MILITARY STANDARD

VISUAL INSPECTION STANDARDS AND INSPECTION PROCEDURES FOR INSPECTION OF PACKAGING, PACKING AND MARKING OF SMALL ARMS AMMUNITION

O ALL HOLDERS OF MIL-STD-644A.

1. THE FOLLOWING PAGE IS TO BE ADDED:

NEW PAGE	DATE	SUPERSEDED PAGE	DATE
3	3 March 1975	3	3 December 1962

2. RETAIN THIS NOTICE PAGE AND INSERT BEFORE THE TABLE OF CONTENTS.

3. Holders of MIL-STD-644A will verify that the page addition indicated ‘ drove has been entered. The notice page will be retained as a check sheet. This issuance, together with the appended page, is a separate publication Each notice is to be retained by stocking points until the Military Standard is completely revised or cancelled.

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5.1.3.3.1 Visual standards for defects 1, 4 and 5 are illustrated in the appendix (figs. 15 and 16).

5.1.4 Bulk package.

5.1.4.1 The acceptable quality levels for bulk package defects shall be as follows:

	Percent
Minor	2.5

5.1.4.2 *Classification of defects.*

Bulk package defects	*Minor*
1. Missing or improper fillers, tubes or separators.	X
2. Improper packaging of cartridges in conrtainer.	X
3. Missing cartridge(s)	X

5.1.4.2.1 There are no visual standard illustrated in the appendix for bulk package.

5.1.5 Clip package.

5.1.5.1 The accent-able quality levels for clip package defects shall be as follows:

	Percent
Major	1.00
Minor	2.5

5.1.5.2 *Classification of defects.*

Clip package de/eets	*Minor*	*Major or Minor*
1. Missing cartridge(s).	X	---
2. Rusty, excessively oiled or otherwise defective clips. "	X	
3. Missing or torn carton (when required)	X	---
4. Missing or improper fillers or separaters.	X	---
5. Improper packaging of clipped ammunition in container.	X	---

* Defect is major if clip will not function l S intended; otherwise minor. If questionable, functioning test shall be made in appropriate service weapon or magazine, whichever is, applicable.

5.1.5.2.1 Visual standards for defects 3 and 4 are illustrated in the appendix (figs. 17-26).

5.1.6 Metallic linked belt package.

5.1.6.1 In some instances, metallic links show in the appendix are of a predecessor design but the visual standard is applicable to the present design.

5.1.6.2 The twist test (fig. 1) and the pull test shall be performed to detect broken or soft links in the belt of linked cartridges. Links that fail as a result of these tests shall be dismantled and scrapped and the cartridges visually inspected prior to rebelting.

5.1.6.2.1 With the belt extended full length on a table, grasp one end and flip it 180 degrees to its other side. The twisting action which progressively moves along the belt to the free end has enough snap to cause failure of weak links. After the test, the belt shall be inspected for any fractured or broken links that may be present.

5.1,6.2.2 One end of the belt shall be attached to a suitable hook on a horizontal table and the load indicated below applied to the other end: the belt being in contact with the table during the application of the load.

Caliber	Load
.30	25 lbs.
7.62mm	25 lbs.
.50	100 lbs.
20mm	115 lbs.

In lieu of a fixed load application, a testing device may he used which stretches the belts to predetermined lengths correlated with the loads prescribed above. The length of these belts shall be verified frequently; however, all M17 type linked belts shall be verified for a length of not greater than thirteen (13) feet, eight point five (8.5) inches when measured from center to center of the end primers with an applied load of 10 plus one minus 0 pounds. subsequent to the test, inspection of the belts for broken and stretched links shall be performed.

5.1.6.2.3 When 20mm cartridges are belted using the M17 link, a "frozen" link shall be detected by means of a flexibility test.

5.1.6.2.3.1 The belt shall hinge freely and fold over smoothly without kinking when the belt is pulled over itself until belt is completely reversed. This procedure shall then be repeated after the belt has been reversed to assure full motion of the belt when flexed from either side and in either direction.

5.1.6.2.3.2 A minimum of twenty-five (25) cartridges per belt shall be used for this test. If packing instructions require belts of greater length, the connecting links used to lengthen the belts shall be flexed after assembly in both directions to assure free hinging.

5.1.6 .2.3.3 A "frozen" M17 link detected by means of this flexibility test is critical and shall be cause for rejection of the lot.

5.1.6.3 The acceptable quality level for metallic link belt package defects shall be as follows:

	Percent
Major	1.00
Minor	2.5

5.1.6.4 *Classification of defects.*

Metallic linked belt package defects	Major	Minor
1. Ammunition packaged in wrong direction in box (Where applicable).	X	
2. Double loop of link on wrong end of linked ammunition in container. (Where applicable).	X	
3. Improper packaging of belt(s) in container other than defects 1 and 2.		X
4. Incorrect linking sequence		X
5. Stretched, broken or "frozen" belt*	X	
6. Foreign material, oil or grease; other than required.		X
7. Defective protective finish or rust on link(s).		X
8. Malformed link(s)	X	
9. Improper number of cartridges in belt(s) (exceeding 2 cartridges per belt). 20mm shall contain the specified amount.		X
10. Missing or improper fillers		X
11. Improper depth of insertion of cartridges in link(s).*		X
12. Missing, broken or malformed metallic belt end (when required).		X

* Defects are major for linked 20mm cartridges, except that a "frozen" link in M17 linked belt is classified as critical (see 5.1.6.2.3).

5.1.6.4.1 Visual standards for defects 5 through 8, 11 and 13 are iuulstrated in the appendix (figs. 27–56). The "frozen" belt illustrations in the appendix for defect #5 do not apply to 20mm.

5.1.7 *Bandoleer package.*

5.1.7.1 The acceptable quality levels for bandoleer package defects shall be as follows:

	Percent
Major	1.00
Minor	2.5

5.1.7.2 *Classification of defects.*

	Major	Minor	Major or Minor
1. Incorrect or illegible identification of bandoleer contents (type, caliber, and clip).	X		
2. Incorrect, illegible or missing ammunition lot number.		X	
3. Torn, ripped or otherwise defective bandoleer.		X	
4. Missing cartridge(s) or clip(s)		X	
5. Rusty, excessively oiled or otherwise defective clips.*			X
6. Missing or torn carton		X	
7. Missing or improper fillers or separators.		X	
8. Improper packaging of clipped ammunition in bandoleer.		X	
9. Improper pacakaging of bandoleer(s) in container.		X	
10. Missing magazine filler (when required).		X	
11. Missing safety pin (when required).		X	

* Defect is major if clip will not function as intended; otherwise minor. If questionable, functioning test shall be made in appropriate service weapon or magazine, whichever is applicable.

5.1.7.2.1 Visual standards for defects 2 through 4 are illustrated in the appendix (figs. 57–66). Defects 6 and 7 (figs. 17–26). Defects 8 and 9 (figs. 67–69).

5.1.7.3 In addition to the above inspection, when linked ammunition is packaged in cartons in bandoleers, the inspection procedures shall also include those listed under 5.1.6, Metallic linked belt package.

5.2 **Packaged and sealed container.** *Phase II.*

5.2.1 *Waterproof envelopes.*

5.2.1.1 The acceptable quality levels for envelope defects shall be as follows:

	Percent
Major	1.0
Minor	2.5

5.2.1.2 *Classification of defects.*

Envelope defects	Major	Minor
1. Torn, ripped, or improperly sealed envelope.	X	
2. Incorrect, illegible or missing ammunition lot number.	X	
3. Other markings incorrect, missing or illegible.		X

5.2.2 *Gasket sealed ammunition boxes.*

5.2.2.1 *Box leak test.*

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