER 9215611
4.4.2.15	Fuze, Body Assembly				NEXT HIGHER ASSEMBLY 9204391-1, -2
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
<u>Critical</u>	None defined				
<u>Major</u>					
101	Crimp not complete		0.40%	3.2	Visual
102	Depth of crimp		0.40%	3.2	Gage
103	Corrosion resistance of anodic coating	a		3.2	4.5.10
<u>Minor</u>					
201	Evidence of poor workmanship		0.65%	3.16	Visual
<b>NOTES:</b> a. MIL-STD-105 Level S-2 based on no more than 40 hours production. Should one or more samples fail the requirements the lot shall be rejected.					

## QUALITY CONFORMANCE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

MIL-F-50548A (AR)

PARAGRAPH	TITLE	SHEET 1 OF 1			DRAWING NUMBER 9204391-1
4.4.2.16	Fuze, Rocket, Less Booster and Booster Lead				NEXT HIGHER ASSEMBLY Final
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
<u>Critical</u>					
1	S&A position check	12	100%	3.7	4.5.19
2	Jolt - MIL-STD-331, Test 101			3.8	4.5.27
3	Jumble - MIL-STD-331, Test 102			3.8	4.5.27
4	Five Foot Drop - MIL-STD-331, Test III	45		3.10	4.5.28
5	Aircraft Vibration - MIL-STD-810, Method 514, See Appendix A	96		3.10	4.5.30
6	Non-environmental test	219		3.10	4.5.29
7	Non-arm	a		3.4.2	4.5.23
8	Arming time (under minimum)	a		3.4.1	4.5.21
9	Forty-Foot Drop	4b		3.9	4.5.26
<u>Special</u>					
a	Booster housing improperly torqued		0.40%	3.2	Gage
<u>Major</u>					
101	Length from aft face to end of booster housing max.		0.40%	3.2	Gage
102	Arming time (over max or fail to arm)		a	3.4.1	4.5.21
103	Leak test		9b	3.11	4.5.20
104	Fuze firing test		c	3.12	4.5.25
<u>Minor</u>					
201	Stamping missing		0.65%	3.2	Visual
202	Poor workmanship		0.65%	3.16	Visual
<b>NOTES:</b> a. Samples taken from 5 Foot Drop, Aircraft Vibration, and Non-Environmental: Note 5' Drop not done on every lot. b. First Article Only. c. Samples taken from 5' Drop Test and Vibration.					

## QUALITY CONFORMANCE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

MIL-F-50548A (AR)

PARAGRAPH	TITLE	SHEET 1 OF 1			DRAWING NUMBER
4.4.2.17	Fuze, Rocket, Less Booster and Booster Lead				9204391-2
					NEXT HIGHER ASSEMBLY
					Final
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE / INSPECTION METHOD
<u>Critical</u>					
1	S&A position check		100%	3.7	4.5.19
2	Jolt - MIL-STD-331, Test 101	12		3.8	4.5.27
3	Jumble - MIL-STD-331, Test 102			3.8	4.5.27
4	Five-Foot Drop - MIL-STD-331, Test III	45		3.10	4.5.25
5	Aircraft Vibration - MIL-STD-810, Method 514, See Appendix A	96		3.10	4.5.30
6	Non-Environmental Test	219		3.10	4.5.29
7	Non-Arm	a		3.6.2	4.5.24
8	Arming Time (Under Minimum)	a		3.6.1	4.5.22
9	Forty-Foot Drop	4b		3.9	4.5.26
<u>Special</u>					
a	Booster housing improperly torqued		0.40%	3.2	Gage
<u>Major</u>					
101	Length from aft face to end of booster housing, max.		0.40%	3.2	Gage
102	Arming Time (over max. or fail to arm)	a		3.6.1	4.5.22
103	Leak test	9b		3.11	4.5.20
104	Fuze firing test	c		3.12	4.5.25
<u>Minor</u>					
201	Stamping missing		0.65%	3.2	Visual
202	Poor workmanship		0.65%	3.16	Visual
<b>NOTES:</b> a. Samples taken from 5' Drop Test, non-environmental and Aircraft Vibration b. First Article only c. Samples taken from 5' Drop Test and Vibration					

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QUALITY CONFORMANCE INSPECTION  
**CLASSIFICATION OF DEFECTS & TESTS**

MIL-F-50548A (AR)

PARAGRAPH  4.4.2.18	TITLE  Pin, Firing		SHEET 1 OF 1		DRAWING NUMBER 9254702
					NEXT HIGHER ASSEMBLY 9254705
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
<u>Critical</u>	None defined				
<u>Major</u>					
101	Outside diameter of knurl, min.		0.40%	3.2	Gage
102	Concentricity of diameter at basic point with shaft diameter		0.40%	3.2	Gage
103	Profile of point		0.40%	3.2	Gage
<u>Minor</u>					
201	Evidence of poor workmanship		0.65%	3.16	Visual
NOTES:					

## QUALITY CONFORMANCE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

MIL-F-50548A (AR)

PARAGRAPH	TITLE		SHEET 1 OF 1		DRAWING NUMBER
4.4.2.19	Body, Firing Pin				9254703
					NEXT HIGHER ASSEMBLY
					9254705
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE / INSPECTION METHOD
<u>Critical</u>	None defined				
<u>Major</u>					
101	Length to basic diameter		0.40%	3.2	Gage
102	Diameter to body guide		0.40%	3.2	Gage
103	Concentricity between firing pin cavity and body guide		0.40%	3.2	Gage
104	Wall thickness		0.40%	3.2	Gage
105	Concentricity of nose with body guide		0.40%	3.2	Gage
106	Diameter of firing pin cavity, max.		0.40%	3.2	Gage
107	Length of body guide to spot face		0.40%	3.2	Gage
108	Perpendicularity of body guide spot face to inside diameter		0.40%	3.2	Gage
<u>Minor</u>					
201	Inside diameter, max.		0.65%	3.2	Gage
202	Length of body cavity		0.65%	3.2	Gage
203	Inside radius at bottom of nose section	20		3.2	4.5.9/Gage
204	Evidence of poor workmanship		0.65%	3.16	Visual
<b>NOTES:</b>					



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PARAGRAPH	TITLE		SHEET 1 OF 2		DRAWING NUMBER
4.4.2.20	Body				9254704
					NEXT HIGHER ASSEMBLY
					9254706
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE / INSPECTION METHOD
<u>Critical</u>	None defined				
<u>Major</u>					
101	Diameter of S&A cavity		0.40%	3.2	Gage
102	Length of S&A cavity		0.40%	3.2	Gage
103	Length of booster cavity		0.40%	3.2	Gage
104	Concentricity of booster pitch diameter with warhead mounting pitch diameter		0.40%	3.2	Gage
105	Pitch diameter of warhead mounting thread		0.40%	3.2	Gage
106	Length from aft face to warhead mounting shoulder		0.40%	3.2	Gage
107	Concentricity of booster cavity with S&A cavity		0.40%	3.2	Gage
108	Minor diameter of booster cavity thread, max.		0.40%	3.2	Gage
109	Seal ring groove diameter		0.40%	3.2	Gage
110	Seal ring groove width		0.40%	3.2	Gage
111	Crimp groove diameter		0.40%	3.2	Gage
112	Crimp groove radius		0.40%	3.2	Gage
113	Concentricity of seal ring groove to S&A cavity		0.40%	3.2	Gage
114	Finish of seal ring groove		0.40%	3.2	Visual
<u>Minor</u>					
201	Major diameter of warhead mounting thread,min.		0.65%	3.2	Gage
202	Width of wrench slots, min.		0.65%	3.2	Gage
203	Width across wrench slots, max.		0.65%	3.2	Gage
204	Diameter of machine service groove		0.65%	3.2	Gage
205	Width of machine service groove, min.		0.65%	3.2	Gage
206	Length from warhead mounting shoulder to machine service groove		0.65%	3.2	Gage
<b>NOTES:</b>					

# CLASSIFICATION OF DEFECTS & TESTS

MIL-F-50548A (AR)

PARAGRAPH 4.4.2.20	TITLE Body			SHEET 2 OF 2		DRAWING NUMBER 9254704
						NEXT HIGHER ASSEMBLY 9254706
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE / INSPECTION METHOD	
207	Evidence of poor workmanship		0.65%	3.16	Visual	
NOTES:						

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QUALITY CONFORMANCE INSPECTION  
**CLASSIFICATION OF DEFECTS & TESTS**

MIL-F-50548A (AR)

<b>PARAGRAPH</b>  4.4.2.21	<b>TITLE</b>  Firing Pin and Body Assembly		<b>SHEET</b> 1 <b>OF</b> 1		<b>DRAWING NUMBER</b> 9254705
					<b>NEXT HIGHER ASSEMBLY</b> 0254706
<b>CATEGORY</b>	<b>EXAMINATION OR TEST</b>	<b>NO. OF SAMPLE UNITS</b>	<b>AQL OR 100%</b>	<b>REQUIREMENT PARAGRAPH</b>	<b>PARAGRAPH REFERENCE /INSPECTION METHOD</b>
<u>Critical</u>  <u>Major</u> 101  102  <u>Minor</u> 201	None defined  Length from firing pin point to body guide face, max. Firing pin loose  Evidence of poor workmanship		0.40% 0.40%  0.65%	3.2 3.2  3.16	Gage Manual  Visual
<b>NOTES:</b>					

## QUALITY CONFORMANCE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

MIL-F-50548A (AR)

PARAGRAPH	TITLE		SHEET 1 OF 1		DRAWING NUMBER
4.4.2.22	Fuze Body Assembly				9254706
					NEXT HIGHER ASSEMBLY
					9254707
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE / INSPECTION METHOD
<u>Critical</u>	None defined				
<u>Major</u>		a			
101	Corrosion resistance of anodic coating			3.2	4.5.10
102	Leak test		0.40%	3.2	4.5.8
103	Depth of S&A cavity, min.		0.40%	3.2	Gage
104	Depth of crimp, min.		0.40%	3.2	Gage
<u>Minor</u>					
201	Evidence of poor workmanship		0.65%	3.16	Visual
<b>NOTES:</b> a. MIL-STD-105 Level 5.2 based on no more than 40 hours production. Should one or more samples fail to meet the requirements the lot shall be rejected.					

## QUALITY CONFORMANCE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

MIL-F-50548A (AR)

PARAGRAPH	TITLE		SHEET 1 OF 1		DRAWING NUMBER 9254707-1
4.4.2.23	Fuze, Rocket, Less Booster and Booster Lead				NEXT HIGHER ASSEMBLY Final
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
	See 4.4.2.16				
NOTES:					

## QUALITY CONFORMANCE INSPECTION

## CLASSIFICATION OF DEFECTS &amp; TESTS

MIL-F-50548A (AR)

PARAGRAPH 4.4.2.24	TITLE Fuze, Rocket, Less Booster and Booster Lead		SHEET 1 OF 1		DRAWING NUMBER 9254707-2 NEXT HIGHER ASSEMBLY Final
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
	See 4.4.2.17				
NOTES:					

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<b>PARAGRAPH</b> 4.4.2.25	<b>TITLE</b> Spring, Detent		SHEET 1 OF 1		<b>DRAWING NUMBER</b> 8883713
<b>CATEGORY</b>	<b>EXAMINATION OR TEST</b>	<b>NO. OF SAMPLE UNITS</b>	<b>AQL OR 100%</b>	<b>REQUIREMENT PARAGRAPH</b>	<b>NEXT HIGHER ASSEMBLY</b> 8883692 <b>PARAGRAPH REFERENCE /INSPECTION METHOD</b>
<u>Critical</u>  <u>Major</u> 101  <u>Minor</u> 201	None defined  Spring embrittlement  Evidence of poor workmanship	10	0.65%	3.2.1  3.16	4.5.5  Visual
<b>NOTES:</b>					

PARAGRAPH	TITLE	SHEET 1 OF 1		DRAWING NUMBER 8883718	
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	NEXT HIGHER ASSEMBLY 9215619
4.4.2.26	Spring, Setback Weight				
<u>Critical</u>	None defined				
<u>Major</u>					
101	Spring embrittlement	10		3.2.1	4.5.5
102	Spring set	10		3.2.2	4.5.6
<u>Minor</u>					
201	Evidence of poor workmanship		0.65%	3.16	Visual

NOTES:



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## CLASSIFICATION OF DEFECTS &amp; TESTS

MIL-F-50548A (AR)

PARAGRAPH	TITLE		SHEET 1 OF 1		DRAWING NUMBER 8883703
4.4.2.27	Gear and Pinion Assembly No. 1				NEXT HIGHER ASSEMBLY 8883692
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
<u>Critical</u> 1	Load test of No. 1 gear and pinion assembly Maximum gap between gear and pinion		100%	3.2	4.5.7.1
2			100%	3.2	Gage
<u>Major</u>	None defined				
<u>Minor</u> 201	Evidence of poor workmanship		0.65%	3.16	Visual
NOTES:					

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<b>PARAGRAPH</b>	<b>TITLE</b>		<b>SHEET</b> 1 <b>OF</b> 1		<b>DRAWING NUMBER</b> 8883710
4.4.2.29	Escapement Gear and Pinion Assembly				<b>NEXT HIGHER ASSEMBLY</b> 8883692
<b>CATEGORY</b>	<b>EXAMINATION OR TEST</b>	<b>NO. OF SAMPLE UNITS</b>	<b>AQL OR 100%</b>	<b>REQUIREMENT PARAGRAPH</b>	<b>PARAGRAPH REFERENCE /INSPECTION METHOD</b>
<u>Critical</u>					
1	Load test of escapement gear and pinion assembly		100%	3.2	4.5.7.3
2	Maximum gap between gear and pinion		100%	3.2	Gage
<u>Major</u>	None defined				
<u>Minor</u>					
201	Evidence of poor workmanship		0.65%	3.16	Visual
<b>NOTES:</b>					

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## CLASSIFICATION OF DEFECTS &amp; TESTS

MIL-F-50548A (AR)

PARAGRAPH	TITLE		SHEET 1 OF 1		DRAWING NUMBER
4.4.2.30	Lever Assembly				8883706
					NEXT HIGHER ASSEMBLY
					8883692
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE / INSPECTION METHOD
<u>Critical</u>					
1	Load test of lever shaft		100%	3.2	4.5.7.4
2	Load test of lever pallet		100%	3.2	4.5.7.5
3	Maximum gap between lever and shaft		100%	3.2	Gage
<u>Special</u>					
A	Torque test of lever shaft (See Note)		0.040%	3.2	4.5.7.8
<u>Major</u>	None defined				
<u>Minor</u>					
20T	Evidence of poor workmanship		0.65%	3.16	Visual
	<p><u>NOTE:</u> The sampling plan for this test shall be in accordance with MIL-STD-105 using inspection Level II and an AQL of 0.040 per cent. Continuous sampling may be used in accordance with MIL-STD-1235 using inspection Level II, CSP-I and an AQL of 0.015 per cent.</p>				
NOTES:					

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**CLASSIFICATION OF DEFECTS & TESTS**

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PARAGRAPH 4.4.2.31	TITLE Rotor Assembly		SHEET 1 OF 1		DRAWING NUMBER 8883744
					NEXT HIGHER ASSEMBLY 9215619
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
<u>Critical</u> I	Load test of annular gear		100%	3.2	4.5.7.6
<u>Special</u> A	Load test of lock roller pin (see Note)		0.040%	3.2	4.5.7.7
<u>Major</u>	None defined				
<u>Minor</u> 201	Evidence of poor workmanship		0.65%	3.16	Visual
	NOTE: The sampling plan for this test shall be in accordance with MIL-STD-105 using inspection Level II and and AQL of 0.040 percent. Continuous sampling may be used in accordance with MIL-STD-1235 using inspection Level II, CSP-I and an AQL of 0.015 percent.				
NOTES:					

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**CLASSIFICATION OF DEFECTS & TESTS**

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PARAGRAPH  4.4.2.32	TITLE  Inner Plate Assembly		SHEET 1 OF 1		DRAWING NUMBER 8883693 NEXT HIGHER ASSEMBLY 8883692
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE / INSPECTION METHOD
<u>Critical</u>  <u>Special</u> <u>A</u>  <u>Major</u>  <u>Minor</u> <u>201</u>	None defined  Load test of bridge rivet (See Note)  None defined  Evidence of poor workmanship   NOTE: The sampling plan for this test shall be in accordance with MIL-STD-105 using inspection Level II and an AQL of 0.040 percent. Continuous sampling may be used in accordance with MIL-STD-1235 using inspection Level II, CSP-I and an AQL of 0.015 percent.		0.040%    0.65%	3.2    3.16	4.5.7.9    Visual
NOTES:					

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PARAGRAPH 4.4.2.33	TITLE Rotor Housing Assembly		SHEET 1 OF 1		DRAWING NUMBER 8883719
					NEXT HIGHER ASSEMBLY 8883686
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
<u>Critical</u>  <u>Major</u> 101 102  <u>Minor</u> 201	None defined  Load test of spring stud Rotor housing arm width  Evidence of poor workmanship		 0.40% 100%  0.65%	 3.2 3.2  3.16	 4.5.7.10 Gage  Visual
NOTES:					

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<b>PARAGRAPH</b>	<b>TITLE</b>		<b>SHEET 1 OF 1</b>		<b>DRAWING NUMBER</b> 8883692
4.4.2.34	Escapement and Gear Assembly				<b>NEXT HIGHER ASSEMBLY</b> 9215619
<b>CATEGORY</b>	<b>EXAMINATION OR TEST</b>	<b>NO. OF SAMPLE UNITS</b>	<b>AQL OR 100%</b>	<b>REQUIREMENT PARAGRAPH</b>	<b>PARAGRAPH REFERENCE / INSPECTION METHOD</b>
<u>Critical</u>	None defined				
<u>Major</u> 101	Load test of pillars		0.40%	3.2	4.5.7.11
<u>Minor</u> 201	Evidence of poor workmanship		0.65%	3.16	Visual
<b>NOTES:</b>					

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PARAGRAPH 4.4.2.35	TITLE Pin, Striker		SHEET 1 OF 1		DRAWING NUMBER 8883735
					NEXT HIGHER ASSEMBLY 8883733
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
<u>Critical</u>	None defined				
<u>Major</u> 101	Length of Conical Section		0.40%	3.2	Gage
<u>Minor</u> 201	Evidence of poor workmanship		0.65%	3.16	Visual
NOTES:					

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## CLASSIFICATION OF DEFECTS &amp; TESTS

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PARAGRAPH 4.4.2.36	TITLE Seal, Square-Cut		SHEET 1 OF 1		DRAWING NUMBER 9254737
					NEXT HIGHER ASSEMBLY 9254707
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
<u>Critical</u>  <u>Major</u> 101 102 103  <u>Minor</u> 201	None defined  Width Inside diameter Thickness  Evidence of poor workmanship		 0.40% 0.40% 0.40%  0.65%	 3.2 3.2 3.2  3.16	 Gage Gage Gage  Visual
NOTES:					

4.4.3 Testing.--Testing is described in the First Article and Quality Conformance Inspection Tables.

4.4.4 Inspection Equipment.--The inspection equipment required to perform the examinations and tests prescribed herein is described in the "Paragraph Reference/Inspection Method" column in the tables starting with paragraph 4.4.2.1. The contractor shall submit for approval inspection equipment designs in accordance with the terms of the contract. See Section 6 of MIL-A-48078 and section 6.3 herein.

4.4.4.1 Contractor inspection system.--As part of contractor's approved quality procedure, there shall be a provision for checking the adequacy of inspections made in connection with listed critical or major defects. These procedures shall include the following provisions:

4.4.4.1.1 Handling Procedure.--A Design Agency approved procedure shall be instituted that shall preclude unauthorized handling of the S&A's and fuzes from the S&A position check until the booster housing has been installed. The procedure shall be fail safe to eliminate armed fuzes from being introduced into the lot. Fail safe is defined as follows: Any equipment failure shall operate to cause rejection of the part or otherwise prevent its subsequent use.

4.4.4.1.2 Identification of Rejected Material.--All material listed below, rejected as containing defects, shall be isolated to preclude its inclusion with acceptable material:

- a. All S&A's failing paragraphs 4.5.12, 4.5.13, 4.5.14, 4.5.15 or 4.5.16 and 4.5.17 or 4.5.18.
- b. All fuzes failing paragraphs 4.5.19, 4.5.20, 4.5.27, 4.5.26, 4.5.28, 4.5.30 and 4.5.31.
- c. All firing pin bodies and striker pin bodies failing paragraph 4.4.2.2, Major Defect 116 or 4.4.2.9 Major Defect 103.
- d. All fuse body assemblies failing 4.5.8.

4.4.4.2 Use of Simulated Defect Standards.--The following listed verified inspections shall be validated and inspection equipment verified hourly using Design Agency approved item facsimilies or standards containing the defects and supplied by the contractor. The contractor shall

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resupply the item facsimilies when it is determined by the Government that the facsimilies are no longer representative enough of the product to make it unidentifiable to the contractor inspection personnel, or it is not functioning in the necessary manner and cannot be corrected satisfactorily. These standards should be representative of defects actually found or anticipated. They should be inert and readily identifiable to the Government to ensure recovery should they be inadvertently introduced into production. Simulated defect standards used to verify the following verified inspections should be constructed and identified in such a manner that they are not readily recognizable to the contractor inspection personnel as defect standards. Standards should be used so that their number, time and sequence of introduction into the inspection cycle is known only to those personnel responsible for checking the accuracy of the operation. Adequacy of the standards shall be verified at least once each shift.

#### Verified Inspection

- Paragraph 4.5.13 - Setback weight return capability.
- Paragraph 4.5.19 - S&A position check.

NOTE: When there is automatic detection and automatic rejection of defective items to a controlled area or a controlled rejection of defective items, it is permissible for the defect standards to be identifiable and their introduction into production noticeable to contractor inspection personnel.

4.4.4.3 Undetected Defect Standards.-Provisions shall be established for the corrective action to be taken where the equipment or contractor inspection personnel fail to identify a standard as defective. These provisions shall include a reinspection of all acceptable material subsequent to the last acceptable verification check as a minimum.

#### 4.5 Methods of Inspection

PRECAUTION: This specification covers sampling and testing of chemical, toxic or explosive materials which are potentially hazardous to personnel. Accordingly, it is emphasized that all applicable safety rules, regulations and procedures must be followed in handling and processing these materials.

**4.5.1 Materials, Components and Processes.**-Compliance with all requirements of Section 3 of this specification shall be ascertained by current and continuing examination of inspection and test data to determine that all components (parts, subassemblies, and materials) have been inspected and tested and found to comply with their respective drawing and specification requirements, and that all specified manufacturing processes have been followed.

**4.5.1.1 Visual and Mechanical Inspection.**-The visual, manual and mechanical inspections and tests shall verify compliance with the requirements of Sections 3 and 5 of this specification in accordance with 4.4.2 herein and Table I.

**4.5.2 Check Test for Deterioration of Primers.**-If the total time between original acceptance of any primer lot and the assembly of that lot into the fuzes exceeds two years, at any time since previous tests, the primer lot shall be subjected to and must satisfactorily pass the functioning and output tests specified in MIL-P-48077 immediately before the primer lot is assembled into the fuzes. This test shall be performed by the contractor on primers selected by the Government Inspector at the facility assembling the primers into the rotors. The test shall be conducted at Government expense without cost to the contractor who loaded the primers or the contractor who assembled the primers into the fuzes. The test shall not constitute a basis for rejection against either contractor except where deterioration has occurred as a direct result of carelessness in handling, storage, etc., permitted while the primer was under the jurisdiction of either contractor.

**4.5.3 Check Test for Deterioration of Detonators.**-If the total time between original acceptance of any detonator lot and the assembly of that lot into the fuzes exceeds two years, at any time since previous tests, the detonator lot shall be subjected to and must satisfactorily pass the functioning and output tests specified in MIL-D-50868 immediately before the detonator lot is assembled into the fuzes. The test shall be performed by the contractor on detonators selected by the Government Inspector at the facility assembling the detonators into the rotors. The test shall be conducted at Government expense without cost to the contractor who loaded the detonators or the contractor who is to assemble the detonators into the fuzes. The test shall not constitute a basis for rejection against either contractor except where deterioration has occurred as a direct result of carelessness in handling, storage, etc., permitted while the detonator lot was under the jurisdiction of either contractor.

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#### 4.5.4 Torque Test of Firing Pin Nut (Prior to Staking).-

Torque shall be applied between the firing pin nut and the firing pin body. The required force shall act on the firing pin body. Any firing pin nut that fails the requirement shall be classed defective.

4.5.5 Spring Embrittlement.-The spring shall be stretched along its longitudinal axis in the case of a coil spring, or bent in the case of a flat spring until the spring no longer returns to its original position. When the spring no longer returns to its original length or profile, it shall be considered distorted permanently. Any spring that breaks prior to this point shall be classed defective.

4.5.6 Setback Weight Spring Set.-The springs shall be measured at their original free length, assembled in a restraining fixture in accordance with 4.4.4 and compressed to a normal height of .750 inches, placed in an oven and subjected to a temperature of not more than 180 degrees Fahrenheit (°F) or less than 175°F for 24 hours. The springs shall be removed from the oven and be cooled to ambient temperature. After cooling the springs for 24 hours minimum, the springs shall be measured and the measurement shall be compared to the original free length to ascertain compliance with the specified requirement. Any spring that fails the requirement shall be classed defective.

#### 4.5.7 S&A Mechanical Tests

4.5.7.1 Load Test of No. 1 Gear and Pinion Assembly.-Apply an axial load perpendicular to the No. 1 gear and in such a direction as to test the assembly of the No. 1 gear and pinion. The required force shall act against the No. 1 gear. Upon removal of the required force, the maximum permissible gap shall be inspected for compliance with the drawing requirement. Any No. 1 gear and pinion assembly that fails the requirement shall be classed defective.

4.5.7.2 Load Test of No. 2 Gear and Pinion Assembly.-Apply an axial load perpendicular to the No. 2 gear and in such a direction as to test the assembly of the No. 2 gear and pinion. The required force shall act against the No. 2 gear. Upon removal of the required force, the maximum permissible gap shall be inspected for compliance with the drawing requirement. Any No. 2 gear and pinion assembly that fails the requirement shall be classed defective.

4.5.7.3 Load Test of Escapement Gear and Pinion Assembly.-Apply an axial load perpendicular to the escapement gear and in such a direction as to test the assembly of the escapement gear and pinion. The required force shall act against the escapement gear. Upon removal of the required force, the maximum permissible gap shall be inspected for compliance with the drawing requirement. Any escapement gear and pinion assembly that fails the requirement shall be classed defective.

4.5.7.4 Load Test of Lever Shaft.-Apply the axial load perpendicular to the lever and in such a direction as to test the assembly of the lever and lever shaft. The required force shall act against the lever. Upon removal of the required force, the maximum permissible gap shall be inspected for compliance with the drawing requirement. Any lever shaft that fails the requirement shall be classed defective.

4.5.7.5 Load Test of Lever Pallet.-Apply an axial load perpendicular to the lever and in such a direction as to test the assembly of the lever and the lever pallet. The required force shall act against the lever. Upon removal of the required force, the height of the lever pallet above the lever shall be inspected for compliance with the drawing requirement. Any lever pallet that fails the requirement shall be classed defective.

4.5.7.6 Load Test of Annular Gear.-Apply a load perpendicular to the rotor and in such a direction as to test the assembly of the annular gear studs to the annular gear and the rotor. The required force shall act against the rotor. Upon removal of the required force, the distance from the face of the rotor to the outside face of the annular gear shall be inspected for compliance with the drawing requirement. Any annular gear that fails the requirement shall be classed defective.

4.5.7.7. Load Test of Lock Roller Pin.-Apply an axial load perpendicular to the rotor and in such a direction as to test the strength of the assembly of the lock roller pin to the rotor. The required force shall act against the rotor. Any lock roller pin that fails the requirement shall be classed defective.

4.5.7.8 Torque Test of Lever Shaft.-A torque shall be applied between the lever and the lever shaft. Any lever shaft that fails the requirement shall be classed defective.

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4.5.7.9 Load Test of Bridge Rivet.-Apply the required load perpendicular to the inner plate and into the bridge rivet from the side opposite the bridge. The required force shall act against the inner plate. Any bridge rivet that fails the requirement shall be classed defective.

4.5.7.10 Load Test of Spring Stud.-Apply an axial load perpendicular to the rotor housing and in such a direction as to test the assembly of the spring stud and the rotor housing. The required force shall act against the rotor housing. Any spring stud that fails the requirement shall be classed defective.

4.5.7.11 Load Test of Pillars.-Apply the required axial load perpendicular to the inner plate and in such a direction as to test the assembly of the pillars to the inner plate and outer plate. The required force shall act against the inner plate. Any pillars that fail the requirement shall be classed defective.

4.5.7.12 Torque Test of Rotor Stop Stud (Eccentric Pin).-The required torque shall be applied between the rotor stop stud and gear assembly. The required force shall act on the gear assembly. Any rotor stop stud that fails the requirement shall be classed defective.

4.5.8 Fuze Body Assembly Seal Leakage.-The fuze body assembly shall be checked for leakage past the seal ring into the body assembly. The fuze body assembly shall be secured into the test fixture and 5.0 psig plus or minus 0.25 psig applied to the exterior of the assembly. The integrity of the seal shall be verified by measuring the pressure drop per unit time. A leak into the body assembly in excess of 0.0003 psi in 10 seconds shall indicate excessive leakage and reject the fuze. The test equipment calibration and equipment sensitivity shall be in accordance with 4.4.4.

4.5.9 Dimensional Examination of Inside Radius at Bottom of Nose Section.-The component shall be sectioned through the longitudinal axis and the inside radius at bottom of nose section shall be measured. A cast of the radius may be made and gaged on an optical comparator in lieu of sectioning. Any nose section that fails the requirement shall be classed defective.

4.5.10 Corrosion Resistance of Anodic Coating.-The testing of the sample shall be in accordance with the procedures specified in MIL-A-8625 except that the salt spray test shall be conducted for 168 hours. The significant area for examination shall be the outside surface of the specimens.



a. The specimens shall show no more than five (5) spots or pits, none larger than 1/32 inch in diameter, except in those areas within 1/16 inch from the edges, corner, identification markings and holding during processing. Any sample that fails the requirement shall be classed defective.

b. Powdery areas or loose films in excess of ten percent of the examined surface shall be cause for rejection.

**4.5.11 Load Test of Detonator.**-Apply a five pound minimum axial load perpendicular to the rotor and in such a direction as to test the strength of the staking of the detonator in the rotor. Any staked detonator that fails the requirement shall be classed defective.

**WARNING:** This test may be dangerous and should be performed behind a suitable barricade.

**4.5.12 Arming and Detent Functioning.**-The S&A in the safe position shall be assembled to the test equipment in accordance with 4.4.4. The equipment shall accelerate the Safety and Arming Device to 20.75 g's maximum for a minimum of three plus one, minus zero seconds in a direction which simulates rocket launch. At the completion of acceleration, the equipment shall be halted and visual observation shall be made for the locking position of the detent. Finger tip pressure shall be applied to the rotor to rotate in the safe direction to ascertain positive arming. At the completion of the test, the Safety and Arming Device shall be returned to the safe position. Any S&A that fails the requirement shall be classed defective.

**WARNING:** This test may be dangerous and should be performed behind a suitable barricade.

**4.5.13 Setback Weight Return Capability.**-This test shall be performed as specified on drawing 9215617. S&A's failing to comply with the specified requirements shall be classed defective and removed from the lot. Defect standards for verification of the inspection process shall be in accordance with 4.4.4.3 and 4.4.4.4. Defect standards for use with automatic equipment shall be as follows:

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a. Units with setback weights which bind when depressed and remain in the depressed condition.

b. Units with setback weights which start to return but do not completely return to the original locking position.

c. Units with setback weights which return from the depressed condition at a slower than the normal rate causing rejection.

4.5.14 Rotor Reset Capability.-The loaded S&A shall be assembled to the test fixture in accordance with 4.4.4. The rotor shall be rotated to a position at least 26 degrees but not more than 35 degrees from the fully safe position and released. Observation shall be made for rotor return to the fully safe position. S&A's failing to comply with the specified requirement shall be classed defective and removed from the lot.

4.5.15 M423 S&A Arming Time Test.-The loaded S&A with the g-weight in the downward position shall be assembled to the test equipment in accordance with 4.4.4. The equipment shall accelerate the Safety and Arming Device in a clockwise direction to 27.00 g's plus or minus 0.25 g's and the arming time shall be recorded to the nearest hundredth of a second using a calibrated timer. S&A's failing to comply with the specified requirements shall be classed defective and removed from the lot.

4.5.16 M427 S&A Arming Time Test.-The loaded S&A with the g-weight in the downward position shall be assembled to the test equipment in accordance with 4.4.4. The equipment shall accelerate the Safety and Arming Device in a clockwise direction to 40.00 g's plus or minus 0.25 g's and the arming time shall be recorded to the nearest hundredth of a second using a calibrated timer. S&A's failing to comply with the specified requirements shall be classed defective and removed from the lot.

4.5.17 M423 S&A Non-Arming Test.-The loaded S&A with the g-weight in the downward position shall be assembled to the test equipment in accordance with 4.4.4. The equipment shall accelerate the Safety and Arming Device in a clockwise direction to 11.25 g's minimum for a minimum of three (3) seconds. Observation shall be made for rotor in the safe position. S&A's failing to comply with the specified requirement shall be classed defective and removed from the lot.

4.5.18 M427 S&A Non-Arming Test.-The loaded S&A with g-weight in the downward position shall be assembled to the test equipment in accordance with 4.4.4. The equipment shall accelerate the Safety and Arming Device in a clockwise direction to 12.75 g's minimum for a minimum of three (3) seconds. Observation shall be made for rotor in the safe position. S&A's failing to comply with the specified requirements shall be classed defective and removed from the lot.

4.5.19 S&A Position Check.-The S&A position, after insertion into the fuze body but prior to assembly of the booster housing, shall be inspected. Any armed fuze shall be considered defective and removed from the lot, and the assembly operation shall be halted until operation is corrected to Government satisfaction. The inspection shall be performed to the requirements of 3.7 using procedures in accordance with 4.4.4.3 and 4.4.4.4 and equipment in accordance with dwg. 9201212.

Defect standards with semi-armed and fully armed conditions shall be introduced at various times to verify test performance. The Design Agency approved handling procedure to preclude untested S&A's from being introduced into the fuze prior to the booster housing being installed shall also be assessed when the standards are introduced. If an improper procedure is being used as determined by the Government, all fuzes accepted subsequent to the last acceptable handling procedure assessment shall be screened as determined by the Government.

4.5.20 Seal Leakage Test.-The fuze assembly shall be checked for leakage into the S&A cavity.

a. Fuze assemblies in accordance with dwg. 9204391 shall be tested for the leakage rate past the "O" ring in the booster cavity with the application of 5.0 plus or minus 0.25 psig to the base of the fuze.

b. Fuze assemblies in accordance with dwg. 9254707 shall be tested for the leakage rate past the "O" ring in the booster cavity and the seal ring with the application of 5.0 plus or minus 0.25 psig to the exterior of the completed fuze assembly.

The integrity of the seal or seals shall be verified by measuring the pressure drop per unit time. A leak into the S&A cavity in excess of 0.00072 psi in ten seconds shall indicate excessive leakage and reject the fuze. The test equipment calibration and equipment sensitivity shall be in accordance with 4.4.4.

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4.5.21 M423 Fuze Assembly Arming Time Test.-The fuze assembly with the g-weight in the downward position shall be assembled to the test equipment in accordance with 4.4.4. The equipment shall accelerate the fuze in a clockwise direction to 27.00 g's plus or minus 0.25 g's and the arming time shall be recorded to the nearest hundredth of a second using a swing fixture and acoustic pick-up feeding the arming cycle noise signal to a design agency approved recorder. Any fuze assembly that fails the requirements of the arming time test shall be classed defective.

4.5.22 M427 Fuze Assembly Arming Time Test.-The fuze assembly with the g-weight in the downward position shall be assembled to the test equipment in accordance with 4.4.4. The equipment shall accelerate the fuze in a clockwise direction to 40.00 g's plus or minus 0.25 g's and the arming time be recorded to the nearest hundredth of a second using a swing fixture and acoustic pickup feeding the arming cycle noise signal to a design agency approved recorder. Any fuze assembly that fails the requirements of the arming time test shall be classed defective.

4.5.23 M423 Fuze Assembly Non-Arming Test.-The fuze assembly with the g-weight in the downward position shall be assembled to the test equipment in accordance with 4.4.4. The equipment shall accelerate the fuze assembly in a clockwise direction to 11.50 g's plus or minus 0.25 g's for a minimum of three (3) seconds. X-ray examination shall be made for rotor in the safe position. Any fuze assembly that fails the requirements of the non-arming test shall be classed defective.

4.5.24 M427 Fuze Assembly Non-Arming Test.-The fuze assembly with the g-weight in the downward position shall be assembled to the test equipment in accordance with 4.4.4. The equipment shall accelerate the assembly in a clockwise direction to 13.00 g's plus or minus 0.25 g's for a minimum of three (3) seconds. X-ray examination shall be made for the rotor in the safe position. Any fuze assembly that fails the requirements of the non-arming test shall be classed defective.

4.5.25 Firing of Fuze Assembly.-The armed fuze shall be installed in the test fixture in accordance with 4.3.4 and a mass impact of 50 to 51 lbs. shall be dropped from a height of 5.0 to 5.5 feet onto the nose of the fuze. Suitable stops shall be utilized to prevent crushing of the Safety and Arming Device. The weight shall be dropped only once. Any fuze assembly that fails to fire shall be classed defective.

4.5.26 Forty Foot Drop.--The fuze assembly with warhead assembly shall be subjected to the Forty Foot Drop Test as specified in MIL-STD-331 with the exception that the complete round shall be dropped base down only in a complete pack. The pack is as specified on dwg. 8886810 and 8886811. Any fuze assembly that fails the requirement shall be classed defective.

4.5.27 Jolt and Jumble.--The fuze assembly shall be subjected to the Jolt Test specified in Standard MIL-STD-331 with the exception that the fuze shall not be disassembled and inspected after the Jolt Test. After completion of the Jolt Test, the same fuze shall be subjected to and withstand the Jumble Test specified in MIL-STD-331. Any fuze assembly that fails the requirement shall be classed defective.

4.5.28 Five Foot Drop Test.--A random sample of forty-five (45) fuzes shall be selected and subjected to the test as specified in MIL-STD-331 with the following conditions:

a. The fuze assembly will be assembled to a M151 Warhead (the Government shall supply the warhead for the contractor's use), inert loaded, and with impact orientation of the warhead-fuze assemblies for the drop test as follows:

- (1) Major axis horizontal
- (2) Major axis 45 ° from vertical base down
- (3) Base down

Fifteen (15) fuzes each must be dropped in the above (1,2,3,) orientations. No fuze shall be subjected to more than one drop. The orientation of the Safety and Arming Device (specifically the g-weight) of the fuze shall be random.

b. The Five Foot Drop Test, as specified in MIL-STD-331, shall be performed until three (3) consecutive lots (a minimum lot size of one week's production) have complied with the acceptance criteria specified. After satisfying the above requirement, one lot (a minimum lot size of one week's production) per month shall be selected by the Government and subjected to and pass the Five Foot Drop Test. Should the one lot (per month) fail the acceptance criteria, the contractor shall be required to return to the three (3) consecutive lot procedures above for process qualification.

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c. The fuzes shall be subjected to the tests and acceptance or rejection criteria as specified in Table II.

TABLE II  
SAMPLE SIZE - 45

<u>TEST</u>	<u>ACCEPT</u>	<u>REJECT</u>	<u>TEST METHOD PARAGRAPH</u>
Non-Arm Arming Time	0	1	4.5.23 or 4.5.24 4.5.21 or 4.5.22
Under Min.	0	1	
Over Max.	2	3	
Fail to Arm	1	2	
Firing	1	2	4.5.25

If the sample fails the above acceptance criteria, the lot shall be rejected.

4.5.29 Non-Environmental Test.-A random sample of two hundred and nineteen (219) fuzes shall be selected and subjected to the test and acceptance or rejection criteria as specified in 4.5.31.

4.5.30 Vibration Test.-Ninety-six (96) fuzes shall be subjected to Aircraft Vibration as specified in Appendix 1. Vibration conditioning at resonance is not required. After vibration, the fuzes shall be subjected to the Seal Leakage Test, 4.5.20 and the lot shall be rejected if four (4) or more defects occur. Following seal leakage testing, the fuzes shall be subjected to the tests and acceptance or rejection criteria specified in 4.5.31.

4.5.31 Acceptance Criteria.-The sample fuzes from the Non-environmental and Vibration tests shall be combined into one sample and subjected to the following tests specified in Table III.

TABLE III  
SAMPLE SIZE - 315

<u>TEST</u>	<u>ACCEPT</u>	<u>REJECT</u>	<u>TEST METHOD PARAGRAPH</u>
Non-arm	0	1	4.5.23 or 4.5.24
Arming Time under min.	0	1	4.5.21 or 4.5.22
Point Assessment			
Arming Time Over max.		1 points	
Fail to arm		3 points	

The fuze lot shall be rejected if the fuze assemblies do not meet the above criteria or have a total point accumulation of 6 points or more.

NOTE: An Arming time over max. failure is one point while a fail to arm failure is three points. The total points based on the failures determines the disposition of the lot (see 4.5.32).

Acceptable fuzes from the Vibration test shall be subjected to the firing test after the arming test is completed. If two (2) or more samples fail to fire the lot shall be rejected. If all tests are acceptable, the sample fuzes from the Non-environmental test may be returned to the lot after disassembly, resetting the S&A into the safe position and reassembly.

#### 4.5.32 Fuze Arming and Non-Arming Definitions.-

a. Times under .63 seconds for the M423 and 1.07 seconds through 1.42 seconds for the M427 are classed as arming time under minimum.

b. Times .83 seconds through 1.20 seconds for the M423 and 1.37 seconds through 1.42 seconds for the M427 are classed as arming time over maximum.

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c. Times over 1.20 for the M423 and 1.42 for the M427 or fuzes which do not arm or fuzes which time but do not detent are classed as failures to arm.

d. Identification of defects as non-arm failures, arming time under minimum, arming time over maximum, and failures to arm will depend on both centrifuge testing and radiographic examination. In addition, these type failures shall be removed and not subjected to the firing test (vibrated fuzes) or be returned to the lot (non-environmental fuzes).

e. All fuzes which are not classed as a failure shall be radiographically inspected prior to firing (vibrated fuzes) or their return to the lot (non-environmental fuzes).

f. If the test equipment fails to produce an arming readout (i.e., recording paper skews, audio pick-up or amplifier inoperative) during the arming time test as verified by the Government, the Safety and Arming Device shall be removed from the fuze body; and if found to be armed or partially armed, the Safety and Arming Device shall be reset into the unarmed position, reassembled into the same fuze body and retimed once as a fuze. The only handling action performed on the Safety and Arming Device shall be the reset of the device just prior to the arming time test. The timing record produced by the fuze on the approved fuze timing equipment shall be considered the timing record of the fuze under the applicable defect classification.

g. Fuze arming times, if recorded to the thousandth of a second shall be "rounded off" to the nearest hundredth of a second. Example:

- (1) 0.625 shall be 0.62  
0.626 shall be 0.63
- (2) 0.825 shall be 0.82  
0.826 shall be 0.83
- (3) 1.065 shall be 1.06  
1.066 shall be 1.07
- (4) 1.365 shall be 1.36  
1.366 shall be 1.37

4.5.33 Correlation Factor.—A correlation factor, which correlates the fuze arming time method (swing fixture) to the in-line S&A arming time method, shall be run for each type of fuze M423 and/or M427.



Correlation tests shall be performed by the contractor with DCAS verification. Correlation factors shall be validated at six month intervals (maximum) and re-established whenever:

- a. A new contract is issued
- b. A change of fuze type
- c. Fuze timing equipment is modified

For the correlation procedure a digital counter or an approval equivalent device shall be used, set to read milliseconds for S&A timing and set for oscillograph traces, to the nearest millisecond, for the fuze. The correlation shall be accomplished as follows:

a. Select five (5) S&A's demonstrating acceptable arming time. Each S&A shall have repeatable arming times within 10 milliseconds in five successive runs on the approved S&A timing equipment. S&A arming times readings shall be obtained from the first movement of the set-back weight to the detent locking in the rotor.

b. The same S&A's shall be placed in fuze housings and secured in place with a booster housing, less "O" ring, with fingertip pressure only. The assemblies shall then be timed five (5) times on the approved fuze timing equipment. Readings of the fuze arming time traces, from set back weight bottoming to rotor detent, shall be recorded.

c. The shift in average fuze time, if any, when compared with the average S&A time (taken as a standard) shall be used as the correlation correction and applied to the acceptance test results.

Data obtained in accordance with the above procedure shall be submitted to Commander, US Army Research and Development Command, Dover, NJ 07801, ATTN: DRDAR-QAR-M and DRDAR-QAR-I.

4.5.34 The contractor shall submit a quality inspection test, demonstration and evaluation report in accordance with Data Item Description DI-R-1721 and DI-R-1724 giving the detailed test results.

##### 5. Preparation for Delivery

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5.1 Packaging and Marking.-Level C - The fuze, less booster pellet and booster lead shall be packed and marked in accordance with MIL-P-60412. Marking shall be on labels.

5.2 Packing and Marking.-Level C - The packaged fuzes shall be packed and marked in accordance with MIL-P-60412. Marking shall be on labels. The ICC nomenclature shall be "Percussion Fuzes".

## 6. Notes

6.1 Intended Use.-It is intended that the item of this specification shall be used in the 2.75 Inch Rocket System.

6.2 Ordering Data.-See MIL-A-48078.

6.3 Submission of Designs for Approval.-See 6.2.3 of MIL-A-48078. Submit equipment designs, as required, to: Commander, US Army Armament Research and Development Command, ATTN: DRDAR-QAR-I, Dover, NJ 07801.

## 6.4 Government Furnished Parts

6.4.1 Packing and Packaging.-The procuring agency will provide the packing and packaging for the Forty Foot Drop Test.

6.4.2 M151 Warhead.-The procuring agency will provide inert loaded M151 warheads for the Five Foot Drop Test and Forty Foot Drop Test.

6.5 Defect Reporting.-From each lot produced, the contractor shall submit two copies of the Metal Parts Lot Acceptance Test Data (See Appendix 2) to ARRADCOM, ATTN: DRDAR-QAR-M and DRDAR-LCF, within three (3) days after completion of acceptance testing of the lot. If fuzes and/or tests, in addition to acceptance requirements, are utilized to evaluate the lot, the results of these tests will also be submitted three (3) days after the additional tests are completed. The defective fuzes shall be saved pending review of the results. Recommended test data sheet is enclosed.

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6.6 Drawings.--Drawings listed in Section 2 of this specification under the heading US Army Armament Research and Development Command (ARRADCOM) may also include drawings prepared by, and identified as Edgewood Arsenal, Frankford Arsenal, Rock Island Arsenal or Picatinny Arsenal drawings. Technical data originally prepared by these activities is now under the cognizance of ARRADCOM.

6.7 Changes from Previous Issue.--Asterisks are not used in this revision to identify changes with respect to the previous issue, due to the extensiveness of the changes.

6.8 Data Requirements.--Deliverable data required by this specification in the following paragraphs:

<u>Paragraph</u>	<u>Data Requirement</u>	<u>Applicable DID</u>
4.5.34	Quality Inspection Test, Demonstration and Evaluation Report	DI-R-1724
4.5.34	Quality Inspection Defect Report	DI-R-1721

(Copies of data item description required by the contractor in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer).

Custodian:  
Army-AR

Preparing Activity:  
Army-AR

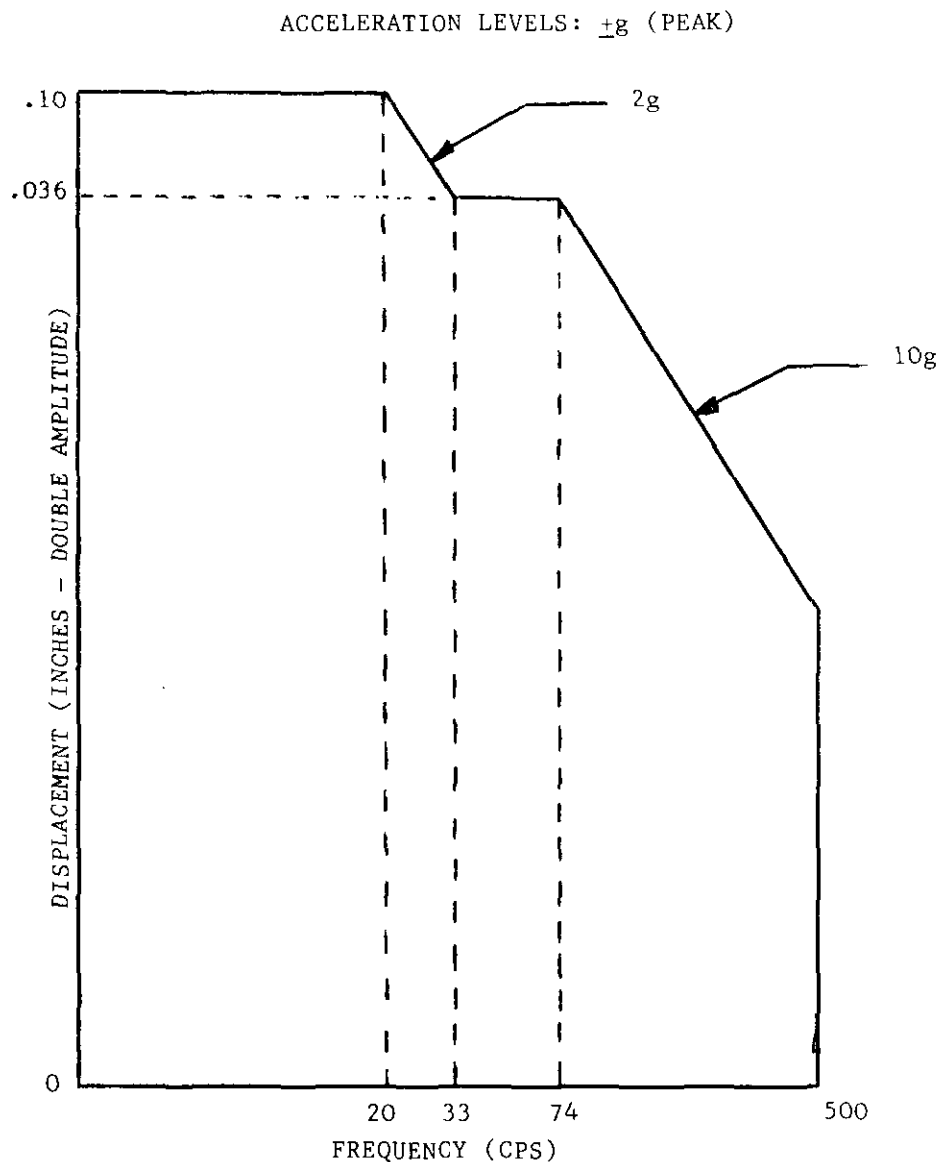
Project Number; 1340-A428

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APPENDIX 1

## AIRCRAFT VIBRATION TEST

The 15 minute sinusoidal sweep (5-500-5 HZ) shall be performed for each of three axes. Sinusoidal cycling time for each axis shall be three hours. Total test time is nine hours. No dwell time shall be spent on any one frequency. A search for resonance shall not be done.



## APPENDIX 2

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## M \_\_\_\_\_ METAL PARTS LOT ACCEPTANCE TEST DATA

Contractor: \_\_\_\_\_

Fuze Lot No: \_\_\_\_\_

Date of Test

Lot Quantity (Gross): \_\_\_\_\_

Start: \_\_\_\_\_

Sample Size (Total): \_\_\_\_\_

End: \_\_\_\_\_

Sample Size  
Returned to Lot: \_\_\_\_\_

Date Shipped: \_\_\_\_\_

Lot Quantity (Net): \_\_\_\_\_

Five Foot Drop Test

5' Drop

Sample Size	Serial No. of Defect	Failure Analysis

Non-Arm

Sample Size	Serial No. of Defect	Failure Analysis

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## Arming Time

Sample	Number Accepted	Serial No. of Short Times	Serial No. of Long Times	Timed But Failed to Arm	Not Timed and Failed Arm	Armed But Not Timed

Attach list of fuze serial numbers and arming times.

## Firing Test

Sample Size	Serial No. of Defects	Failure Analysis

## 5' Drop Failure Analysis

--

Functional Test

## Vibration Test

Sample Size	Serial No. of Defects	Failure Analysis

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Seal Leakage Test

Sample Size	Serial No. of Defects	Failure Analysis

Operational TestNon-Arm Test

Sample Size	Serial No. of Defects	Failure Analysis

Arming Time Test

Sample Size	Number Accepted	Serial No. of Short Times	Serial No. of long Times	Timed But Failed to Arm	Not Timed And Failed to Arm	Armed But Not Timed

Attach list of fuze serial numbers and arming times.

Total Defect Points: \_\_\_\_\_

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## Firing Test

Sample Size	Serial No. of Defects	Failure Analysis

## Failure Analysis

--

Correlation Factor applied to the arming time readings of the Five Foot Drop Test and the Operational Test samples was \_\_\_\_\_ seconds.

## Jolt and Jumble

Sample Size	Serial No. of Defects	Failure Analysis

## Failure Analysis

If lot failure is due to other than test conditioning

--

\_\_\_\_\_  
Government Inspector Date

\_\_\_\_\_  
Contractor Representative Date



## STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

**INSTRUCTIONS:** This form is provided to solicit beneficial comments which may improve this document and enhance its use. DoD contractors, government activities, manufacturers, vendors, or other prospective users of the document are invited to submit comments to the government. Fold on lines on reverse side, staple in corner, and send to preparing activity. Attach any pertinent data which may be of use in improving this document. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity. A response will be provided to the submitter, when name and address is provided, within 30 days indicating that the 1426 was received and when any appropriate action on it will be completed.

**NOTE:** This form shall not be used to submit requests for waivers, deviations or clarification of specification requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

## DOCUMENT IDENTIFIER (Number) AND TITLE

MIL-F-50548A Fuzes Rocket, M423 and M427 Less Booster and Booster Lead

## NAME OF ORGANIZATION AND ADDRESS OF SUBMITTER

☐ VENDOR ☐ USER ☐ MANUFACTURER

1. ☐ HAS ANY PART OF THE DOCUMENT CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE? ☐ IS ANY PART OF IT TOO RIGID, RESTRICTIVE, LOOSE OR AMBIGUOUS? PLEASE EXPLAIN BELOW.

A. GIVE PARAGRAPH NUMBER AND WORDING

B. RECOMMENDED WORDING CHANGE

C. REASON FOR RECOMMENDED CHANGE(S)

## 2. REMARKS

SUBMITTED BY (Printed or typed name and address - Optional)

TELEPHONE NO.

DATE

**DD FORM 1426**  
1 OCT 76

EDITION OF 1 JAN 72 WILL BE USED UNTIL EXHAUSTED.