INCH-POUND

MIL-DTL-32267(AR) 30 September 2007 SUPERSEDING MIL-F-63518A(AR) 06 OCTOBER 1986 MIL-F-63519(AR) 18 MARCH 1982

DETAIL SPECIFICATION

FUZE, POINT DETONATING, M739A1

Inactive for new design after 30 September 2007

This specification is approved for use by the U.S. Army Armament Research, Development and Engineering Center (ARDEC), and is available for use by all Departments and Agencies of the Department of defense

1. SCOPE

1.1 This specification covers the fabrication of parts, assembling and loading for the Fuze, Point Detonating, M739A1 .

Comments, suggestions, or questions on this document should be addressed to the commander, U.S.Army ARDEC, ATTN: AMSRD-AAR-QES-E, Picatinny, NJ 07806-5000 or emailed to <u>ardec-stdzn@pica.army.mil</u>. Since contact information can change, you may want to verify the currency of this address information using the ASSIST online database at <u>http://assist.daps.dla.mil</u>.

AMSC N/A

FSC 1315

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2. Applicable documents

2.1 <u>General.</u> The documents listed in this section are specified in sections 3 and 4 of this specification. This section does not include documents in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all requirements documents cited in sections 3 and 4 of this specification, whether or not they are listed.

2.2 Government documents.

2.2.1 <u>Specifications, standards, and handbooks</u>. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

DEPARTMENT OF DEFENSE SPECIFICATIONS

MIL-D-14978 – Detonator, Stab, M55 loading, Assembling and Packing

MIL-D-48025 – Detonator, Stab, M99, Loading, Assembling and Packing

DEPARTMENT OF DEFENSE STANDARDS

- MIL-STD-331 Fuze and Fuze Components, Environmental and Performance Tests for
- MIL-STD-1168 Ammunition Lot Numbering and Ammunition Data Card
- MIL-STD-1916 DOD Preferred Methods for Acceptance of Product

(Unless otherwise indicated, copies of these documents are available online at <u>http://assist.daps.dla.mil/quicksearch/</u> or <u>https://assist.daps.dla.mil</u> or from the Standardization Document Order Desk, 700 Robbins Avenue, Bldg. 4D Philadelphia, PA 19111-5094.)

2.2.2 <u>Other Government documents, drawings, and publications</u>. The following other Government documents, drawings and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

U.S. ARMY ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER (ARDEC) DRAWINGS

- 7548099 Box, packing, ammunition For Lead Cup Assembly Or Explosive Lead PA510
- 7548103 Box, set-up, packing, ammunition, outer
- 7548104 Box, set-up, packing, ammunition, inner

- 9255165 Lead, explosive PA508
- 9255166 Cup, lead
- 9255167 Disc, lead
- 9255168 Booster pellet
- 9258607 Cup, booster
- 9258609 Body, fuze
- 9258611 Screw, closing
- 9258613 Firing pin housing and detonator assembly
- 9258614 Support, firing pin
- 9258617 Housing, detonator
- 9258618 Firing pin assembly
- 9258619 Pin, firing
- 9258620 Retainer, S&A
- 9258622 Crossbar and Holder Assembly
- 9258624 Holder, crossbar
- 9258625 Setting sleeve assembly
- 9258626 Retainer interrupter
- 9258628 Sleeve, setting
- 9258629 Interrupter
- 9258630 Safing and arming module assembly
- 9258631 Pallet
- 9258632 Plate, gear, upper
- 9258638 Spinlock
- 9258639 Rotor assembly
- 9258640 Body, rotor
- 9258641 Shaft, rotor
- 9258642 Gear, rotor
- 9258643 Plate and spacer assembly
- 9258644 Plate, bottom
- 9258646 Spacer, plate, gear
- 9258647 Spring, pin, lock
- 9258650 Lower plate and shaft assembly
- 9258651 Plate, gear, lower
- 9258652 Shaft, pallet
- 9258653 Gear and pinion assembly
- 9258655 Escape wheel and pinion assembly
- 9282958 S&A module and retainer assembly
- 9294595 Fuze Body And Setting Sleeve Assembly
- 9294606 Firing pin and housing assembly
- 9294833 Safing and arming module subassembly
- 9294992 Plug, Test
- 9294993 Disk, Test
- 9298909 Cap, Nose
- 9333937 pin, firing
- 9343014 Pin, Lock, Rotor
- 9345331 Fuze Body Assembly M739A1
- 9345332 Fuze, PD, M739A1
- 9349346 Fuze, PD, M739A1, less booster pellet

- 11836270 Delay module, impact
- 11836271 Plunger assembly
- 11836272 Plunger
- 11836273 Detent, spin
- 11836274 Spring detent
- 11836275 Retainer, detent
- 11836276 Lock, detent
- 11836277 Pin, pivot
- 11836278 Firing pin holder assembly
- 11836279 Holder, firing pin
- 11836281 Pin, firing pin
- 11836282 Slider
- 11836283 Spring, firing pin
- 11836284 Spring, slider
- 11836285 Retainer, slider spring
- 11836286 Housing
- 11836287 Spring, plunger
- 11836288 Cover, housing

(Copies of these documents may be requested online at <u>Drawing-request@pica.army.mil</u> or from U.S. Army ARDEC, ATTN: AMSRD-AAR-AIS-TD, Picatinny, NJ 07806-5000.

2.2.3 <u>Order of precedence</u>. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 <u>First Article</u>. When specified (see 6.2), a sample shall be subjected to first article inspection in accordance 4.2.

3.2 <u>Lot acceptance</u>. When specified, a sample shall be subjected to lot acceptance verification in accordance with 4.3.

3.3 <u>Components and assemblies</u>. The components, assemblies shall comply with all drawings cited in 4.4.1

3.4 <u>Ammunition lot numbering</u>. Fuze Lot number shall be in accordance with MIL-STD-1168 and applicable drawings.

3.5 <u>Inspection lot formation</u>. Inspection lots shall comply with the lot formation requirements of MIL-STD-1916.

3.6 <u>Fuze not armed</u>. The Fuze shall not be shipped or stored without the S&A device in the safe condition.

3.7 <u>Propagation test</u>. The fuze assemblies with test disk, test plug and booster cups shall arm and function high order as evidenced by a minimum .170 inch diameter hole in the test disk.

3.8 <u>Lead assembly output test</u>. The lead assembly shall function high order as evidenced by a minimum 0.210 inch diameter hole in a One-eighth-inch thick lead disc.

3.9 <u>Boostering</u>. When booster is installed into fuze, the fuze shall function for all approved 155mm and 105mm artillery projectiles.

3.10 <u>Ballistic requirements</u>. The fuze shall function when used on all approved 155mm and 105mm artillery projectiles.

3.11 <u>Premature bursts</u>. There shall be no premature bursts.

3.12 Early Burst. There shall be no early bursts.

3.13 <u>Non-function</u>. The fuze shall not function upon impact with target, when subjected to this test.

3.14 <u>Superquick (SQ)</u>. The fuze shall cause the projectile to function high order, and the fuze shall show no evidence of reverse functioning (see 6.6.5).

3.15 <u>Delay (DLY)</u>. The fuze shall cause the projectile to function high order 3-6 milliseconds after target impact.

3.16 <u>S&A in safe condition</u>. The S&A shall be in the safe condition prior to insertion into the fuze body.

3.17 <u>Impact delay drop test</u>. The Impact Delay Module (dwg. 11836270) shall function satisfactorily as evidenced by the complete firing of the assembly.

3.18 <u>Jolt and Jumble</u>. The fuze assemblies with inert boosters and booster cups shall comply with the requirement of MIL-STD-331, Tests A1 and A2.1.

3.19 <u>Transportation vibration</u>. The fuze assemblies less booster pellet and booster cup shall comply with the requirements of MIL-STD-331, Test B1.1, section B1.6.3.2, procedure II.

3.20 <u>Leak test</u>. The fuze Assemblies, less booster Pellet and Booster Cup, shall comply with MIL-STD-331, Test. C4 except that the duration of immersion shall be five (5 plus or minus 0.5) minutes and the pressure shall be three (3 plus or minus 0.5) psi gauge.

3.21 <u>S&A Functional Test</u>. The S&A Module shall arm within the time required by this specification.

3.22 <u>Die cast and molded components</u>. Cast and molded components shall be of uniform quality, free of cold shuts, blowholes, defects, voids, cracks, and foreign inclusions. Castings must be dry, clean, and free of chips. All unfilled castings shall be rejected. Cast and molded plastic parts are permitted to display surface color variations due to flow patterns and filler content.

3.23 <u>Bottom plate, surface porosity</u>. No voids greater than .005" X .005" shall be permitted in the ramp surface of the setback pin hole.

3.24 <u>Gear plate spacer, surface porosity</u> No voids greater than .005" X .005" shall be permitted in either spinlock bearing surface.

3.25 <u>Rotor body, surface porosity</u> No voids greater than .005" X .005" shall be permitted in the upper plate bearing surface.

3.26 <u>Gears, surface porosity</u>. No voids greater than .005" X .005" shall be permitted in any of the tooth profiles. No voids greater than .005" X .005" shall be permitted in the pinion flange upper bearing surface or in the gear flange lower bearing surface of the gear and pinion assembly. No voids greater than .005" X .005" shall be permitted in the escape wheel flange upper bearing surface or in the pinion flange lower bearing surface of the gear of the escape wheel flange upper bearing surface or in the pinion flange lower bearing surface of the escape wheel pinion assembly.

3.27 <u>Plunger, surface porosity</u>. No voids will be permitted on inside surface of pin detent holes and slider ball grooves.

3.28 <u>Holder, firing pin, surface porosity</u>. No voids will be permitted on the slider mating diameter and firing pin sliding surface.

3.29 <u>Workmanship</u>. All parts shall be fabricated and finished in a thorough, workmanlike manner and all manufacturing, processing and assembly operations shall be correctly performed. The parts shall be clean and free of burrs, sharp edges, unblended radii, surface defects, cracks, chips, dirt, grease, and oil (except where specifically required), rust and foreign matter. The cleaning method used shall not be injurious to any part, nor shall the parts be contaminated by the cleaning agent. All required markings shall be neat, legible and sharply defined.

4. Verification

TABLE I. <u>Requirements/verification cross reference matrix</u>

METHODS OF VERIFICATION

- N/A Not Applicable
- 1 Analysis
- 2 Demonstration
- 3 Examination
- 4 Test

CLASSES OF VERIFICATION

- A First Article Verification
- B Conformance Inspection

Section	Verification methods					Verification Class		Section 4
		1	2	3	4	А	В	
3.1	First Article	Х	Х	Х	Х	Х		4.2
32	Lot Acceptance		Х	Х	Х		Х	4.3
3.3	Components & Assy's	Х	Х	Х	Х	Х	Х	4.4.1.1 4.4.1.83
3.4	Ammo Lot numbering			Х			Х	4.4.1.53
3.5	Insp lot formation			Х			Х	4.3.1
3.6	Fuze not armed		Х	Х	Х	Х	X	4.2.3.29 4.3.2.1.1 4.3.3.1.1
3.7	Propagation Test		Х	Х	Х	Х	Х	4.2.3.4 4.4.1.53
3.8	Lead assy output test		Х		Х	Х	Х	4.4.1.79
3.9	boostering			Х		Х	Х	4.4.1.75
3.10	Ballistic		Х		Х	Х	Х	4.4.1.53
3.11	Premature bursts		Х		Х	Х	Х	4.2.3.5 4.3.4.2
3.12	Early burst		Х		Х	Х	Х	4.2.3.5 4.3.4.2
3.13	Non-function		Х		Х	Х	X note 1	4.2.3.5 4.3.4.2
3.14	Superquick		Х		Х	Х	Х	4.2.3.5 4.3.4.2
3.15	Delay		Х		Х	Х	Х	4.2.3.5 4.3.4.2
3.16	S&A safe		Х	Х	Х	Х	Х	4.4.1.51 4.4.1.53
3.17	Impact delay drop test		Х		Х	Х	Х	4.4.1.73
3.18	Jolt and Jumble		Х		Х	Х		4.2.3.1
3.19	Transportation Vib		Х		Х	Х	Х	4.2.3.2 4.3.4.2
3.20	Leak Test		Х		Х	Х	Х	4.2.3.3 4.4.1.52
3.21	S&A Functional Test			Х	Х	Х	Х	4.2.3.7
3.22	Die cast & molded parts	Х		Х	Х	Х	Х	4.4.1
3.23	Bottom Plate	Х		Х		Х	Х	4.4.1.22 4.4.1.23
3.24	Gear Plate Spacer	Х		Х		Х	Х	4.4.1.24 4.4.1.25
3.25	Rotor Body	Х		Х		Х	Х	4.4.1.28 4.4.1.29
3.26	Gears	Х		Х		Х	Х	4.4.1
3.27	Plunger	Х		Х		Х	Х	4.4.1.71
3.28	Holder, firing pin	Х		Х		Х	Х	4.4.1.64
3.29	Workmanship	Х	Х	Х	Х	Х	Х	4.4.1

4.1 <u>Classification of inspection</u>. The verification requirements are specified herein as follows:

a. First article inspection (see 4.2)

b. Conformance inspection (see 4.3)

4.2 <u>First article inspection</u> When required, a First Article sample shall be evaluated in accordance with 4.2.2

4.2.1 First article quantity.

4.2.1.1 <u>Components and assemblies</u>. 10 each of every component, subassembly and assembly listed in 4.4.1.1 through 4.4.1.83 herein, except for ,five (5) each category, molded and stamped components shall be submitted from every die/mold cavity or stamping tool from which each component is made

4.2.2 <u>First article inspections to be performed</u>. The first article quantity specified in 4.2.1 is subjected to inspection in accordance with tests or examinations listed in the Classification of Characteristics paragraphs 4.4.1.1 through 4.4.1.83. The first article fuze listed in 4.4.1.1 through 4.4.1.83 shall be subjected to the testing of 4.2.3.

4.2.3 First article tests

4.2.3.1 <u>Jolt and jumble test</u>. Nine (9) loaded fuze assemblies with inert boosters and booster cups then subjected to Jolt and Jumble testing per and verified per 4.5.1 and Figure 1

4.2.3.2 <u>Transportation vibration test</u>. Fuze shall be subjected to vibration testing per 4.5.2, and Figure 1. After examination the fuze shall be ballistically tested per Table II

4.2.3.3 <u>Leak test</u>. Forty eight (48) fuzes shall be randomly selected and subjected to the leak test per 4.5.8, and Figure 1. Any assembly that does not comply with 3.4.4 shall be classed as defective. Fuzes from this test shall not be returned to the lot. As an option an alternate leak test may be performed per 4.5.8.1. Any assembly with a continuous stream of bubbles in excess of one bubble per second shall be classed defective. Assemblies which pass this test shall not be returned to the lot. Assemblies which pass this test shall not be returned to the lot. Assemblies which pass this test shall not be returned to the lot. Assemblies which pass this test may also be used to satisfy the sample requirements for jolt and jumble or for propagation testing.

4.2.3.4 <u>Propagation test</u>. Propagation shall be verified per 4.5.17, and Figure 1.

4.2.3.5 <u>Ballistic tests</u>. Fuzes shall be conditioned and ballistically tested in accordance with Table II.

4.2.3.6 <u>Fuze not armed</u>. All fuzes for test shall be X-rayed to verify S&A is not armed and is in the safe condition and is safe to transport and fire.

4.2.3.7 <u>S&A Functional Test</u>. S&A samples shall be tested in accordance with 4.4.1.42.

4.2.4 First article rejection.

4.2.4.1. <u>Examinations and static tests</u>. If any component, subassembly or assembly fails to comply with any of the applicable requirements, the first article sample shall be rejected.

4.2.4.2 <u>Functioning performance tests</u>. Defect categories and rejection criteria for these tests are as follows:

4.2.4.2.1 Reliability and sequential operational tests.

a. <u>Safe Condition (see 6.6.2</u>) - Any fuze found with the S&A module not in the safe condition after any environmental testing or prior to gunfire shall be cause for rejection.

4.2.4.2.1.1 Jolt and jumble. Any fuze which fails to meet the criteria of 4.5.1 shall be cause for rejection

4.2.4.2.1.2 <u>Transportation vibration</u>. Any fuze which fails to meet the criteria of 4.5.2 shall be cause for rejection

4.2.4.2.1.3 <u>Leak test</u>. Any fuze which fails to meet the criteria of 4.5.8 shall be cause for rejection

4.2.4.2.1.4 <u>Propagation test</u>. Any fuze which fails to meet the criteria of 4.5.17 shall be cause for rejection

4.2.4.2.1.5 <u>S&A functional tests</u>. Any safety failure shall be cause for rejection. More than one reliability failure shall be cause for rejection. Safety failures are defined as an S&A which arms faster than acceptable arm times. Reliability failures are defined as those failures which are not safety failures.

4.2.4.3 Ballistic testing.

4.2.4.3.1 <u>S&A fails X-ray- critical defect</u> - Any S&A module found not in the full safe condition shall be cause for rejection.

4.2.4.3.2 <u>Premature burst- critical defect</u> - Any premature burst shall be cause for rejection

4.2.4.3.3 <u>Non-Functioning - critical defect</u> - Any function in a non-function test shall be cause for rejection.

4.2.4.3.4 <u>Point detonating dud - major defect</u> - More than two PD dud (see 6.6.10) for all PD functioning ballistic test phases shall be cause for rejection

4.2.4.3.5 <u>Delay dud - major defect</u> - More than two Delay dud (see 6.6.10) for all Delay functioning ballistic test phases shall be cause for rejection.

4.2.4.3.6 <u>Total duds</u>. For the sample, shown in Table II, more than three duds total shall be cause for rejection.

4.2.4.3.7 <u>Reverse functioning – major defect</u> - More than one reverse functioning shall be cause for rejection.

4.3 Conformance verification.

4.3.1 <u>Inspection lot formation</u>. The lot formation shall be in accordance with the lot formation requirements of MIL-STD-1916. Fuze lot numbering and item nomenclature shall be in accordance with MIL-STD-1168 and drawing number 9345331. In addition inspection lots shall contain the following components from lots with the same interfix from one manufacturer.

a. M739A1 PD Fuzeb. M55 Detonatorc. M99 Detonatord. Lead assembliese. S&A assembliesf. Booster pellet

4.3.2 Lot acceptance A sample of fuzes shall be subjected to lot acceptance verification in accordance with the Requirements/Verification Cross Reference Matrix, requirements cited in this section and Table II and Table III.

4.3.2.1 Lot Rejection (Full Sample).

4.3.2.1.1 <u>S&A fails X-ray - critical defect</u>– All fuzes for test shall be x-rayed. Any S&A module found not in the safe condition shall be cause for rejection.

4.3.2.1.2 <u>Premature burst – critical defect</u> - Any premature burst shall be cause for rejection

4.3.2.1.3 <u>Non-Functioning – critical defect</u> - Any function in a non-function test shall be cause for rejection.

4.3.2.1.4 <u>Point detonating dud</u> - More than two PD dud (see 6.6.10) for all PD functioning ballistic test phases shall be cause for rejection.

4.3.2.1.5 <u>Delay dud - Major defect</u> - More than two Delay dud (see 6.6.10) for all Delay functioning ballistic test phases shall be cause for rejection.

4.3.2.1.6 <u>Reverse functioning. - Major defect -</u> For either sample, more than one reverse functioning shall be cause for rejection

4.3.2.1.7 <u>Total duds</u>. For the sample, shown in Table II, more than three duds total shall be cause for rejection

4.3.2.1.8 <u>S&A functional tests</u>. Any safety failure shall be cause for rejection. More than one reliability failure shall be cause for rejection. Safety failures are defined as an S&A which arms faster than acceptable arm times. Reliability failures are defined as those failures which are not safety failures.

4.3.3. <u>Switching criteria for ballistic test sample</u>. After three consecutive lots are passed the sample may be reduced to 80 fuzes and tested per Table III. If any lot fails to meet the requirements, the sample shall revert to the full 120 fuze sample of Table II.

4.3.3.1 Lot rejection (Reduced Sample).

4.3.3.1.1 <u>S&A fails X-ray- critical defect</u> – All fuzes for test shall be x-rayed. Any S&A module found not in the safe condition shall be cause for rejection.

4.3.3.1.2 <u>Premature burst- critical defect</u> - Any premature burst shall be cause for rejection

4.3.3.1.3 <u>Non-Functioning - critical defect</u> - Any function in a non-function test shall be cause for rejection

4.3.3.1.4 <u>Point detonating dud - major defect.</u> - More than two PD dud (see 6.6.10) for all PD functioning ballistic test phases shall be cause for rejection.

4.3.3.1.5 <u>Delay dud -</u> More than two Delay dud (see 6.6.10) for all Delay functioning ballistic test phases shall be cause for rejection.

4.3.3.1.6 <u>Reverse functioning - Major defect</u> - For either sample, more than one reverse functioning shall be cause for rejection.

4.3.3.1.7 <u>Total duds</u>. For the reduced sample, more than two duds total shall be cause for rejection.

4.3.3.1.8 <u>S&A functional tests</u>. Any safety failure shall be cause for rejection. More than one reliability failure shall be cause for rejection. Safety failures are defined as an S&A which arms faster than acceptable arm times. Reliability failures are defined as those failures which are not safety failures.

4.3.4 Lot acceptance inspections to be performed.

4.3.4.1 <u>In processes inspections</u>. All delivered lots of M739A1 fuze shall be subject to in process inspections. Tests shall be performed by contractor.

4.3.4.2 <u>Ballistic tests</u> Fuze shall be conditioned and ballistically tested in accordance with Table II or III.

4.3.5 <u>Lot Boostering</u> Deliverable fuzes are permitted to be boostered after LAT providing the same manufacturer and process are used for LAT samples and the deliverable fuzes

4.4 <u>Examinations and tests.</u> Conformance examination and tests are specified in the requirements/cross reference matrix Table I and 4.4.1.1 through 4.4.1.83. Sampling shall be in accordance with MIL-STD 1916. Unless otherwise specified herein see 6.5.

4.4.1 <u>Classification of characteristics</u>

1	TITLE			
PARAGRAPH				DRAWING NUMBER
4.4.1.1	Pin, Firing	sheet 1 of	1	9258619
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9258618 INSPECTION METHOD REFERENCE
Critical	None defined			
<u>Major</u> 101	Diameter of shaft and profile of point	Level IV	3.3	Gage
Minor 201	Evidence of poor workmanship	Level II	3.29	Visual
NOTES:				

	TITLE			
paragraph 4.4.1.2	Firing Pin Assembly	sheet 1 of	1	DRAWING NUMBER 9258618
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9294606 INSPECTION METHOD REFERENCE
Critical	None defined			
<u>Major</u> 101	Pull Test	80	3.3	Visual/Gage 4.5.3
Minor 201	Evidence of poor workmanship	Level II	3.29	Visual
NOTES:				

	TITLE			
paragraph 4.4.1.3	Pin, firing	sheet 1 of	1	DRAWING NUMBER 9333937
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9294606 INSPECTION METHOD REFERENCE
Critical	None defined			
<u>Major</u> 101 102 103	Diameter of shaft and profile of point Unit weight, max Pull test	Level IV Level IV 80	3.3 3.3 3.3	Gage Gage Gage 4.5.3
<u>Minor</u> 201	Evidence of poor workmanship	Level II	3.29	Visual
NOTES:				1

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.4	Support, Firing Pin	sheet 1 of	1	9258614
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9294606 INSPECTION METHOD REFERENCE
Critical	None defined			
<u>Major</u> 101	Load test	80	3.3	4.5.4
Minor 201	Evidence of poor workmanship	Level II	3.29	Visual
NOTES:				1

PARAGRAPH				DRAWING NUMBER
4.4.1.5	Housing, Detonator	sheet 1 of	1	9258617
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9294606 INSPECTION METHOD REFERENCE
Critical	None defined			
Major				
101	Depth of detonator cavity	Level IV	3.3	Gage
102	Shrinkage defects, unfilled or incomplete	note 1	3.3	Visual
103	Presence of flash or gates	note 1	3.5	Visual
Minor				
201	True position of detonator cavity With outside diameter	Level II	3.3	Gage
202	Cavity identification missing or improper	note 1	3.3	Visual
203	Evidence of poor workmanship	Level II	3.29	Visual
OTES:				

Conformance inspection by classification of characteristics

Note 1. This inspection applies only when molded, plastic component is produced. For qualification of a mold, inspect three (3) consecutive samples from each mold cavity. During normal production, inspect one (1) sample each from beginning and end of each production run (See 4.5.28).

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.6	Firing Pin and Housing Assembly	sheet 1 of	1	9294606
		CONFORMANCE	REQUIREMEN	NEXT HIGHER ASSEMBLY 9258613
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION METHOD REFERENCE
<u>Critical</u>	None defined			
<u>Major</u>				
101	Load test	Level IV	3.3	4.5.20
102	Inward buckling of firing pin tube	Level IV	3.3	Visual
103	Distance from bottom detonator cavity	100%	3.3	Gage
	to firing pin point			C
104	Outside diameter, max	Level IV	3.3	Gage
	,			C
Minor				
201	Evidence of poor workmanship	Level II	3.29	Visual
	i r			
NOTES:				1

paragraph 4.4.1.7	TITLE Firing Pin Housing and Detonator Assembly	sheet 1 of		drawing number 9258613
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9345331 INSPECTION METHOD REFERENCE
<u>Critical</u> Major	None defined			

<u>Major</u> 101 102	Detonator inverted or missing prior to application of seal tape Overall length, max	100% Level IV		Gage Gage
Minor 201	Evidence of poor workmanship	Level II	3.29	Visual

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.8	Holder, crossbar	sheet 1 of	1	9258624
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9258622 INSPECTION METHOD REFERENCE
Critical	None defined			KETERENCE
<u>Major</u> 101	Presence of four rain holes	note 1	3.3	Visual/4.5.7
102	Presence of four dimples	note 1	3.3	Visual/4.5.7
103	Presence of longitudinal separation	note 1	3.3	Visual/4.5.7
Minor 201	Evidence of poor workmanship	Level II	3.29	Visual/4.5.7
otes: Jote 1 Five	(5) pieces per punch per day			

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.9	Cup, Booster	sheet 1 of	1	9258607
	CONFORMANCE REQUIREMEN		REQUIREMEN	NEXT HIGHER ASSEMBLY 9345331
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION METHOD REFERENCE
<u>Critical</u>	None defined			
<u>Major</u>				
101	Thickness of bottom of cup	Level IV	3.3	Gage
102	Depth of wrench holes	Level IV	3.3	Gage
103	Inside diameter of cup	Level IV	3.3	Gage
104	Depth of cup	Level IV	3.3	Gage
105	Thread length, min	Level IV	3.3	Gage
106	Pitch diameter of thread	Level IV	3.3	Gage
107	Major diameter of thread	Level IV	3.3	Gage
<u>Minor</u>				
201	Location of wrench holes	Level II	3.3	Gage
202	Evidence of poor workmanship	Level II	3.29	Visual
NOTES:		1		1

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.10	Interrupter	sheet 1 of	1	9258629
CLASSIFICATION		CONFORMANCE	REQUIREMEN	NEXT HIGHER ASSEMBLY 9258625
	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION METHOD REFERENCE
<u>Critical</u>	None defined			
<u>Major</u> 101	Large diameter, min	100%	3.3	Gage
Minor 201	Evidence of poor workmanship	Level II	3.29	Visual
NOTES:				

LASSIFICATIONEXACriticalNone definedMajor101101Body diameter,102Interrupter diar103O-Ring diameter104True position or105True position or106True position or106True position or	meter, max. ter, min of small slot with	SHEET 1 OF CONFORMANCE CRITERIA note 1 note 1 note 1 note 1 note 1	2 REQUIREMEN PARAGRAPH 3.3 3.3 3.3 3.3 3.3 3.3 3.3	9258628 NEXT HIGHER ASSEMBLY 9258625 INSPECTION METHOI REFERENCE Gage/4.5.24 Gage/4.5.24 Gage/4.5.24
CriticalNone definedMajor	r, min meter, max. ter, min of small slot with g diameter	note 1 note 1 note 1 note 1	3.3 3.3 3.3 3.3	9258625 INSPECTION METHOI REFERENCE Gage/4.5.24 Gage/4.5.24 Gage/4.5.24
CriticalNone definedMajor	r, min meter, max. ter, min of small slot with g diameter	note 1 note 1 note 1	3.3 3.3 3.3	Gage/4.5.24 Gage/4.5.24 Gage/4.5.24
Major101Body diameter,102Interrupter diar103O-Ring diamet104True position oretainer seating105True position oseating diamete106True position oretainer seating	meter, max. ter, min of small slot with g diameter	note 1 note 1	3.3 3.3	Gage/4.5.24 Gage/4.5.24
 101 Body diameter, 102 Interrupter diameter, 103 O-Ring diameter, 104 True position or retainer seating 105 True position or seating diameter, 106 True position or retainer seating 	meter, max. ter, min of small slot with g diameter	note 1 note 1	3.3 3.3	Gage/4.5.24 Gage/4.5.24
 102 Interrupter diar 103 O-Ring diameter 104 True position or retainer seating 105 True position or seating diameter 106 True position or retainer seating 	meter, max. ter, min of small slot with g diameter	note 1 note 1	3.3 3.3	Gage/4.5.24 Gage/4.5.24
 103 O-Ring diameter 104 True position or retainer seating 105 True position or seating diameter 106 True position or retainer seating 	ter, min of small slot with g diameter	note 1	3.3	Gage/4.5.24
 104 True position or retainer seating 105 True position or seating diameter 106 True position or retainer seating 	of small slot with g diameter			Gage/4.5.24
 104 True position or retainer seating 105 True position or seating diameter 106 True position or retainer seating 	of small slot with g diameter	note 1	2.2	-
105True position of seating diameter106True position of retainer seating			3.3	Gage/4.5.24
106 True position o retainer seating	-	note 1	3.3	Gage/4.5.24
-	of screwdriver slot with	note 1	3.3	Gage/4.5.24
107 Interrupter diar	meter, min	note 1	3.3	Gage/4.5.24
108 Width of screw	-	note 1	3.3	Gage/4.5.24
109 Radial length o	of stop	note 1	3.3	Gage/4.5.24
110 Location of sto	-	note 1	3.3	Gage/4.5.24
111 Large outside d	1	note 1	3.3	Gage/4.5.24
112 Length of O-Ri		note 1	3.3	Gage/4.5.24

PARAGRAPH	TITLE			DRAWING NUMBE
4.4.1.11	Sleeve, Setting (Die Check)	SHEET	2 of 2	9258628
		CONFORMANCE		NEXT HIGHER ASSEMBLY
			REQUIREMEN	9238023
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION METH REFERENCE
<u>Major</u>				
113	True position of large	note 1	3.3	Gage/4.5.24
	outside diameter with			
	body diameter			
114	Distance from retainer to	note 1	3.3	Gage/4.5.24
	top of outside diameter			
115	True position of O-Ring	note 1	3.3	Gage/4.5.24
	diameter with body			_
	diameter			
116	Depth of retainer seating	note 1	3.3	Gage/4.5.24
	diameter			
117	Length of large outside	note 1	3.3	Gage/4.5.24
	diameter			
118	Retainer seating diameter	note 1	3.3	Gage/4.5.24
Minor				
	Depth of small slot	note 1	3.3	Gage/4.5.24
202	Depth of large slot	note 1	3.3	Gage/4.5.24
203	Depth of interrupter	note 1	3.3	Gage/4.5.24
	cavity			E .
204	Width of large slot	note 1	3.3	Gage/4.5.24
205	Width of small slot	note 1	3.3	Gage/4.5.24
206	Thickness of stop	note 1	3.3	Gage/4.5.24
207	Evidence of poor	note 1	3.29	Visual/4.5.24
	workmanship			
NOTES:	. (2)			1
Note I. Thr	ee (3) samples per cavity.			

PARAGRAPH	TITLE				DRAWING NUMBER
4.4.1.12	Sleeve, setting	SHEET	1 OF	1	925862
		CONFORMANCE		REQUIREMEN	NEXT HIGHE ASSEMBLY 925862
CLASSIFICATION		CRITERIA		PARAGRAPH	INSPECTIO METHOD REFERENCE
Critical	None defined				
<u>Major</u>					
	Body diameter, min	note 1			Gage/4.5.27
102	Interrupter diameter, max.	note 1			Gage/4.5.27
103	O-Ring diameter	note 1		3.3	Gage/4.5.27
	Retainer seating diameter	note 1			Gage/4.5.27
105	Length of large outside diameter	note 1		3.3	Gage/4.5.27
<u>Minor</u>		. 1		2.2	
201	Width of large slot	note 1			Gage/4.5.27
202	Width of small slot	note 1			Gage/4.5.27
203	Evidence of poor workmanship	Level II		3.29	Visual/4.5.27
NOTES:	1				I
Note 1. Three 4.5.34)	ee (3) samples per 50,000 pieces pe	r cavity. Sample size in	crease	s for large	r production run (se

PARAGRAPH				DRAWING NUMB
4.4.1.13	Retainer Interrupter (Die check)	SHEET	1 of 2	9258626
		CONFORMANCE	REQUIREMEN	NEXT HIGHER ASSEMBLY 9258625
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION METHOD REFERENCE
Critical	None defined			
<u>Major</u>				
101	Width of large tab	note 1	3.3	Gage/4.5.23
102	Width of small tab	note 1	3.3	Gage/4.5.23
103	True position of small tab with body diameter	note 1	3.3	Gage/4.5.23
104	True position of large tab with body diameter	note 1	3.3	Gage/4.5.23
105	Interrupter diameter	note 1	3.3	Gage/4.5.23
106	Depth of smallest inside diameter, min	note 1	3.3	Gage/4.5.24
107	Body diameter	note 1	3.3	Gage/4.5.23
	Distance from bottom to to top of body diameter	note 1	3.3	Gage/4.5.23
		note 1	3.3	
Minor		note 1	3.3	
201	Smallest inside diameter	note 1	3.3	Gage/4.5.23
202	Depth of interrupter diameter	note 1	3.3	Gage/4.5.23
203	True position of interrupter diameter with body diameter	note 1	3.3	Gage/4.5.23

paragraph 4.4.1.13	Retainer Interrupter (die check)	SHEET	2 of 2	DRAWING NUMBER 9258626
CLASSIFICATION		CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9258625 INSPECTION METHOD REFERENCE
205 206 207	Diameter over tabs Thickness of large tab Thickness of base Evidence of poor workmanship	note 1 note 1 Level II	3.3 3.3	Gage/4.5.23 Gage/4.5.23 Gage/4.5.23 Visual/4.5.23

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.14	Retainer interrupter	SHEET	1 of 1	9258620
		CONFORMANCE	REQUIREMEN	NEXT HIGHEI ASSEMBLY 9258625
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION METHOD REFERENCE
Critical	None defined			
Major				
-	Interrupter diameter	note 1	3.3	Gage/4.5.27
102	Depth of smallest inside diameter, min	note 1	3.3	Gage/4.5.27
103	Distance from bottom to top of body diameter	note 1	3.3	Gage/4.5.27
-	Thickness of base Evidence of poor workmanship	note 1 Level II		Gage/4.5.27 Visual
NOTES: Note 1. Thr 4.5.34).	ree (3) samples per 50,000 pieces pe	r cavity. Sample size	increases for large	r production run (s

PARAGRAPH	TITLE					DRAWING
						NUMBER
4.4.1.15	Setting sleeve assembly	SHEET	1	OF	1	9258625 NEXT HIGHER
		CONFORMANCE			REQUIREMEN	ASSEMBLY
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA			PARAGRAPH	9294595
						INSPECTION METHOD REFERENCE
Critical	None defined					
<u>Major</u>						
101	Retainer inverted	100%			3.3	Gage
Miner						
<u>Minor</u> 201	Evidence of poor	Level II			3.29	Visual
201	workmanship	Level II			5.29	visual
	workmanship					
NOTES:	1	<u> </u>				<u> </u>

PARAGRAPH				DRAWING NUMBER
4.4.1.16	Plate, gear, lower (Die check)	sheet 1 of	2	9258651
LASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9258650
				INSPECTION METHOD REFERENCE
<u>Critical</u>	None defined			
Major				
<u>Major</u>			2.2	C = -1/4 = 2/4
	Diameter of gear and pinion hole	note 1	3.3	Gage/4.5.24
102	True position of gear and pinion hole	note 1	3.3	Gage/4.5.24
103	Diameter of escape wheel and pinion hole	note 1	3.3	Gage/4.5.24
104	True position of escape wheel and pinion hole	note 1	3.3	Gage/4.5.24
105	Diameter of pallet shaft hole	note 1	3.3	Gage/4.5.24
106	True position of pallet shaft hole	note 1	3.3	Gage/4.5.24
107	Diameter of rotor hole	note 1	3.3	Gage/4.5.24
108	True position of rotor hole	note 1	3.3	Gage/4.5.24
109	Diameter of lock pin hole	note 1	3.3	Gage/4.5.24
110	True position of lock pin hole	note 1	3.3	Gage/4.5.24
111	Flatness	note 1	3.3	Gage/4.5.24
112	Diameter of module pin holes	note 1	3.3	Gage/4.5.24
113	True position of module pin holes (three)	note 1	3.3	Gage/4.5.24
114	Radius of locating notch	note 1	3.3	Gage/4.5.24
115	True position of locating notch	note 1	3.3	Gage/4.5.24
116	Diameter of assembly lug	note 1	3.3	Gage/4.5.24
117	True position of assembly lug	note 1	3.3	Gage/4.5.24
118	Die breakage in gear and pinion hole,	note 1	3.3	Gage/4.5.24
	max		5.5	

Conformance inspection by classification of characteristics

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PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.16	Plate, gear, lower (Die check)	sheet 2 of	9258651	
	Continuation sheet			NEXT HIGHER ASSEMBLY
	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN	9258650
CLASSIFICATION			PARAGRAPH	INSPECTION METHOD REFERENCE
<u>Major</u>				
-	Die breakage in escape wheel and pinion hole, max	note 1	3.3	Gage/4.5.24
120	Die breakage in rotor hole, max	note 1	3.3	Gage/4.5.24
Minor				
201	Thickness	note 1	3.3	Gage/4.5.24
-	Outside diameter	note 1	3.3	Gage/4.5.24
	Diameter of lead hole, min	note 1	3.3	Gage/4.5.24
204	True position of lead hole	note 1	3.3	Gage/4.5.24
	Diameter of setback pin boss hole, min	note 1	3.3	Gage/4.5.24
206	Evidence of poor workmanship	Level II	3.29	Visual
Note 1. five (5) samples per punch.			

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.17	Plate, Gear, lower	sheet 1 of	1	9258651
				NEXT HIGHER ASSEMBLY 9258650
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	INSPECTION METHOD REFERENCE
<u>Critical</u>	None defined			
Major				
-	Diameter of gear and pinion hole	note 1	3.3	Gage/4.5.7
102	Diameter of escape wheel and pinion	note 1	3.3	Gage/4.5.7
	hole			C
103	Diameter of rotor hole	note 1	3.3	Gage/4.5.7
104	Flatness	note 1	3.3	Gage/4.5.7
105	Lubricant missing	Level IV note	3.3	Visual
		2		
			3.3	
<u>Minor</u>			3.3	
201	Thickness	note 1	3.3	Gage/4.5.7
202	Outside diameter	note 1	3.3	Gage/4.5.7
203	Evidence of poor workmanship	note 1	3.29	Visual/4.5.7
OTES:				

Conformance inspection by classification of characteristics

Note 2. Inspection sample shall be taken from the production lot.

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.18	Shaft, Pallet	sheet 1 of	1	9258652
		CONFORMANCE	REQUIREMEN	NEXT HIGHER ASSEMBLY 9258650
CLASSIFICATION		CRITERIA	PARAGRAPH	INSPECTION METHOD REFERENCE
<u>Critical</u>	None defined			
<u>Major</u>				
101	Diameter of smallest diameter	Level IV	3.3	Gage
102	Runout of smallest diameter	Level IV	3.3	Gage
103	Lubricant missing	Level IV	3.3	Visual
	Evidence of poor workmanship	Level II	3.29	Visual
NOTES:				1

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.19	Lower plate and shaft assembly	sheet 1 of	1	9258650
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9258643 INSPECTION METHOD REFERENCE
Critical	None defined			
	Pushout test Distance from plate to bearing surface	Level IV Level IV	3.3 3.3	4.5.16 Gage
Minor 201	Evidence of poor workmanship	Level II	3.29	Visual
NOTES:			L	

102 Cutoff nib	EXAMINATION OR TEST	SHEET 1 OF CONFORMANCE CRITERIA	1 REQUIREMEN PARAGRAPH	DRAWING NUMBER 9343014 NEXT HIGHER ASSEMBLY 9258643 INSPECTION METHOD REFERENCE
CLASSIFICATION Critical None definition Major 101 102 Cutoff nib	EXAMINATION OR TEST	CONFORMANCE	REQUIREMEN	NEXT HIGHER ASSEMBLY 9258643 INSPECTION METHOD
Major 101 Length of 102 Cutoff nib	ned			
101Length of102Cutoff nib				
end 103 Lubricant	Flocking diameter, min present on locking diameter missing	Level IV Level IV Level IV	3.3 3.3 3.3	Gage Visual Visual
Minor 201 Evidence	of poor workmanship	Level II	3.29	Visual

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.21	Spring, pin lock	sheet 1 of 1		9258647
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9258643 INSPECTION METHOD REFERENCE
Critical	None defined			
<u>Major</u> 101	Length under min load Length under max load	Level IV Level IV	3.3 3.3	Gage Gage
<u>Minor</u> 201	Evidence of poor workmanship	Level II	3.29	Visual
OTES:	1			

PARAGRAPH		1	2	DRAWING NUMBER
4.4.1.22	Plate, bottom (die check)	sheet 1 of	3	9258644
		CONFORMANCE	REQUIREMEN	NEXT HIGHER ASSEMBLY 9258643
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION METHOD REFERENCE
<u>Critical</u>	None defined			
<u>Major</u>				
101	True position of lead hole	note 1	3.3	Gage/ 4.5.23
102	Diameter of large setback pin hole.	note 1	3.3	Gage/ 4.5.23
103	True position of large setback pin hole.	note 1	3.3	Gage/ 4.5.23
104	Diameter of small setback pin hole.	note 1	3.3	Gage/ 4.5.23
105	True position of small setback pin hole	note 1	3.3	Gage/ 4.5.23
106	Diameter of locking pin hole	note 1	3.3	Gage/ 4.5.23
107	True position of locking pin hole	note 1	3.3	Gage/ 4.5.23
108	Angle of top of setback pin hole	note 1	3.3	Gage/ 4.5.23
109	Depth of large setback pin hole	note 1	3.3	Gage/ 4.5.23
110	Surface porosity	note 1	3.23	Visual/Gage/
				4.5.23/ and 4.5.25
OTES:			1	
ote 1. three	(3) samples per cavity.			
0.01.0100	(c) sumples per eutry.			

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.22	Plate, bottom (Continuation sheet)	sheet 2 of	3	9258644
		CONFORMANCE	REQUIREMEN	NEXT HIGHER ASSEMBLY 9258643
LASSIFICATION	EXAMINATION OR TEST	CRITERIA PARAGE	PARAGRAPH	INSPECTION METHOD REFERENCE
<u>Major</u>				
111	Outside diameter			
112	Diameter of module pin holes (four)	note 1	3.3	Gage/ 4.5.23
113	True position module pin holes (three)	note 1	3.3	Gage/ 4.5.23
114	Distance from bottom of plate to top of setback pin boss.	note 1	3.3	Gage/ 4.5.23
115	Depth of locking pin disc hole	note 1	3.3	Gage/ 4.5.23
116	Radius of locating notch	note 1	3.3	Gage/ 4.5.23
117	True position of locating notch	note 1	3.3	Gage/ 4.5.23
118	Diameter of spacer tab hole	note 1	3.3	Gage/ 4.5.23
119	True position of spacer tab hole, min.	note 1	3.3	Gage/ 4.5.23
120	Depth of spacer tab hole, min	note 1	3.3	Gage/ 4.5.23
121	Diameter of lead hole.	note 1	3.3	Gage/ 4.5.23
122	Diameter of rotor hole	note 1	3.3	Gage/ 4.5.23
123	True position of rotor hole	note 1	3.3	Gage/ 4.5.23
DTES:			I	1
ote 1. three	(3) samples per cavity.			

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.22	Plate, bottom (Continuation sheet)	sheet 3 of	3	9258644
		CONFORMANCE	REQUIREMEN	NEXT HIGHER ASSEMBLY 9258643
LASSIFICATION	EXAMINATION OR TEST	CRITERIA	CRITERIA PARAGRAPH	INSPECTION METHOD REFERENCE
<u>Minor</u>				
201	Distance from bottom plate to bottom	note 1	3.3	Gage/ 4.5.23
	of setback pin and lead holes			
202	Thickness from top plate to bottom of	note 1	3.3	Gage/ 4.5.23
	plate			~
203	Thickness of thick portion of plate	note 1	3.3	Gage/ 4.5.23
204	Thickness of thin portion of plate	note 1	3.3	Gage/ 4.5.23
205	Depth of rotor hole	note 1	3.3	Gage/ 4.5.23
206	Diameter of top of setback pin boss	note 1	3.3	Gage/ 4.5.23
207	True position of top of setback pin boss	note 1	3.3	Gage/ 4.5.23
208	True position of outside diameter	note 1	3.3	Gage/ 4.5.23
209	Diameter of two assembly holes	note 1	3.3	Gage/ 4.5.23
210	True position of assembly holes.	note 1	3.3	Gage/ 4.5.23
211	Evidence of poor workmanship	Level II	3.29	Gage/ 4.5.23
OTES:				

Conformance inspection by classification of characteristics

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PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.23	Plate, bottom	sheet 1 of	1	9258644
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9258643 INSPECTION METHOD REFERENCE
Critical	None defined			
<u>Major</u>				
101	Diameter of large setback pin hole	note 1	3.3	Gage/ 4/5/27
	Depth of setback pin hole	note 1	3.3	Gage/ 4/5/27
103	Surface porosity	note 1	3.23	Visual/Gage/ 4.5.25/4.5.27
104	Diameter of lead hole	note 1	3.3	Gage/ 4/5/27
105	Lubricant	Level IV note 2	3.3	Visual
<u>Minor</u>				
201	Thickness from top of plate to bottom of plate.	note 1	3.3	Gage/ 4/5/27
202	Thickness of thin portion of plate	note 1	3.3	Gage/ 4/5/27
203	Evidence of poor workmanship	note 1	3.29	Visual/4.5.27

Conformance inspection by classification of characteristics

Note 1. Three (3) samples per 50,000 pieces per cavity. Sample size increases for larger production (see 4.4.3.4) Note 2. Inspection sample shall be taken from a production lot.

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.24	Spacer, plate, gear (die check)	sheet 1 of	3	9258646
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9258643 INSPECTION METHOD REFERENCE
Critical	None defined			
Major		. 1	2.2	0 4500
	Depth of lead hole	note 1	3.3	Gage/4.5.23
102	True position of lead hole	note 1	3.3	Gage/4.5.23
103	Diameter of locking pin hole	note 1	3.3	Gage/4.5.23
104	True position of locking pin hole	note 1	3.3	Gage/4.5.23
105	True position of spin shaft holes	note 1	3.3	Gage/4.5.23
106	Diameter of spin detent spring holes	note 1	3.3	Gage/4.5.23
107	True position of spin detent spring holes.	note 1	3.3	Gage/4.5.23
108	Profile of rotor lug slot	note 1	3.3	Gage/4.5.23
	Profile of spin detent area	note 1	3.3	Gage/4.5.23
110	Profile of rotor cavity	note 1	3.3	Gage/4.5.23
	Profile of pallet shaft and gear area	note 1	3.3	Gage/4.5.23
112	Surface porosity		3.24	Visual/Gage/4.5.24/4.5.25
NOTES:				
Note 1. Thre	ee (3) samples per cavity.			

Conformance inspection by classification of characteristics

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4.4.1.24	Spacer, plate, gear (die check) Continuation sheet	sheet 2 of 3		DRAWING NUMBER 9258646
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9258643 INSPECTION METHOD REFERENCE
114 115 116 117 118 119 120 121 122 123 124	Outside diameter Radius of locating notch True position of locating notch Diameter of tab True position of tab Thickness of bottom Diameter of module holes (four) True position of module holes (three) Diameter of upper plate tab hole True position of upper plate tab hole Depth of upper plate tab hole, min. Profile of gear slot Diameter of lead hole Diameter of spin shaft holes	note 1 note 1	3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3	Gage/4.5.23 Gage/4.5.23 Gage/4.5.23 Gage/4.5.23 Gage/4.5.23 Gage/4.5.23 Gage/4.5.23 Gage/4.5.23 Gage/4.5.23 Gage/4.5.23 Gage/4.5.23 Gage/4.5.23 Gage/4.5.23 Gage/4.5.23

paragraph 4.4.1.24	TITLE Spacer, plate, gear (die check) Continuation sheet	sheet 3 of	3	drawing number 9258646
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9258643 INSPECTION METHOD REFERENCE
204 205 206	Thickness True position of outside diameter Diameter of rotor hole True position of rotor hole Diameter of pallet shaft hole True position of pallet shaft hole Depth of spin shaft holes Any chamfer missing Evidence of poor workmanship	note 1 note 1 note 1 note 1 note 1 note 1 note 1 Level II	3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.29	Gage/4.5.23 Gage/4.5.23 Gage/4.5.23 Gage/4.5.23 Gage/4.5.23 Gage/4.5.23 Visual/4.5.23 Visual/4.5.23

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.25	Spacer, plate, gear	sheet 1 of	1	9258646
classification <u>Critical</u>	examination or test None defined	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9258643 INSPECTION METHOD REFERENCE
102	Diameter of locking pin hole Surface porosity Diameter of spin shaft holes Thickness of bottom	note 1 note 1 note 1 note 1	3.3 3.24 3.3 3.3	Gage/4.5.27 Visual/Gage/4.5.25/4.5.27 Gage/4.5.27 Gage/4.5.27
Minor 201	Evidence of poor workmanship	Level II	3.29	Visual/4.5.27
^{NOTES:} Note 1. Thre	ee (3) samples per cavity.			

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.26	Plate and spacer assembly	sheet 1 of	1	9258643
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9294833 INSPECTION METHOD REFERENCE
Critical	None defined			
Major	Presence of lock pin disk stake	Level IV	3.3	Visual
Minor 201	Evidence of poor workmanship	Level II	3.29	Visual
NOTES				

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.27	Shaft, rotor	sheet 1 of	1	9258641
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9258639
CLASSIFICATION	EARMINATION OK TEST	CKITEKIA	TAKAOKATI	INSPECTION METHOD REFERENCE
Critical	None defined			
Major				
-	Diameter of bearing diameters	Level IV	3.3	Gage
	Lubricant missing	Level IV	3.3	Gage
NC				
<u>Minor</u> 201	Evidence of poor workmanship	Level II	3.29	Visual
201			5.29	15441
NOTES:				1

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.28	Body, rotor (Die check)	sheet 1 of	3	9258640
			_	NEXT HIGHER ASSEMBLY
LASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	9258639
LASSIFICATION	EXAMINATION OR TEST	CKITEKIA	FARAORAFH	INSPECTION METHOD REFERENCE
Critical	None defined			
Major				
101	Weight, min.	note 1	3.3	Gage/4.5.23
102	Angularity of spin detent holding surfaces.	note 1	3.3	Gage/4.5.23
103	Diameter of locking pin hole	note 1	3.3	Gage/4.5.23
104	True position of locking pin hole	note 1	3.3	Gage/4.5.23
105	Diameter of setback pin hole	note 1	3.3	Gage/4.5.23
106	True position of setback pin hole	note 1	3.3	Gage/4.5.23
107	Finish on bearing surface	note 1	3.3	Gage/4.5.23
108	Surface porosity	note 1	3.25	Visual/Gage/4.5.2
109	Diameter of rotor shaft hole	note 1	3.3	Gage/4.5.23
110	True position of rotor gear lugs	note 1	3.3	Gage/4.5.23
111	Diameter of large detonator hole, min	note 1	3.3	Gage/4.5.23
112	True position of large detonator hole	note 1	3.3	Gage/4.5.23
113	Depth of detonator hole	note 1	3.3	Gage/4.5.23
OTES:				
	e (3) samples per cavity.			

	Body, rotor (Die check) (Continuation sheet)	sheet 2 of 3		drawing number 9258640
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9258639 INSPECTION METHOD REFERENCE
<u>Major</u>				
114	Protrusion of rotor gear lugs, min	note 1	3.3	Gage/4.5.23
115	Thickness of rotor at detonator hole	note 1	3.3	Gage/4.5.23
116	Thickness from bearing surface to bottom of flange	note 1	3.3	Gage/4.5.23
117	Thickness of rotor at flange	note 1	3.3	Gage/4.5.23
118	Outside diameter	note 1	3.3	Gage/4.5.23
119	True position of outside diameter	note 1	3.3	Gage/4.5.23
120	Profile of locking pin notch	note 1	3.3	Gage/4.5.23
<u>Minor</u>				
201	Diameter of rotor gear tab hole	note 1	3.3	Gage/4.5.23
202	Depth of rotor gear tab hole	note 1	3.3	Gage/4.5.23
203	Diameter of rotor gear lugs	note 1	3.3	Gage/4.5.23
204	Diameter of large detonator hole, max.	note 1	3.3	Gage/4.5.23
Note 1. Three	e (3) samples per cavity.			

paragraph 4.4.1.28	Body, rotor (Die check) (Continuation sheet)	sheet 3 of	3	drawing number 9258540
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9258639 INSPECTION METHOD REFERENCE
<u>Minor</u> 205 206 207 208 209 210 211	Diameter of small detonator hole Protrusion of rotor gear lugs, max. Radius from center to detonator boss Profile of large irregular slot Diameter of bearing surface Profile of flange Evidence of poor workmanship	note 1 note 1 note 1 note 1 note 1 Level II	3.3 3.3 3.3 3.3 3.3 3.3 3.29	Gage/4.5.23 Gage/4.5.23 Gage/4.5.23 Gage/4.5.23 Visual/4.5.23 Visual

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.29	Body, rotor	sheet 1 of	1	9258640
		CONFORMANCE	REQUIREMEN	NEXT HIGHER ASSEMBLY 9258639
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION METHOD REFERENCE
<u>Critical</u>	None defined			
Major				
101	Weight, min.	note 1	3.3	Gage/4.5.27
102	Surface porosity	note 1	3.25	Visual/Gage
	1 5			4.5.25/4.5.27
103	Diameter of rotor shaft hole	note 1	3.3	Gage/4.5.27
104	Thickness of rotor at detonator hole	note 1	3.3	Gage/4.5.27
105	Thickness of rotor at flange	note 1	3.3	Gage/4.5.27
106	Lubricant missing	Level IV note	3.3	Visual
		2		
Minor				
	Evidence of poor workmanship	Level II	3.29	Visual/4.5.27
	1 1			
OTES: Lote 1 Three	e (3) samples per 50,000 pieces per cavity. Sam	ale size increases fo	r larger produ	action (see 1.5.34)
	ection sample shall be taken from a production le		n langer produ	(See 7.3.34)

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.30	Gear, rotor (die check)	sheet 1 of	2	9258642
		CONFORMANCE	REQUIREMEN	NEXT HIGHER ASSEMBLY 9258639
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION METHOD REFERENCE
<u>Major</u>				
101	Tooth to tooth composite error	note 1	3.3	Gage/4.5.24
	Diameter of rotor shaft hole	note 1	3.3	Gage/4.5.24
103	Diameter of assembly tab	note 1	3.3	Gage/4.5.24
104	True position of assembly tab	note 1	3.3	Gage/4.5.24
105	Diameter of small rotor lug hole	note 1	3.3	Gage/4.5.24
106	True position of small rotor lug holes	note 1	3.3	Gage/4.5.24
107	Profile around rotor shaft hole	note 1	3.3	Gage/4.5.24
108	Thickness	note 1	3.3	Gage/4.5.24
NOTES.				
	(5) Pieces per punch.			
	×/ • •			

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.30	Gear, rotor (die check) Continuation sheet	sheet 2 of	2	9258642
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9258639 INSPECTION METHOD REFERENCE
<u>Minor</u> 201 202 203 104 105 106 107	Diameter of large rotor lug hole True position of large rotor lug holes Diameter of setback pin hole True position of setback pin hole Profile of rotor flange notch Large radius Evidence of poor workmanship	note 1 note 1 note 1 note 1 note 1 note 1 note 1	3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.29	Gage/4.5.24 Gage/4.5.24 Gage/4.5.24 Gage/4.5.24 Gage/4.5.24 Gage/4.5.24 Visual/4.5.24

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.31	Gear, rotor	sheet 1 of	1	9258642
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9258639 INSPECTION METHOD REFERENCE
Major				NEI EREIVOE
	Diameter of rotor shaft hole	note 1	3.3	Gage/4.5.7
102	Tooth to tooth composite error	note 1	3.3	Gage/4.5.7
103	Thickness	Level IV note 2	3.3	Gage/4.5.7
104	Lubricant missing	note 1	3.3	Visual
<u>Minor</u> 201	Evidence of poor workmanship	note 1	3.29	Visual/4.5.7
	(5) pieces per punch per day ection sample shall be taken from a production lo	ıt.		

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.32	Rotor assembly	sheet 1 of	1	9258639
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9294833 INSPECTION METHOD REFERENCE
Critical	None defined			
<u>Major</u>				
	Detonator inverted or missing	100%	3.3	Gage/Visual
102	Distance between bearing surface, max	Level IV	3.3	Gage
103	Detonator push out test	Level IV	3.3	4.5.11
	Sensitive end not flush or below flush	Level IV	3.3	Visual
105	Rotor gear stake incomplete or missing	Level IV	3.3	Visual
Minor 201	Evidence of poor workmanship	Level II	3.29	Visual
OTES:	<u> </u>			

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.33	Spinlock	sheet 1 of	1	9258638
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9294833 INSPECTION METHOD
Critical	None defined			REFERENCE
104	Weight Load test Profile of holding surfaces Lubricant missing	80 80 Level IV Level IV	3.3 3.3 3.3 3.3	4.5.26 4.5.22 Gage Visual
Minor 201	Evidence of poor workmanship	Level II	3.29	Visual
OTES:				

PARAGRAPH		1	2	DRAWING NUMBER
4.4.1.34	Gear and pinion assembly (Die check)	sheet 1 of	2	9258653
		CONFORMANCE	REQUIREMEN	NEXT HIGHER ASSEMBLY 9294833
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION METHOD REFERENCE
Critical	None defined			
<u>Major</u>				
101	Diameter of small diameters	note 1	3.3	Gage/4.5.23
102	Tooth to tooth composite error of large gear	note 1	3.3	Gage/4.5.23
103	Tooth to tooth composite error of pinion	note 1	3.3	Gage/4.5.23
104	Distance between bearing surfaces	note 1	3.3	Gage/4.5.23
105	Surface porosity	note 1	3.22	Visual/Gage/4.5.23/4.5.2
106	Gate above flush, max.	note 1	3.3	Gage/4.5.23
107	Flash in chamfer areas (not firm)	note 1	3.3	Gage/4.5.23
108	Thickness of gears	note 1	3.3	Gage/4.5.23
109	Distance from follower bearing surface to top of pinion.	note 1	3.3	Gage/4.5.23
110	Distance from hub diameter to end	note 1	3.3	Gage/4.5.23
Note 2. Three	ee (3) samples per cavity.		1	

RMANCE ERIAREQUIRED PARAGRAe 13.2e 13.2e 13.2e 13.2e 13.2	APH INSPECTION METHOD REFERENCE Gage/4.5.23 Gage/4.5.23 Gage/4.5.23
e 1 3.2 e 1 3.2 e 1 3.2 3.2 3.2	Gage/4.5.23 Gage/4.5.23
e 1 3.29	-

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.35	Gear and pinion assembly	sheet 1 of	1	9258653
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9294833
Critical	None defined			INSPECTION METHOD REFERENCE
<u>Major</u>				
101	Diameter of small diameters	note 1	3.3	Gage/4.5.27
102	Tooth to tooth composite error of large gear	note 1	3.3	Gage/4.5.27
103	Tooth to tooth composite error of pinion.	note 1	3.3	Gage/4.5.27
	Surface porosity	note 1	3.26	Visual/Gage/4.5.25/4.5.27
	Gate above flush, max.	note 1	3.3	Gage/4.5.27
	Flash in chamfer areas (not firm)	note 1	3.3	Visual/4.5.27
107	Thickness of gear	note 1	3.3	Gage/4.5.27
108	Lubricant missing	Level IV note 2	3.3	Visual
Minor 201	Evidence of poor workmanship	Level II	3.29	Visual

Conformance inspection by classification of characteristics

Note 1. Three (3) samples per 50,000 pieces per cavity. Sample size increases for larger production runs (see 4.5.34) Note 2. Inspection sample shall be taken from a production lot.

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.36	Escape wheel and pinion assembly (die check)	sheet 1 of	2	9258655
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9294833 INSPECTION METHOD REFERENCE
Critical	None defined			
<u>Major</u>				
101	Diameter of small diameters	note 1	3.3	Gage/4.5.23
102	Tooth to tooth composite error on pinion	note 1	3.3	Gage/4.5.23
103	Distance between bearing surfaces	note 1	3.3	Gage/4.5.23
104	Surface porosity	note 1	3.22	Visual/Gage/4.5.23/4.5.25
105	Gate above flush, max.	note 1	3.3	Gage/4.5.23
106	Flash in chamfer areas (not firm)	note 1	3.3	Gage/4.5.23
107	Thickness of escape wheel	note 1	3.3	Gage/4.5.23
108	Distance from bearing surface to end of pinion	note 1	3.3	Gage/4.5.23
109	Distance from bearing surface to end	note 1	3.3	Gage/4.5.23
NOTES:				

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.36	Escape wheel and pinion assembly (die check) continuation sheet	sheet 2 of	2	9258655
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9294833 INSPECTION METHOD REFERENCE
Minor				
	Small bearing surface diameter	note 1	3.3	Gage/4.5.23
202	True position of small bearing surface diameter	note 1	3.3	Gage/4.5.23
203	Large bearing surface diameter	note 1	3.3	Gage/4.5.23
204	True position of large bearing surface diameter	note 1	3.3	Gage/4.5.23
205	Evidence of poor workmanship	note 1	3.29	Visual/4.5.23
OTES:				

Conformance inspection by classification of characteristics

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TITLE			DRAWING NUMBER
Escape wheel and pinion assembly	sheet 1 of	1	9258655
EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9294833 INSPECTION METHOD REFERENCE
None defined			
Diamatar of small diamatars	noto 1	2.2	Casa/4 5 27
Tooth to tooth composite error on pinion	note 1 note 1	3.3 3.3	Gage/4.5.27 Gage/4.5.27
Surface porosity	note 1	3.26	Visual/Gage/4.5.2
	note 1		Gage/4.5.27
			Gage/4.5.27
			Gage/4.5.27
Lubricant missing	Level IV note 2	3.3	Visual/4.5.27
Evidence of poor workmanship	note 1	3.29	Visual/4.5.27
	Escape wheel and pinion assembly EXAMINATION OR TEST None defined Diameter of small diameters Tooth to tooth composite error on pinion Surface porosity Gate above flush, max Flash in chamfer areas (not firm) Thickness of escape wheel Lubricant missing	Escape wheel and pinion assemblySHEET 1 OFCONFORMANCE CRITERIAEXAMINATION OR TESTCONFORMANCE CRITERIANone definednote 1Diameter of small diameters Tooth to tooth composite error on pinionnote 1Surface porosity Gate above flush, max Flash in chamfer areas (not firm) Thickness of escape wheel Lubricant missingnote 1Lubricant missingLevel IV note 2	Escape wheel and pinion assemblySHEET1 of1EXAMINATION OR TESTCONFORMANCE CRITERIAREQUIREMEN PARAGRAPHNone definednote 13.3Diameter of small diameters Tooth to tooth composite error on pinionnote 13.3Surface porosity Gate above flush, max Flash in chamfer areas (not firm) Thickness of escape wheel Lubricant missingnote 13.3Lubricant missing3.33.322

Conformance inspection by classification of characteristics

Note 2. Inspection samples shall be taken from production lot

PARAGRAPH	TITLE	_		DRAWING NUMBER
4.4.1.38	Pallet (Die check)	sheet 1 of	1	9258631
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9294833 INSPECTION METHOD REFERENCE
Critical	None defined			
<u>Major</u> 101 102 103 104 105	Total profile Diameter of hole Thickness Excessive die breakage in hole Excessive die breakage on engagement surfaces	note 1 note 1 note 1 note 1 note 1	3.3 3.3 3.3 3.3 3.3	Gage/4.5.24 Gage/4.5.24 Gage/4.5.24 Gage/4.5.24 Gage/4.5.24
<u>Minor</u> 201	Evidence of poor workmanship	note 1	3.29	Gage/4.5.24
NOTES:	Evidence of poor workmanship (5) samples per Punch.	note 1	3.29	Gage/4.5.24

TITLE			DRAWING NUMBER
Pallet	sheet 1 of	1	9258631
	CONFORMANCE	REQUIREMEN	NEXT HIGHER ASSEMBLY 9294833
EXAMINATION OR TEST	CRITERIA	PAKAGKAPH	INSPECTION METHOD REFERENCE
None defined			
Profile of engagement surfaces (2	note 1	3.3	Gage/4.5.7
places)			C
Diameter of hole	note 1	3.3	Gage/4.5.7
thickness	note 1	3.3	Gage/4.5.7
Lubricant missing	Level IV note	3.3	Visual/4.5.7
	2		
Evidence of poor workmanship	note 1	3 29	Visual/4.5.7
	note i	5.29	v 15dul/ 1.5.7
	Pallet EXAMINATION OR TEST None defined Profile of engagement surfaces (2 places) Diameter of hole thickness	PalletSHEET 1 OFCONFORMANCE CRITERIANone definedCONFORMANCE CRITERIANone definednote 1Profile of engagement surfaces (2 places)note 1Diameter of hole thicknessnote 1Lubricant missingLevel IV note 2	PalletSHEET 1 OF 1EXAMINATION OR TESTNone definedProfile of engagement surfaces (2 places)Diameter of holethicknessLubricant missing2

Conformance inspection by classification of characteristics

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.40	Plate, gear, upper (Die Check)	sheet 1 of	2	9258632
		CONFORMANCE	REQUIREMEN	NEXT HIGHER ASSEMBLY 9294833
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION METHOD REFERENCE
Critical	None defined			
N7 ·				
<u>Major</u>		. 1	2.2	
101	Diameter of gear and pinion hole	note 1	3.3	Gage/4.5.24
102	True position of gear and pinion hole	note 1	3.3	Gage/4.5.24
103	Diameter of escape wheel and pinion hole	note 1	3.3	Gage/4.5.24
104	True position of escape wheel and pinion hole	note 1	3.3	Gage/4.5.24
105	Diameter of pallet shaft hole	note 1	3.3	Gage/4.5.24
106	True position of pallet shaft hole	note 1	3.3	Gage/4.5.24
107	Diameter of rotor hole	note 1	3.3	Gage/4.5.24
108	True position of rotor hole	note 1	3.3	Gage/4.5.24
109	Flatness	note 1	3.3	Gage/4.5.24
110	Diameter of module pin holes (three)	note 1	3.3	Gage/4.5.24
111	True position of module pin	note 1	3.3	Gage/4.5.24
112	holes(three) Radius of locating notch	note 1	3.3	Gage/4.5.24
112	True position of locating notch	note 1	3.3	Gage/4.5.24
113			3.3 3.3	C
114	Diameter of assembly lug	note 1	3.3	Gage/4.5.24
DTES:				
	5) samples per Punch.			

Conformance inspection by classification of characteristics

PARAGRAPH		2	2	DRAWING NUMBER	
4.4.1.40	Plate, gear, upper (Die Check) continuation sheet	sheet 2 of 2		9258632	
		CONFORMANCE	REQUIREMEN	NEXT HIGHER ASSEMBLY 9294833	
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION METHOD REFERENCE	
Major					
115	True position of assembly lug	note 1	3.3	Gage/4.5.24	
116	Die breakage in gear and pinion hole, max.	note 1	3.3	Gage/4.5.24	
117	Die breakage in escape wheel and pinion hole max	note 1	3.3	Gage/4.5.24	
118	Die breakage in rotor hole, max.	note 1	3.3	Gage/4.5.24	
		note 1	3.3	Gage/4.5.24	
<u>Minor</u>		note 1	3.3	Gage/4.5.24	
201	Thickness	note 1	3.3	Gage/4.5.24	
202	Outside diameter	note 1	3.3	Gage/4.5.24	
203	Diameter of flash-hole	note 1	3.3	Gage/4.5.24	
204	True position of flash -hole	note 1	3.3	Gage/4.5.24	
205	Profile of setting slot	note 1	3.3	Gage/4.5.24	
206	Evidence of poor workmanship	note 1	3.29	Visual	
otes: lote 1. Five (5) samples per Punch.				

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.41	Plate, gear, upper	sheet 1 of	1	9258632
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9294833 INSPECTION METHOD
				REFERENCE
<u>Critical</u>	None defined			
Major				
	Diameter of gear and pinion hole	note 1	3.3	Gage/4.5.7
	Diameter of escape wheel and pinion	note 1	3.3	Gage/4.5.7
	hole		0.0	
	Diameter of rotor hole	note 1	3.3	Gage/4.5.7
104	Flatness	note 1	3.3	Gage/4.5.7
105	Lubricant missing	Level IV note	3.3	Visual/4.5.7
		2		
Minor				
201	Thickness	note 1	3.3	Gage/4.5.7
	Outside diameter	note 1	3.3	Gage/4.5.7
	Evidence of poor workmanship	note 1	3.29	Visual/4.5.7

Conformance inspection by classification of characteristics

Note 1. Five (5) pieces per day per Punch. Note 2. Inspection sample shall be taken from a production lot..

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.42	Safing and Arming Module Subassembly	sheet 1 of 1		929483
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGH ASSEMBLY 925863 INSPECTIO METHOD REFERENCE
Critical 1 2	Arming time, min. Rotor not locked by the spin detents after non-arming test, spin lock	100% 100%	3.3 3.2.1	4.5.13.2 4.5.14
<u>Major</u> 101 102	Presence of spinlock springs Arming test	100% 100%	3.3 3.3	Gage 4.5.13.1
103 104	Arming time, max. Locking of rotor	100% 100%	3.3 3.3	4.5.13.2 4.5.13.3
104	Lead assembly push out test	Level IV	3.3	4.5.12
106	Lead cup stake not flush or below flush	Level IV	3.3	Gage/Visual
107	Lead improperly assembled or missing	Level IV	3.3	Gage/Visual
108	Protrusion of pins	Level IV	3.3	Visual
109	Lubricant missing	Level IV	3.3	Visual
110	Outside diameter, max	Level IV	3.3	Visual
111	Height, max	Level IV	3.3	Visual
112	S&A Functional Test	20	3.21	4.5.36
Minor				
201	Location of large diameter	Level II	3.3	Gage
202	None of poor workmanship	Level II	3.29	Visual
NOTES:	1 1			

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.43	Spring, pin setback	sheet 1 of	1	9258636
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9258630 INSPECTION METHOD REFERENCE
Critical	None defined			KEI EKEIVEE
<u>Major</u> 101	Length under min. load	Level IV	3.3	Gage
102	Length under max. load	Level IV	3.3	Gage
202	Ends not square Evidence of poor workmanship	Level II Level II	3.3 3.29	Visual Visual
NOTES:				

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.44	Pin setback	sheet 1 of	1	9258634
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9258630 INSPECTION METHOD
			REFERENCE	
<u>Critical</u>	None defined			
<u>Major</u>				
	Load test	80	3.3	4.5.21
102	Weight	80	3.3	4.5.26
	Diameter of small end	Level IV	3.3	Gage
104	Length of small diameter	Level IV	3.3	Gage
105	Radius of small diameter	Level IV	3.3	Gage
106	Radius of outside of large diameter (top	Level IV	3.3	Gage
	end)			_
107	Radius of outside of large diameter	Level IV	3.3	Gage
	(bottom end)			
108	Large diameter	Level IV	3.3	Gage
109	Length of large diameter and ramp	Level IV	3.3	Gage
	angle			e
110	Angle of ramp	Level IV	3.3	Gage
111	Lubricant missing	Level IV	3.3	Visual
Minor				
	Location of large diameter	Level II	3.3	Visual
202	Evidence of poor workmanship	Level II	3.29	Visual
	F F F F F F F F F F F F F F F F F F F			
OTES:	1 I			1

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.45	Safing and Arming Module Assembly	SHEET	- 1 of 1	9258630
CLASSIFICATION		CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9282958 INSPECTION
Critical				METHOD REFERENCE
1	Rotor not locked in unarmed position after non- arm test, setback pin	100%	3.2.1	4.5.15
<u>Major</u>				
101	Push test on setback pin disk	Level IV	3.3	4.5.18
	Setback pin freedom of movement test	100%	3.3	4.5.19
	Setback pin disk and stakes not flush or below flush	Level IV	3.3	Gage/Visual
	Evidence of poor workmanship	Level II	3.29	Visual
NOTES:	I			

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.46	Retainer, S&A	SHEET	1 OF 1	9258620
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9282958 INSPECTION METHOD REFERENCE
Critical	None defined			
102 <u>Minor</u> 201	Pitch diameter of thread Major diameter of thread Base thickness Evidence of poor workmanship	Level IV Level IV Level II Level II	3.3 3.3 3.3 3.29	Gage Gage Visual
NOTES:				

PARAGRAPH	TITLE			DRAWING NUMBER
	S&A module and retainer assembly	SHEET	г 1 оғ 1	9282958
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9345331
				INSPECTION METHOD REFERENCE
<u>Critical</u>	None defined			
Major				
101	Incorrect Assembly per drawing note 2	Level IV	3.3	Gage
102	Free movement of spin locks	Level IV	3.3	Gage/Visual
103	Overall height, max	Level IV		Gage
Minor	C 1			
	Evidence of poor workmanship	Level II	3.29	Visual
NOTES:				

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.48	Body, fuze	SHEET	1 of 2	9258609
				NEXT HIGHER ASSEMBLY
		CONFORMANCE	REQUIREMEN	9294595
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION METHOD REFERENCE
<u>Critical</u>	None defined			
<u>Major</u>				
101	True position of flash hole with delay module cavity	Level IV	3.3	Gage
102	Diameter of flash hole	Level IV	3.3	Gage
103	True position of firing pin	Level IV	3.3	Gage
	housing and detonator cavity			-
	with delay module cavity			
104	Diameter of setting sleeve	Level IV	3.3	Gage
105	cavity, max. Pitch diameter of external	Level IV	3.3	Gage
105	thread		5.5	Gage
106	Pitch diameter of S&A	Level IV	3.3	Gage
	retainer thread			-
107	Minor diameter of S&A	Level IV	3.3	Gage
109	retainer thread	L aval IV	2.2	Cara
108	Diameter of delay module cavity	Level IV	3.3	Gage
109	Diameter of setting sleeve	Level IV	3.3	Gage
107	retaining ring groove	2010111	010	0.00
110	Profile of ogive	Level IV	3.3	Gage
111	Length from nose to base of wrench slot flange	Level IV	3.3	Gage
	wrench slot hange			
NOTES:	1			

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.48	Body, fuze (continuation sheet)	SHEET	2 of 2	925860
		CONFORMANCE	REQUIREMEN	NEXT HIGHI ASSEMBLY
				929459
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTIO METHOD REFERENCE
Major				
112	Width of wrench slots	Level IV	3.3	Gage
113	Outside diameter at base, max.	Level IV		Gage
114	SQ and/or delay nomenclature missing or improperly located	Level IV	3.3	Gage
115	Length from flange to bottom of nose cap groove	Level IV	3.3	Gage
116	Diameter of nose cap groove	Level IV	3.3	Gage
117	Undercut for nose cap	Level IV		Gage
Minor				
201	True position of outside diameter at base with major diameter of external thread	Level II	3.3	Gage
202	Depth of automation wrench hole, max. (as applicable)	Level II	3.3	Gage
203	Distance from base of fuze to base of wrench slot flange, min.	Level II	3.3	Gage
204	Evidence of poor workmanship	Level II	3.29	Visual
NOTES:				

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.49	Fuze body and setting sleeve assembly	SHEET	1 of 1	929459
				NEXT HIGHE ASSEMBLY
		CONFORMANCE	REQUIREMEN	934533
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION METHOD REFERENCE
<u>Critical</u>	None defined			
<u>Major</u>				
101	Interrupter non-arming test	100%	3.3	4.5.10
	Interrupter arming test	100%		4.5.9
103	Setting sleeve assembly torque test	80	3.3	4.5.5
104	Setting sleeve retaining ring stake test	80	3.3	4.5.6
105	Retaining ring stake missing	Level IV	3.3	Visual
Minor 201	Evidence of poor workmanship	Level II	3.29	Visual
NOTES:				

Screw, closing	SHEET	1 of 1	DRAWING NUMBER
Screw, closing	SHEET	1 OF 1	0250(11
		1 01 1	9258611
EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9345331 INSPECTION METHOD REFERENCE
None defined			
Pitch diameter of thread Height of undercut, max.	Level IV Level IV	3.3 3.3	Gage Gage
Base thickness Evidence of poor workmanship	Level II Level II	3.3	Gage Visual
	None defined Pitch diameter of thread Height of undercut, max. Base thickness Evidence of poor	None definedPitch diameter of threadLevel IVHeight of undercut, max.Base thicknessEvidence of poorLevel II	None definedLevel IV3.3Pitch diameter of threadLevel IV3.3Height of undercut, max.Level IV3.3Base thicknessLevel II3.3Evidence of poorLevel II3.3

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.51	Fuze body assembly, prior to assembling S&A module and retainer assembly	SHEET	1 of 1	9345331
				NEXT HIGHER
		CONFORMANCE	REQUIREMEN	ASSEMBLY 9345331
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION
Critical				METHOD REFERENCE
1	S&A module not in the unarmed position	100%	3.3	Gage 4.5.30
<u>Major</u>	Ĩ		3.3	
	Delay module spinlocks not	100%	3.3	Gage/Visual
	in unarmed position			
102	Delay module missing or inverted	100%	3.3	Gage/Visual
103	Step height between body and nose cap and completeness of crimp	Level IV	3.3	Gage/Visual
104	Safety plug(when used) not removed	100%	3.3	Visual
Minor 201	Evidence of poor workmanship	Level II	3.29	Visual
NOTES:				

PARAGRAPH	TITLE				DRAWING NUMBER
4.4.1.52	Fuze body assembly	SHEET	1 оғ	1	9345331
					NEXT HIGHER ASSEMBLY
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA		REQUIREMEN	9349346
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA		PARAGRAPH	INSPECTION METHOD REFERENCE
Critical	None defined				
Major					
101	Dimension from external	Level IV		3.3	Gage
	flange to bottom of S&A module retainer				
102	Leak test	12		3.3	4.5.8
102	Length from tip of nose cap	Level IV			Gage
	to flange, max.				C
104	Fuze not set super quick	Level IV		3.3	Visual
Minor					
201	Lot identification	Level II		3.4	Visual
	nomenclature missing or				
202	inadequate	Т1 ТТ		2 20	X 7: 1
202	Evidence of poor workmanship	Level II		3.29	Visual
	workingiisiiip				
NOTES:					
NUTES:					

paragraph 4.4.1.53	TITLE Fuze, PD, M739A1. Destructive lot Acceptance Test	SHEET	1 of 2	drawing number 9345332
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY INSPECTION METHOD REFERENCE
Critical				
1 2 3	Premature Burst Non-functioning test S&A not in safe condition	note 2 note 3 note 2	3.13	4.2.3.5 or 4.3.4.2 4.2.3.5 or 4.3.4.2 4.5.35
-	Initiation of M99 detonator during Jolt and Jumble Test	9 note1	3.18	4.5.1
102	Delay module armed or functioned during jolt and jumble test	9 note1	3.18	4.5.1
103	Setting sleeve assembly interrupter not fully seated after jolt and Jumble test	9 note1	3.18	4.5.1
104	Functioning SQ	note 3	3.14	4.2.3.5 or 4.3.4.2
	Reverse Functioning	note 3	3.13	4.2.3.5 or 4.3.4.2
106	Early burst	note 2	3.12	4.2.3.5 or 4.3.4.2
Note 2 - 100	I It and Jumble testing is for firs 0% of ballistic samples. e Table II and Table III	st article verification o	nly	I

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.53	Fuze, PD, M739A1. Destructive lot Acceptance Test	SHEET	2 of 2	9345332
		CONFORMANCE	REQUIREMEN	NEXT HIGHER ASSEMBLY
CLASSIFICATION Major	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION METHOD REFERENCE
	Functioning delay	note 3	3.15	4.3.4.3
108	Propagation Test functioning	12		4.5.17
109	Parts damaged, broken or disassembled during Jolt and Jumble	9 note 1	3.29	4.5.1
110	Examination for proper application of sealant and lubrication after Jolt and Jumble test	9 note 1	3.29	4.5.1
111	Parts damaged	Note 2	3.29	Visual
Minor				
201	Lot identification nomenclature missing or inadequate	Level II	3.4	Visual
	Evidence of poor workmanship	Level II	3.29	Visual
	1			

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.54	Cap, nose	SHEET	1 of 1	9298909
				NEXT HIGHER ASSEMBLY
		CONFORMANCE	REQUIREMEN	9345331
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION
Critical	None defined			METHOD REFERENCE
Critical	None defined			
<u>Major</u>				
	Presence of scoring (4	Level IV	3.3	Visual
101	places)		5.5	v ibuui
102	Thickness	Level IV	3.3	Visual
<u>Minor</u>				
201	Evidence of poor	Level II	3.29	Visual
	workmanship			
N0777				
NOTES:				

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.55	Fuze body assembly, prior to assembling nose cap	SHEET	1 of 1	9349346
		CONFORMANCE	REQUIREMEN	NEXT HIGHEI ASSEMBLY
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION METHOD REFERENCE
Critical	None defined			
<u>Major</u>				
101	Firing pin and detonator assembly missing or inverted	100%	3.3	Gage
102	One or more crossbar (s) missing	Level IV	3.3	Gage
103	Crossbar holder assembly stake missing	Level IV	3.3	Gage
<u>Minor</u> 201	Evidence of poor workmanship	Level II	3.29	Visual
NOTES:				

4.4.1.56 Cover, housing sheet 1 of 1 118362 CONFORMANCE REQUIREMEN NEXT HIG ASSEMBLY CLASSIFICATION EXAMINATION OR TEST CRITERIA PARAGRAPH	PARAGRAPH	TITLE			DRAWING
CLASSIFICATION EXAMINATION OR TEST CONFORMANCE REQUIREMEN ASSEMBLY (ASSEMBLY) Critical None defined Instruction Instruction Major 101 Diameter of center hole, min True position of center hole note 1 3.3 Gage 103 Outside diameter, max note 1 3.3 Gage Minor 201 Evidence of poor note 1 3.29 Visual	4.4.1.56	Cover, housing	SHEET	1 of 1	NUMBER 11836288
CriticalNone definedInspect Method ReferenceMajor 101Diameter of center hole, min True position of center hole 0utside diameter, maxnote 13.3Gage GageMinor 201Evidence of poornote 13.29Visual			CONFORMANCE	REQUIREMEN	NEXT HIGHER ASSEMBLY 11836270
Major 101 102Diameter of center hole, min True position of center hole Outside diameter, maxnote 13.3 note 1Gage 3.3Minor 	CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION METHOD REFERENCE
101 102 103Diameter of center hole, min True position of center hole 	Critical	None defined			
201Evidence of poornote 13.29Visual	101 102	True position of center hole	note 1	3.3	Gage
			note 1	3.29	Visual
NOTES: Note 1 Five pieces per punch per day see (4.5.7 & 4.5.24)		e pieces per punch per day see (4.5	7 & 4 5 24)	·	

PARAGRAPH	TITLE			DRAWING
4.4.1.57	Spring, plunger	SHEET	1 OF 1	NUMBER 11836287
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 11836270 INSPECTION METHOD REFERENCE
Critical	None defined			
	Load p1 or P2 does not comply with drawing	Level IV	3.3	Gage
102	requirements Does not work freely in a dia. bore at an installed	Level IV	3.3	Gage
103	height Does not work freely over a dia. rod at an installed height	Level IV	3.3	Gage
202	Solid height, max Evidence of poor workmanship	Level II Level II	3.3 3.29	Gage Visual
NOTES:				

4.4.1.58 Housing NUMber 4.4.1.58 Housing Sheet 1 of 1 118362 Conformance Requiremen 118362 Classification examination or test Criteria Paragraph	PARAGRAPH	TITLE			DRAWING
Major None defined Conformance REQUIREMEN ItB362 Critical None defined None defined None defined None defined Major 101 Diameter of center hole, min note 1 3.3 Gage 102 Location of center hole note 1 3.3 Gage 103 Inside diameter, min note 1 3.3 Gage 104 Outside diameter, min. note 1 3.3 Gage 105 Inside length note 1 3.3 Gage Minor 201 Evidence of poor Level II 3.29 Visual		Hausing		1 1	
CLASSIFICATION EXAMINATION OR TEST CONFORMANCE REQUIREMEN ASSEMBLY 118362 CLASSIFICATION EXAMINATION OR TEST CRITERIA PARAGRAPH INSPECT Major None defined Inspect Inspect Inspect Major Diameter of center hole, min note 1 3.3 Gage 101 Diameter of center hole note 1 3.3 Gage 102 Location of center hole note 1 3.3 Gage 103 Inside diameter, min note 1 3.3 Gage 104 Outside diameter, min. note 1 3.3 Gage 105 Inside length note 1 3.3 Gage Minor 201 Evidence of poor Level II 3.29 Visual	4.4.1.58	Housing	SHEET	I OF I	I 1836286 NEXT HIGHER
CLASSIFICATION EXAMINATION OR TEST CRITERIA PARAGRAPH Inspection Critical None defined Inspection Inspection Inspection Inspection Major 101 Diameter of center hole, min note 1 3.3 Gage 102 Location of center hole note 1 3.3 Gage 103 Inside diameter, min note 1 3.3 Gage 104 Outside diameter, min. note 1 3.3 Gage 105 Inside length note 1 3.3 Gage Minor 201 Evidence of poor Level II 3.29 Visual			CONFORMANCE	DEOLIDEMEN	ASSEMBLY
Major None defined Inspection 101 Diameter of center hole, min note 1 3.3 Gage 102 Location of center hole note 1 3.3 Gage 103 Inside diameter, min note 1 3.3 Gage 104 Outside diameter, min. note 1 3.3 Gage 105 Inside length note 1 3.3 Gage Minor 201 Evidence of poor Level II 3.29 Visual				-	11836270
Major 101Diameter of center hole, min Location of center holenote 13.3Gage102Location of center holenote 13.3Gage103Inside diameter, min 104note 13.3Gage104Outside diameter, min. Inside lengthnote 13.3Gage105Inside lengthnote 13.3GageMinor 201Evidence of poorLevel II3.29Visual			CRITERIA	PARAGRAPH	INSPECTION METHOD REFERENCE
101Diameter of center hole, min Location of center holenote 1 note 13.3Gage102Location of center holenote 13.3Gage103Inside diameter, min Outside diameter, min.note 13.3Gage104Outside diameter, min.note 13.3Gage105Inside lengthnote 13.3GageMinor 	<u>Critical</u>	None defined			
201Evidence of poorLevel II3.29Visual	101 102 103 104	Location of center hole Inside diameter, min Outside diameter, min.	note 1 note 1 note 1	3.3 3.3 3.3	Gage Gage Gage
	201		Level II	3.29	Visual
NOTES:	NOTES:				1
Note 1 Five pieces per punch per day see (4.5.7 & 4.5.24)	Note 1 Five	e pieces per punch per day see (4.5.	7 & 4.5.24)		

PARAGRAPH	TITLE			DRAWING
4.4.1.59	Retainer, slider spring	SHEET	1 OF 1	NUMBER 11836285
4.4.1.37	Retailler, sinder spring	SHEET	I OF I	NEXT HIGHER
		CONFORMANCE	REQUIREMEN	ASSEMBLY 11836278
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION
<u> </u>				METHOD REFERENCE
<u>Critical</u>	None defined			
<u>Major</u>	None defined			
Minor				
	Presence of slots	Level II		Visual
	Outside diameter	Level II		Gage
	Evidence of poor	Level II	3.29	Visual
	workmanship			
NOTES:				

	TITLE			
PARAGRAPH				DRAWING NUMBER
4.4.1.60	Spring, slider	SHEET	1 OF 1	11836284
			-	NEXT HIGHER ASSEMBLY
		CONFORMANCE	REQUIREMEN	11836278
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	
				INSPECTION METHOD REFERENCE
<u>Critical</u>	None defined			
Major				
101	Load P1 or P2 does not	Level IV	3.3	Gage
	comply with drawing			
	requirements			
102	Does not work freely in a	Level IV	3.3	Gage
	dia. Bore at an installed			
	height			
103	Does not work freely over a	Level IV	3.3	Gage
	dia. Rod at an installed			
	height			
<u>Minor</u>				
	Solid height, max.	Level II		Gage
202	Evidence of poor	Level II	3.29	Visual
	workmanship			
NOTES:				

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.61	Spring, firing pin	SHEET	1 of 1	1183628
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHEF ASSEMBLY 1183627 INSPECTION METHOD REFERENCE
<u>Critical</u>	None defined			
<u>Major</u> 101 102	Load P1 or P2 does not comply with drawing requirements. Does not work freely in a dia. Bore at an installed height.	Level IV Level IV		Gage Gage
<u>Minor</u> 201 202	Solid height, max. Evidence of poor workmanship	Level II Level II		Gage Visual
NOTES:				

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.62	Slider	SHEET	1 of 1	11836282
				NEXT HIGHER ASSEMBLY
		CONFORMANCE	REQUIREMEN	1183627
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION METHOD REFERENCE
Critical	None defined			
Major				
-	Outside diameter of spring	Level IV	3.3	Gage
	mating surface, max.			
102	Inside diameter, min	Level IV		Gage
103	Inside diameter (ball	Level IV	3.3	Gage
104	locking), min.		2.2	<i>a</i>
	Length of undercut, min.	12 note 1		Gage
105	Length of locking surface,	12 note 1	3.3	Gage
106	min Length to slider ball mating	Level IV	3.3	Gage
100	surface		5.5	Guge
Minor				
	Outside diameter, max.	Level II	3.3	Gage
202	Evidence of poor	Level II		Visual
	workmanship			
NOTES: Note 1 Des	structive testing. Reject the lot if on	e or more defects in	the sample	

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.63	Pin, firing	SHEET	1 of 1	1183628
		CONFORMANCE	REQUIREMEN	NEXT HIGHEF ASSEMBLY 1183627
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION METHOD REFERENCE
Critical	None defined			
<u>Major</u>				
101	Width of tip, max	Level IV	3.3	Gage
102	Depth of cavity, min	Level IV		Gage
103	Location of notch	Level IV		Gage
104	Diameter of notch, max	Level IV	3.3	Gage
105	Outside diameter, max	Level IV	3.3	Gage
106	Diameter of cavity, min	Level IV	3.3	Gage
<u>Minor</u>				
201	Profile of point	Level II	3.3	Gage
202	Evidence of poor workmanship	Level II	3.29	Visual
NOTES:	structive testing. Reject the lot if o			I

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.64	Holder, firing pin	SHEET	1 of 1	1183627
				NEXT HIGHE ASSEMBLY
		CONFORMANCE	REQUIREMEN	1183627
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION
Critical	None defined			METHOD REFERENCE
Major				
	Inside diameter, min	note 1	3.3	Gage
102	Outside diameter, max.	note 1		Gage
103	Presence of longitudinal separation	note 1		Gage
104	True position of outside diameter	note 1	3.3	Gage
105	Small inside diameter, min.	note 1	3.3	Gage
106	True position of ball seating diameter	note 1		Gage
107	Small outside diameter of forward end.	note 1	3.3	Gage
108	Length from bottom of forward housing seat to rear surface of the flange	note 1	3.3	Gage
109	Large outside diameter of forward end.	note 1	3.3	Gage
110	Surface porosity	note 1	3.28	Visual/Gage
Minor	····· r · · · · · · · · · · · · · · · · · · ·		2	
	Evidence of poor workmanship	Level II	3.29	Visual

PARAGRAPH	TITLE			DRAWING
4.4.1.65	Firing pin holder assembly	SHEET	1 OF 1	NUMBER 11836278
CLASSIFICATION		CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY
Critical	None defined			
102	Push off force does not withstand 5 lbs Missing firing pin Either ball missing	5 Level IV Level IV	3.3	Gage Gage Gage
	Improper assembly Evidence of poor workmanship	Level II Level II		Visual Visual
NOTES:				
NUTES:				

	TITLE			
PARAGRAPH				DRAWING NUMBER
4.4.1.66	Pin, pivot	SHEET	1 OF 1	11836277
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 11836271
		Chillin		INSPECTION METHOD REFERENCE
Critical	None defined			
<u>Major</u> 101	Outside diameter, max.	Level IV	3.3	Gage
202	Overall length, max. Evidence of poor workmanship	Level IV Level IV		Gage Visual
NOTES:				

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.67	Lock, detent	SHEET	1 of 1	11836276
CLASSIFICATION		CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 11836271
<u> </u>				INSPECTION METHOD REFERENCE
Critical	None defined			
<u>Major</u>				
101	Pin hole diameter	Level IV	3.3	Gage
	True position of pin hole dia.	Level IV		Gage
103	Distance across tabs, max.	Level IV	3.3	Gage
	Evidence of poor workmanship	Level II	3.29	Visual
NOTES:				

	TITLE			
PARAGRAPH				DRAWING NUMBER
4.4.1.68	Retainer, detent	SHEET	1 OF 1	11836275
	Retailer, deteilt	SHEET	I OF I	NEXT HIGHER
		CONFORMANCE	REQUIREMEN	ASSEMBLY 11836271
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	110302/1
				INSPECTION METHOD REFERENCE
Critical	None defined			
<u>ennoui</u>				
. ха. ^с				
<u>Major</u>		x 1 x x x	2.2	G
101	Thickness, max.	Level IV	3.3	Gage
<u>Minor</u>		x 1.xx		a
	Outside diameter, max	Level II		Gage
202	Evidence of poor	Level II	3.29	Visual
	workmanship			
NOTES.				
NOTES:				

PARAGRAPH DRAWING NUMBER					
CLASSIFICATION EXAMINATION OR TEST CONFORMANCE CRITERIA REQUIREMEN PARAGRAPH MINOT 1183627: PARAGRAPH Critical Major 101 None defined Image: Conformance Critical None defined Image: Critical Method HEPERNEE None defined Major 101 Load P1 or P2 does not comply with drawing requirements Level IV 3.3 Gage 102 Does not work freely in dia. Bore at an installed height. Level IV 3.3 Gage 103 Does not work freely over a dia. Rod at installed height. Level IV 3.3 Gage Minor 201 Solid height, max. Evidence of poor workmanship Level II 3.3 Gage Minor 202 Solid height, max. Level II 3.29 Visual	PARAGRAPH	TITLE			
CLASSIFICATION EXAMINATION OR TEST CONFORMANCE REQUIREMEN Answith difference Critical None defined CRITERIA PARAGRAPH Ill83627: Major 101 Load P1 or P2 does not comply with drawing requirements Level IV 3.3 Gage 102 Does not work freely in dia. Level IV 3.3 Gage 103 Does not work freely over a dia. Rod at installed height. Level IV 3.3 Gage 103 Does not work freely over a dia. Rod at installed height. Level IV 3.3 Gage 201 Solid height, max. Level II 3.29 Gage 202 Evidence of poor workmanship Level II 3.29 Gage	4.4.1.69	Spring detents	SHEET	г 1 оғ 1	11836274
CLASSIFICATION EXAMINATION OR TEST CONFORMANCE REQUIREMEN 111836273 Critical None defined CRITERIA PARAGRAPH INSPECTION Major 101 Load P1 or P2 does not comply with drawing requirements Level IV 3.3 Gage 102 Does not work freely in dia. Level IV 3.3 Gage Bore at an installed height. 103 Does not work freely over a dia. Rod at installed height. Level IV 3.3 Gage Minor 201 Solid height, max. Level II 3.3 Gage Winnor 201 Solid height, max. Level II 3.29 Visual					
CLASSIFICATION EXAMINATION OR TEST CRITERIA PARAGRAPH Major Inspection Inspection 101 Load P1 or P2 does not comply with drawing requirements Level IV 3.3 Gage 102 Does not work freely in dia. Bore at an installed height. Level IV 3.3 Gage 103 Does not work freely over a dia. Rod at installed height. Level IV 3.3 Gage Minor 201 Solid height, max. Evidence of poor workmanship Level II 3.3 Gage None Visual Installed height. Installed height. Installed height.			CONFORMANCE	REQUIREMEN	
Critical None defined Image: Critical None defined Image: Critical Method Reference 101 Load P1 or P2 does not comply with drawing requirements Level IV 3.3 Gage 102 Does not work freely in dia. Bore at an installed height. Level IV 3.3 Gage 103 Does not work freely over a dia. Rod at installed height. Level IV 3.3 Gage Minor 201 Solid height, max. Level II 3.3 Gage 202 Solid height, max. Level II 3.3 Gage workmanship Visual Image: Critical Image: Critical Image: Critical Nume Solid height, max. Level II 3.3 Gage 202 Solid height, max. Level II 3.29 Visual	CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	
Major 101 Load P1 or P2 does not comply with drawing requirements Level IV 3.3 Gage 102 Does not work freely in dia. Bore at an installed height. Level IV 3.3 Gage 103 Does not work freely over a dia. Rod at installed height. Level IV 3.3 Gage Minor 201 Solid height, max. Level II 3.3 Gage Winor 202 Evidence of poor workmanship Level II 3.3 Gage Visual Number Journal Journal Journal					
101 Load P1 or P2 does not comply with drawing requirements Level IV 3.3 Gage 102 Does not work freely in dia. Bore at an installed height. Level IV 3.3 Gage 103 Does not work freely over a dia. Rod at installed height. Level IV 3.3 Gage Minor 201 Solid height, max. Level II 3.3 Gage 202 Evidence of poor workmanship Level II 3.29 Visual	<u>Critical</u>	None defined			
101 Load P1 or P2 does not comply with drawing requirements Level IV 3.3 Gage 102 Does not work freely in dia. Bore at an installed height. Level IV 3.3 Gage 103 Does not work freely over a dia. Rod at installed height. Level IV 3.3 Gage Minor 201 Solid height, max. Level II 3.3 Gage 202 Evidence of poor workmanship Level II 3.29 Visual					
comply with drawing requirements Level IV 3.3 Gage 102 Does not work freely in dia. Bore at an installed height. Level IV 3.3 Gage 103 Does not work freely over a dia. Rod at installed height. Level IV 3.3 Gage <u>Minor</u> 201 Solid height, max. Level II 3.3 Gage 202 Evidence of poor workmanship Level II 3.29 Visual	<u>Major</u>				
102 Does not work freely in dia. Bore at an installed height. Level IV 3.3 Gage 103 Does not work freely over a dia. Rod at installed height. Level IV 3.3 Gage Minor 201 Solid height, max. Level II 3.3 Gage 201 Solid height, max. Level II 3.3 Gage 202 Evidence of poor workmanship Level II 3.29 Visual	101	Load P1 or P2 does not	Level IV	3.3	Gage
102 Does not work freely in dia. Bore at an installed height. Level IV 3.3 Gage 103 Does not work freely over a dia. Rod at installed height. Level IV 3.3 Gage <u>Minor</u> 201 Solid height, max. Level II 3.3 Gage 201 Solid height, max. Level II 3.3 Gage 202 Evidence of poor workmanship Level II 3.29 Visual		comply with drawing			
Bore at an installed height. Level IV 3.3 Gage 103 Does not work freely over a dia. Rod at installed height. Level IV 3.3 Gage Minor 201 Solid height, max. Level II 3.3 Gage 202 Solid height, max. Level II 3.29 Gage 202 Solid height, max. Level II 3.29 Visual		requirements			
103 Does not work freely over a dia. Rod at installed height. Level IV 3.3 Gage Minor 201 Solid height, max. Level II 3.3 Gage 202 Solid height, max. Level II 3.3 Gage 202 Solid height, max. Level II 3.3 Gage 202 Solid height, max. Level II 3.29 Visual	102	Does not work freely in dia.	Level IV	3.3	Gage
Minor 201 Solid height, max. Level II 3.3 Gage 202 Evidence of poor Level II 3.29 Visual		Bore at an installed height.			_
Minor 201 Solid height, max. Level II 3.3 Gage 202 Evidence of poor Level II 3.29 Visual workmanship Image: Solid height, max Level II 3.29 Visual	103	Does not work freely over a	Level IV	3.3	Gage
Minor 201 Solid height, max. Level II 3.3 Gage 202 Evidence of poor Level II 3.29 Visual workmanship Image: Solid height, max Level II 3.29 Visual		dia. Rod at installed height.			C
	201	Evidence of poor			
:	NOTES				
			:		

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.70	Detent, spin	SHEET	1 of 1	11836273
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 11836271 INSPECTION METHOD REFERENCE
<u>Critical</u>	None defined			
102 103	Diameter of spring cavity, min. Overall length Diameter of mating surface for firing pin holder Height max. from inside of	Level IV Level IV Level IV Level IV	3.3 3.3	Gage Gage Gage Gage
	spring cavity. Large outside diameter	Level IV		Gage
	Evidence of poor workmanship	Level II	3.29	Visual
NOTES:				

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.71	Plunger	SHEET	1 OF 1	11836272
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 11836271 INSPECTION
Critical	None defined			METHOD REFERENCE
102 103 104 105 106 107	Outside diameter, max. Distance between tabs, min. Inside diameter, min. Spin detent hole diameter Width across ball slots, min. Surface porosity Depth of retainer counter bore	note 1 note 1 note 1 note 1 note 1 note 1 note 1	3.3 3.3 3.3 3.3 3.3 3.27	Gage Gage Gage Gage Visual Visual/Gage
202 203 204	Overall length, max. Width of pin slot, min Depth of pin slot Evidence of poor workmanship	Level II Level II Level II Level II	3.3 3.3	Gage Gage Gage Visual
NOTES:	(5) pieces per cavity (see 4.5.7 & 4	4.5.24)		1

	TITLE			
PARAGRAPH	IIILE			DRAWING NUMBER
4.4.1.72	Plunger assembly	SHEET	г 1 оғ 1	11836271
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 11836270 INSPECTION METHOD REFERENCE
Critical	None defined			METHOD REFERENCE
102	Pin fails to withstand pullout force Detent retainer fails to withstand push out force	5 5		4.5.31.3 Gage
	Evidence of poor workmanship	Level II	3.29	Visual
NOTES:				
NULES.				

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.73	Delay module, impact	SHEET	1 OF 1	11836270
				NEXT HIGHER ASSEMBLY
		CONFORMANCE	REQUIREMEN	9345331
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION
0.11				METHOD REFERENCE
Critical	None defined			
Major				
	Height of protrusion, max.	Level IV	3.3	Gage
101	Outside diameter, max	Level IV Level IV		Gage
102	Height from top of housing	Level IV Level IV		•
105	to the bottom housing cover,	Leveliv	5.5	Gage
	max.			
104	Non-arming test	100% note 1	3.3	4.5.29.1
104	Arming test	100% note 1		4.5.29.3
105	Drop test	Level V		4.5.29.4
108	Cover fails to withstand	Level v 5		4.5.29.3.
107	push out force.	5	5.5	4.3.29.3.
Minor				
201	Evidence of poor	Level II	3.29	Visual
201	workmanship		5.29	10000
	······································			
NOTES: Note 1 Arr	ning shall be performed before non-	ormina		•
Note I Aff	ining shall be performed before non-	-anning.		

PARAGRAPH	TITLE					DRAWING NUMBER
4.4.1.74	Pellet, booster	SHEET	1	OF	1	9255168
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA			REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9345332 INSPECTION METHOD REFERENCE
Critical	None defined					
102 103	Cracked, chipped or broken Weight Height Diameter	Level IV Level IV Level IV Level IV			3.3	Visual Gage Gage Gage
	Evidence of poor workmanship	Level II			3.29	Visual
NOTES:						1

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.75	Fuze, PD, M739A1	SHEET	1 OF 1	9345332
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY INSPECTION
Critical	None defined			METHOD REFERENCE
	Booster pellet improperly oriented in booster cup. note 1	Level IV	3.3	Visual
	Length from base of flange to base of booster cup.	Level IV	3.3	Gage
103	Sealant not 360 deg around booster cup	Level IV	3.3	Visual
104	External fuze body threads damaged	Level IV	3.3	Visual
202	Marking missing or misleading Evidence of poor workmanship	Level II Level II	3.3 3.29	Visual Visual
NOTES: Note 1 – Ex:	amine prior to assembling booster c	up to fuze		

	TITLE			
PARAGRAPH				DRAWING NUMBER
4.4.1.76	Disc, lead	SHEET	1 of 1	9255167
				NEXT HIGHER ASSEMBLY
		CONFORMANCE	REQUIREMEN	9255165
CLASSIFICATION	EXAMINATION OR TEST	CRITERIA	PARAGRAPH	INSPECTION METHOD REFERENCE
Critical	None defined			
	Thickness Diameter, minimum	Level IV Level IV		Gage Gage
	Evidence of poor workmanship	Level II	3.29	Visual
NOTES:				•

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.77	Lead, explosive PA508	SHEET	1 of 1	9255165
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9294833 INSPECTION METHOD REFERENCE
<u>Critical</u> 1 <u>Major</u>	Cracks or splits	100%	3.3	Visual
101	Weight of Composition A5	Level IV	3.3	Gage
102	Identification missing or color incorrect	Level IV	3.3	Visual
	Assembly distorted or damaged to the extent that functioning may be improper	Level IV	3.3	Gage
104	Diameter maximum	Level IV	3.3	Gage
105 <u>Minor</u>	Overall length, max.	Level IV		Gage
201	Evidence of poor workmanship	Level II	3.29	Visual
NOTES:				

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.78	Lead explosive PA508 (Prior to disc ass'y)	SHEET	1 of 1	925516
CLASSIFICATION		CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHE ASSEMBLY 929483 INSPECTION METHOD REFERENCE
<u>Critical</u>	None defined			
	Density of explosive in lead cup	note 1	3.3	4.5.32
	Evidence of poor workmanship	Level II	3.29	Visual
	uple production at a rate of 5 every 4 ternate method of loading is used (see		paragraph 4.5.32	. This paragraph

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.79	Lead assembly, destructive lot acceptance test	SHEET	1 of 1	9255165
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 9294833 INSPECTION METHOD REFERENCE
<u>Critical</u>	None defined			
<u>Major</u> 101	Output test	150	3.8	4.5.31
NOTES:				

PARAGRAPH	TITLE			
4.4.1.80	Cup, Lead	sheet 1 of	1	DRAWING NUMBER 9255166
	- <i>v</i> _F , <i>v v</i>			
				NEXT HIGHER ASSEMBLY 9255165
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	
				INSPECTION METHOD REFERENCE
Critical	None defined			
Major				
101	Thickness of bottom of cup	Level IV	3.3	Gage
101	Length	Level IV	3.3	Gage
103	Inside diameter	Level IV	3.3	Gage
				C C
Minor				
201	Evidence of poor workmanship	Level II	3.29	Visual
NOTES:				1

paragraph 4.4.1.81	TITLE Box, Set-up, Packing, Ammunition, Inner	sheet 1 of		DRAWING NUMBER 7548104 NEXT HIGHER ASSEMBLY 7548103
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	INSPECTION METHOD REFERENCE
<u>Major</u> 131	None defined Box damaged exposing contents Label missing or incorrect	Level IV Level IV	3.3 3.3	Visual Visual
NOTES:				

paragraph 4.4.1.82	Box, Set-up, Marking, Ammunition, Outer	sheet 1 of	drawing number 7548103		
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY 7548099 INSPECTION METHOD REFERENCE	
<u>Major</u> 131	None defined Barrier bag damaged Label missing or incorrect	Level IV Level IV	3.3 3.3	Visual Visual	
NOTES:					

Conformance inspection by classification of characteristics

PARAGRAPH	TITLE			DRAWING NUMBER
4.4.1.83	Box, Packing, Ammunition	sheet 1 of	1	7548099
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMEN PARAGRAPH	NEXT HIGHER ASSEMBLY INSPECTION METHOD REFERENCE
Critical	None defined			
132 133 134	Box damaged exposing contents Label missing or incorrect Strap missing or loose Marking incomplete, misleading or unidentifiable	Level IV Level IV Level IV Level IV	3.3 3.3 3.3 3.3	Visual Visual Visual Visual
NU1E3.				

Conformance inspection by classification of characteristics

4.5 Methods of inspection.

4.5.1 Jolt and jumble test. The loaded fuze assemblies with inert boosters and booster cups shall be subjected to the jolt test as specified in MIL-STD-331, Test A1. After completion of the jolt test, the fuze shall not be disassembled, but shall be radio graphically inspected in two planes to determine the proper safe condition of the setback pin, rotor, interrupter and firing pin assemblies and the shall be subjected to the jumble test in accordance with MIL-STD-331, Test A2.1. At the conclusion of the Jumble Test, the fuzes shall be x-rayed to assure safe disassembly. The fuzes shall then be disassembled to determine compliance with the requirements of the test. As a minimum inspection requirement for Critical Defects, no S&A explosive element shall be initiated nor shall any S&A be in the armed or partially armed condition. The partially armed condition of the S&A is the condition where the rotor is not locked by both spin locks and setback pin. As a minimum inspection for Major defects, examine the fuze internally for migration of sealant past the area of application and examine the S&A internally for flaking of Emralon as an indication of excessive application. As a minimum inspection requirement for the Impact Delay Module, the firing pin shall be in the safe position and the spin detents shall be in the un-armed position.

4.5.2 <u>Transportation vibration test</u>. The loaded fuze body assemblies shall be subjected to the transportation vibration test in accordance with MIL-STD-331, Test No. B1.1, SectionB1, Procedure II

4.5.3 <u>Firing pin/assembly pull test</u>. The firing pin (dwg. 9333937) or firing pin assembly (dwg. 9258618), whichever is applicable, shall be assembled to an applicable test fixture and an axial pull load of 80 pounds shall be applied to the firing pin shaft. If two or more firing pin shafts, during the testing of the firing pin assemblies (9258618), come loose or separate, the lot of firing pin assemblies shall be rejected. If two or more firing pins (9333937), show evidence of deformation, i.e., the final over-all length exceeds the drawing requirement, the lot of firing pins shall be rejected. Any item subjected to the pull test shall not be returned to the lot.

4.5.4 <u>Support, firing pin, load test</u>. The firing pin support shall be assembled to an applicable test fixture and the required load shall be applied in an axial direction at a uniform rate. The results of the test shall be recorded to determine compliance with the requirements. If one or more parts fail to meet the requirements of the 100-pound load test, the lot shall be rejected. If two or more parts fail to meet the requirements of the 140-pound test, the lot shall be rejected. Parts subjected to this test shall not be returned to the lot.

4.5.5 <u>Setting sleeve assembly torque test</u>. The torque required to rotate the setting sleeve assembly shall be applied to the screw driver slot in the setting sleeve while holding the fuze body in such a manner as to avoid damage. If two or more assemblies fail to meet the requirements of the test, the lot shall be rejected. Assemblies subjected to this test may be returned to the lot.

4.5.6 <u>Setting sleeve retaining ring stake test</u>. The torque shall be applied to the screwdriver slot while holding the fuze body in such a manner as to avoid damage.

Starting with the sleeve set in the SQ position apply a 10-in. lb. torque in the clockwise direction and inspect visually for ring movement when the sleeve rotates to the Delay retaining ring stop. Then apply the 10-in. lb. torque in a counterclockwise direction and inspect visually for ring movement when the sleeve rotates to the SQ retaining ring stop. If any rotation of the retaining ring is observed, in either SQ or Delay position, check the flash hole opening of the slot. If it is less than 0.120 inches diameter, when the sleeve is against the SQ stop, the assembly shall be classed defective. If two or more defectives are found, the lot shall be rejected. Assemblies subjected to this test may be returned to the lot.

4.5.7 <u>Dimensional control of stamped parts</u>. As a control of the punch during production, five (5) parts from each punch shall be selected for inspection. The five parts are to be selected from the end of the day's production. As a control of each punch for production, the parts shall be inspected to the requirements listed on the applicable Classification of Defects . If any defective parts are found when inspection is performed for control of the tool, the tool producing the defective part shall be removed from production. Further, that portion of production since the last tool check shall be rejected.

4.5.8 <u>Leak test</u>. The test shall be performed in accordance with the procedure specified in MIL-STD-331, Test No. C4, except as provided in 3.20 and herein. When immersing the test assemblies in the water solution, care should be taken to displace all externally entrapped air. The test assemblies should be submerged in a horizontal position for testing. After completion of the test and drying of the samples, the assemblies shall be sectioned to reveal all cavities internal to the various seals. Examine all external and internal surfaces of parts for evidence of water entry using ultra-violet light. Any assembly that does not comply with the requirements of 3.20 shall be classed defective. Assemblies subjected to this test shall not be returned to the lot.

4.5.8.1 <u>Alternate leak test</u>. The following optional method may be used to perform the water proofness test required by 3.20. This method required pressurizing the test assemblies in air prior to submersion in water and does not require the use of any additive to the water. In an approved test apparatus, pressurize the test assemblies in air at 3 + 0.5 psi for 5+-0.5 minutes. Then lower the assemblies into water while maintaining the required air pressure above the water. The assemblies, in a horizontal orientation, shall be agitated while submerged to remove surface-entrapped air. After the assemblies have been agitated and there is a minimum of 3 inches of water above the water and observe the test assemblies for the presence of bubbles for a minimum of 30 seconds. Any assembly with a continuous stream of bubbles in excess of the bubble per second shall be classed defective. Assemblies subjected to this test shall not be returned to the lot. Assemblies which pass this test may also be used to satisfy the sample requirements for Jolt and Jumble testing (see 4.5.1) or for Propagation testing (see 4.5.17).

4.5.9 <u>Interrupter arming test</u>. The unarmed assembly shall be subjected to this test by rotation-approved equipment. The setting sleeve shall be rotated at 1700 revolutions per minute (RPM's) maximum. Any assembly which has a flash hole opening of less than 0.078 inch shall be rejected and removed from the lot.

4.5.10 <u>Interrupter non-arming test</u>. The unarmed assembly shall be subjected to this test by rotation-approved equipment. The setting sleeve shall be rotated until it comes to rest against the SQ stop. The assemblies shall be rotated at 1100 RPM's minimum. Any assembly which has greater than .005 inch gap between the flash hole and the interrupter shall be rejected and removed from the lot.

4.5.11 <u>Push test of detonator in rotor assembly</u>. The rotor assembly shall be assembled to an applicable test fixture and the required load shall be applied to the insensitive end of the detonator in an axial direction. Any assembly in which the detonator does not remain flush or below flush under the applied loads shall be classed defective.

4.5.12 Lead assembly push out test. The safing and arming module subassembly shall be disassembled and assembled to the applicable test fixture and the required load shall be applied to the lead cup assembly from a direction opposite the green end. Sampling shall be in accordance with MIL-STD-1916. If one or more lead cup assemblies or displaced material do not remain flush or below flush with the bottom plate, the lot shall be rejected. A dummy lead may be used for test purposes. Assemblies subjected to this test shall not be returned to the lot. This test may be performed on safing and arming module (9294833) after completion of the push test on the setback pin disk provided the subassembly has not been damaged by the test (see 4.5.18).

4.5.13 Arming test

4.5.13.1 <u>Arming</u>. The unarmed safing and arming module subassembly shall be subjected to this test by rotation approved non-operator-dependent equipment. The safing and arming module subassembly shall be assembled to the applicable rotation holding fixture and rotated about its central axis in the counterclockwise direction when viewed from the top at 1700+/-100 revolutions per minute (RPM). Any assembly that fails to arm shall be rejected.

4.5.13.2 <u>Arming time</u>. The unarmed safing and arming module subassembly while being tested as specified in 4.5.13.1 shall be automatically tested for the arming time. The time required for each module to reach the armed position shall be automatically determined and recorded by applicable test equipment. The acceptance or rejection shall be automatic. The rotor shall be restrained from movement until the required R.P.M. is achieved and the arming time count shall begin automatically with the removal of the restraint. Any unit that arms in less than 850 milliseconds or more than 1200 milliseconds shall be automatically rejected. SPC monitoring of this test is mandatory and shall assure, as a minimum, that the product meets the arming time requirements, the process is in a continuous state of control, and that the Cpk value is not less than 1.33.

4.5.13.3 <u>Locking</u>. The armed safing and arming module subassembly subjected to the arming test in 4.5.13.1 shall be examined for the rotor being locked by the rotor lock pin. Any assembly that is not in the locked position after the arming test shall be rejected.

4.5.13.4 <u>Qualification test</u>. The Acceptance Inspection Equipment must pass a dynamic qualification test to demonstrate its reliability prior to its introduction into the production process for each contract. One thousand S&A assemblies shall be used for this test. One thousand consecutive correct decisions are required for the equipment to successfully pass the qualification test See 6.7.

4.5.14 <u>Non-arming test, spin lock</u>. The unarmed safing and arming module subassembly after successful completion of the arming test shall be assembled to the applicable test fixture and subjected to this test in rotation-approved equipment. The assembly shall be rotated about its central axis in a counterclockwise direction when viewed from the top at 1100+-50 RPM's. Any assembly which is not in the full safe position (rotor locked by both spinlocks) after being spun at 1100+-50 RPM's for a minimum of 1.5 seconds shall be classed defective and removed from the lot.

4.5.15 <u>Non-arming test, setback pin</u>. The unarmed safing and arming module assembly shall be assembled to the applicable test fixture and subjected to this test by rotation-approved equipment. The assembly shall be rotated about its central axis in a counterclockwise direction when viewed from the top at 4000 RPM's minimum. Any assembly which is not in the safe, out-of-line position after being spun at 4000 RPM's minimum for a minimum of 0.5 seconds, shall be classed defective and removed from the lot. The spinlocks may retract during this test and the rotor may move to a partially armed position provided the setback pin prevents arming. The rotor assemblies of all units that successfully pass this test must be returned to the fully safe position.

4.5.16 Push test on pallet shaft. The lower plate and shaft assembly after staking or pressing shall be held in an appropriate test fixture and the required push-out force shall be applied axially to the pallet shaft from the staked or press-fit side of the plate. Sampling shall be conducted in accordance with MIL-STD-1916. If one or more assemblies fail to withstand the two-pound push-out force, the lot shall be rejected. Assemblies subjected to this test may be returned to the lot.

4.5.17 Propagation test. Fuze body assemblies (Dwg. 9345331) shall be assembled with test disk (Dwg. 9294993), test plug (Dwg. 9294992) and booster cup (Dwg. 9258607). The S&A module assemblies (Dwg. 9258630) shall have setback pin removed so that the pin is not locking the rotor. The fuze assembly shall be spun about its central axis at a spin rate not exceeding 3400 RPM to arm the fuze. The assembly shall then be dropped, nose down, while spinning, a sufficient height onto a hard surface, to initiate the explosive train. The fuze assemblies shall then be disassembled and determination made of high-order functioning, which is defined as a minimum 0.170-inch hole in the test disk. The sample of fuze assemblies shall be tested with half set superquick (SQ) and half set delay. Identify reverse functioning (see 6.6.5) for information of the Seal Disc (Dwg. 9258682). Lot samples used for the propagation test may be selected during production prior to the application of RTV to the S&A Module and Retainer Assembly (see Dwg. 9345331) so as to facilitate disassembly following the test.

4.5.18 <u>Push test on setback pin disk</u>. The safing and arming module assemblies shall be disassembled and assembled to the applicable test fixture and the required load shall be applied through the setback pin to the setback pin disk. Sampling shall be conducted in accordance with MIL-STD-1916,. If one ore more setback pin disks do not remain flush or below flush with the bottom plate under the applied load, the lot shall be rejected. Assemblies subjected to this test shall not be returned to the lot. Note: This test may be followed by a lead assembly push-out test (see 4.5.12).

4.5.19 <u>Setback pin freedom of movement test</u>. The safing and arming module assembly shall be assembled to an applicable test fixture and the setback pin shall be depressed such that a minimum distance of .350 inches shall be obtained from the top of the upper gear plate to the top of the setback pin. After release, the setback pin must return to the locking position. The test method shall cause the setback pin, after being depressed the minimum distance, to contact the ramp surface before returning to its original position. Any setback pin that does not depress to the required height shall be rejected and removed from the lot. In addition, any setback pin that does not return to the locking position shall be rejected and removed from the lot.

4.5.20 <u>Firing pin and housing assembly load test</u>. The firing pin and housing assembly shall be assembled to an applicable test fixture and the required load shall be applied in an axial direction at a uniform rate. When the applied load reaches one hundred (100) pounds, the maximum deflection shall not exceed .035 inches. Sampling shall be conducted in accordance with MIL-STD-1916. If one or more assemblies exceed the maximum deflection of .035 inches, the lot shall be rejected. Assemblies subjected to this test shall not be returned to the lot.

4.5.21 <u>Setback pin load test</u>. The setback pin shall be assembled to an appropriate test fixture that allows a minimum of .060 inch protrusion of the small diameter. The fixture shall provide support on the large diameter and the chamfer. The required load shall be applied perpendicular to the longitudinal axis at a uniform rate. If two or more setback pins are deformed or fractured, the lot shall be rejected. Setback pins subjected to this test shall not be returned to the lot.

4.5.22 <u>Spinlock load test</u>. The spinlock shall be assembled to an appropriate test fixture that holds the spinlock by the shaft hole. The load shall be applied perpendicular to the indicated surface at a uniform rate. If two or more spinlocks are fractured or deformed, the lot shall be rejected. Spinlocks subjected to this test shall not be returned to the lot.

4.5.23 <u>Die check for cast parts</u>. A sample of at least three (3) parts from each cavity shall be inspected in accordance with the applicable die check classification of defects and tests paragraph to qualify a new or reworked cavity for use in the production. Individual cavity identification must be provided. If any defective parts are found during qualification of the cavity, the cavity producing the defective part shall not be used in production. All cavities formerly removed from production because of some fault may, after reworking, be returned to production providing they pass the qualification test. When production from a cavity reaches 100,000 pieces since the last qualification test, a sample of three (3) parts from that cavity shall be subjected to the qualification test.

4.5.24 <u>Die check for stamped parts</u>. A sample of at least five (5) parts from each punch shall be inspected in accordance with the applicable die check classification of defects and tests paragraph to qualify a new or reworked tool for use in the production. If any defective parts are found during qualification of the tool, the tool producing the defective part shall not be used in production. All tools removed from production because of some fault may, after reworking, be returned to production providing they pass the qualification test above. When production reaches 100,000 pieces since the last qualification test, a sample of five (5) parts shall be subjected to the qualification test.

4.5.25 <u>Surface porosity</u>. Preliminary inspection for surface porosity shall be performed using Government approved sample display boards. If no suspect defects are found when comparing lot samples with display board samples, the lot shall be accepted without further inspection for surface porosity. Suspect defects shall be examined using appropriate magnification, e.g., toolmaker's microscope, to determine compliance with the applicable requirements. Any void which exceeds either the length or width requirement dimension shall be classed as a defect. Any sample that exceeds the applicable maximum number of surface porosity defects shall be cause for rejection of the lot. If a suspect defect is found on an inside surface, such as the inside diameter of a hole, the part shall be sectioned prior to examination under magnification, taking care to avoid cutting into the suspect area.

4.5.26 <u>Weight test</u>. The parts shall be weighed on a balance capable of reading grams to three decimal places. If two or more samples fail to meet the weight requirements, the lot shall be rejected. Parts subjected to this test may be returned to the lot.

4.5.27 <u>Dimensional control of cast parts</u>. As a control of the cavity during production, three (3) or more parts from each cavity shall be inspected during the production run. The production run is defined as that period of operation of the die from the time the die has reached proper operating temperature until the die is cooled below that temperature. Of the three (3) or more samples to be inspected, one shall be selected at the start, one at the end and the others during the production run. As a control of each cavity during production, the parts shall be inspected to the requirements listed on the applicable Classification of Defects and Test charts. If any defective part is found when inspection is performed for control of the cavity, the cavity producing the defective part shall be removed from production and that portion of production since the last previous check shall be rejected.

4.5.28 <u>Production verification of mold</u>. The first component from each cavity produced during a production run and the last component from each cavity produced during the same production run shall be examined in accordance with MIL-STD-1916 Level II. A production run is defined as the continuous forming of consecutive components by a mold or die which has been prepared in accordance with its operating specifications, and maintained in the same operating condition between the first and last samples which represent that production run. The production run represent be the two samples shall be rejected if either of the samples are found to be defective. Samples shall

be permitted to cool to room temperature (80+- 20F) prior to examination for compliance with dimensional requirements.

4.5.29 Impact delay module tests.

4.5.29.1 <u>Non-arming</u>. The unarmed delay module, impact shall be rotated, in a vertical position with the firing pin pointing up, at a speed of 1,075 rpm min. for 3 seconds min. After the test, the module shall be examined for the safe, unarmed position, i.e., firing pin safe and spin detents in unarmed position per Dwg. 11836270. Any module which has armed shall be classed defective and removed from the lot.

4.5.29.2 <u>Load test</u>. The specified load shall be applied in the direction specified on the applicable drawing using a suitable test fixture. Any assembly in which any part moves, deforms, becomes loose or detaches shall be classed defective and the load shall be rejected. Assemblies subjected to this test shall not be returned to the lot. Note: For the load test on the pivot pin, detent retainer and slider spring retainer, some deformation of the part is permitted, provided the part does not detach from any staked area.

4.5.29.3 <u>Arming</u>. The unarmed delay module, impact shall be rotated, in a vertical position with the firing pin pointing up, at a speed of 2,025 rpm max. for 5 seconds max. After the test, the module shall be examined for proper arming, i.e., detent lock in armed position as shown in Dwg. 11836270. Any module which does not arm shall be classed defective and removed from the lot. Following inspection, the module shall be restored to the unarmed position.

4.5.29.4 <u>Drop test</u>. Use accepted modules from the arming test (see 4.5.31.3) the armed module shall be dropped, forward end down, from a maximum height of sixteen (16) inches, onto a steel plate. The module may be guided, initially, to maintain proper orientation. Any module in which the firing pin has not been released shall be classed defective and the lot shall be rejected. Modules subjected to this test shall not be returned to the lot.

4.5.30 <u>S&A Module not in unarmed position</u>. The gage shall be capable of detecting the following conditions.

- a. The rotor is in the safe position
- b. The setback pin and spring are present.
- c. The setback pin is engaged in and locking the rotor.
- d. Both spinlocks are present and engaged in the rotor.

4.5.30.1 <u>S&A gage</u>. Of primary importance is that the gage, whether semiautomatic or fully automatic, shall make the decision for safety of the rotor is not to be at the discretion of the operator/inspector. The use of or operation of the gage should be such that the rejected S&A is controlled so that it cannot be inadvertently added to the accepted product. A rigid procedure for material handling of critical defects shall be part of the operation/use of any gage inspecting for such a defect.

4.5.30.2 <u>S&A/Fuze assembly</u>. The inspection shall be the last operation prior to assembling the S&A retainer assembly into the body of the fuze. This means there is a smooth, continuous flow of accepted product between the gaging station and the assembly operation. It is desirable that accepted units be automatically marked for identification.

4.5.30.3 <u>Gage qualification</u>. The gage shall pass a qualification test to demonstrate its reliability prior to its introduction into the production process. One thousand (1000) S&A/retainer assemblies shall be used for this purpose and they shall be of the following description. When tested with all 1000 of the below masters, the gage shall pass the test with no incorrect decisions.

- a. 300 properly assembled, fully safe.
- b. 175 with both spinlocks missing (independent detection of each).
- c. 175 with setback pin missing.
- d. 175 with setback pin and both spinlocks missing.
- e. 175 with rotor, setback pin, and both spinlocks missing.

4.5.31 <u>Lead assembly output test.</u> The lead assembly output test shall be performed using the appropriate test equipment and a one-eight-inch thick disc. High order functioning shall be evidenced by a minimum .210 inch diameter hole in a lead disc. If two or more lead assemblies fail to meet the minimum hole requirement, the lot shall be rejected.

4.5.32 <u>Density of explosive in lead cup (when loaded by alternate method)</u> A minimum of five (5) assemblies, representative of the explosive of the explosive leads being processed, shall be loaded and densities determined to qualify each press prior to its use in production. In addition, a sample of five (5) leads shall be processed during the last portion of each four (4) hour's production from each press and density determined as a control of each press during production.

If any defective lead is found when inspection is performed for control of a press, the press producing the defective leads shall be removed from production. Further, that portion of production since the last control check shall be returned to the contractor for corrective action.

All presses removed from production because of some fault, may after corrective action be returned to production providing they pass qualification tests above.

The samples shall be selected prior to assembly of the lead disc and crimping and the following procedure used to determine the density of the explosive charge.

1. Measure and record height (h) from base of cup to top of explosive column to 0.001 cm.

2. Weigh and record weight of loaded cup to 0.001 grams.

3. Remove explosive from cup.

4. Weight empty cup to 0.001 grams.

5. Measure inside diameter (d) of empty cup to .001 cm.

6. Measure end thickness of empty cup to 0.001 cm.

7. Calculate weight of explosive by subtracting the value obtained in (4) above from the value obtained in (2) above.

8. Calculate the explosive column height by subcontracting the cup thickness measured in (6) above from the total height (h) measured in (1) above.

9. Calculate the explosive volume using the formula $V = \Pi xr^2$ (h) (h is the value obtained in (8) above and r = d/2 from (5) above.

10. Calculate the density by dividing the weight obtained in (7) above by the volume obtained in (9) above.

4.5.33 <u>Workmanship</u>. Components shall be inspected visually in accordance with the applicable Classification of Characteristics paragraphs (see 4.4.1.1 through 4.4.1.83).

4.5.34. <u>Dimensional control of die cast parts</u>. The sample quantities for this test shall be three (3) for production runs up to fifty thousand (50,000) pieces. When a production run exceeds 50,000 pieces, the sample quantity shall be increased by 0ne (1) for each twenty-thousand (20,000) pieces or portion thereof in excess of 50,000. The number of samples selected and the total number of pieces refer to each cavity of the die. Criteria for selection of the first and last pieces shall be as specified in 4.5.27. If any defective parts are found when inspection is performed for control of the cavity, the cavity producing the defective part shall be removed from production. Further, that portion of production since the last control check shall be rejected.

4.5.35 <u>Radiographic examination (x-ray)</u>. The sample shall be radio graphically inspected in two planes as follows to determine compliance with the safety aspects of the test:

- a. Horizontal Plane Screwdriver slot facing viewer.
- b. Horizontal Plane Screwdriver slot at left.

As a minimum inspection requirement for Critical Defects, no S&A shall be in an armed or partially armed (setback pin not locking rotor) condition. As a minimum inspection requirement for Major Defects, the x-ray shall indicate that no metal parts components are broken and that the screwdriver slot is in proper alignment.

4.5.36 <u>S&A Functional Test.</u> Twenty S&A samples shall be provided. The samples temperature conditioned cold (-45 F) for 12 hours minimum. The samples shall be tested as described in paragraph 4.5.13.2, except that the required R.P.M shall be 2500 \pm 100, Testing shall be within 15 minutes of chamber exit, the duration of the test shall

not exceed 10 seconds. Arm times shall be within the times specified by 4.5.13.2. Units are to be considered destructively tested.

5 PACKAGING

5.1 <u>Packaging</u>. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of materiel is to be performed by DOD personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department or Defense Agency, or within the Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 <u>Intended use</u>. The M739A1 PD/DLY Fuze is the Army's primary fuze for 105mm and 155mm bursting projectiles for point detonating and delay fuze functions. The M739A1 PD/DLY fuze contains an Impact Delay Module (IDM) assembly. The IDM provides fuze initiation delay based upon the completion of mechanical actions caused by projectile deceleration and will function at 3 - 6 milliseconds after target impact.

6.2 <u>Acquisition requirements</u>. Acquisition documents must specify the following:

a. Title, number and date of this specification.

b. Packaging requirements (see 5.1 and 6.12)

c. Requirements for submission of first article sample.

d. Requirements for submission of inspection equipment designs.

e. Certificate of conformance for each lot or shipment of product.

f. Applicable stock number.

6.3 <u>Submission of contractor inspection equipment design for approval</u>. Submit copies of designs as required to: Commander, US Army ARDEC, ATTN: AMSTA-AR-QAA-R, Picatinny Arsenal, New Jersey 07806-5000.

6.4 <u>Drawings</u>. Drawings listed in Section 2 of this specification under the heading U.S. Army Armament Research, Development, and Engineering Center (ARDEC) may also include drawings prepared by, and identified as U.S Army Armament, Research and

Development Command (ARRADCOM), Rock Island Arsenal or Picatinny Arsenal drawings. Technical data originally prepared by these activities is now under the cognizance of ARDEC.

6.5 <u>Submission of alternative quality conformance provisions</u>. Alternative conformance procedures may be proposed by the contractor. All contractor proposed alternative quality conformance provisions will be submitted to the Government for evaluation/approval as directed by the contracting activities.

6.6 Definitions.

6.6.1 <u>Delay (DLY)</u>. In this mode, the fuze should be capable of penetrating (3-inch thick plywood) and functioning .5 to 35 feet behind the target rear face.

6.6.2 <u>Safe condition</u>. The safe condition of an S&A consists of the rotor located in the safe position with the spin locks and setback pin locking the rotor.

6.6.3 <u>Premature Burst.</u> A malfunction in which a fuze functions before arming time. This includes functions in handling, loading and inside the barrel.

6.6.4. <u>Early Burst</u>. A malfunction in which a fuze functions after arming time feet and before impact.

6.6.5. <u>Reverse function</u>. Reverse functioning is defined as delay functioning of the fuze when set in the Superquick (SQ) position.

6.6.6 <u>Dud</u>. Fuzes which fail to f unction where intended should be classified as duds. For Superquick (SQ) firings into a plywood target at 500 feet, intended functioning of the fuze is on impact with the target (on the target). For Delay (D) firings into a plywood target at 500 feet, intended functioning of the fuze is behind the target and before subsequent impact with the ground.

6.7 <u>Qualification test</u>. It is in the contractor's interest to prepare assemblies as close to the product time limit requirements as practicable. The tolerance of the test samples is optional for the contractor provided that the 850 millisecond minimum time tolerance is in the plus direction (increasing time) and the 1200 millisecond (maximum time) is in the minus direction (for example: 850+50-0 and 1200+0-50). 500 of each standard should be used in a process capability study to determine the machine capability at the product limits. Once established the proven test limits are to be considered the machine not-go reject limits for production and SPC.

6.8 <u>Calibration and verification standards</u>. The calibration and verification standards to be used in production should be selected by the contractor and approved by the government. The time limits should be within the product drawing limits and within the proven capability of the machine during the qualification test.

6.9 <u>Changes from previous issue</u>. Marginal notations are not used in this revision to identify changes with the previous issue due to the extent of the changes

6.10 <u>Qualification test</u>. The Acceptance Inspection Equipment must pass a dynamic qualification test to demonstrate its reliability prior to its introduction into the production process for each contract. One thousand S&A assemblies should be used for this test. One thousand consecutive correct decisions are required for the equipment to successfully pass the qualification.

6.11 <u>Check test for deterioration of detonator</u>. If the total elapsed time between the acceptance of any detonator lot and assembly of that lot into fuze lots exceeds two (2) years, or if the detonators have been subjected to adverse conditions, however brief, at any time since previous tests, the detonator lot should be check tested as specified in MIL-D-14978 and MIL-D-48025 immediately prior to detonator assembly into fuzes. This test should be conducted at Government expense without cost to the supplier who loaded the detonator or the supplier assembling the detonator into the fuze, and should not constitute a basis for rejection against either supplier, except where deterioration has occurred as a direct result of carelessness in handling, storage, etc., while the detonator lot is under the jurisdiction of either contractor.

6.12 Performance Oriented Packaging (POP). Prior to shipment, the manufacturer will make sure the container has been tested by a government approved Performance Oriented Packaging (pop) test Laboratory for compliance with POP requirements in accordance with Title 49 Code of Federal Regulations. Test will be to a weight at least 10% greater than the actual gross weight to be marked on the tested container. POP marking will not be applied to the container until verified by the government. The POP test report will be generated by the Manufacturer/Laboratory in accordance with DI-PACK-81059 (Data Item Description) following the test. The report must be kept on file by the contractor and must also be submitted in accordance DI-PACK-81059 to the U.S.Army Tank-automotive and Armaments Command – Armament Research, Development and Engineering Center, ATTN: AMSTA-AR-WEP, Picatinny Arsenal, New Jersey, 07806-5000. For multi-year contracts, the contractor will reperform POP testing at a certified test laboratory if: (a) the initial POP test report expires before the end of the contract or (b) there is a change in container manufacturer or design of the exterior shipping container. No re-test is needed if all packaging is purchased while under an unexpired POP test.

6.13 Justification for critical characteristics.

6.13.1 <u>S&A Arming Time</u>. Proper arm time is essential to ensure fuze function is away from gun and at intended impact area. A short or instantaneous arming time can cause an inbore or close function resulting in injury or death. Verification paragraph 4.4.1.42(C1)

6.13.2 <u>Rotor not locked / S&A not safe</u>. When S&A locks are not engaged in the rotor, an inadvertent arming and detonation could occur. This is critical to ensure safety during handling, shipping and use. Verification paragraph 4.2.4.3.1, 4.4.1.42 (C2), 4.4.1.45 (C1), 4.4.1.51 (C1) 4.4.1.53 (C3).

6.13.3 <u>Non-Function</u>. The S&A must not Arm in or close to the gun. Nonfunction testing demonstrates the fuze does not function when fired against targets within the safe distance away from the gun. This is critical to prevent functioning in-bore or near the gun crew. this is verified by design and during first article only, for lot acceptance arming time testing will accomplish this. Verification paragraph 4.2.4.3.3, 4.4.1.53 (C2)

6.13.4 <u>Premature Burst</u>. A premature burst can cause an in-bore or near-by projectile function. This check is needed to prevent a defective fuze lot from being fielded. Verification paragraph 4,2,4,3,2, 4.4.1.53 (C1 and C2)

6.13.5 <u>Lead cup cracked or split</u>. Unintentional detonation of the lead which is in line with main explosive would cause detonation of round. Verification paragraph 4.4.1.77 (C1)

6.14 Subject term (key word) listing.

Ballistic Function Dud Early Burst Lost Time Off Time Premature Burst Safe Position Safe Separation Distance

MIL-DTL-32267(AR) TABLE II. <u>Ballistic test first article and first three lots</u>

#	TEST	SET	CALIBER	ZONE	CHA RGE	WEAPON	QE	PROJECTILE	TEMP	QTY
	NONFUNCTION PD 1 INCH PLYWOOD 115 FT FROM MUZZEL EXIT	SQ	105MM	7	M67	M102	N/A	M1 inert note 2	AMB	10
	1 INCH PLYWOOD 600 FT FROM MUZZLE EXIT	SQ	105MM	7	M67	M102	N/A	M1 inert note 2	AMB	10
	2 INCH PLYWOOD 600 FT FROM MUZZLE EXIT	SQ	105MM	1	M67	M102	N/A	M1 inert note 2	AMB	5
	8 INCH PLYWOOD 600 FT FROM MUZZLE EXIT	DLY	M105MM	7	M67	M102	N/A	M1 inert note 2	AMB	5 note 1 10
	8 INCH PLYWOOD 600 FT FROM MEZZLE EXIT	DLY	M155MM	Charge 1	M231	M109A5/A6	N/A	M1 inert note 2	AMB	10
	8 IN PLYWOOD 600 FT FROM MUZZLE EXIT	DLY	105MM	1	M67	M102	N/A	M1 inert note 2	AMB	10
,	GROUND	SQ	105MM	7	M67	M102	N/A	M1	AMB	5 note 1 5
	GROUND	SQ	M155MM	Charge 1	M231	M109A5/A6	N/A	M107	AMB	20
)	GROUND	SQ	155MM	Charge 5	M232	M109A5/A6	N/A	M107	AMB	10
0	GROUND	SQ	105MM	7	M67	M102	N/A	M1	-45F	10
1	GROUND	SQ	105MM	7	M67	M102	N/A	M1	+145F	10
									TOTAL	120

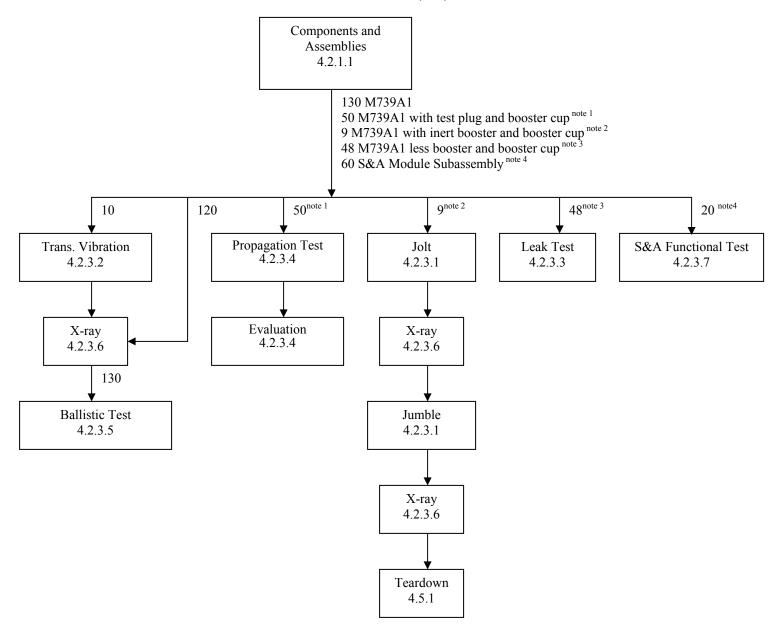
Vibration condition per 4.5.2
 With inert projectiles use spotting charge

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MIL-DTL-32267(AR) TABLE III. <u>Reduced sample lot verification ballistic testing</u>

#	TEST	TARGET	SET	CALIBER	CHARGE	WEAPON	QE	PROJ	ZONE	TEMP	QTY
1	FUNCTION	1 INCH PLYWOOD AT 600FT	SQ	105MM	M67	M102	N/A	M1 inert note 2	7	+70	10
2	FUNCTION	2 INCH PLYWOOD AT 600FT	SQ	155MM	M231	M109A5/A6	N/A	M1 inert note 2	Charge 1	+70	5
3	FUNCTION	8 INCH PLYWOOD AT 600FT	DLY	105MM	M67	M102	N/A	M1 inert note 2	7	+70	10
4	FUNCTION	8 INCH PLYWOOD AT 600FT	DLY	155MM	M231	M109A5/A6	N/A	M107 inert note 2	Charge 1	+70	10
5	FUNCTION	8 INCH PLYWOOD AT 600FT	DLY	105MM	M2A2	M102	N/A	M1 inert note 2	Charge 1	+70	5
6	FUNCTION	GROUND IMPACT	SQ	105MM	M67	M102	N/A	M1	3	+70	10 note 1
7	FUNCTION	GROUND IMPACT	SQ	155MM	M231	M109A5/A6	N/A	M107	Charge 1	+70	10
										TOTAL	60

Vibration condition per 4.5.2
 With inert projectiles use spotting charge



Notes:

- 1 The 50 M739A1 with test plug and booster cup are for the Propagation Test
- 2. The 9 M739A1 with inert booster and booster cup are for the Jolt Jumble test
- 3. The 48 M739A1 less booster and booster cup are for the Leak Test
- 4. The 20 S&A Module Subassembly are for the S&A Functional Test

Figure 1. First article flow chart

Preparing activity: Army–AR

(Project 1315-2007-010)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <u>http://assist.daps.dla.mil</u>