#### TECHNICAL MANUAL

# ORGANIZATIONAL MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOL LIST)

**FOR** 

## SMALL ARMS AMMUNITION TO 30 MILLIMETER INCLUSIVE (FSC 1305)

This copy is a reprint which includes current pages from changes 1 through 12.

#### WARNINGS

DO NOT ROLL, DROP, THROW OR SUBJECT AMMUNITION TO ROUGH HANDLING.

AVOID INJURY FROM SHARP EDGES WHEN CUTTING AND HANDLING METAL STRAPPING. THE END OF THE BAND MAY FLY UP SUDDENLY WHEN TENSION IS RELEASED.

TO PREVENT INJURY, RELEASE TENSION BY PRESSING DOWN ON TOP OF BOX WHILE CUTTING STRAPS ON SIDE OF BOX. CUT LEAD SEAL WIRE WITH PLIERS AND REMOVE. TURN CATCH AND OPEN HASP, OR PULL OUT ON SPRING-LATCH TO RELEASE. LIFT BOX TOP TO OPEN. ON SPRING-LATCHED BOXES, NOTE POSITION OF TOP FOR GUIDANCE IN REPACKING. REMOVE TOP PADDING/FILLER (IF ANY) FROM BOX. REMOVE INNER PACK(s).

PRIMERS SHALL BE CLEANED ONLY WITH RAGS DIPPED IN ALCOHOL OR ACETONE PRIMERS SHALL BE COVERED WITH FIBER CONTAINER CAP DURING CLEANING, TOUCH-UP OF AMMUNITION.

ELECTRICALLY-PRIMED AMMUNITION CAN FIRE IF EXPOSED TO HIGH-POWER RADIO FREQUENCY FIELDS. AVOID CONTACT OF ANY KIND WITH THE PRIMER, ESPECIALLY METAL OBJECTS. SEE TM 9-1300-206 FOR AMMUNITION HANDLING INSTRUCTIONS

ANY AMMUNITION FOUND WITH EXPOSED EXPLOSIVE SHOULD BE DISPOSED OF IN THE PRESCRIBED MANNER, AS DIRECTED IN APPLICABLE STANDARD OPERATING PROCEDURES.

CHANGE ) ) NO. 19 ) HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, 18 October 2005

Organizational Maintenance Manual
(Including Repair Parts and Special Tools List)
for
Small Arms Ammunition to
30 Millimeter Inclusive
(FSC 1305)

DISTRIBUTION STATEMENT A - Approved for public release; distribution is unlimited.

TM 9-1305-201-20&P, 5 October 1981, is changed as follows:

- 1. File this change sheet in front of the publication for reference purposes.
- 2. Remove old pages and insert new pages as indicated below.
- 3. New or changed material is indicated by a vertical bar in the outer margin of the page.
- 4. Added or revised illustrations are indicated by a vertical bar adjacent to the illustration identification number.
- 5. Added or revised appendixes are indicated by a vertical bar adjacent to the appendix title.
- 6. This change also implements Army Maintenance Transformation and changes the Maintenance Allocation Chart (MAC) to support Field and Sustainment Maintenance.

Remove Pages	<u>Insert Pages</u>
A and B	A and B
iii and iv	iii and iv
2-5 and 2-6	2-5 and 2-6
2-13 and 2-14	2-13 and 2-14
None	2-14.1 and 2-14.2
2-15 and 2-16	2-15 and 2-16
A-1 and A-2	A-1 and A-2
B-1 thru B-3 (B-4 blank)	B-1 thru B-18
C-9 and C-10	C-9 and C-10
E-5 and E-6	E-5 and E-6
DA Form 2028-2	DA Form 2028

By Order of the Secretary of the Army:

Official:

PETER J. SCHOOMAKER General, United States Army Chief of Staff

SANDRA R. RILEY
Administrative Assistant to the
Secretary of the Army

0529402

CHANGE ) HEADQUARTERS
) DEPARTMENT OF THE ARMY
NO. 18 ) WASHINGTON, DC, 23 July 2004

Unit Maintenance Manual
(Including Repair Parts and Special Tools List)
for
Small Arms Ammunition to 30 Millimeter Inclusive
(FSC 1305)

DISTRIBUTION STATEMENT A - Approved for public release; distribution is unlimited.

TM 9-1305-201-20&P, 5 October 1981, is changed as follows:

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- 2. Remove old pages and insert new pages as indicated below.
- 3. New or changed material is indicated by a vertical bar in the outer margin of the page.

Remove Pages	Insert Pages
A and B	A and B
i and ii	i and ii
2-5 and 2-6	2-5 and 2-6
2-15 and 2-16	2-15 and 2-16
C-7 and C-8	C-7 and C-8

By Order of the Secretary of the Army:

PETER J. SCHOOMAKER General, United States Army Chief of Staff

Official:

JOEL B. HUDSON
Administrative Assistant to the
Secretary of the Army

Jul B Hulm

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CHANGE )
NO. 17 )

## HEADQUARTERS DEPARTMENT OF THE ARMY WASHINGTON, DC, 19 November 2002

# Unit Maintenance Manual (Including Repair Parts and Special Tools List) for Small Arms Ammunition to 30 Millimeter Inclusive (FSC 1305)

DISTRIBUTION STATEMENT A - Approved for public release; distribution is unlimited.

TM 9-1305-201-20&P, 5 October 1981, is changed as follows:

- 1. File this change sheet in front of the publication for reference purposes.
- 2. Remove old pages and insert new pages as indicated below.
- 3. New or changed material is indicated by a vertical bar in the outer margin of the page.

Remove Pages	<u>Insert Pages</u>
A and B	A and B
2-1 thru 2-6	2-1 thru 2-6
2-15 and 2-16	2-15 and 2-16
C-1 and C-2	C-1 and C-2
E-7 and E-8	E-7 and E-8

By Order of the Secretary of the Army:

ERIC K. SHINSEKI General, United States Army Chief of Staff

Official:

JOEL B. HUDSON
 Administrative Assistant to the Secretary of the Army

0231901

CHANGE )
NO. 16 )

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, 13 June 2002

# Unit Maintenance Manual (Including Repair Parts and Special Tools List) for Small Arms Ammunition to 30 Millimeter Inclusive (FSC 1305)

DISTRIBUTION STATEMENT A - Approved for public release; distribution is unlimited.

TM 9-1305-201-20&P, 5 October 1981, is changed as follows:

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- 2. Remove old pages and insert new pages as indicated below.
- 3. New or changed material is indicated by a vertical bar in the outer margin of the page.

Remove Pages	<u>Insert Pages</u>	
A and B	A and B	
2-3 and 2-4	2-3 and 2-4	
C-1 and C-2	C-1 and C-2	
E-1 and E-2	E-1 and E-2	

By Order of the Secretary of the Army:

ERIC K. SHINSEKI General, United States Army Chief of Staff

Official:

Administrative Assistant to the Secretary of the Army

0216813

Change )	HEADQUARTERS
)	DEPARTMENT OF THE ARMY
No. 15 )	Washington, D.C., 15 February 2002

# UNIT MAINTENANCE MANUAL (Including Repair Parts and Special Tools List) FOR SMALL ARMS AMMUNITION TO 30 MILLIMETER INCLUSIVE (FSC 1305)

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TM 9-1305-201-20&P, 5 October 1981, is changed as follows:

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Remove pages	<u>Insert pages</u>
A and B	A and B
2-5 and 2-6	2-5 and 2-6

2. File this change sheet in front of the publication for reference purposes.

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#### Distribution:

To be distributed in accordance with IDN 400305, requirements for TM 9-1305-201-20&P.

#### TM 9-1305-201-20&P C14

Change )	HEADQUARTERS
)	DEPARTMENT OF THE ARMY
No. 14 )	Washington, D.C., 16 March 2001

# UNIT MAINTENANCE MANUAL (Including Repair Parts and Special Tools List) FOR SMALL ARMS AMMUNITION TO 30 MILLIMETER INCLUSIVE (FSC 1305)

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

TM 9-1305-201-20&P, 5 October 1981, is changed as follows:

1. Remove old pages and insert new pages as indicated below. Changed material is indicated by a vertical bar in the margin of the page. New or changed illustrations are indicated by a black bar adjacent to the identification number.

Remove pages	Insert pages
None	A and B
i and ii	i and ii
2-3 thru 2-6	2-3 thru 2-6
2-15 and 2-16	2-15 and 2-16
A-1 and A-2	A-1 and A-2
C-1 thru C-6.2	C-1 thru C-14
D-1 and D-2	D-1 thru D-4
E-1 and E-2	E-1 and E-2
E-5 and E-6	E-5 and E-6

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Change	)	HEADQUARTERS
υ	)	DEPARTMENT OF THE ARMY
No. 13	)	Washington, D.C., 20 December 1996

## $\begin{array}{cccc} & UNIT & MAINTENANCE & MANUAL \\ (Including & Repair & Parts & and & Special & Tools & List) \\ & & & FOR \end{array}$

### SMALL ARMS AMMUNITION TO 30 MILLIMETER INCLUSIVE (FSC 1305)

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

TM 9-1305-201-20&P, 5 October 1981, is changed as follows:

1. Remove old pages and insert new pages as indicated below. Changed material is indicated by a vertical bar in the margin of the page. New or changed illustrations are indicated by a black bar adjacent to the identification number. A revised appendix A is indicated by a vertical bar adjacent to the title on page: A-1.

Remove pages	<u>Insert pages</u>	
A and B	None	
i thru iii	i thru iv	
1-1 and 1-2	1-1 and 1-2	
2-5 and 2-6	2-5 and 2-6	
2-15 and 2-16	2-15 and 2-16	
3-5 and 3-6	3-5 and 3-6	
None	3-6.1 and 3-6.2	
3-7 and 3-8	3-7 and 3-8	
A-1	A-1 and A-2	
C-3 and C-4	C-3 and C-4	
E-5 and E-6	E-5 and E-6	

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By Order of the Secretary of the Army:

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Chief of Staff

Official:

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Chan	ge	)	
		)	
No.	12	)	

HEADQUARTERS DEPARTMENT OF THE ARMY Washington, DC, 29 April 1994

# UNIT MAINTENANCE MANUAL (Including Repair Parts and Special Tools List) FOR SMALLARMS AMMUNITION TO 30 MILLIMETER INCLUSIVE (FSC 1305)

TM 9-1305-201-20&P, 5 October 1981, is changed as follows:

1. Remove old pages and insert new pages as indicated below. New or changed material is indicated by a vertical bar in the margin of the page. Added or revised illustrations are indicated by a vertical bar adjacent to the indentification number.

Remove pages	<u>Insert pages</u>
A (B blank) 2-5 and 2-6	A and B 2-5 and 2-6
2-15 and 2-16	2-15 and 2-16
C-3 and C-4	C-3 and C-4
E-5 and E-6	E-5 and E-6

2. File this change sheet in front of the publication for reference purposes.

By Order of the Secretary of the Army:

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Official:

MILTON H. HAMILTON
Administrative Assistant to the
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To be distributed in accordance with DA Form 12-40-E, Block 0305, requirements for TM 9-1305-201-20&P

Change)	HEADQUARTERS
)	DEPARTMENT OF THE ARMY
No. 11 )	Washington, DC, 29 January 1993

# UNIT MAINTENANCE MANUAL (Including Repair Parts and Special Tools List) FOR SMALL ARMS AMMUNITION TO 30 MILLIMETER INCLUSIVE (FSC 1305)

TM 9-1305-201-20&P, 5 October 1981, is changed as follows:

1. Remove old pages and insert new pages as indicated below. New or changed material is indicated by a vertical bar in the margin of the page. Added or revised illustrations are indicated by a vertical bar adjacent to the indentification number.

Remove pages	Insert pages
A (B blank)	A (B blank)
2-5 and 2-6	2-5 and 2-6
2-15 and 2-16	2-15 and 2-16
C-3 and C-4	C-3 and C-4
E-5 and E-6	E-5 and E-6

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Change ) No. 10 ) HEADQUARTERS DEPARTMENT OF THE ARMY Washington, DC, 15 October 1992

# UNIT MAINTENANCE MANUAL (Including Repair Parts and Special Tools List) FOR SMALL ARMS AMMUNITION TO 30 MILLIMETER INCLUSIVE (FSC 1305)

TM 9-1305-201-20&P, 5 October 1981, is changed as follows:

1. Remove old pages and insert new pages as indicated below. New or changed material is indicated by a vertical bar in the margin of the page. Added or revised illustrations are indicated by a vertical bar adjacent to the indentification number,

Remove pages	Insert pages
A	A (B blank)
i thru iii (iv blank)	i thru iii (iv blank)
3-19 (3-20 blank)	3-19 and 3-20
C-5 and C-6	C-5 and C-6
C-6.1 and C-6.2	C-6.1 and C-6.2
C-7 and C-8	C-7 and C-8
E-9 and E-10	E-9 and E-10

2. File this change sheet in front of the publication for reference purposes.

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GORDON R. SULLIVAN General, United States Army Chief of Staff

Official:

MILTON H. HAMILTON Administrative Assistant to the Secretary of the Army

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Change )
No. 9 )

HEADQUARTERS DEPARTMFNT OF THE ARMY Washington, DC, 3 September 1992

# UNIT MAINTENANCE MANUAL (Including Repair Parts and Special Tools List) FOR SMALL ARMS AMMUNITION TO 30 MILLIMETER INCLUSIVE (FSC 1305)

TM 9-1305-201-20&P, 5 October 1981, is changed as follows:

1. Remove old pages and insert new pages as indicated below. New or changed material is indicated by a vertical bar in the margin of the page.

Remove pages	<u>Insert pages</u>
A	A (B blank)
2-5 and 2-6	2-5 and 2-6
2-15 thru 2-18	2-15 thru 2-18
C-3 thru C-6	C-3 thru C-6
E-7 and E-8	E-7 and E-8

2. File this change sheet in front of the publication for reference purposes.

By Order of the Secretary of the Army:

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Change )
N o . 8 )

HEADQUARTERS DEPARTMENT OF THE ARMY Washington, DC, 15 June 1992

#### UNIT MAINTENANCE MANUAL

 $(Including\ Repair\ Parts\ and\ Special\ Tools\ List)$ 

FOR

SMALL ARMS AMMUNITION TO 30 MILLIMETER INCLUSIVE

(FSC 1305)

TM 9-1305-201-20&P, 5 October 1981, is changed as follows:

1. Remove old pages and insert new pages as indicated below. New or changed material is indicated by a vertical bar in the margin of the page.

Remove pages	<u>Insert pages</u>
A 2-5 and 2-6 2-15 and 2-16	A 2-5 and 2-6 2-15 and 2-16
E-5 and E-6	E-5 and E-6

2. File this change sheet in front of the publication for reference purposes.

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GORDON R. SULLIVAN General, United States Army Chief of Staff

Official: Milto St. Semetho

MILTON H. HAMILTON

Administrative Assistant to the

Secretary of the Army

02077

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Change )
N o . 7 )

HEADQUARTERS DEPARTMENT OF THE ARMY Washington, DC, 15 January 1992

## UNIT MAINTENANCE MANUAL (Including Repair Parts and Special Tools List) FOR

### SMALL ARMS AMMUNITION TO 30 MILLIMETER INCLUSIVE

(FSC 1305)

TM 9-1305-201-20&P, 5 October 1981, is changed as follows:

1. Remove old pages and insert new pages as indicated below. New or changed material is indicated by a vertical bar in the margin of the page.

Remove pages	Insert pages
A	A
iii (iv blank)	iii (iv blank)
2-13 and 2-14	2-13 and 2-14
2-17 (2-18 blank)	2-17 (2-18 blank)
B-3 (B-4 blank)	B-3 (B-4 blank)
C-5 and C-6	C-5 and C-6
C-7 (C-8 blank)	C-7 (C-8 blank)
E-9 (E-10 blank)	E-9 and E-10

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GORDON R. SULLIVAN General, United States Army Chief of Staff

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To be distributed in accordance with DA Form 12-40-E, (Block 0305), Requirements for TM 9-1305-201-20&P.

C h a n g e ) HEADQUARTERS
DEPARTMENT OF THE ARMY
No. 6 Washington, DC, 15 March 1991

## UNIT MAINTENANCE MANUAL (Including Repair Parts and Special Tools List) FOR

## SMALL ARMS AMMUNITION TO 30 MILLIMETER INCLUSIVE (FSC 1305)

TM 9-1305-201-20&P, 5 October 1981, is changed as follows:

1. Remove old pages and insert new pages as indicated below. New or changed material is indicated by a vertical bar in the margin of the page.

Remove pages	<u>Insert pages</u>
A/(B blank)	A
2-7 and 2-8	2-7 and 2-8
2-17/(2-18 blank)	2-17 (2-18 blank)
3-1 thru 3-4	3-1 thru 3-4
C-5 and C-6	C-5 and C-6
None	C-6.1 (C-6.2 blank)
E-9/(E-10 blank)	E-9 and E-10

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By Order of the Secretary of the Army:

CARL E. VUONO General, United States Army Chief of Staff

Official:

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Brigadier General, United States Army
The Adjutant General

#### Distribution:

To be distributed in accordance with DA Form 12-40E, Block # 0305, formerly DA Form 12-40A-R, Unit maintenance for Small Arms Ammunition.

Change	)	HEADQUARTERS
C	)	DEPARTMENT OF THE ARMY
No. 5	)	Washington, DC, 10 October 1989

## UNIT MAINTENANCE MANUAL (Including Repair Parts and Special Tools List) FOR

## SMALL ARMS AMMUNITION TO 30 MILLIMETER INCLUSIVE (FSC 1305)

TM 9-1305-201-20&P, 5 October 1981, is changed as follows:

1. Make the following pen-and-ink change: Cross out text (using a large X) on page as listed below and <u>retain</u> color illustration as indicated. (A new page 2-1 is provided.)

Cross out page	Retain color illustration on page
2-1	2-2

2. Remove old pages and insert new pages as indicated below. New or changed material is indicated by a vertical bar in the margin of the page.

Remove pages	Insert pages
A	A/(B blank)
None	2-1
2-7 and 2-8	2-7 and 2-8
2-17/(2-18 blank)	2-17/(2-18 blank)
C-5 and C-6	C-5 and C-6
C-7/(C-8 blank)	C-7/(C-8 blank)
E-9	E-9/(E-10 blank)

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CARL E. VUONO
General, United States Army
Chief of Staff

Official:

WILLIAM J. MEEHAN, II Brigadier General, United States Army The Adjutant General

Distribution:

To be distributed in accordance with DA Form 12-40A-R, Unit maintenance for Small Arms Ammunition.

Change)

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 22 January 1986

### UNIT MAINTENANCE MANUAL (Including Repair Parts and Special Tools List)

## SMALL ARMS AMMUNITION TO 30 MILLIMETER INCLUSIVE (FSC 1305)

TM 9-1305-201-20&P, 5 October 1981, is changed as follows:

1. Remove old pages and insert new pages as indicated below. New or changed material is indicated by a vertical bar in the margin of the page.

Remove pages	Insert pages
A 2-5 and 2-6 2-15 and 2-16 C-1 and C-2 None C-3 thru C-6 E-5 and E-6 E-6.1 (E-6.2 blank) E-7 and E-8	A 2-5 and 2-6 2-15 and 2-16 C-1 and C-2 C-2.1 (C-2.2 blank) C-3 thru C-6 E-5 and E-6 E-6.1 (E-6.2 blank) E-7 and E-8
L-/ and L-0	

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By Order of the Secretary of the Army:

JOHN A. WICKHAM, JR. General, United States Army Chief of Staff

Official:

MILDRED E. HEDBERG Brigadier General, United States Army The Adjutant General

#### Distribution:

To be distributed in accordance with DA Form 12-40A-R, Organizational maintenance for Small Arms Ammunition.

CHANGE \ \ \ \ \ \ \ \ \ \ \ \ \ NO. 3 )

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 10 December 1985

### UNIT MAINTENANCE MANUAL (Including Repair Parts and Special Tools List)

### SMALL ARMS AMMUNITION TO 30 MILLIMETER INCLUSIVE (FSC 1305)

TM 9-1305-201-20&P, 5 October 1981, is changed as follows:

- 1. Title of manual is changed as shown above.
- 2. Remove old pages and insert new pages as indicated below. New or changed material is indicated by a vertical bar in the margin of the page.

Remove pages	Insert pages
None	A
i and ii	i and ii
2-5 and 2-6	2-5 and 2-6
2-15 and 2-16	2-15 and 2-16
C-3 and C-4	C-3 and C-4
E-5 and E-6	E-5 and E-6
None	E-6.1 (E-6.2 blank)

3. File this change sheet in front of the publication for reference purposes.

By Order of the Secretary of the Army:

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Official:

MILDRED E. HEDBERG Brigadier General, United States Army The Adjutant General

#### Distribution:

To be distributed in accordance with DA Form 12-40A-R, Organizational maintenance for Small Arms Ammunition.

CHANGE)
NO. 2)

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 31 July 1985

# ORGANIZATIONAL MAINTENANCE MANUAL (Including Repair Parts and Special Tools List) FOR SMALL ARMS AMMUNITION TO 30 MILLIMETER INCLUSIVE (FSC 1305)

TM 9-1305-201-20&P, 5 October 1981, is changed as follows:

1. Remove old pages and insert new pages as indicated below. New or changed material is indicated by a vertical bar in the margin of the page. Added or revised illustrations are indicated by a vertical bar adjacent to the identification number.

Remove pages	Insert pages
i thru iii 2-9 and 2-10 2-15 thru 2-17 None C-1 thru C-6 C-6.1	i thru iii (iv blank) 2-9 and 2-10 2-15 thru 2-17 (2-18 blank) 3-19 (3-20 blank) C-1 thru C-6 None
C-7	C-7 (C-8 blank)

2. File this change sheet in front of the publication for reference purposes.

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The Adjutant General

Distribution:

To be distributed in accordance with DA Form 12-40A-R, Organizational maintenance for Small Arms Ammunition.

CHANGE No. 1

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, 26 August 1982

## ORGANIZATIONAL MAINTENANCE MANUAL (Including Repair Ports and Special Tools Lists) For

### SMALL ARMS AMMUNITION TO 30 MILLIMETER INCLUSIVE

(FSC 1305)

TM 9-1305-201-20&P, 5 October 1981, is changed as follows:

1. Remove old pages and insert new pages as indicated below. New or changed material is indicated by a vertical bar in the margin of the page.

Remove Pages	Insert pages
2-1 through 2-8	2-1 through 2-6
2-15 and 2-16	2-15 and 2-16
B-3/(B-4 blank)	B-3/(B-4 blank)
C-1 through C-6	C-1 through C-6.1
E-3 through E-10	E-3 through E-9

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Official:

ROBERT M. JOYCE Brigadier General, United States Army The Adjutant General

Distribution:

To be distributed in accordance with DA Form 12-40, Organizational maintenance requirements for Small Arms Ammunition.

### LIST OF EFFECTIVE PAGES

INSERT LATEST CHANGED PAGES. DESTROY SUPERSEDED PAGES.

NOTE The portion of the text affected by the changes is indicated by a vertical line in the outer margins of the page. Changes to illustrations are indicated by a vertical line adjacent to the identification number.

#### Dates of issue for original and changed pages are:

Original 0 5 October 1981	Change
Change 1 26 August 1982	Change
Change	Change 12 29 April 1994
Change	Change 13 20 December 1996
Change	Change 14 16 March 2001
Change	Change
Change 6 15 March 1991	Change 16
Change	Change 17 19 November 2002
Change 15 June 1992	Change 23 July 2004
Change 9 3 September 1992	Change 19 18 October 2005

#### TOTAL NUMBER OF PAGES IN THIS PUBLICATION IS 101, CONSISTING OF THE FOLLOWING:

Page	*Change	Page	*Change	Page	*Change
Cover	0	A-1 and A-2	19		
A	19	B-1 thru B-18	19		
В	0	C-1	14		
i	18	C-2	17		
ii	13	C-3 thru C-6	14		
iii	19	C-7 and C-8	18		
iv	13	C-9			
1-1 and 1-2	13	C-10			
2-1	17	C-11 thru C-14	14		
2-2 and 2-3	1	D-1 thru D-4	14		
2-4	17	E-1	0		
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TECHNICAL MANUAL

**HEADQUARTERS** DEPARTMENT OF THE ARMY Washington, DC, 5 October 1981

No. 9-1305-201-20&P

#### UNIT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST) **FOR** SMALL ARMS AMMUNITION TO 30 MILLIMETER INCLUSIVE (FSC 1305)

#### REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) located in the back of this manual directly to Logistics Research and Engineering Directorate (AMSRD-AAR-AIL-LS), U.S. Army RDECOM, Armament Research, Development and Engineering Center, Picatinny, NJ 07806-5000. You may also send in your recommended changes via electronic mail or by fax. Our e-mail address is LSB@PICA.ARMY.MIL. Our fax number is DSN 880-4633, Commercial (973) 724-4633. A reply will be furnished to you.

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## CHAPTER 1 INTRODUCTION

#### 1-1. Scope

This manual, one of a series on maintenance and service of ammunition, contains the information required to support organizational level maintenance of small arms ammunition ranging from 22 caliber through 30 millimeter and shotgun ammunition from .410 to 10 and 12 gage. Federal Supply Class 1305 inclusive. Operating instructions are contained in the appropriate weapons manuals.

#### 1-2. Forms, Records and Reports

- a. Authorized Forms. Forms required by organizational maintenance personnel are listed in appendix A and in DA Pam 25-30. Information on applicability and instructions for completing forms are published in TM 38-750.
- h. Field Report of Accidents. Accidents involving injury to personnel or damage to materiel will be reported on DA Form 285 in accordance with AR 385-40. Malfunctions will he reported in accordance with AR 75-1.
- c. Report of Damaged or Improper Shipment. Materiel received in damaged or otherwise unsatisfactory condition because of deficiencies in preservation, packaging, marking, loading, storage, or handling will he reported on SF Form 364 in accordance with AR 735-11-2. Reports of improper shipment or damage caused by transportation discrepancies will be reported on SF Form 361 in accordance with AR 55-38.

### 1-3. Destruction of Ammunition to Prevent Enemy Use

Destruction of munitions when subject to capture or abandonment will he undertaken by the user only when, in judgement of the unit commander concerned. such action is necessary in accordance with orders of, or policy established by, the Army commander.

#### 1-4. Safety

Observe all safety regulations, local standing operating procedures and precautions generally applicable to ammunition. Disassembly of explosive components without specific authorization is prohibited. The U.S. Nuclear Regula-

tory Commission set standard/conditions, and issue licenses for the safe use, storage and possession of radioactive material. Current copies of title 10, parts 19, 20, and 21 as well as licensed operating procedures are maintained by the HO IOC Health Physicist and may be examined at HQ IOC. Rock Island, II. 61299-6000. The NRC source material license for the radioactive material contained in the manual is maintained by HQ IOC, Rock Island, IL 61299-6000. Users of this material may request further information from: Commander, U.S. Army IOC, ATTN: AMSIO-DMW (RPO), Rock Island, II. 61299-6000. The cartridge 25MM APFSDS-T M919 utilizes Depleted Uranium (DU) that emits very low level radiation. Care must he taken when handling this round to avoid direct contact with the DU penetrator. Loss or unauthorized firings of M919 rounds must be reported through the chain of command as soon as discovered. All transmissions regarding incidents of this nature must he marked FOUO (For Official Use Only). IOC Headquarters must be notified within 24 hours of discovery. Report to Commander, IOC/ ACALA, ATTN: AMSIO-DMW (RPO), Rock Island, IL 61299-6000 DSN: 793-0338/2969. Commercial: (309) 782-0338/2969. After normal duty hours contact SDO (Staff Duty Officer) DSN: 793-6001. Commercial: (309) 782-6001.

#### 1-5. Care and Handling

- a. Small-arms ammunition is not dangerous to handle. However, no ammunition should he subjected to rough treatment. This ammunition is packed to withstand conditions ordinarily encountered in the field; moisture-resistant containers and suitable packing boxes are used to provide protection for shipment and storage. Cart: must he taken to prevent these packings from becoming broken or damaged. All broken packings must be repaired immediately with careful attention given to the transfer of all markings to the new parts.
- b. Boxes should he opened carefully as they are to be used as long as they are serviceable.
- c. Ammunition boxes should not he opened until the ammunition is required for use. Ammunition removed from airtight containers, particularly in damp climates, is apt to corrode, thereby rendering the ammunition unserviceable.

- d. Cartridges should be protected from high temperatures and the direct rays of the sun for any considerable length of time. Such exposure is likely to affect the firing qualities of the carridges. The combination of high temperatures and a humid atmosphere is particularly detrimental to the stability of the propellant powder and to tracer mixture in tracer ammunition.
- C. Cartridges should be protected from sand, mud. moisture, frost, snow, ice. oil, grease, of other foreign matter. If cartridges get wet or dirty, they should be wiped off at once. If verdigris or light corrosion forms on cartridges, it should be wiped off with a clean dry cloth. Cartridges should not be polished to make them look better or brighter.
- f. The use of oil or grease on small-arms cartridges is prohibited. Oil or grease might cause injurious abrasives to collect in automatic weapons and produce excessive and hazardous chamber pressures when fired. Some specific rounds of ammunition may require lubrication with dry film lubricant to rectify specific operational problems. This dry film lubricant is not to he used on ammunition items other than those specifically identified by bulletins and is to he applied only as directed.
- g. Whenever practical, small-arms ammunition should be stored under cover. This applies particularly to tracer and shotgun ammunition. Tracer ammunition is subject to rapid deterioration if it becomes dump. When it is necessary to store this ammunition in open storage, raise it on dunnage at least 6 inches from the ground and cover it with a double thickness of paulin, leaving enough space for the circulation of air. Where practical, dunnage strips should he placed under each layer of ammunition boxes to prevent mildew and rot. Suitable trenches should he dug to prevent water from running under the pile.
- h. Ammunition, when stored, should be segregated by caliber, type, and ammunition lot.
- i. When only a part of a box of ammunition is issued or used, the ammunition remaining in the box should he protected by firmly fastening the cover.

- j. Ammunition removed removed the original packing should be be tagged or marked so as to preserve the Ammunition lot number and model number. Such identification is necessary to prevent other serviceable ammunition being classified as unserviceable through loss of identity.
- k. Electrically-printed ammunition can be fired if exposed to High-Power Radio frequency fields. Avoid contact of any kind with the primer, especially metal objects.
- I. Evidence of Depleted Uranium (I)U) corrosion is visible in the form of a yellowish or white powder or stain seen on the outer surfaces of the projectile and can become a hazard to personnel. If corroded (yellow or white corrosion) APFSDS-T M919 ammunition is encountered, ammunition must be handled with gloves. The ammunition must be placed in the original pack, tagged unserviceable, and returned through normal supply channels. Avoid getting DU corrosion on hands. blush hands before eating or touching face. Dispose of gloves in accordance with AK 385-11.
- m. In general, when handling any material contaminated by DU avoid touching the corrosion by wearing gloves. Regardless if gloves are worn always flush hands before eating or touching face.
- n. When handling saboted ammunition with an exposed penetrator (with no indication of corrosion, M919 DU round) wear gloves. Regardless if gloves are worn, always flush hands before eating or touching face. The gloves do not have to be disposed of as radioactive waste.
- o. Exposure to 25MM APFSDS-T M919 ammunition results in exposure to low level radiation. The amount of radiation the soldier receives is proportional to the amount of time spent in the vicinity of APFSDS-T M919 ammunition. Although the radiation exposure received is low and considered safe, avoid unnecessary contact with packaged APFSDS-T M919 ammunition, within mission constraints.

### CHAPTER 2 DESCRIPTION AND DATA

#### Section I. GENERAL

#### 2-1. Types of Small Arms Cartridge

- a. The definition of a small arms cartridge is the assemblage of the cartridge case, primer, propellant and bullet or shot in a single unit of ammunition .30 millimeter or smaller. The complete assembly consists of all the components required to fire a weapon once.
- b. Depending upon its purpose, small-arms cartridges are classified according to type as follows:

Combat (sarviga)	Noncombat (special)
Combat (service)	
Armor-piercing	Blank
Armor-piercing discarding sabot-tracer	Dummy
Armor-piercing fin stabilized discarding sabot-tracer	Frangible
Armor-piercing- incendiary	High-pressure test
Armor-piercing- incendiary- tracer	Line-throwing

Combat (service)	Noncombat (special)
Ball	Practice-limited
	range
Ball, hornet	Target Practice
	discarding sabot
	with tracer
Grenade cartridge	Match
Incendiary	Practice
	Practice-Tracer
*Jacketed Hollow-Point	
Shotgun cartridge	Shotgun cartridge
Spotter-tracer	
Tracer	

<sup>\*</sup>For U.S. Army Law Enforcement use in the United States and it's territories only.

#### 2-2. Identification

- a. General. Small arms ammunition is identified completely by marking the nomenclature on packing, including the nomenclature ammunition lot number and the National Stock Number (NSN) and the Department of Defense Identification Code (DODIC).
- b. Color Coding. Some small arms ammunition bullet tips are painted in various colors as a ready means of identification (see figs 2-1 and 2-2).

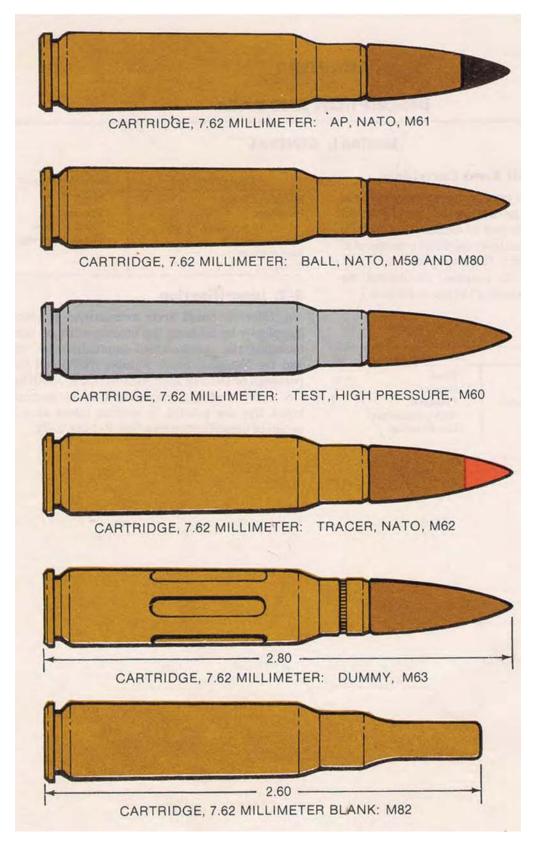


Figure 2-1. 7.62 millimeter cartridges.

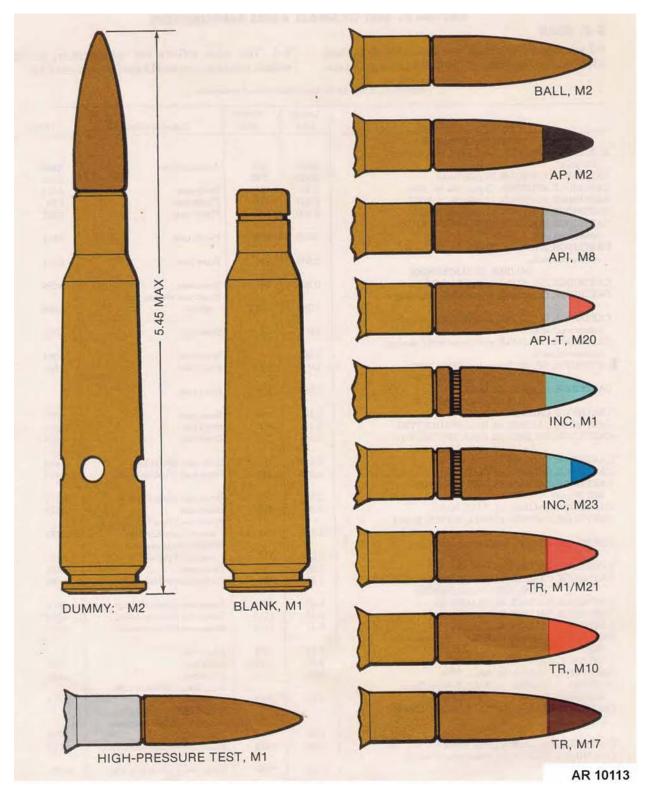


Figure 2-2. Caliber .50 cartridges.

#### Section II. LIST OF SMALL ARMS AMMUNITION

#### 2-3. Data

This table reflects the nomenclature, length, weight, identification, and DODIC of each cartridge.

All cartridges (rounds) of the Federal Supply Class 1305 used by the Army in the field are listed in table 2-1.

Table 2-1. Army Authorized Small Arms Ammunition

		1		
Nomenclature and Caliber	Length (in.)	Weight (grain)	Color Identification	DODIC
SHOTGUN CARTRIDGES				
CARTRIDGE, SHOTGUN, .410 NO. 6, M35, CALIBER .22/ .410 GAGE	2.69	430	Aluminum case	A055
CARTRIDGE, SHOTGUN, 10 GAGE, BLANK	2.875	290		A010
CARTRIDGE, SHOTGUN, 12 GAGE, NO. 00, M19	2.75	930	Brass case	A011
CARTRIDGE, SHOTGUN, 12 GAGE, NO. 4, M257	2.515	748	Plastic case	A011
CARTRIDGE, SHOTGUN, 12 GAGE, NO. 4, M274	2.53	74	Plastic case	A021
CARTRIDGE, SHOTGUN, 12 GAGE, NO. 00, M162, COM- MERCIAL PACK	2.53	736	Plastic case	A011
CARTRIDGE, SHOTGUN, 12 GAGE, NO. 00, PAPER, COMMERCIAL PACK	2.53	791	Paper case	A011
CONTROL, M1012	2.45	(90-Proj)	Green tipped plastic case	AA51
CARTRIDGE, SHOTGUN, 12 GAGE, NON-LETHAL, CROWD DISPERSAL, M1013	2.37	(69-Proj)	Green tipped plastic case	AA52
CARTRIDGE, SHOTGUN, 12 GAGE, BREACHING, M1030 CALIBER .22 CARTRIDGES	2.45		Brown tipped plastic case	AA54
CARTRIDGE, CALIBER .22, BALL, LONG RIFLE, M24	0.995	53	Brass case	A089
CARTRIDGE, CALIBER .22, BALL, HORNET M65 (SOFT POINT)	1.723	103	Brass case w/center fire primer	A088
CARTRIDGE, CALIBER .22, BALL, LONG RIFLE, MATCH GRADE, COMMERCIAL PACK	1.0	53	Brass case	A091
CARTRIDGE, CALIBER .22, BALL, SHORT SUPER MATCH OR EQUAL COMMERCIAL PACK	0.69		Brass case	A084
CARTRIDGE, CALIBER .22, TRACER, LONG RIFLE, M861 CALIBER .32 CARTRIDGES	1.0	48	Brass case	A090
CARTRIDGE, CALIBER .32, BALL CALIBER .38 CARTRIDGES	0.984	115	Brass case	A350
CARTRIDGE, CALIBER .38, BALL	1.18	196	Brass case	A401
CARTRIDGE, CALIBER .38, BALL WAD CUTTER	1.16	220	Brass case	A404
CARTRIDGE, CALIBER .38, BALL, SPECIAL, M41 CALIBER .45 CARTRIDGES	1.55	203	Brass case	A400
CARTRIDGE, CALIBER .45, BLANK, M9	1.108	104	Brass case w/o bullet	A476
CARTRIDGE, CALIBER .45 TRACER, M26	1.275	331	Brass case w/red tip bullet	A479
CARTRIDGE, CALIBER .45, LINE THROWING, M32 (BLANK)	2.0	192	Brass case w/o bullet	A477
CARTRIDGE, CALIBER .45, BALL, M1911	1.275	331	Brass case	A475
CARTRIDGE, CALIBER .45, BALL, MATCH, M1911	1.275	334	Brass case w/head stamping on base of cartridge (NM)	A483
DUMMY CARTRIDGE, CALIBER .45, M1921	1.275	305	Drilled holes in case and absence of primer	A501
CARTRIDGE, CALIBER .45, WAD CUTTER	1.255	330	Brass case	A482
CARTRIDGE, CALIBER .45, HIGH PRESSURE TEST, M1 CALIBER .50 CARTRIDGES	1.28	324	Stannic stained (silvered)	A480
CARTRIDGE, CALIBER .50, TRACER, M1	5.49	1785	Brass case w/red bullet tip	A570
CARTRIDGE, CALIBER .50, TRACER, M10	5.45	1752	Brass case w/orange bullet	A570
CARTRIDGE, CALIBER .50, TRACER, M17	5.45	1732	Brass case w/brown bullet	A570
CARTRIDGE, CALIBER .50, BALL HIGH PRESSURE TEST, M251	4.53	1902	Silver case	
CARTRIDGE, CALIBER .50, BALL, M2	5.45	1813	Brass case	A555
CARTRIDGE, CALIBER .50, BALL, M33	5.45	1762	Brass case	A552
CARTRIDGE, CALIBER .50, BALL, SPOTTER-TRACER, M48A2 (A1 RIFLE M8C)	4.53	1744	Body design different than other cartridges	A574

Table 2-1. Army Authorized Small Arms Ammunition

Table 2-1. Army Audiorized Sman Arms Ammunition						
Nomenclature and Caliber	Length (in.)	Weight (grain)	Color Identification	DODIC		
CALIBER .50 CARTRIDGES - Continued CARTRIDGE CALIBER .50, BALL, Practice T249E2 (A1 Rifle M8C)	4.53	1738	Body design different than other cartridges has green bullet tip.	A579		
CARTRIDGE, CALIBER .50, Ball, Armor Piercing, M2.	5.45	1812	Brass case w/black bullet tip	A525		
CARTRIDGE CALIBER .50, Ball, Armor Piercing Incendiary M8.	5.45	1764	Brass case w/silver bullet tip	A531		
CARTRIDGE, CALIBER .50, Ball, Armor Piercing Incendiary- Tracer, M20.	5.45	1718	Brass case w/silver ring to rear of red bullet tip.	A532		
CARTRIDGE, CALIBER .50, Incendiary M1.	5.45	1744	Brass case w/blue bullet tip.	A562		
CARTRIDGE, CALIBER .50, Incendiary M23.	5.45	1581	Brass case w/blue bullet tip w/light blue ring.	A563		
CARTRIDGE, CALIBER .50, Blank, M1.	3.910	9.7	Brass crimped case w/o bullet.	A558		
CARTRIDGE, CALIBER .50, Blank, M1A1.	3.910	9.15- 9.55	Brass rosette crimp at mount.	A559		
DUMMY CARTRIDGE, CALIBER .50, M2.	5.45	1248	3 drilled holes in cartridge case and no primer.	A560		
CARTRIDGE, CALIBER .50, HIGH PRESSURE TEST, M1.	5.45	2082	Stannic stained (silver) cartridge.	A575		
CARTRIDGE, CALIBER .50, SABOTED LIGHT ARMOR PENETRATOR (SLAP) M903.	5.45	1466	Brass case w/amber sabot (ultem 1000).	A518		
CARTRIDGE, CALIBER .50, SABOTED LIGHT ARMOR PENETRATOR TRACER (SLAP-T) M962.	5.45	1466	Brass case w/red sabot (ultem 1000).	A518		
CARTRIDGE, CALIBER .50, API MK211.	5.45	1765	Brass case w/green bullet tip.	A606		
5.56MM CARTRIDGES				(Navy)		
	2.26	182	Brass.	A066		
CARTRIDGE, 5.56MM, BALL, M193. CARTRIDGE, 5.56MM: BALL, M855.	2.26	190.0	Green bullet tip.	A064		
CARTRIDGE, 5.56MM, GRENADE, M195.	1.90	126	Rosette crimp case w/o bullet.	G841		
CARTRIDGE, 5.56MM, TRACER, M196.	2.26	177	Brass case w/red bullet tip.	A069		
CARTRIDGE, 5.50MM, TRACER, M170.	2.20	1 / /	Blass case wired bullet tip.	A071		
CARTRIDGE, 5.56MM: TRACER, M856.	2.26	192.0	Orange bullet tip.	A064		
CARTRIDGE, 5.56MM: SHORT RANGE, TRAINING M862.	2.05	108.0	Blue bullet (plastic).	A065		
CARTRIDGE, 5.56MM, ARMOR PIERCING, M995.	2.26	180	Black bullet tip.			
CARTRIDGE, 5.56MM, BLANK, M200.	1.90	107	Rosette crimp at cartridge case mouth.	A080		
DUMMY CARTRIDGE, 5.56MM, M199.	2.26	150	6 longitudinal crimps in cartridge case.	A060		
DUMMY CARTRIDGE, 5.56MM, M232.	2.26	161	Black.	A069		
CARTRIDGE, 5.56MM, GRENADE M755.	1.90	112	Rosette crimped case tip of crimp painted yellow.	*		
CARTRIDGE, 5.56MM: HIGH PRESSURE TEST, M197.	2.26	174	Stannic-stained (silver) or Nickel-Plate/case.	A070		
7.62MM CARTRIDGES						
CARTRIDGE, 7.62MM, GRENADE M64.	2.0	295	Brass case has rosette crimp w/o ball.	G839		
CARTRIDGE, 7.62MM, BLANK, M82.	2.623	235	Brass case w/double tapered neck.	A110		
CARTRIDGE, 7.62MM, FRANGIBLE, M160.	2.80	315	Brass case w/green bullet tip w/white ring.	A147		
CARTRIDGE, 7.62MM, BALL, M59.	2.80	393	Brass case.	A122		
CARTRIDGE, 7.62MM, BALL, M80.	2.80	392	Brass case.			
CARTRIDGE, 7.62MM, BALL, MATCH, M852.	2.83	390	Brass case stamped by N.M.	A171		
CARTRIDGE, 7.62MM, BALL, SPECIAL, M118: LR	2.83	390	Brass case stamped by LR	AA11		
CARTRIDGE, 7.62MM, SPECIAL BALL, M118	2.83	390	Brass case	A136		
CARTRIDGE, 7.62MM, BALL, DUPLEX M198.	2.80	411	Brass case w/green bullet tip.	4.100		
CARTRIDGE, 7.62MM, ARMOR PIERCING, M61.	2.80	393	Brass case w/black bullet tip.	A120		
CARTRIDGE, 7.62MM, TRACER, M62.	2.80	383	Brass case w/orange bullet tip.	A132		
DUMMY CARTRIDGE, 7.62MM, M63.	2.80	258	6 longitudinal corrugations.	A135		
DUMMY CARTRIDGE, 7.62MM, M172.	2.80	385	Black.	A162		
CARTRIDGE, 7.62MM, DIM TRACER, M276.	2.8	381	Brass case w/pink ring to rear of green tip.	A163		
CARTRIDGE, 7.62MM, ARMOR PIERCING, M993.	2.80	362.6	Black stripe circling tip	A 120		
CARTRIDGE, 7.62MM: HIGH PRESSURE TEST, M60. CARTRIDGE, 7.62MM NATO, REFERENCE	2.80 2.80	412 392	Stannic-stained (silver) case. Brass case	A129 A150		
9MM CARTRIDGES						
CARTRIDGE, 9MM, BALL.	1.169	182	Brass case.	A360		
CARTRIDGE, 9MM, JACKETED-HOLLOWPOINT, MK243 Mod 0.**	1.150	147	Brass case.	A260		

<sup>\*</sup>Item is packed with carrier D122-3141.

<sup>\*\*</sup>For U.S. Army Law Enforcement use in the United States and it's territories only.

Table 2-1. Army Authorized Small Arms Ammunition - Continued

	-	1	1	1
	Length	Weight		
Nomenclature and Caliber	(in.)	(grain)	Color Identification	DODIC
14.5MM CARTRIDGES				
CARTRIDGE, 14.5MM, TRAINER-SPOTTER, M181A1.	2.559	1065	Brass case has markings w/yellow projectile tip and has no fuze.	A365
CARTRIDGE, 14.5MM, TRAINER-SPOTTER, M182A1.	2.559	1065	Brass case has markings w/yellow projectile tip and has no fuze.	A366
CARTRIDGE, 14.5MM, TRAINER-SPOTTER, M183A1.	2.559	1065	Brass case has markings w/yellow projectile tip and has no fuze.	A367
20MM CARTRIDGES				
CARTRIDGE, 20MM, API-T, M52E1.	6.575	3900	Brass or steel case w/black projectile w/red	A869
CARTRIDGE, 20MM: API, M53.	6.575	3980	markings. Brass or steel case w/black projectile w/white markings.	A870
CARTRIDGE, 20MM, AP-T, M95.	7.23	39935	Brass case, steel windshield on projectile painted black w/white markings.	A765
DUMMY CARTRIDGE, 20MM: M51A2.	6.615	3850	Steel case, chromate markings in metal stamp.	
CARTRIDGE, 20MM: HPT, M54A1.	6.615	4392	Silvered case, purple painted projectile, black markings.	A892
CARTRIDGE, 20MM: TP, M55A2.	6.615	3935	Brass or steel case, blue painted projectile w/ white markings.	A889
CARTRIDGE, 20MM: TP, M204.	7.23	4000	Brass case, blue painted projectile w/white markings.	
CARTRIDGE, 20MM: TP, M206A1.	8.384	4886	Brass case, blue painted projectile w/white markings. "T" marked orange.	A778
CARTRIDGE, 20MM: Incendiary, M96.	7.18	3850	Brass case w/light red painted projectile w/black markings.	A846
CARTRIDGE, 20MM: TP, M99A1.	7.23	7013	Brass case, blue painted projectile w/white markings.	A847
CARTRIDGE, 20MM: TP-T, M220.	6.615	3935	Brass case w/blue painted projectile w/white marking "T" marking orange.	A651
CARTRIDGE, 20MM, HEI, M56A3.	6.615	3965	Brass or steel case, projectile w/PD fuse yellow	A490
CARTRIDGE, 20MM, HEI, M56A4.	6.615	3965	w/red band markings in black.	
CARTRIDGE, 20MM, HEI, M97A2.	7.227	4000	Brass case, projectile has base cover and PD fuze. Projectile yellow w/red band black markings.	A775
CARTRIDGE, 20MM, HEI, M210.	7.227	4000	Brass case w/yellow projectile w/red band and PD fuze black markings.	A863
CARTRIDGE, 20MM, HEI, M242.	6.602	3865	Brass case projectile w/PD fuze yellow w/red	
CARTRIDGE, 20MM, HEI-T, M242A1.	6.602	3865	band and black markings. "T" markings in orange.	
CARTRIDGE, 20MM, HEI-T-SD, M246.	6.615	4070	Brass case, projectile has a self destruct feature. Projectile has PD fuze; yellow w/brown and	A791/ AA96
CARTRIDGE, 20MM, HEI-T-SD, M246A1.	6.615	4070	red bands. "T" marking orange.	A792
CARTRIDGE, 20MM, HEI-T, M599.	8.4	4888	Yellow w/red "T" band black markings.	A787
CARTRIDGE, 20MM, API-T, M601.	8.4	4774	Black w/red "T" band white markings.	A786
CARTRIDGE, 20MM: HIGH PRESSURE TEST, M54A1.	6.61	4392	Stannic-stained (silver) case.	A892
CARTRIDGE, 20MM, MPT-SD, M940.	6.615	4074	Lettering black on case and black and white on projectile with red "T" markings.	A710
201 O L DEDVIDORO				
22MM CARTRIDGES	0.607	7.70	0.1	A (00*
CARTRIDGE, 22MM SUB-CALIBER PRACTICE, M744.	9.697	7679	Silver cartridge case w/blue projectile.	A680*
CARTRIDGE, 22MM SUB-CALIBER PRACTICE, M745.	9.697	7679	Silver cartridge case w/blue projectile.	A681*
CARTRIDGE, 22MM SUB-CALIBER PRACTICE, M746.	9.697	7679	Silver cartridge case w/blue projectile.	A682*
CARTRIDGE, 22MM SUB-CALIBER PRACTICE, M747.	9.697	7679	Silver cartridge case w/blue projectile.	A683*

<sup>\*</sup>Item is packed with carrier D122-3141.

Nomenclature and caliber	Length (in.)	Weight (grain)	Color identification	DODIC
25MM CARTRIDGES CARTRIDGES, 25MM, APDS-T, M791	8.779	7018	Case painted OD; projectile black w/white markings.	A974
CARTRIDGES, 25MM, APFSDS-T, M919	8.779	7018	Case painted OD; projectile black w/white markings.	A986
CARTRIDGES, 25MM, HEI-T, M792	8.630	7725	Case painted OD; projectile	A975
CARTRIDGES, 25MM, TP-T, M793	8.630	7725	yellow/red band. Case painted OD; projectile	A976
CARTRIDGES, 25MM, TPDS-T, M910	8.779	6.494	blue w/white markings. Case painted OD; projectile blue w/white markings.	TBA
30MM CARTRIDGES CARTRIDGE, 30MM, TP M788	7.864	5371	Aluminum case w/projectile blue w/white markings.	
CARTRIDGE, 30MM, HEDP M789	7.864	5371	Aluminum case, projectile yellow w/black markings.	
CARTRIDGE, 30MM, HEI-M799	7.864	5371	Aluminum case, projectile yellow w/black marking and red band.	B123
25.4MM CARTRIDGES CARTRIDGES, 25.4MM, Decoy, M839	8.08	2380	Unpainted plastic case.	A965

Table 2-1. Army-Authorized Small Arms Ammunition--Continued

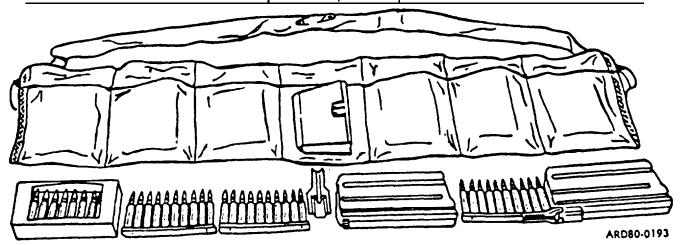


Figure 2-3. Cartridge clips and bandoleeer for 5.56mm cartridges.

### 2-4. Accessories

a. General. Accessories used with small-arms ammunition, such as clips and metallic belt links, are described in this section. These items are listed and packed as indicated in SC 1305 30-IL.

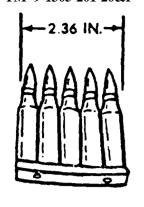
## b. Clips.

- (1) Cartridges for the 5.56mm M16 rifle are assembled in 10-round clips. Cartridges for the 7.62mm M14 rifles are assembled in 5-round clips. All cartridges are packed in bandoleers with separate magazine fillers.
- (2) 5.56mm, 10-round. This clip (fig. 2-3) consists of a channel-shaped body contain-

ing a spring with narrow tabs at each end. After clip is filled, tabs are bent at right angles to extractor rims of end cartridges to hold them securely in the clip.

(3) 7.62mm, 5-round. This clip (fig. 2-4), which consists of a channel-shaped body containing a spring, facilitates loading of magazines. Loaded clips are fitted into top of rifle receiver, and cartridges are pressed into magazine assembly. A magazine filler, which adapts clips to magazine, allows individual magazines to be loaded with clipped ammunition. This clip is 2.36 inches long. The 7.62mm ammunition and clip are shown with the M14 bandoleer in figure 2-5 and with the M4 bandoleer, in figure 2-6.

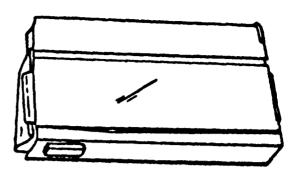
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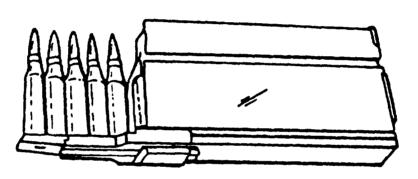




B. 7.62-MM FILLER



C. 7.62-MM MAGAZINE



D. 7.62-MM (5 RD) CARTRIDGE CLIP WITH FILLER AND MAGAZINE ASSEMBLY

ARD80-0194

Figure 2-4. Cartridge clip, filler, and magazine assembly for 7.62mm cartridge.

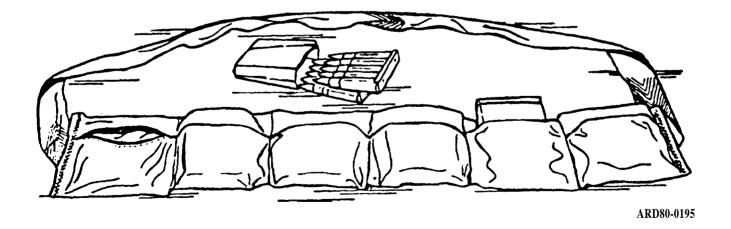


Figure 2-5. M14 bandoleer for 7.62mm cartridges.

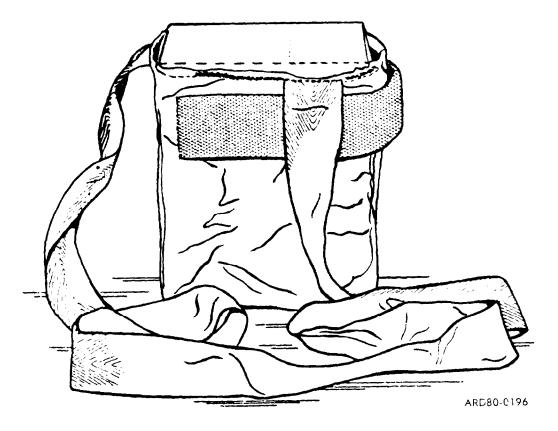


Figure 2-6. M4 bandoleer for 7.62mm cartridges.

- (4) Pistols and other hand guns. Clip for the pistols such as the 45 caliber or 32 caliber do not come preloaded from the ammunition supply point. The magazine for the sub-machine gun M3 or M3A1 holds 30 rounds of ammunition and this also is not preloaded
- c. Metallic Link Belts. Ammunition for use in machine guns is issued in metallic link belts. Link belts are made of units of cartridges and links. Each link has two loops fitted around a single cartridge and one loop fitted around adjacent cartridge. Each cartridge in a metallic link belt has two links atreached to it, except the end cartridges. Cartridge links are made of steel which is processed to prevent rusting. They are manufactured and tested to assure satisfactory ammunition feed and functioning under all service conditions,
- (1) Closed loop links. Caliber .50, M2 and M9 links are manufactured with closed loops. When assembled with cartridge in belts, these links fit on cartridge shoulder. The tapered front loops of these links are positioned firmly on cartridge shoulder to

- hold cartridge in proper alignment for feeding into weapon. This design requires cartridge to be extracted from the rear and dropped into position for moving into chamber for firing. Weapons designed for these links require additional space in the rear of receiver for retraction.
- (2) Open loop links. The caliber .50, M15A2 and 7.62mm, M13 (fig 2-7) links (view C, fig 2-8) are manufactured with partially open loops and have a positioning finger on one side which snaps into extractor grooves of cartridge to retain cartridge in proper feed alignment. This link design permits a portion of bolt to ride through link loop openings and push cartridges forward and out of the link into chamber for firing. Weapons using this type link are designed and manufactured with a short receiver.
- (3) M27 link for 5.56mm. The M27 link is a reduced size of the 7.62mm link M13. The body link fits into the extractor groove on the cartridge case. The US Navy uses this link with the Stoner Machine Gun M63. The US army designates its use for the XM249 Machine gun.

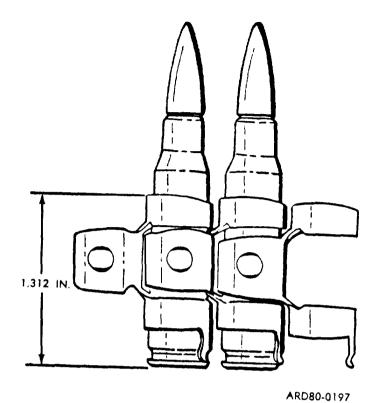
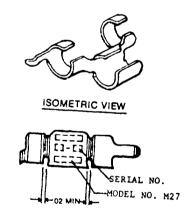
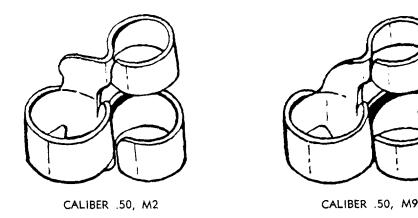


Figure 2-7. Cartridge link M13 for 7.62mm cartridges.

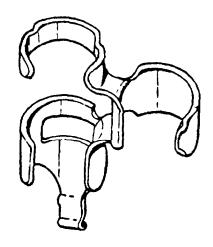


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Figure 2-7.1. M27 link for 5.56m.



## A. CLOSED LOOP



CALIBER .50, M15A2

**B. OPEN LOOP** 

ARD80-0198

Figure 2-8. Cartridge links and metallic belt end.

d. Links for 20mm Cartridges.

(1) Link, M10 in M3 and M24 Gun (fig 2-9). This link is utilized in M3 and M24 belt-fed automatic guns. The links are of steel and the belt is formed by the placement of cartridges within the links. The links are selt-separating when the cartridges are removed during the gun feeding cycle. This metallic link can be used to make up belts for either right-or left hand feeding of the gun. A car tridge metallic-link filler is used at end of belt when it is desired to load belts for either double-loop left-hand feed, or double-loop right-hand feed. The

purpose of the link-filler is to close the single loop when it is at end of belt to prevent snagging in feed chute.

(2) M12 metallic link. The M12 metallic link (fig 2-10) is used in belt-fed gas-operated M39 Series automatic aircraft guns. The ammunition belt is formed by connecting a specified number of links together and then inserting a cartridge for each link. The links are self-separating when cartridges are removed during the gun-feeding cycle. The M12 is an end loading link and is linked for either right or left hand feeder.

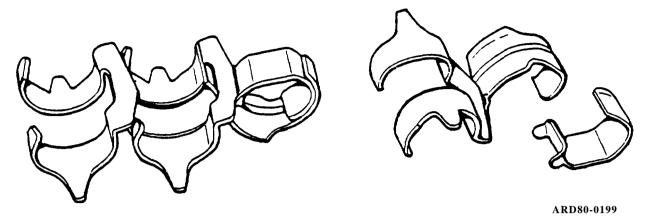


Figure 2-9. M10 link 20mm cartridges.

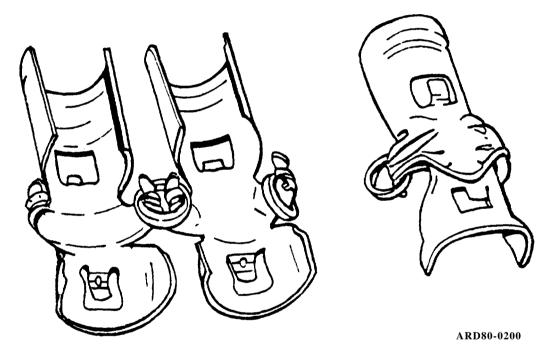


Figure 2-10. M12 link for 20mm cartridges.

- (3) M14A2 link. The M14A2 link (fig 2-11) is used primarily for linking 20mm ammunition for belt-fed M61 automatic guns and loading of ammuntion into linkless feed systems used in aircraft and ground defense vehicles. The links are self-separating when cartridges are removed during feeding cycle.
- (4) M17A2 link. The M17A2 link (fig 2-12) is used for linking 20mm ammunition for belt-fed M61 automatic weapon system in the B52 G & H aircraft. The links are self-separating when cartridge is removed from link during feeding cycle.

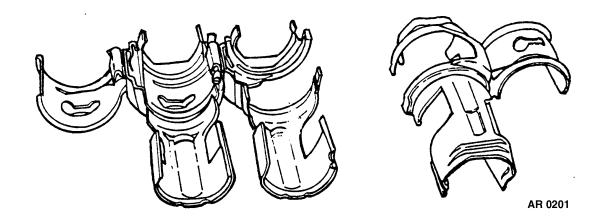


Figure 2-11. M14A2 link for 20mm cartridges.

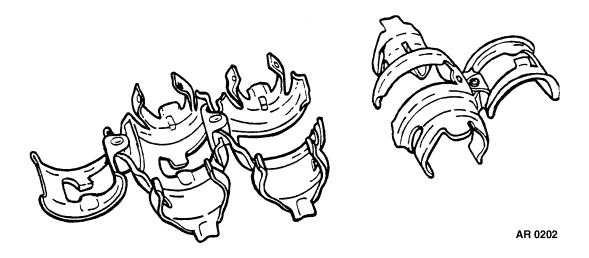


Figure 2-12. M17A2 link for 20mm cartridges.

- (5) *M24 link*. The M24 link is a metallic link for use with the following 20mm cartridges: target-practice tracer M206A1, high-explosive incendiary tracer M599, and armor-piercing incendiary tracer M601. The European (German) DMI/DMIA links are also used for these cartridges. The DMI/DMIA link is used with the HSH20 Series.
- (6) *M22 link*. The M22 link is for U.S. Air Force use only. It is used to upload their link-less system. It is reusable and does not disintegrate.
- (6a) Mk 7 Mod 1 link. The Mk 7 Mod 1 link (fig. 2-12.1) is a metallic link for use with the M246 HEI-T-SD cartridge when it is employed with the M61 Ground-Mounted Air Defense Phalanx 20 Millimeter Weapon System. It is used to upload the link-less feed system.

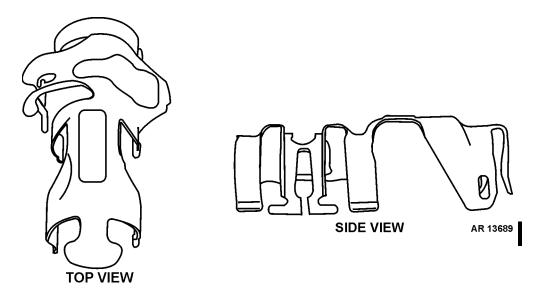


Figure 2-12.1. MK7 Mod 1 link for 20mm cartridges.

(7) The M28 25mm Cartridge Link is a twopiece assembly (fig. 2-13) intended to hold and link the 25mm ammunition for guiding the ammunition through the weapon system. This assembly consists of hardened steel main and pivot links hooded together and contoured accordingly for its intended purpose. The Swiss Gerlikon link and the M28 are dimensionally identical.

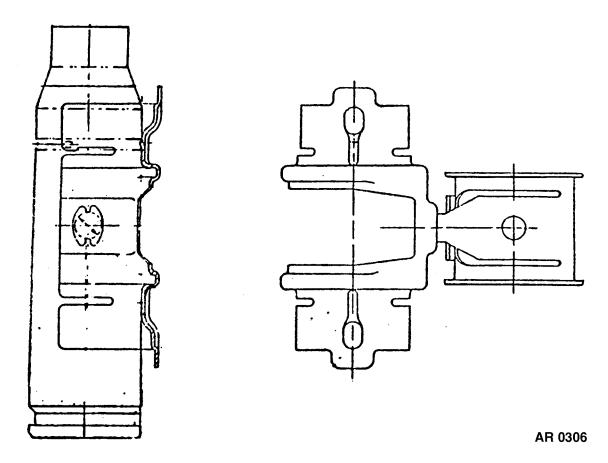


Figure 2-13. M28 link for 25mm cartridges.

(8) *The 30mm Bulk Strip* is a one-piece assembly (fig. 2-14) intended to hold the M788, M789, M799 and

M882 ammunition cartridges for upload into the loading system of the AH-64A Helicopter.

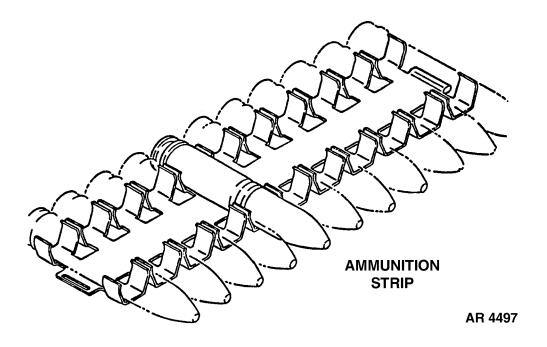


Figure 2-14. Bulk pack ammunition strip.

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Table 2-2. Small Arms Accessories

Caliber	Ammunition	Clip	Magazine	Link	Weapon used
5.56mm	Ball M193 Tracer M196 Grenade M195 Dummy M199 Blank M200 High Pressure Test, M197	10 rd	20 and 30 rd	M27	M231 Sub Machine Gun for M196 tracer only M16/M16A1 rifle Stoner M63 (Navy and M249 machine guns) M16A2 rifle and M249 MG
7.62mm	M855 M856 M862 Armor Piercing, M995 Ball M59 Ball M80 Tracer M62 Dim Tracer, M276 Armor Piercing, M993 AP, M61 Dummy M63 Blank M82 High Pressure Test M60 NATO, Reference Grenade M64 Dummy M172 Frangible M160 Ball Match M118 Long Range M118	5 rd	20rd	M13 open loop for MG	M16A1 and M16A2 w/M2 bolt system M16A2 rifle and M249 MG  M14 rifle; M60, M73, M219, M240*, and M134 machine guns M60, M240 MG's, M24 rifle  M14 rifle only M60 MG only M219 MG only M14 rifle only M14 rifle only M14, M21, M24, and M40A1 rifles

NOTE

10 rd clip f/M16A1 5 rd clip f/M14 20 rd mag f/M16A1 30 rd mag f/M16A1 20 rd mag f/M14

9mm	Ball M882	N/A	15 rd	N/A	M9 pistol
	High Pressure Test M905 Jacketed-Hollowpoint MK243 Mod 0	N/A		N/A	M11 Pistol
Cal .45	Ball, M1911 Blank, M9 High Pressure	7 rd f/pistol	30 rd for sub machine gun		

## TM 9-1305-201-20&P

Table 2-2. Small Arms Accessories - Continued

Caliber	Ammunition	Clip	Magazine	Link	Weapon used
	Ball, M2 Ball, M33 AP, M2 API, M8 API-T, M20	N/A	N/A	**M15A2 Open M85 Loop w/85 MG	M85 Machine Gun
Cal .50	Incend M1 Incend M23 Tracer M1 Tracer M10 Tracer M17 Dummy M2 High Pressure Test Blank M1 Plastic Plastic Practice M860 SLAP, M903 SLAP-T, M962 Spotter-Tracer M48A2 Spotter-Tracer M249E2 Spotter-Tracer M251	N/A 8 rd 8 rd 8 rd	N/A - - -	***M9 & M2 Closed Loops w/ M2 MG  M15A1 M15A1 M15A1 M15A1	Rifle, spotting M8C Rifle, spotting M8C Rifle, spotting M8C Rifle, spotting M8C

NOTE

<sup>\*\*\*</sup>Link M2 and M9 Closed Loop used w/M2 Machine Gun only.

Caliber	Ammunition	Link	Weapon (Gun)
20mm	HEI-T-SD, M246 HEI, M56A3, M56A4 TP-T, M220 TP, M55A2 Dummy, M51A2	M14 series	M167A1 (M168 Cannon)
20mm	API-T, M52E1 API, M53 HEI, M56A3, M56A4 HEI-T, M242 HEI-T-SD, M246 TP, M55A2 TP-T, M220 Dummy, M51A2	M12 Metallic Link for M39 cannon M14A2 for M61 Cannon	M39, M61
20mm	HEI-T-SD, M246	MK7 Mod 1	M61 Ground-Mounted Air Defense Phalanx 20MM Weapon System

<sup>\*\*</sup>Link M15A2 Open Loop used w/M85 Machine Gun only.

Table 2-2. Small Arms Accessories - continued

Caliber	Ammunition	Link	Weapon (Gun)
20mm	API-T, M52E1 API, M53 HEI, M56A3, M56A4 HEI-T-SD M246 TP, M55A2 TP-T, M220 Dummy, M51A2	M17A2	M61
20mm	API, M53 HEI, M56A3, M56A4 TP, M55A2 Dummy, M51A2	M14A2	M195 Linker-Delinker M25
20mm	HEIT-SD, M246 HEI, M56A3, M56A4 TP-T, M220 TP, M55A2 Dummy, M51A2 MPT-SD, M940	M14A2	168, 197
20mm	AP-T, M95 Incendiary, M96 TP, M204 HEI, M210	M10	M3
20mm	AP-T, M95 Incendiary, M96 HEI, M97A2 TP, M99A1	M10	M24A1
20mm	HEIT, M599 API-T, M601 TP-T, M220	M24 or DMI/DMIA	139
25mm	APFSDS-T, M919 APDS-T, M791 HEI-T, M792 TP-T, M793 TPDS-T, M910	M28	M242
30mm	HEDP-M789 TP, M788 HEI, M799 HPT, M882	M29 Bulk ammunition strip.	M230

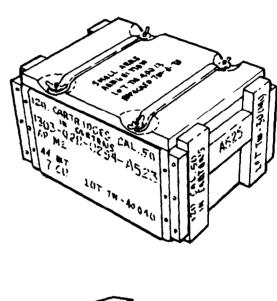
# **CHAPTER 3**

## MAINTENANCE INSTRUCTIONS

#### Section I. SERVICE UPON RECEIPT OF MATERIEL

#### 3-1. General

- a. In general, small-arms ammunition is packed in either watertight metal liners, plain or wax sealed cartons, metal-foil envelopes, hermetically sealed cans, or in metal boxes having hinged covers sealed by means of a rubber gasket These containers are overpacked in cleated wooden boxes or wirebound wooden boxes. Dependent upon the intended use, the ammunition within the immediate container may either be bulk packed in cartons or functionally packed in clips in bandoleers or in link belts.
- b. The containers and methods for packing small-arms ammunition are given in appropriate supply manuals. Containers presently being manufactured have been reduced to a few standard types designed to withstand all conditions commonly encountered in handling, storing, and transportation of ammunition.
- c. Packing containers for small-arms ammunition are listed in appendix C. Box Components (fig 3-1), which are classed as hardware, such as wingnuts and screwhooks, are listed in supply manuals covering FSC group 53. Cartridge clips, cartridge links, and bandoleers, used for functional packs are listed in appendix C.
- d. Each outer shipping container and all inner containers down to the smallest unit container are fully marked to identify the ammunition contained therein. These markings include the National stock number, descriptive nomenclature of the ammunition included, ammunition lot number, and the number of rounds (figs 3-2 and 3-3). In addition to the above, the outer shipping container also is marked with the National stock number, Department of Defense identification code, Department of Transportation shipping name, weight, cube. The salee closer (fig 3-4) was used to bind the wire loops which was used to close the wirebound box.



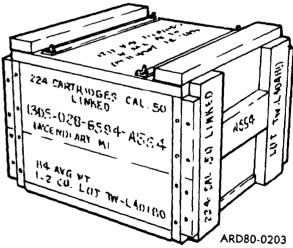


Figure 3-1. Packing boxes small-arms ammunition.

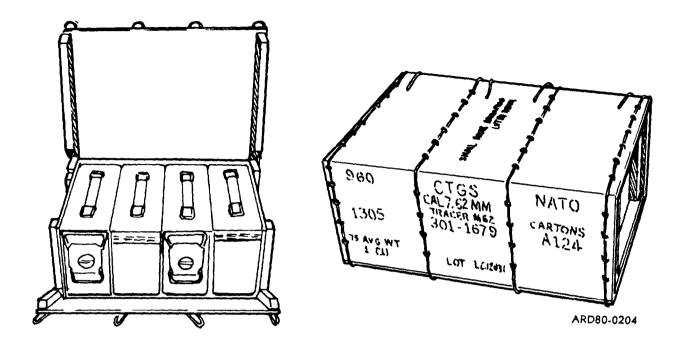


Figure 3-2. Wirebound box with 7.62mm ammunition in metal containers M19A1.

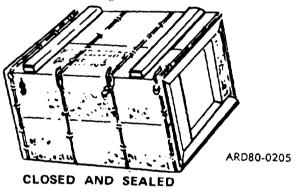


Figure 3-3. Typical wirebound box.

- e. Metal boxes and cans are painted olive drab and marked in yellow. Some outer containers are stained light brown and marked in yellow. Those of current manufacture are unstained and marked in black. Specific lots when selected for rifle or pistol match requirements will be marked "MATCH" on the nomenclature side and top of outer shipping containers. Boxes containing functionally packed ammunition (ammunition packed in rifle clips, or link belts) have figure symbols stenciled on the container for quick identification of the type of inner pack (fig 3-5).
- f. Upon receipt of ammunition, verify each packaged item against the requisition list. If marking on packaging conflicts with nomenclature on requisition, check with ammunition supply personnel to determine if an issue error has been made.

## NOTE

Manufacturer's identification and year of manufacture will be embossed on container. If the container has been reconditioned, the words "REHAB", month and year of reconditioning, and activity performing reconditioning will be stenciled on the container.

g. Unless packing boxes show evidence of moisture or damage to the extent that contents may be unusable, do not open until cartridges are to be used.

#### 3-2. Precautions

### WARNING

Avoid injury from sharp edges when cutting and handling metal strapping. The end of the band may fly up suddenly when tension is released.

- a. Limit the quantity of ammunition and flammables at work site to the minimum necessary for efficient operation.
- b. All standard precautions for care and handling of ammunition are applicable to small arms ammunition.

## 3-3. Unpacking Procedures

- a. Inspection.
- (1) Inspect markings on packaging for legibility of lot number. If illegible, open box, note lot number stenciled on inner pack or item and restore illegible numbers.
- (2) Visually inspect each box/container for damage or indication that the contents may be damaged.
- (3) Unpack only as far as necessary to determine the serviceability of the materiel.
- (4) If outer box or container is damaged beyond repair, transfer contents to a serviceable box or container, mark accordingly and give priority of issue.
- (5) If necessary, visually inspect each item according to procedures in paragraph 3-14.

#### WARNING

Use gloves or a rag to hold strap near the end where it will spring loose when cut. Cut straps with metal cutting shears. Remove boxes/containers/ammunition from pallet. Dispose of strapping and non-recoverable materials. Return serviceable pallets and components to ammunition supply.

- b. Wood Boxes with Metal Hardware.
- (1) Cut steel strapping with metal cutting shears.
  - (2) Remove and dispose of straps.
  - (3) Gloves must be worn.

#### WARNING

To prevent injury, release tension by pressing down on top of box while cutting straps on side of box. Cut lead seal wire with pliers and remove. Turn catch and open hasp, or pull out on springlatch to release. Lift box top to open. On spring-latched boxes, note position of top for guidance in repacking. Remove top padding/filler (if any) from box. Remove inner pack(s).

#### c. Wirebound Boxes.

- (1) Cut lead seal wire with pliers and remove.
- (2) Rend wire loops up straight using a salee closer (fig 3-4), screwdriver, or pliers.



ARD80-0206

Figure 3-4. Salee closet:

- (3) Lift lid panel to open box.
- (4) Remove top packing (if any) from
  - (5) Remove inner pack(s).
- d. Metal Containers.

box.

- (1) Cut lead seal wire with pliers and remove.
- (2) Turn locking bar counterclockwise to loosen end cap. Use pry bar to loosen locking bar, if necessary.
- (3) Remove container end using twisting-pulling motion.

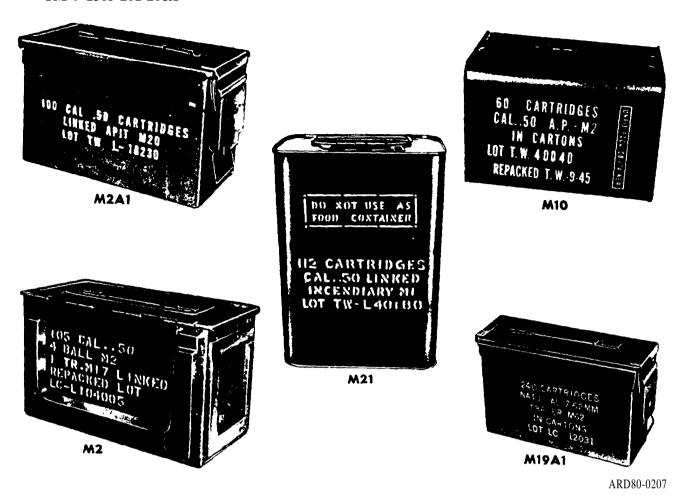


Figure 3-5. Packing containers small-arms ammunition.

# Section II. TOOLS AND EQUIPMENT

# 3-4. Common Tools and Equipment

Standard and commonly used tools and equipment having general application to this ammunition are authorized for issue tables of organization and equipment (TOE).

## 3.5 Repair Parts and Special Tools

Repair parts and special tools required at organizational level are listed in appendix C.

## Section III. MAINTENANCE

# 3-6. General

- a. Maintenance at the organizational level is performed by designated personnel in using units. Its purpose is to prevent further deterioration of ammunition which has been exposed to rough handling or adverse weather conditions. Direct support units may be called upon to provide technical assistance and packaging materials.
- b. Responsibilities for maintenance are limited to those functions specified in appendix B, Maintenance Allocation Chart (MAC). Only maintenance operations for which procedures

are given in this manual or in the weapon operator's manual are authorized.

- c. Maintenance shall be performed at least 90 feet from any ammunition magazine or storage shelter.
- d. Remove ammunition from packaging before performing maintenance on packaging materials.

## 3-7. Expendable Materials

a. Paint, cleaning compounds, and other expendable materials authorized for use by

organizational maintenance personnel are listed in appendix D.

b. Expendable materials should be requisitioned through normal channels on an asrequired basis.

## 3-8. Inspection of Packaging

- a, Inspection. if reciept inspection or storage inspection of packaging reveals damage or deterioration to the extent that serviceability of the ammunition is questionable, unpack ammunition Text using procedures in paragraph 3-3) and visually inspect inner packs and/ or items. Unpack only as far as necessary to determine serviceability.
- b. Packaging Defects. Specific inspection criteria and identification of defects (as acceptable, repairable or irreparable) are outlined in table

- 3-4. The most commonly encountered packaging defects are listed below:
- (1) outer containers (boxes) damaged, weathered, or rotted to the extent contents are not protected).
- (2) Inner container damaged to the extent contents are not protected or cannot be readily removed.
- (3) Container cap or closure insecure to the extent contents are not protected.
- (4) Inner containers wet ( except metal), rusted, moldy nor mildewed.
- (5) Hardware or banding loose, missing broken, or ineffective.
  - (6) Handle or cleat missing or broken.
- (7) Contents loose to the extent item may be damaged in handling.

Table 3-1. Inspection Criteria for Packaging

	Wooden bo	xes and crates	
Component	Acceptable	Reparable	Irreparable at organizational level
Hardware	Operative and tight.  Nails and fasteners present and in good condition.	Inoperative or loose. Nails, screws and fasteners which can be replaced or properly sealed.	None. None.
Ends	Free from damage.	Broken or missing cleats and handlers.	Damage which requires disassembly of box.
Wood	Splits less than 3-inches long no closer than 1 inch to edge of board or adjoining split  The board must be secured by at least	Splits over 3 inches but no closet than 1 inch to edge of board or adjoining split. or I/I-inch wide, which can he repaired by use of corrugated fasteners.	Splits closer than than 1-inch to edge of board or adjoining split or over 1/4-inch wide.
	one nail on each side of the split when it extends to the end of the board. Warping which does not prevent seal- ing of box or insertion of required ammunition. Light mold which can be brushed off.	None.	Warping which prevents insertion or removal of rounds and/or sealing of the box.  Excessive mildew and mold which cannot be removed and which ren-
	Sound tight knots the diameter of which do not exceed 1/2 the width of the board.  Skids securely attached to box or crate. Knots no greater than 1/4 the width of skid.	None.  Loose skids.	der markings illegible. Holes or loose knots which exceed 1-1/2 inches in largest diameter or 1/2 width of hoard. Knots greater than 1/4 the width of skid.
Strapping	Present and unweakened by rust or distortion.	Missing. rusted or distorted.	None.
Body	Dents less than 1/4 inch deep.  Flanges which are bent but do not prevent placement or removal of cover with normal hand pressure.  Tight seams which prevent entrance of moisture.  Free from rust.	Dents deeper than 1/4-inch which may be removed without weakening stucture of container. Flangers which can be straightened to allow placement and removal of cover with normal hand pressure. None.  Minor rust which can be removed.	Loose or leaking seams.  Rust which has caused pitting and
	Free from perforations. Supports which are integral to container present and inserviceable condition.	None.	perforations. Perforated. Damaged supports which are integral to container.
Caps and covers	Dents which do not prevent cover from closing. Free from rust.	Dents which can be removed.  Minor rust which can be removal.	Dents which cannot be removed and/ or prevent assembly to body. Rust which has caused excessive pit-
	Free from perforations.	None.	ting. Perforated.

	Wooden boxes and crates				
Component	Acceptable	Reparable	Irreparable at organizational level		
Caps and covers- Continued	Gaskets present and sufficiently serviceable to make container air tight in single round metal containers and to make metal containers for propeling changes air tight.	Missing or damaged gaskets.	None		
		Metal boxes			
Body and cover	Free from rust. Tight seams. Dents less than 1/4 inch deep  Unperforated. Separators integral to container serviceable, allowing easy insertion and removal of contents.	Minor rust which can be removed. Repair not practical. Dents which impair the structural be removed without weakening structure of container. None None	Extensive pitting and rust. Split seams Dents which impair the structural integrity of the material Performated. Missing or broken separators.		
	Gaskets present and sufficiently ser-	Damaged or missing gaskets.	Not applicable.		

Table 3-1. Inspection Criteria for Packaging Continued

## 3-9. Inspection of Ammunition

pack.

a. Material Defects. Specific defects (identified as acceptable, repairable or irreparable) and inspection criteria are outlined in table 3-2. Specific defects for 25MM ammunition (identified as accept or reject) and inspection criteria for 25MM Ammunition are outlined in table 3-2.1. In addition, figures 3-5.1 through 3-5.5 detail the entire family of 25MM ammunition, to be used in conjunction with table 3-2.1, in determining 25MM ammunition serviceability. 25MM APFSDS-T M919 ammunition that is found to he unserviceable should be containerized in the original pack, tagged unserviceable, and returned through normal ammunition supply channels.

viceable to insure moisture proof

- b. Corrective Action.
- (1) Acceptable ammunition to be repackaged using procedures in paragraph 3-14.
- (2) Ammunition to be cleaned clean flaked or blistered coating and touch up paint following procedures in paragraph 3-10.

## WARNING

The cartridge 25MM APFSDS-T M919 utilizes Depleted Uranium (DU) that emits very low level radiation. Care must be taken when handling this round to avoid direct contact with the DU penetrator.

Evidence of DU corrosion is visible in the form of a yellowish or white powder or stain seen on the outer surfaces of the projectile and can become a hazard to personnel. If corroded (yellow or white corrosion) APFSDS-T M919 ammunition is encountered, ammunition must be handled with gloves. The ammunition must he placed in the original pack, tagged unserviceable, and returned through normal supply channels. Avoid Setting DU corrosion on hands. Flush hands before eating or touching face. Dispose of gloves in accordance with AK 385-11.

## **CAUTION**

When handling saboted ammunition with an exposed penetrator (with no indication of corrosion. M919 DU round) wear gloves. Regardless if gloves arc worn, always flush hands before eating or touching face. The gloves do not have to he disposed of as radioactive waste.

#### NOTE

DU ammunition must not he destroyed/ burned. Contact Radiation Protection Officer, render-safe procedure authorized to Explosive Ordnance Disposal (EOD) units only.

c. Disposition of irreparable items. For disposition of irreparable ammunition or rejected 25MM ammunition, contact the next higher maintenance level. Contact EOD personnel for disposition of ammunition items considered to be hazardous.

Table 3-2. Inspection Criteria for Ammunition

	Projectiles (20mm, 25mm and 30mm calibers)				
Item	Acceptable	Reparable	Irreparable		
Markings	Legible and correct	Illegible, correct data available for remarking.	Correct data cannot or determined		
Paint	No scratches, peeling or blistering.	Scratches peeling or blistering in spots.	Scratches, peeling or blistered requiring complete repaint.		
Body	Free from rust.	Minor rust that can be removed with corrosion removal compound, sandpaper or wire brush.	Extensive rust that cannot be removed with corrosion removal compound or sandpaper or with wire brush.		
Marking	Legible	Missing, illegible, incorrect or mislead- ing and correct data is available for	Correct data cannot be determined.		
		remarking.			
Body	Light corrosion.	Minor scratches, rust or corrosion which can be removed with fine sandpaper or steel wool, or corrosion removal com- pound.	Severe corrosion, rust or scratches which cannot be removed with sandpaper or steel wool.		
	Minor scratches in coating. Minor dents.	None			
Body and base	Minor cuts, scratches and dents.	None	Severe cuts, tears and dents where propellant is exposed. Oil and water damage.		

Any discernible degree of etching appearing in a stained area will be reclassified and penalized as corrosion. Refer to MIL-STD-651.

Table 3-2.1. Inspection Criteria for 25MM Ammunition.

	M791 APDS-T	M919 APFSDS-T	M792 HEI-T	M793 TP-T	M910 TPDS-T
CARTRIDGE CASE					
Dented or scratched	Accept	Accept	Accept	Accept	Accept
Perforated or cracked	Reject		Reject	Reject	Reject
Pierced or perforated primer	Reject	Reject	Reject	Reject	Reject
Corroded primer	Accept	Accept	Accept	Accept	Accept
PROJECTILE ASSEMBLY					
Projectile loose within cartridge case.	Reject	Reject	Reject	Reject	Reject
Nose cap split or missing.	Accept	Accept			Accept
Cracked or missing sabot seg- ment	Reject	Reject			Reject
Windscreen bent, cracked or missing	Reject	Reject	Reject	Reject	Reject
Loose M758 Fuze (M792)			Reject		
Loose penetrator (M919)		Reject			
Corroded if cap is off (M919)		Reject			
Loose obturator (M919)		Accept			
Missing or damaged obturator (M919)		Reject			

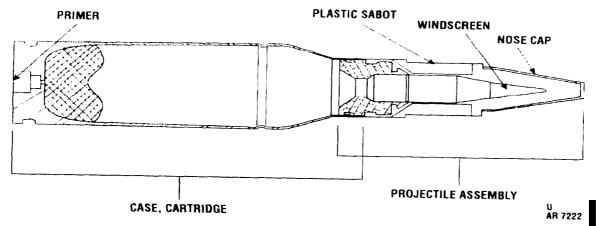


Figure 3-5.1. M791 APDS-T ammunition.

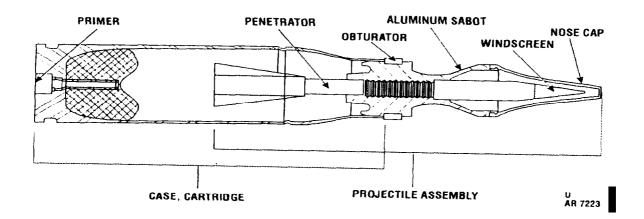


Figure 3-5.2. M919 APFSDS-T ammunition

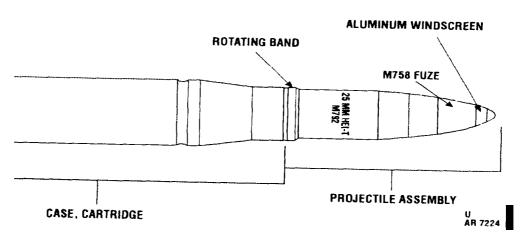


Figure 3-5.3. M792 HEI-T ammunition

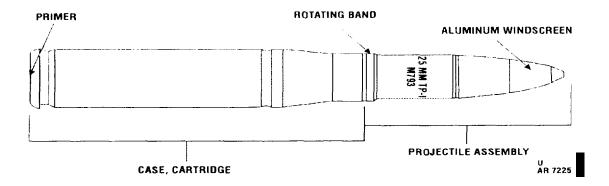


Figure 3-5.4. M793 TP-T ammunition.

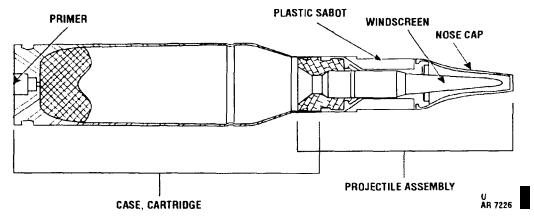


Figure 3-5.5. M910 TPDS-T ammunition.

# 3-10. Cleaning and Touch-Up Ammunition

# WARNING

Primers shall he cleaned only with rags dipped in alcohol or acetone. Primers shall he covered with fiber container cap during cleaning, touch-up of ammunition.

## a. Cleaning.

## **CAUTION**

Rags shall be stored in noncombustible self-closing containers. Wastes or used rags shall be placed in water filled containers. Areas will be well ventilated where solvents and paints are used.

(1) Remove dirt, mud, and other foreign material using rags or brushes. Use rags damp-

- ened with alcohol or acetone to remove grease.
- (2) Using nonferrous brush, remove flaked, chipped, blistered, or peeling paint.
- (3) Remove rust using nonferrous brush or sandpaper.
- (4) Clean corrosion from aluminum or copper-based metals by first brushing with a non-ferrous brush and then removing residue with rags and corrosion removing compound.
- (5) Inspect cleaned item for cracks or other damage or deterioration.
  - b. Touch-Up.
- (1) Use masking tape to cover existing markings which are in good condition.
- (2) Use brush, cover bare metal with primer and allow to dry.
- (3) Use brush, paint primed area with two coats, allowing first coat to dry before applying second.
- (4) After paint has dried, remove masking tape.

## 3-11. Defects Found on Visual Inspection

a. Small arms cartridges will be given a preissue inspection prior to issue. The cartridges in a minimum of three boxes from each lot, depending on the size of the lot, will be inspected for physical defects. Lots having more than 5 percent cent defective cartridges will be subjected to 100 percent inspection if authorized by higher authority, and visually defective rounds will be called out. Ammunition having less than 5 percent visually defective rounds may be issued without further inspection. The defects in table

- 3-3 may be found in cartridges during inspection.
- b. The following defects may be found in belted ammunition for use in machine guns;
- (1) The cartridges are not properly in the belts.
- (2) There is an improper proportion or spacing of incendiary and/or tracer ammunition with ball ammunition.
- (3) Cartridge links in link belts may have broken, cracked, or stretched loops
- (4) Link belts not packed with double loop on top

Table 3-3. Defects Found on Visual Inspection.

Name of defect	How to recognize	Causes-effects-precautions
Cartridge Short Bullet	Bullet seated too deep.	Not serious unless it is so deep as to affect density of charge and chamber pressure. May not function machine gun.
Cartridge Case Corrosion (fig. 3-6)	Coloring of cases (green, blue. yellow. or white colors). Also appearance of chemical deposit. Not to be confused with normal discoloration or blackening of case due to annealing.	Metal eaten into and weakened will cause rupture when cartridge is fired. Deposit interferes with chambering. Cartridges showing advanced corrosion should not be fired.
Season Crack	Split in neck of case. Definite longitudinal cracking when exposed to severe weathering conditions or certain reagents. Check by pressing diagonally down on the bullet end.	Due to distortion of the normal crystalline structure of the metal as a result of draw- ing or tapering operations (not to be con- fused with split necks occurring after firing).
Dent and Burr	Indentations and burring.	Rough handling. Dangerous pressure only if dent is large. Cartridges may fail to chamber.
Bullet	Bullet is loose in case. A defect if bullet can be moved by twisting, pushing, or pulling while cartridges are held in hand (exception - caliber .22 long rifle).	May cause short round stoppage or bullet may remain in bore if cartridge is removed from gun without firing. Should not be fired.
Split Bullets (tracer)	Longitudinal cracks in the bullet.	Do not use for overhead fire. i.e., in filtration courses, etc.

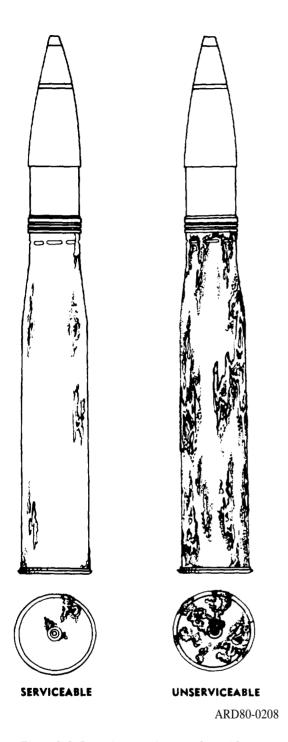


Figure 3-6. Corrosion on primers and cartridge case.

# 3-12. Maintenance of Packaging Hardware

- a. Repair of Damaged Hardware. Hardware which has been damaged to the point that it is inoperable is usually irreparable; however, minor damage can usually be corrected by straightening, as follows:
- (1) Using pliers carefully, bend damaged item until its configuration is the same as the serviceable item.

- (2) Test repaired hardware for proper functioning.
- b. Replacement of Irreparable Hard-ware. Hardware which cannot be repaired can be replaced with a serviceable item cannibalized from an unserviceable container, as follows:
- (1) Using a screwdriver, remove unserviceable hardware.
- (2) Attempt to reinstall serviceable hardware in existing holes. Secure with screws.
- (3) If screws are missing or cannot be tightened in existing holes, proceed as follows:
- (a) Replace missing screws with others obtained from an unserviceable box.
- (b) If screws cannot be tightened, move hardware (with box top in place) to a different location where screws can be secured. If necessary, carve notch to accommodate hinge pin.
- (c) Mark location for attaching screws and remove hardware.
- (d) Drive and remove a small nail at each location to provide a pilot hole.
- (e) Place hardware and screws in position and secure.
  - c. Removing Rust or Corrosion from Hardware.
- (1) Remove rust and corrosion from hardware by first brushing with a wire bursh or use corrosion removing compound.
  - (2) Cover with primer or paint.
- d. Replacing Broken, Loose, or Deteriorated Strapping.
- (1) Cut pieces of 5/8-inch banding of sufficient length to go around box plus about 6 to 8-inches.
  - (2) Position strap(s) under box.
- (3) Insert one strap end into strap stretcher so that strap is held firmly by stretcher, with about 3 inches of strap protruding.
  - (4) Place clip over strap end.
- (5) Thread loose end of strap through clip and into stretcher head.
- (6) Tighten strap by repeated movement of ratchet lever, until edges begin to cut into box.
- (7) Using banding crimper, crimp clip in two places.
- (8) Release locking paw1 on stretcher and slide stretcher out.
  - (9) Cut off excess strapping.
- (10) Repeat (3) through (9) above, for each strap.

# 3-13. Maintenance of Packaging Containers and Materials

- a. Repair of cracks and splits in Wood
- (1) Hold board tight so that the crack or split is closed.
  - (2) Hammer corrugated fasteners into wood at

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- 4 to 6-inch intervals. Fastener should be centered across crack.
  - b. Repair of Broken Cleats or Wood Handles.
- (1) Remove broken cleat with claw hammer or pry bar.
- (2) Remove serviceable cleat with claw hammer or pry bar from an otherwise unserviceable box.
- (3) Position serviceable cleat on box and secure with 3 to 5 small nails.
  - (4) Bend nails over inside of box with hammer.
  - c. Repair of Rope or Strap Handles.
- (1) Remove cleats holding handle with claw hammer or pry bar.
- (2) Remove serviceable handle from an otherwise unserviceable box by removing the holding cleats with claw hammer or pry bar.

## NOTE

Do not remove nails or staples attaching handle to cleats.

- (3) Position serviceable handle and cleats and attach to box with 3 to 5 nails in each cleat.
  - (4) Bend nails over inside of box with hammer.
- d. Painting of Wood Boxes. Normally, used boxes will not be painted except to obliterate previous markings or to indicate less than full pack.
  - e. Painting of Metal Boxes.
- (1) Remove dirt, mud, and other foreign material from boxes using wire brush and/or rags dipped in detergent-water solution. Use rags dipped in alcohol to remove grease.
- (2) Using wire brush, remove flaked, chipped, blistered, or peeling paint.
- (3) Remove rust and corrosion using a wire brush and sandpaper or rages and corrosion removing compound.
  - (4) Cleaned surfaces to be thoroughly dried.
- (5) Cover existing markings, if applicable, with masking tape.
- (6) Using spray can or brush, cover bare metal with primer and allow to dry.
- (7) Using spray can or brush, paint primed area with two coats allowing first coat to dry before applying second.
  - (8) Remove masking tape, where applied.

- (9) Mark box as required.
- f. Markings on Outer Box. The following information must be legible on each box:

Nomenclature
National stock number
(Including DODIC)
Lot number
Date of manufacture
Quantity

#### NOTE

Box will have DODIC and Lot Number.

g. Markings on Inner Container. The following information must be legible on each inner container:

Nomenclature DODIC Lot number Quantity Weight Zone

- h. Restoration of Markings.
- (1) Carefully observe information and location of markings on packaging of like item.
- (2) Using waterproof ink marker, china marking pencil or small brush and paint, restore markings which are faded, obliterated during cleaning, or painted over.
- (3) Check markings for accuracy and allow to dry.
- (4) Repack ammunition following procedures in paragraph 3-14.

# **3-14. Repacking Procedures**

### NOTE

Boxes and packaging materials are normally available for reuse after ammunition is fired. If not available in using organization, requisition required items. Refer to appendix C (Repair Parts and Special Tools List) for most recent packaging information and appendix E for packing and marking data.

- a. General.
- (1) Always repack ammunition in serviceable packaging containers (fig 3-7 through 3-10).

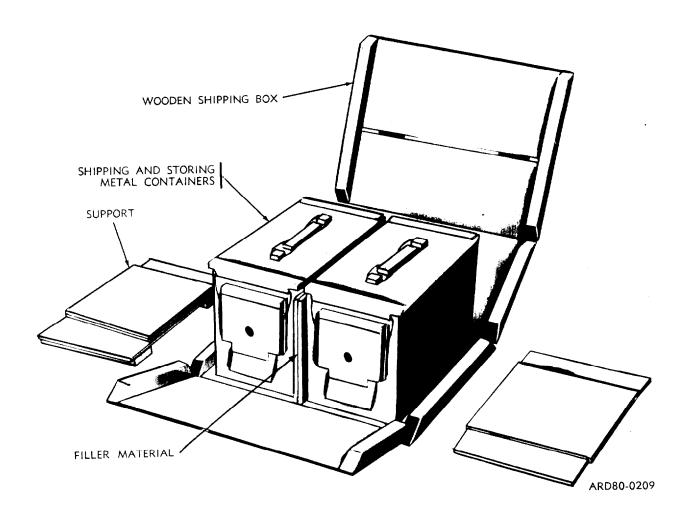


Figure 3-7. Packing wirebound boxes.

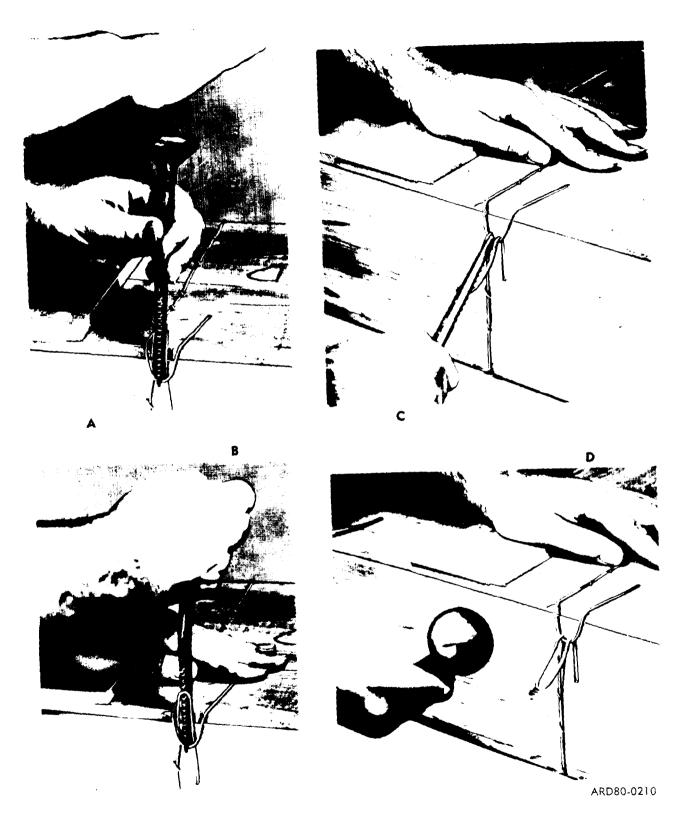


Figure 3-8. Closing wirebound box.

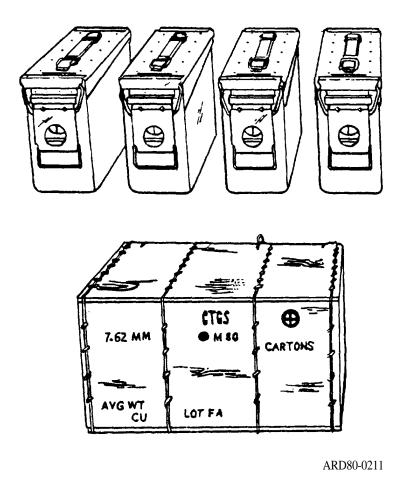
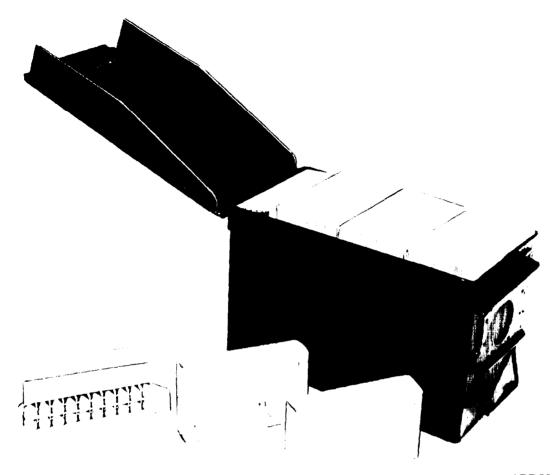


Figure 3-9. Four M19A1 ammunition boxes and wirebound box.



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Figure 3-10. Cartridges in 20-round cartons in ammunition box.

- (2) Select packaging components from those for similar ammunition items.
  - (3) Use filler pads as required for a tight pack.
- (4) Re-mark package as necessary to assure proper markings.
  - b. Metal Container.
- (1) Place item in container so that it is firmly seated in filler materials.
- (2) Cover any sensitive parts such as primers, with padding.
  - (3) Place top on container.
- (4) Seal with plastic filament tape or black nylon tape by wrapping joint in a double layer and folding edges over top.
  - c. Metal Box (MZA1, etc.).
- (1) Inspect gasket on top of box to assure a good seal.
  - (2) Place lower filler materials into box.
  - (3) Insert item(s) in space(s) provided.
  - (4) Add other filler materials as required.

- (5) If top has been completely removed, line up hinge slots on top with hinge pins on box and slide top onto box.
  - (6) Close top firmly.
- (7) Place short end of locking lever under lock lip.
- (8) Push down and in on locking lever until it snaps against box.
  - d. Metal Box with Latches.
- (1) Inspect gasket in top of box to assure good seal.
- (2) Place filler material in bottom of box, as necessary.
- (3) Place inner pack(s) in box. Use filler material or empty containers when box is not full.
- (4) Place padding or filler material over inner pack(s).
  - (5) Position top on box.
  - (6) Snap latches shut to secure top.
  - (7) Secure latches with wire.

- e. Wing-Nut Fastener Box.
- (1) Place inner pack(s) in box. Position items to balance load for carrying.
- (2) Use padding or empty containers as filler material if box is not full.
- (3) Place end cover over tie rod(s) and push into place.
  - (4) Place a large washer over each tie rod.
- (5) Screw wingnut onto tie rod and tighten firmly.
  - f. Spring-Latch Box.
- (1) Place inner pack(s) in box. Position items to balance load for carrying.
- (2) Use padding or empty containers as filler material if box is not full.
- (3) Position top so that hinge fits into hinge slot on box.
  - (4) Close top.
  - (5) Hook latch onto latch tab.
  - (6) Press down on latch until it snaps tight.
  - (7) Secure latch with wire.
  - g. Hasp and Hinge Box.
- (1) Place inner pack(s) in box. Position items to balance load for carrying.
- (2) Use filler material or empty inner containers when box is not full. Place padding on top of items.
  - (3) Close box top.
  - (4) Close hasp.
  - (5) Rotate hasp catch to latch position.
  - h. Wirebound Box.
- (1) Position inner pack(s) on bottom of box. Position items to balance load for carrying.
- (2) Place box ends in position with enough filler material to make a tight pack.
  - (3) Raise box front into position and hold.
  - (4) Raise box back into position and hold.
- (5) Close top, being careful to fit wire loops on top over wire loops on front.
- (6) Bend wire loops flat against box using a salee closer.
  - i. Pallet.
- (1) Arrange boxes, containers, projectiles, etc. on pallet in the same configuration as the original load, if possible. Distribute load for balance.
- (2) Place separators between rows of metal tube containers.
  - (3) Place top (projectile pallet) in position.
  - (4) Cut 1 1/4-inch banding pieces about two feet

longer than pallet girth.

- (5) Position straps under upper part of pallet bottom.
- (6) Position wood strips under straps to protect ammunition packaging.
- (7) Insert one strap end from rear into strap stretcher so that strap is held firmly by stretcher and about 4 to 6 inches of strap protrudes.
  - (8) Place clip over strap end.
- (9) Thread loose end of that strap through clip and into stretcher head.
- (10) Tighten strap, by repeated movement of ratchet lever, until edges begin to cut into wood.
- (11) Using banding crimper, crimp clip in two places.
- (12) Release locking pawl on stretcher and slide stretcher out.
  - (13) Cut off excess strapping.
- (14) Repeat (7) through (13), above, for each strap.

# 3-15. Painting and Marking of Boxes with Light Loads

#### NOTE

Organizations will apply this procedure only when boxes with less than full contents are to be returned to storage area or transported to new location. When painting of boxes is required, remarking (except quantity) may be avoided by applying masking tape on markings prior to painting.

Boxes with less than full contents will be painted orange as follows:

- a. Check contents with markings on box to verify that nomenclature and lot number are correct.
- b. Make diagram of markings on box and record all markings except quantity figure.
- c. Apply orange enamel to all outer surfaces of box. If enamel is not available use orange lacquer.
- d. When box is dry, remark box with correct markings (b, above).
- e. Count quantity of items in box and mark number on box in the same position as the original quantity figure.
- f. Mark the words "LIGHT BOX" on each side of box, using approximately the same letters as original markings.

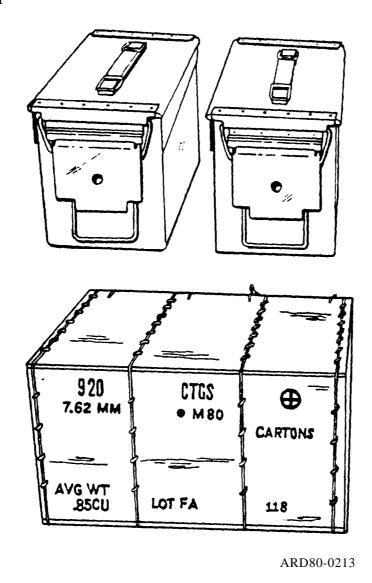


Figure 3-11 Two M2A1 ammunition boxes and wirebound box.

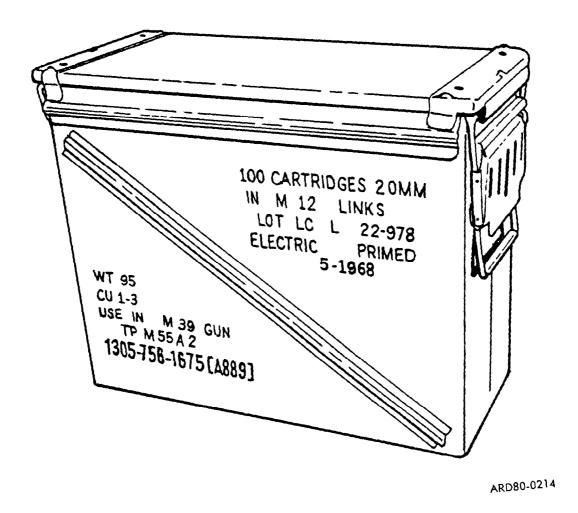


Figure 3-12. Shipping and storage container M548 for 20mm cartridge

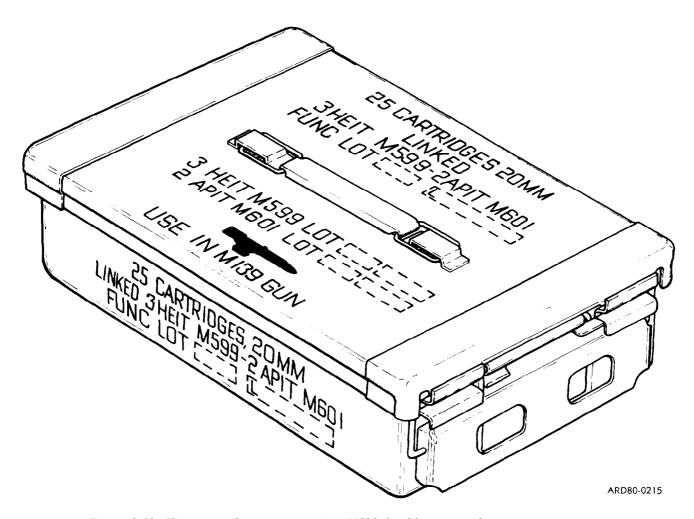


Figure 3-13. Shipping and storage container M528 for 20mm cartridges.

## **GENERAL NOTES**

- 1. UNIT SHOWN HEREON IS PREPARED TO MEET THE FOLLOWING REQUIREMENTS:
- A. GROSS WEIGHT APPROX. 2000 LBS, NOT TO EXCEED 2200 LBS.
- B. HEIGHT OF PALLET AND LOAD NOT TO EXCEED 52".
- C. OVERHANG AVOIDED WHERE POSSIBLE, BUT SHOULD NOT EXCEED APPROX. 1" IN ANY DIRECTION. ONE INCH, TWO INCH, OR FOUR INCH BATTENS MAY BE USED AS REQUIRED.
- D. BOXES SECURED TO THE PALLET BY STEEL STRAPPING 1 1/4" X .035, TYPE I, CLASS A OR B, FED SPEC QQ-S-781A.
- E. STRAPPING SECURED BY ONE 1 1/4" SEAL SECURED WITH A DOUBLE CRIMP, FED SPEC QQ-S-766.
- 2. A MINIMUM OF 2 STAPLES WILL BE USED TO FASTEN EACH STRAP TO ITS BATTEN. STAPLES WILL NOT BE USED WITHOUT BATTENS. STAPLES AUTHORIZED ARE 1 3/8" X 3/4".
- 3. ADDITIONAL BANDING MAY BE USED IN ANY DIRECTION ON THE PALLET LOAD, AT THE DISCRETION OF THE SHIPPER.
- 4. FILLERS, CONSTRUCTED OF TWO INCH LUMBER, MAY BE USED TO COMPLETE PARTIAL LAYERS ON PALLET. FILLERSSHOULD BE PLACED ON INTERIOR OF TOP LAYER, WHENEVER PRACTICAL.

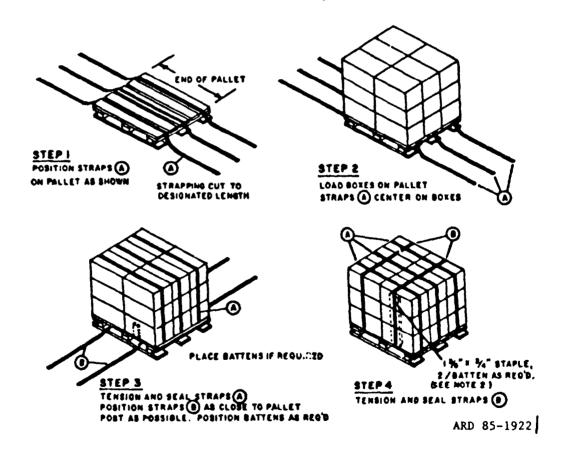
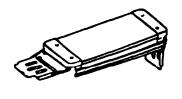


Figure 3-14. Palletizing.



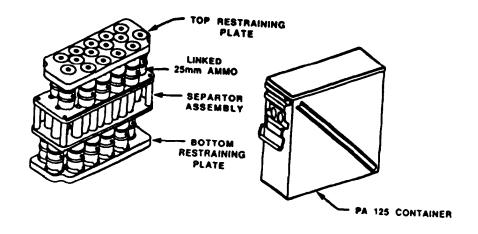


Figure 3-15. Shipping and storage container, PA125 (internal pack).

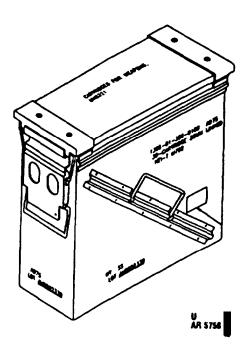


Figure 3-16. Shipping and storage container, PA125 (external pack).

# **CHAPTER 4**

# SHIPMENT AND STORAGE

# Section I. REQUIREMENTS

#### 4-1. General

a. To meet military requirements, small-arms ammunition is normally packaged and packed in metal boxes with or without outer wirebound boxes or STD wooden boxes, in accordance with level A requirements for worldwide shipment, storage, and use. These packaging methods provide a high degree of protection for the ammunition against the rigors of manual or mechanical methods of handling, trans-

portation, and storage under normal and extreme temperature and adverse weather conditions, including some degree of water submersion and air drop.

b. Ammunition should be handled and stored under conditions that will ensure minimum deterioration of the packaging materials and minimum exposure to extreme temperature and moisture.

## Section III. SHIPMENT

## 4-2. Precautions

Damaged, contaminated or otherwise degraded material may be dangerous and/or its usefulness may be impaired.

## 4-3. Transportation

## WARNING

Do not roll, drop, throw or subject ammunition to rough handling.

- a. Block and brace ammunition packages being transported in trucks, jeeps and other tactical vehicles. (Blocking and bracing must be adequate to withstand sudden stops and starts, as well as offroad operations.)
- b. Stack ammunition in an attitude which prevents shifting.
- c. Assure packaging provides adequate protection for ammunition during transportation.

## Section III. STORAGE

## 4-4. Precautions

- a. Select storage site carefully to avoid exposure to power lines and electric cables.
- b. Assure that exposure to radio frequency (RF) energies and electromagnetic radiation is kept to a minimum in storage areas.
- c. Do not store ammunition adjacent to reservoirs, water mains or sewer lines.
- d. Select level, well drained sites free from readily ignitable and flammable materials.
- e. Do not store ammunition under trees or adjacent to towers or other structures that attract lightning.
- f. Provide nonflammable or fire-resistant overhead covers (e.g., tarpaulin) for all ammunition. Maintain overhead air space of approximately 18 inches between cover and ammunition. Keep cover at least 6 inches from stack on ends and at sides, to permit circulation of air.

- g. Store ammunition in a dry, cool place; never in the direct rays of the sun or where temperatures exceed limits marked on containers.
- h. Use heavy, well supported dunnage to prevent stack from sinking, and to keep bottom tier off ground.
- *i.* Dig suitable trenches to prevent water from flowingunder stack.
- j. During storage, ammunition should be segregated by caliber, type, method of packing, and lot number.
- k. Ammunition removed from the original packing should be tagged or otherwise marked to preserve the ammunition lot or functional lot identification. Such action will prevent otherwise serviceable ammunition from becoming condition code H through loss of identify (ammunition lot number). Small Arms Ammunition with loss of lot identity is to be reported to ARRCOM, DRSARMAD, Rock Island, Illinois, 61299.

#### 4-5. Storage Data

a Field Storage Categories. Storage categories are the primary groups into which ammunition is segregated for storage in the field. The groupings are based on consideration of the desirability of storing components of complete rounds in adjacent stacks and on consideration of the hazards of propagation of explosion, range of fragments, spread of fires, and chemical contamination. Safety procedures covering storage are based on the following factors: Items having comparable storage risks are grouped together in the same category. For further information refer to TM 9-1300-206.

b. Storage Compatibility Grouping. All ammunition and explosives are assigned to an appropriate storage compatibility group (SCG) for

storage at army activities. Factors which determine ammunition and explosive storage compatibility groupings are evaluated on the basis of data obtamed from ammunition drawings and tests required by TB 700-2 and other tests during research and developement to determine characteristics.

### 4-6. Hazard Classifications and Compatibility Groups

Table 4-1 provides examples of the relationship between storage compatibility groups and quantity-distance divisions. Examples of specific ammunition and explosives in these divisions and groups are indicated in table 4-2.

Table 4-1. Hazard Classifications/Compatibility Groups

	Items	SCG	Q-D Class 1 Division
1.	Initiating explosives.	Α	1
2.	Detonators and similar initiating devices.	В	1 2 or 4
3.	Bulk propellants, propellant propelling charges, and devices containing propellant with or without	C	1, 2, or 4 1, 2, 3 or 4
	means of ignition.		1, 2, 3 01 1
4.	Black powder, high explosives, and HE ammunition without its own means of initiation and without	D	1 or 2
_	a propelling charge.		
5.	HE ammunition without its own means of initiation, with a propelling charge.	Е	1 or 2
6.	HE ammunition with its own means of initiation, with or without a propelling charge.	F	1 or 2
7.	Fireworks and illuminating, incendiary, smoke or tear producing ammunition other than am-	G	1, 2, 3, or 4
	munition that is activated by exposure to water or the atmosphere.		
8.	Ammunition containing both explosives and white phosphorous or other pyrophoric material	Н	2 or 3
9.	Ammunition containing both explosives and flammable liquid or gel filler.	Ī	3
10.	Ammunition containing both explosives and toxic chemical agent.	K	2
11.	Ammunition, not included in other groups, requiring separate storage.	Ĺ	$\frac{1}{1}$ , 2, 3, or 4
12.	Ammunition which presents no significant hazards.	S	4 or None

Table 4-2 Summary of Quantity-Distance Classifications and Storage Compatibility Groupings for Small Arms

Item	Storage compatibility group	Quantity distance class
Ammunition. small arms, less than 50 caliber Ammunition, 50 caliber, except API and Incendiary rounds Ammunition, 50 caliber API and Incendiary Ammunition. 20MM, HE, HEI and functional packs containing HE AND HEI Ammunition, 20MM; practice and high pressure tests Ammunition, 20MM, Incendiary and functional packs containing incendiary, except those containing HE or HEI	S C G E C G	1.4 1.4 1.4 (04)1.2 (04) 1.2
Ammunition 20MM, API Ammunition 20MM, with inert projectile Ammunition 25MM HEDP Ammunition 30MM, ball and high pressure test Ammunition 30MM, practice and training Ammunition 30MM, HEDP	G GG C C E	1.4 1.4 (04) 1.2 (04)1.2 1.4 (04) 1.2

## APPENDIX A REFERENCES

#### A.1 SCOPE.

This appendix lists all Army regulations, field manuals, forms, pamphlets, technical bulletins, and technical manuals referenced in this manual. The publication index (DA Pam 25-30) should be consulted frequently for latest changes or revisions of references given in this appendix and for new publications relating to the material covered in this manual.

A.2 <u>ARMY REGULATIONS</u> .	
The Army Radiation Safety Program	AR 11-9
Reporting of Transportation Discrepancies in Shipment	AR 55-38
Malfunctions Involving Ammunition and Explosives	AR 75-1
Accident Reporting and Records	AR 385-40
Range Safety	AR 385-63
U.S. Army Explosives Safety Program	AR 385-64
Fire and Emergency Services	AR 420-90
A.3 <u>FIELD MANUALS</u> .  Ammunition Handbook: Tactics, Techniques, and Procedures for Munitions Handlers	FM 4-30.13
A.4 <u>FORMS</u> .	
A.4 FORMS.  U.S. Army Accident Report	DA Form 285
	DA Form 285 DA Form 2028
U.S. Army Accident Report	
U.S. Army Accident Report	DA Form 2028
U.S. Army Accident Report  Recommended Changes to Publications and Blank Forms  Maintenance Request	DA Form 2028 DA Form 2407
U.S. Army Accident Report	DA Form 2028 DA Form 2407 DA Form 2415
U.S. Army Accident Report  Recommended Changes to Publications and Blank Forms  Maintenance Request  Ammunition Condition Report  Transportation Discrepancy Report  Report of Discrepancy (ROD)	DA Form 2028 DA Form 2407 DA Form 2415 SF Form 361 SF Form 364
U.S. Army Accident Report	DA Form 2028 DA Form 2407 DA Form 2415 SF Form 361 SF Form 364 DA Pam 25-30

#### A.6 <u>TECHNICAL BULLETINS</u>.

Guidelines for Safe Response to Handling, Storage, and Transportation Accidents Involving Army Tank Munitions or Armor Which Contain Depleted Uranium	TB 9-1300-278		
A.7 <u>TECHNICAL MANUALS</u> .			
Ammunition, General	TM 9-1300-200		
Military Explosives	TM 9-1300-214		
Ammunition, Maintenance	TM 9-1300-250		
Army Ammunition Data Sheets for Small Caliber Ammunition (FSC 1305)	TM 43-0001-27		

## APPENDIX B MAINTENANCE ALLOCATION CHART (MAC)

#### SECTION I INTRODUCTION

#### B.1 THE ARMY MAINTENANCE SYSTEM MAC.

- B.1.1 This introduction provides a general explanation of all maintenance and repair functions authorized at the two maintenance levels under the Two-Level Maintenance System concept.
- B.1.2 The MAC designates overall authority and responsibility for the performance of maintenance functions on the identified end item or component. The application of the maintenance functions to the end item or component shall be consistent with the capacities and capabilities of the designated maintenance levels, which are shown on the MAC in column (4) as:
  - Field includes two subcolumns, Unit (C (Operator/ Crew) and O (Unit)) maintenance and Direct Support (F) maintenance.
  - Sustainment includes two subcolumns, General Support (H) and Depot (D) maintenance.
- B.1.3 The tools and test equipment requirements (immediately following the MAC) list the tools and test equipment (both special tools and common tool sets) required for each maintenance function as referenced from the MAC.
- B.1.4 The remarks (immediately following the tools and test equipment requirements) contain supplemental instructions and explanatory notes for a particular maintenance function.

#### B.2 MAINTENANCE FUNCTIONS.

Maintenance functions are limited to and defined as follows:

- B.2.1 <u>Inspect</u>. To determine the serviceability of an item by comparing its physical, mechanical, and/or electrical characteristics with established standards through examination (e.g., by sight, sound, or feel). This includes scheduled inspection and gagings and evaluation of cannon tubes.
- B.2.2 <u>Test</u>. To verify serviceability by measuring the mechanical, pneumatic, hydraulic, or electrical characteristics of an item and comparing those characteristics with prescribed standards on a scheduled basis, i.e., load testing of lift devices and hydrostatic testing of pressure hoses.

- B.2.3 <u>Service</u>. Operations required periodically to keep an item in proper operating condition; e.g., to clean (includes decontaminate, when required), to preserve, to drain, to paint, or to replenish fuel, lubricants, chemical fluids, or gases. This includes scheduled exercising and purging of recoil mechanisms.
- B.2.4 <u>Adjust</u>. To maintain or regulate, within prescribed limits, by bringing into proper position, or by setting the operating characteristics to specified parameters.
- B.2.5 <u>Align</u>. To adjust specified variable elements of an item to bring about optimum or desired performance.
- B.2.6 <u>Calibrate</u>. To determine and cause corrections to be made or to be adjusted on instruments of test, measuring, and diagnostic equipment used in precision measurement. Consists of comparisons of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.
- B.2.7 <u>Remove/Install</u>. To remove and install the same item when required to perform service or other maintenance functions. Install may be the act of emplacing, seating, or fixing into position a spare, repair part, or module (component or assembly) in a manner to allow the proper functioning of an equipment or system.
- B.2.8 <u>Replace</u>. To remove an unserviceable item and install a serviceable counterpart in its place. "Replace" is authorized by the MAC and assigned maintenance level is shown as the third position code of the Source, Maintenance and Recoverability (SMR) code.
- B.2.9 <u>Repair</u>. The application of maintenance services, including fault location/troubleshooting, removal/installation, disassembly/assembly procedures, and maintenance actions to identify troubles and restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), end item, or system.

#### NOTE

The following definitions are applicable to the "repair" maintenance function:

Services - Inspect, test, service, adjust, align, calibrate, and/or replace.

Fault location/troubleshooting - The process of investigating and detecting the cause of equipment malfunctioning; the act of isolating a fault within a system or Unit Under Test (UUT).

Disassembly/assembly - The step-by-step breakdown (taking apart) of a spare/functional group coded item to the level of its least component, that is assigned as SMR code for the level of maintenance under consideration (i.e., identified as maintenance significant).

Actions - Welding, grinding, riveting, straightening, facing, machining, and/or resurfacing.

- B.2.10 Overhaul. That maintenance effort (service/action) prescribed to restore an item to a completely service-able/operational condition as required by maintenance standards in appropriate technical publications. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.
- B.2.11 <u>Rebuild</u>. Consists of those services/actions necessary for the restoration of unserviceable equipment to a like new condition in accordance with original manufacturing standards. Rebuild is the highest degree of materiel maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (e.g., hours/miles) considered in classifying Army equipment/components.

#### B.3 EXPLANATION OF COLUMNS IN THE MAC.

- B.3.1 <u>Column (1) Group Number</u>. Column (1) lists Functional Group Code (FGC) numbers, the purpose of which is to identify maintenance significant components, assemblies, subassemblies, and modules with the Next Higher Assembly (NHA).
- B.3.2 <u>Column (2) Component/Assembly</u>. Column (2) contains the item names of components, assemblies, sub-assemblies, and modules for which maintenance is authorized.

- B.3.3 <u>Column (3) Maintenance Function</u>. Column (3) lists the functions to be performed on the item listed in column (2). (For a detailed explanation of these functions refer to "Maintenance Functions" outlined above.)
- Column (4) Maintenance Level. Column (4) B.3.4 specifies each level of maintenance authorized to perform each function listed in column (3), by indicating work time required (expressed as manhours in whole hours or decimals) in the appropriate subcolumn. This work time figure represents the active time required to perform that maintenance function at the indicated level of maintenance. If the number or complexity of the tasks within the listed maintenance function varies at different maintenance levels, appropriate work time figures are to be shown for each level. The work time figure represents the average time required to restore an item (assembly, subassembly, component, module, end item, or system) to a serviceable condition under typical field operating conditions. This time includes preparation time (including any necessary disassembly/assembly time), troubleshooting/fault location time, and quality assurance time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the MAC. The symbol designations for the various maintenance levels are as follows:

Field:

- C Operator or Crew maintenance
- O Unit maintenance
- F Direct Support maintenance

#### Sustainment:

- L Specialized Repair Activity (SRA)
- H General Support maintenance
- D Depot maintenance

#### **NOTE**

The "L" maintenance level is not included in column (4) of the MAC. Functions to this level of maintenance are identified by a work time figure in the "H" column of column (4), and an associated reference code is used in column (6), Remarks Code. This code is keyed to the remarks and the SRA complete repair application is explained there.

B.3.5 <u>Column (5) - Tools and Equipment Reference Code</u>. Column (5) specifies, by code, those common tool sets (not individual tools), common Test, Measurement and Diagnostic Equipment (TMDE), and special tools, special TMDE and special support equipment required to perform the designated function. Codes are keyed to the entries in the tools and test equipment table.

- B.3.6 <u>Column (6) Remarks Code</u>. When applicable, this column contains a letter code, in alphabetical order, which is keyed to the remarks table entries.
- B.4 <u>EXPLANATION OF COLUMNS IN THE TOOLS AND TEST EQUIPMENT REQUIREMENTS.</u>
- B.4.1 <u>Tool or Test Equipment Reference Code</u>. The tool or test equipment reference code correlates with a code used in column (5) of the MAC.
- B.4.2 <u>Maintenance Level</u>. The lowest level of maintenance authorized to use the tool or test equipment.
- B.4.3 <u>Nomenclature</u>. Name or identification of the tool or test equipment.

- B.4.4 <u>National Stock Number</u>. The NSN of the tool or test equipment.
- B.4.5 <u>Tool Number</u>. The manufacturer's part number, model number, or type number.
- B.5 <u>EXPLANATION OF COLUMNS IN THE REMARKS</u>.
- B.5.1 <u>Remarks Code</u>. The code recorded in column (6) of the MAC.
- B.5.2 <u>Remarks</u>. This column lists information pertinent to the maintenance function being performed as indicated in the MAC.

#### **SECTION II MAINTENANCE ALLOCATION CHART FOR SMALL ARMS AMMUNITION TO 30MM INCLUSIVE**

(1)	(2)	(3)	(4) Maintenance Level					(5)	(6)
				Fie	ld	Sustain	ment		
					Direct	General			
Group		Maintenance	Unit		Support	Support	Depot	Tools and Equipment	Remarks
Number	Component/Assembly	Function	С	О	F	Н	D	Ref Code	Code
	01 GROUP								
0101	CARTRIDGE, SHOT- GUN, 12 GAGE								
	a. Cartridge - Bulk								
		Inspect	X						
		Test					X		
		Unpack	X						
		Repack	X						
		Clean	X						
		Install	X						
	b. Packaging for							*	
	Cartridge	Inspect		X					
		Test					X		
		Unpack		X					
		Repack		X					
		Clean		X					
		Touch up		X					
		Mark		X					
		Paint		X					
		Repair		X					
0101	CARTRIDGE, SHOT-	Replace		X					
	GUN, .410 GAGE								
	a. Cartridge - Bulk	In an a st	37						
		Inspect	X				W		
		Test	X				X		
		Unpack							
		Repack	X						
		Clean	X						
		Install	X						

(1)	(2)	(3)	(4) Maintenance Level					(5)	(6)
				Fiel	d	Sustain	ment		
Group		Maintenance	U:	nit	Direct Support	General Support	Depot	Tools and Equipment	Remarks
Number	Component/Assembly	Function	С	О	F	Н	D	Ref Code	Code
0101	b. Packaging for Cartridge  CARTRIDGE, SHOT-GUN, 10 GAGE a. Cartridge - Bulk	Inspect Test Unpack Repack Clean Touch up Mark Paint Repair Replace		X X X X X X X X X X			X	*	
	b. Packaging for	Inspect Test Unpack Repack Clean Install	X X X X				X	*	
0102 0103 0104	PROJECTILE ASSEMBLY PROPULSION SYSTEM FUZE	Inspect Test Unpack Repack Clean Touch up Mark Paint Repair Replace		X X X X X X X X			X		

(1)	(2)	(3)	(4) Maintenance Level					(5)	(6)
				Fiel	d	Sustain	ment		
Group		Maintenance	Uı	nit	Direct Support	General Support	Depot	Tools and Equipment	Remarks
Number	Component/Assembly	Function	С	О	F	Н	D	Ref Code	Code
0105	LINKS								
0201	02 GROUP CARTRIDGE, CALIBER .22 a. Cartridge - Bulk								
		Inspect Test Unpack Repack Clean	X X X X				X		
0201	b. Packaging for Cartridge	Install Inspect Test Unpack Repack Clean Touch up Mark Paint Repair Replace	X	X X X X X X X X X			X	*	
0201	CARTRIDGE, CALIBER .32 a. Cartridge - Bulk	Inspect Test Unpack Repack Clean Install	X X X X				X	*	
	b. Packaging for Cartridge	Inspect Test Unpack		X X			X	*	

(1)	(2)	(3)	(4) Maintenance Level				(5)	(6)	
				Fiel	d	Sustain	ment		
Group		Maintenance	Uı	nit	Direct Support	General Support	Depot	Tools and Equipment	Remarks
Number	Component/Assembly	Function	С	О	F	Н	D	Ref Code	Code
		Repack		X					
		Clean		X					
		Touch up		X					
		Mark		X					
		Paint		X					
		Repair		X					
		Replace		X					
0201	CALIDED 28								
	CALIBER .38								
	a. Cartridge - Bulk	Inspect	X						
		Test	71				X		
		Unpack	X				21		
		Repack	X						
		Clean	X						
		Install	X						
	b. Packaging for							*	
	Cartridge	Inspect		X					
		Test					X		
		Unpack		X					
		Repack		X					
		Clean		X					
		Touch up		X					
		Mark		X					
		Paint		X					
		Repair		X					
		Replace		X					
0201	CARTRIDGE, CALIBER .45								
	a. Cartridge - Bulk								
		Inspect	X						
		Test					X		
		Unpack	X						
		Repack	X						
		Clean	X						
		Install	X						

Maintenance Allocation Chart for Small Arms Ammunition to 30mm Inclusive - Continued

(1)	(2)	(3)		]	(4) Maintenanc	e Level		(5)	(6)
				Fiel	ld	Sustain	ment		
Group		Maintenance	U	nit	Direct Support	General Support	Depot	Tools and Equipment	Remarks
Number	Component/Assembly	Function	С	О	F	Н	D	Ref Code	Code
	b. Packaging for Cartridge	Inspect Test		X			X	*	
		Unpack Repack Clean		X X X					
		Touch up Mark		X X X					
		Install Paint		X X					
		Repair Replace		X X					
0201	CARTRIDGE, CALIBER 5.56MM a. Cartridge - Bulk								
	u. Cururuge Buin	Inspect Test	X				X		
		Unpack Repack	X X						
		Clean Install	X X						
	b. Cartridge - Clipped/Magazine	Inspect Test	X				D	**	
		Unpack Repack	X X						
		Clean Install	X X						
	c. Cartridge - Linked	Adjust		X					
		Inspect Test	X				X		
		Unpack Repack	X X						
		Clean Install	X X						
		Adjust		X					

(1)	(2)	(3)		]	(4) Maintenanc	e Level		(5)	(6)
				Fie	ld	Sustain	ment		
Group		Maintenance	Uı	nit	Direct Support	General Support	Depot	Tools and Equipment	Remarks
Number	Component/Assembly	Function	С	О	F	Н	D	Ref Code	Code
0201	d. Packaging for Cartridge  CARTRIDGE, CALIBER 7.62MM a. Cartridge - Bulk	Inspect Test Unpack Repack Clean Touch up Mark Paint Repair Replace	X	X X X X X X X X X X			X	*	
	b. Cartridge - Clipped/ Magazine	Test Unpack Repack Clean Install Inspect	X X X X				X	**	
		Test Unpack Repack Clean Install Adjust	X X X X	X			X		
	c. Cartridge - Linked	Inspect Test Unpack Repack Clean Install Adjust	X X X X X	X			X	**	

Maintenance Allocation Chart for Small Arms Ammunition to 30mm Inclusive - Continued

(1)	(2)	(3)	(4) Maintenance Level				(5)	(6)	
				Fie	ld	Sustain	ment		
Group		Maintenance	U:	nit	Direct Support	General Support	Depot	Tools and Equipment	Remarks
Number	Component/Assembly	Function	С	О	F	Н	D	Ref Code	Code
	d. Packaging for							*	
	Cartridge	Inspect		X					
		Test					X		
		Unpack		X					
		Repack		X					
		Clean		X					
		Touch up		X					
		Mark		X					
		Paint		X					
		Repair		X					
		Replace		X					
0201	CARTRIDGE, CALIBER .50								
	a. Cartridge - Bulk								
		Inspect	X						
		Test					X		
		Unpack	X						
		Repack	X						
		Clean	X						
		Install	X						
	b. Cartridge - Linked							**	
		Inspect	X						
		Test					X		
		Unpack	X						
		Repack	X						
		Clean	X						
		Install	X						
		Adjust		X					
	c. Packaging for	T .		37				*	
	Cartridge	Inspect		X			**		
		Test					X		
		Unpack		X					
		Repack		X					
		Clean		X					
		Touch up		X					
		Mark		X					
		Paint		X					

(1)	(2)	(3)	(4) Maintenance Level					(5)	(6)
				Fie		Sustain	ment		
		<b>.</b>	U:	nit	Direct Support	General Support	Depot	Tools and	D 1
Group Number	Component/Assembly	Maintenance Function	С	О	F	Н	D	Equipment Ref Code	Remarks Code
		Repair		X			_		
		Replace		X					
0201	CARTRIDGE, 9MM	1							
	a. Cartridge - Bulk								
		Inspect	X						
		Test					X		
		Unpack	X						
		Repack	X						
		Clean	X						
		Install	X						
	b. Packaging for							*	
	Cartridge	Inspect		X					
		Test					X		
		Unpack		X					
		Repack		X					
		Clean		X					
		Touch up		X					
		Mark		X					
		Install		X					
		Paint		X					
		Repair		X					
		Replace		X					
0201	CARTRIDGE, 14.5MM								
	a. Cartridge - Bulk								
		Inspect	X						
		Test					X		
		Unpack	X						
		Repack	X						
		Clean	X						
		Install	X						
	b. Packaging for							*	
	Cartridge	Inspect		,,			7.7		
		Test		X			X		
		Unpack		X					
		Repack		X					
		Clean		X					

(1)	(2)	(3)		]	(4) Maintenanc	e Level		(5)	(6)
				Fie	ld	Sustain	ment		
			U	nit	Direct Support	General Support	Depot	Tools and	
Group Number	Component/Assembly	Maintenance Function	С	О	F	Н	D	Equipment Ref Code	Remarks Code
	ı J	Touch up		X					
		Mark		X					
		Paint		X					
		Repair		X					
		Replace		X					
0202	PROJECTILE ASSEMBLY	-							
0203	PROPULSION SYSTEM								
0204	FUZE								
0205	LINKS								
	03 GROUP								
0301	CARTRIDGE, 20MM								
	a. Cartridge - Bulk								
		Inspect	X						
		Test					X		
		Unpack	X						
		Repack	X						
		Clean	X						
		Install	X						
	b. Cartridge - Linked							**	
		Inspect	X						
		Test					X		
		Unpack	X						
		Repack	X						
		Clean	X						
		Install	X						
		Adjust		X					
	c. Cartridge - H. E.	I	37					**	
	Loaded	Inspect	X				37		
		Test	37				X		
		Unpack	X						
		Repack	X						
		Clean	X						
		Install	X						
		Adjust		X					

(1)	(2)	(3)		ı	(4) Maintenanc	e Level		(5)	(6)
				Fiel		Sustain	ment		
Group		Maintenance	Uı	nit	Direct Support	General Support	Depot	Tools and Equipment	Remarks
Number	Component/Assembly	Function	С	О	F	Н	D	Ref Code	Code
	d. Packaging for Cartridge	Inspect Test		X			X	*	
		Unpack		X			Λ		
		Repack		X					
		Clean		X					
		Touch up		X					
		Mark		X					
		Paint		X					
		Repair		X					
		Replace		X					
0302	PROJECTILE ASSEMBLY								
	Tracer	Inspect					X		
0303	PROPULSION SYSTEM	Test					X		
	Primer	Inspect Test					X X		
0304	FUZE								
	Nose Fuze	Inspect Test					X X		
0305	LINKS	Inspect					X		
0401	O4 GROUP CARTRIDGES, 25MM a. Cartridge - Linked							**	
	a. Carriage - Linked	Inspect	X					"	
		Test	1				X		
		Unpack	X						
		Repack	X						
		Clean	X						
		Install	X						
		Adjust		X					

(1)	(2)	(3)		]	(4) Maintenanc	e Level		(5)	(6)
				Fiel	ld	Sustain	ment		
Group		Maintenance	Uı	nit	Direct Support	General Support	Depot	Tools and Equipment	Remarks
Number	Component/Assembly	Function	С	О	F	Н	D	Ref Code	Code
	b. Packaging for							*	
	Cartridge	Inspect		X					
		Unpack		X					
		Repack		X					
		Clean		X					
		Touch up		X					
		Mark		X					
		Paint		X					
		Repair		X					
		Replace		X					
0402	PROJECTILE ASSEMBLY								
	Tracer	Inspect					X		
		Test					X		
0403	PROPULSION SYSTEM								
	Primer	Inspect					X		
		Test					X		
0404	FUZE								
	Nose Fuze	Inspect					X		
		Test					X		
0405	LINKS	Inspect					X		
		Test					X		
0406	CARTRIDGES, 25.4MM								
	a. Cartridges								
		Inspect	X						
		Test					X		
		Unpack	X						
		Repack	X						
		Clean	X						
		Install	X						
	b. Packaging for								
	Cartridge	Inspect		X					
		Test					X		
		Unpack		X					
		Repack		X					

(1)	(2)	(3)		]	(4) Maintenanc	e Level		(5)	(6)
				Fie	ld	Sustain	ment		
Group		Maintenance	Uı	nit	Direct Support	General Support	Depot	Tools and Equipment	Remarks
Number	Component/Assembly	Function	С	О	F	Н	D	Ref Code	Code
		Clean		X					
		Touch up		X					
		Mark		X					
		Paint		X					
		Repair		X					
		Replace		X					
	05 GROUP								
0501	CARTRIDGES, 30MM								
	a. Cartridge - Linked							**	
	u. Curtifugo Elintou	Inspect	X						
		Test					X		
		Unpack	X						
		Repack	X						
		Clean	X						
		Install	X						
	b. Cartridge - Bulk							**	
	Stripped	Inspect	X						
		Test					X		
		Unpack	X						
		Repack	X						
		Clean	X						
		Install	X						
		Adjust		X					
	c. Cartridge - H. E.								
	Loaded	Inspect	X						
		Test					X		
		Unpack	X						
		Repack	X						
		Clean	X						
		Touch up		X					
		Mark			X				
		Install	X						
		Paint			X				
		Repair					X		

(1)	(2)	(3)		I	(4) Maintenanc	e Level		(5)	(6)
				Fiel	ld	Sustain	ment		
Group		Maintenance	Uı	nit	Direct Support	General Support	Depot	Tools and Equipment	Remarks
Number	Component/Assembly	Function	C	О	F	Н	D	Ref Code	Code
	d. Packaging for Cartridge	Inspect Test		X			X	*	
		Unpack		X			A		
		Repack		X					
		Clean		X					
		Touch up		X					
		Mark		X					
		Paint		X					
		Repair		X					
		Replace		X					
0502	PROJECTILE ASSEMBLY								
	Tracer	Inspect					X		
		Test					X		
0503	PROPULSION SYSTEM								
	Primer	Inspect					X		
		Test					X		
0504	FUZE								
	Nose Fuze	Inspect					X		
		Test					X		
0505	LINKS	Inspect					X		
		Test					X		

<sup>\*</sup> Refer to Appendix C in this TM, Sections II and III.

\*\* Refer to TM 9-1305-201-34, Appendix B, Packing Materials, Accessories, and Tools.

#### SECTION III TOOLS AND TEST EQUIPMENT FOR SMALL ARMS AMMUNITION TO 30MM INCLUSIVE

Not Applicable

# SECTION IV REMARKS FOR SMALL ARMS AMMUNITION TO 30MM INCLUSIVE

Not Applicable

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## APPENDIX C PACKING MATERIALS, ACCESSORIES, AND TOOLS

#### SECTION I INTRODUCTION

#### C.1 SCOPE.

This appendix lists packing materials, accessories, and tools required for the performance of Unit maintenance of Small Arms Ammunition to 30 Millimeter Inclusive.

#### C.2 GENERAL.

This appendix is divided into the following sections:

- C.2.1 <u>Section II Packing Materials and Accessories</u>. A list of packing materials and accessories authorized for the performance of maintenance at the unit level.
- C.2.2 <u>Section III Special Packing Tools List</u>. A list of special tools authorized for the performance at the unit level.

#### C.3 EXPLANATION OF COLUMNS.

The following provides an explanation of columns in sections II and III.

- C.3.1 <u>Column (1) Part Number/Drawing Number.</u> The primary number used by the manufacturer which controls and design and characteristics of the item. Drawings can be obtained from originating source (see CAGEC).
- C.3.2 Column (2) Contractor and Government Entity Code (CAGEC). (Formerly known as Federal Supply Code for Manufacturers (FSCM).) A five-digit code used to identify the manufacturer, distributor, or Government agency/activity that supplies the item.
- C.3.3 <u>Column (3) Figure Number</u>. The number of the figure where the item is identified/located if applicable.
- C.3.4 <u>Column (4) Description</u>. The federal item name and any additional description of the item required.

(1)	(2)	(3)	(4)
Part Number/ Drawing Number	CAGEC	Figure Number	Description
			Cartridge, 5.56 Millimeter-Continued.
7553296	19200		Chest, Ammunition: M2A1
9395772	19200		Box Assembly: consisting of box, wirebound; filler, end; separator
MIL-P-15011	81349		Pallet, Material Handling: (all ctg Cal 5.56mm may use this pallet)
			Cartridge, 7.62 Millimeter NATO, Ball, M59, M80, NATO, AP, M61, NATO, Tracer, M62; Tracer, XM276 Dim, NATO, Reference
			Packing for:
7553710-4	19203		Box, Intermediate Packaging: (20 Rd)
7553714	19200		Filler, End:
7553715	19200		Filler, Bottom:
7553716	19200		Filler, Side:
7553315	19203		Chest, Ammunition: M19A1
7555581	19200		Box, Wirebound:
			NATO, Ball, M59, M80, NATO, AP, M61, NATO, Tracer, M62; Tracer, XM276 Dim, NATO, Reference
			Packing for:
7553710-4	19203		Box, Intermediate Packaging:
7553748	19200		Filler, Side:
7553748	19200		Filler, "U" Top:
7553748	19200		Tape Removal:
7553296	19200		Chest, Ammunition: M2A1
9395772	19200		Box, Assembly: consisting of box, wirebound; filler, end; separator
			NATO, Ball, M59, M80, NATO, Tracer, M62; Tracer, XM276, Dim, NATO, Reference
			Packing for:
7268389	19204		Link, Cartridge: M13
8595244	19200		Filler, Side:
7553315	19203		Chest, Ammunition: M19A1

(1)	(2)	(3)	(4)
Part Number/ Drawing Number	CAGEC	Figure Number	Description
			Cartridge, 7.62 Millimeter-Continued.
5581378	19200		Box, Packing, Ammunition: wirebound
			NATO, Ball, M59, M80, NATO, Tracer, M62; Tracer, XM276, Dim, NATO, Reference
			Packing for:
7268389	19204		Link, Cartridge: M13
7258943	19201		Shipping And Storage Container:
8597302	19203		Carton, Assembly:
8597304	19200		Bandoleer: M4
7553315	19203		Chest, Ammunition: M19A1
5581378	19200		Box, Packing, Ammunition: wirebound
			NATO, Ball, M59, M80, NATO, Tracer, M62, NATO, Reference
			Packing for:
7790130	19200		Clip, Cartridge: (5 Rd)
7791154	19205		Filler, Magazine: (5 Rd Clip)
8594722	19203		Carton:
7553296	19200		Chest, Ammunition: M2A1
9395772	19200		Box Assembly: consisting of box, wirebound, filler, end; separator
			NATO, Tracer, M62; NATO, Ball M80, NATO, Reference
			Packing for:
7268389	19204		Link, Cartridge: M13
8597302	19203		Carton Assembly:
8597304	19200		Bandoleer:
7543315	19203		Chest, Ammunition: M19A1
5581378	19200		Box, Packing, Ammunition: Wirebound
			NATO, Tracer, M62 (Overhead Fire Application); Ball M80 (Overhead Fire Application)
			Packing for:
7268389	19204		Link, Cartridge, M13
8597302	19203		Carton Assembly: (100 Rd)

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(1)	(2)	(3)	(4)
Part Number/		Figure	
Drawing Number	CAGEC	Number	Description
			Cartridge, 9 Millimeter-Continued.
7553296	19200		Chest, Ammuntion: M2A1
9395772	19200		Box Assembly: consisting of box, wirebound; filler, end; separator
			Cartridge, Caliber .38
			Special Ball, M41
			Packing for:
7553296	19200		Chest, Ammunition: M2A1
9395772	19200		Box Assembly: consisting of box, wirebound; filler, end; separator
8594102	19200		Carton: (50 rd)
7553768	19200		Filler, End:
7553766	19203		Filler, Top:
7553767	19203		Filler, Top:
			Special, Ball, M142 Packing for:
7553296	19200		Chest, Ammunition: M2A1
9395772	19200		Box Assembly: consisting of box, wirebound; filler, end; separator
7553363	19203		Carton: (50 Rd)
7553768	19203		Filler, End:
7553766	19203		Filler, Top:
7553767	19203		Filler, Center:
MIL-P-15011	81349		Pallet, Material Handling: (all Ctg Cal 38 may use this pallet)
			Cartridge, Caliber .45
			Ball, M1911
			Packing for:
5580944	19203		Carton: (50 Rd)
7553730	19203		Filler, Top:
7553730	19203		Filler, End:
7553730	19203		Filler, Side:
7553730			Taper, Removal:

(1)	(2)	(3)	(4)
Part Number/ Drawing Number	CAGEC	Figure Number	Description
			Cartridge, Caliber .45 Continued.
7553296	19200		Chest, Ammunition: M2A1
9395772	19200		Box Assembly: consisting of box, wirebound; filler, end; separator
1052136	19203		Ball: M1911 Match Grade Packing for:
8596133	19200		Carton: (50 Rd)
8596133	19200		Filler, Top:
8596133	19200		Filler, End:
8596133	19200		Filler, Side:
7553296	19200		Chest, Ammunition: M2A1
9395772	19200		Box Assembly: consisting of box, wirebound; filler, end; separator
MIL-P-15011	81349		Pallet, Material Handling: (all ctg Cal.45 may use this pallet)
			Cartridge, Caliber .50 Tracer, M1, M17; Incendiary, M1, M23 Armor Piercing, M2; API, M8 APIT M20, Tracer, M17; Tracer, Headlight, M21; Ball, M2, M33; Blank M1, M1A1; Ball, Plastic Practice, M858; Tracer, Plastic Practice, M860; SLAP, M903; SLAP-T, M962
			Packing for:
7140393	19204		Link, Cartridge: M9
7553296	19200		Chest, Ammunition: M2A1
9395772	19200		Box Assembly: consisting of box, wirebound; filler, end; separator
			Tracer, M1, M17; Armor Piercing, M2 Ball, M2, M33; API, M8; Tracer, Headlight, M21; Incendiary, M23, SLAP, M903; SLAP-T, M962
			Packing for:
7553548	19200		Filler Side:
7553550	19200		Filler, Top And Bottom:
7553549	19200		Separator:
7553296	19200		Chest, Ammunition: M2A1

(1)	(2)	(3)	(4)
Part Number/ Drawing Number	CAGEC	Figure Number	Description
			Cartridge, Caliber .50 Continued.
9395772	19200		Box Assembly: consisting of box, wirebound; filler, end; separator
			Tracer, M1, M17; API, M8; APIT, M23 Tracer, Headlight, M21; Incendiary, M23 Ball, M33
			Packing for:
7791440	19200		Link, Cartridge: M15A2
8596922	19200		Filler, Side:
7553296	19200		Chest, Ammunition: M2A1
9395772	19200		Box Assembly: consisting of box, wirebound; filler, end; separator
			Spotter, Tracer, M48 Series
			Packing for:
7553722	19200		Carton: (10 Rd)
7553720	19200		Filler, End:
7553720	19200		Filler, Side:
7553720	19200		Filler, Bottom:
7553720	19200		Тар:
7553296	19200		Chest, Ammunition: M2A1
9395772	19200		Box Assembly: consisting of box, wirebound; filler, end; separator
7991261	19200		Link: M15A1
MIL-P-15011	81349		Pallet, Material Handling: (all ctg. cal.50 may use this pallet)
			Cartridge, 5.56 Millimeter Ball, M193, Tracer; M196 HP-T, M197
			Packing for:
10534433	19200		Carton: (20 Rd)
10535857	19200		Filler, Side:
10535857	19200		Filler, Corner:
10535857	19200		Tape, Removal:

(1)	(2)	(3)	(4)
Part Number/		Figure	
Drawing Number	CAGEC	Number	Description
			Cartridge, 5.56 Millimeter-Continued.
7553296	19200		Chest, Ammunition: M2A1
9395772	19200		BOX ASSEMBLY: consisting of box, wirebound; filler, end; separator
			Ball, M193, Tracer: M196
			Packing for:
10010483	19204		Clip: (10 Rd)
10542256	19200		Carton:
10534431	19200		Bandoleer: M3
11010484	19205		Filler, Magazine:
10542257	19200		Filler:
7553296	19200		Box, Ammunition: M2A1
9395772	19200		Box, Assembly: consisting of box, wirebound; filler, end; separator
			Grenade, M195, Blank, M200
			Packing for
10542289	19200		Carton: (20 Rd)
10542290	19200		Filler, Upper Corner:
10542290	19200		Filler, Lower Corner:
10542290	19200		Filler, Upper Side:
10542290	19200		Filler Folded:
			Ball, M855, Tracer, M856, Plastic, Practice, M862
			Packing for:
11691287	19200		Link, Cartridge: M27
93499295	19200		Bandoleer:
7553296	19200		Chest, Ammunition: M2A1
9395772	19200		Box Assembly: consisting of box, wirebound; filler, end; separator
10542290	19200		Filler, Inner:
10542290	19200		Tape, Removal:

(1)	(2)	(3)	(4)
Part Number/ Drawing Number	CAGEC	Figure Number	Description
			Cartridge, 5.56 Millimeter-Continued.
7553296	19200		Chest, Ammunition: M2A1
9395772	19200		Box Assembly: consisting of box, wirebound; filler, end; separator
MIL-P-15011	81349		Pallet, Material Handling: (all ctg Cal 5.56mm may use this pallet)
			Cartridge, 7.62 Millimeter NATO, Ball, M59, M80, NATO, AP, M61, NATO, Tracer, M62; Tracer, XM276 Dim, NATO, Reference
			Packing for:
7553710-4	19203		Box, Intermediate Packaging: (20 Rd)
7553714	19200		Filler, End:
7553715	19200		Filler, Bottom:
7553716	19200		Filler, Side:
7553315	19203		Chest, Ammunition: M19A1
7555581	19200		Box, Wirebound:
			NATO, Ball, M59, M80, NATO, AP, M61, NATO, Tracer, M62; Tracer, XM276 Dim, NATO, Reference
			Packing for:
7553710-4	19203		Box, Intermediate Packaging:
7553748	19200		Filler, Side:
7553748	19200		Filler, "U" Top:
7553748	19200		Tape Removal:
7553296	19200		Chest, Ammunition: M2A1
9395772	19200		Box, Assembly: consisting of box, wirebound; filler, end; separator
			NATO, Ball, M59, M80, NATO, Tracer, M62; Tracer, XM276, Dim, NATO, Reference
			Packing for:
7268389	19204		Link, Cartridge: M13
8595244	19200		Filler, Side:
7553315	19203		Chest, Ammunition: M19A1

(1)	(2)	(3)	(4)
Part Number/ Drawing Number	CAGEC	Figure Number	Description
			Cartridge, 7.62 Millimeter-Continued.
5581378	19200		Box, Packing, Ammunition: wirebound
			NATO, Ball, M59, M80, NATO, Tracer, M62; Tracer, XM276, Dim, NATO, Reference
			Packing for:
7268389	19204		Link, Cartridge: M13
7258943	19201		Shipping And Storage Container:
8597302	19203		Carton, Assembly:
8597304	19200		Bandoleer: M4
7553315	19203		Chest, Ammunition: M19A1
5581378	19200		Box, Packing, Ammunition: wirebound
			NATO, Ball, M59, M80, NATO, Tracer, M62, NATO, Reference
			Packing for:
7790130	19200		Clip, Cartridge: (5 Rd)
7791154	19205		Filler, Magazine: (5 Rd Clip)
8594722	19203		Carton:
7553296	19200		Chest, Ammunition: M2A1
9395772	19200		Box Assembly: consisting of box, wirebound, filler, end; separator
			NATO, Tracer, M62; NATO, Ball M80, NATO, Reference
			Packing for:
7268389	19204		Link, Cartridge: M13
8597302	19203		Carton Assembly:
8597304	19200		Bandoleer:
7543315	19203		Chest, Ammunition: M19A1
5581378	19200		Box, Packing, Ammunition: Wirebound
			NATO, Tracer, M62 (Overhead Fire Application); Ball M80 (Overhead Fire Application)
			Packing for:
7268389	19204		Link, Cartridge, M13
8597302	19203		Carton Assembly: (100 Rd)

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(1)	(2)	(3)	(4)
Part Number/ Drawing Number	CAGEC	Figure Number	Description
			Cartridge, 7.62 Millimeter - Continued
8597304	19200	1	Bandoleer: M4
7543315	19203	1	Chest, Ammunition: M19A1
5581378	19200		Box Packing, Ammunition: Wirebound Nato, Ball, M80
		1	Packing for:
10534739	19203	1	Carton
NO RECORD	19200	1	Bandoleer: M1
7553296	19200	1	Chest, Ammunition: M2A1
9395772	19200	1	Box Assembly: consisting of box, wirebound; filler end; separator
7553347	19200	1	Box, Wirebound: Match 118, Match 852, Long Range, M118
NO RECORD	19200	1	Carton: (20 Rd)
8596111	19200	1	Filler, "U" Top:
8596111	19200	1	Filler, Side
8596111	19200	1	Tape, Removal
7553296	19200	1	Chest, Ammunition: M2A1
9395772	19200	1	Box Assembly: consisting of box, wirebound; filler, end; separator
5581378	19200	1	Box, Packing, Ammunition: Wirebound
NO RECORD		1	Carton: (20 Rd)
8596108		1	Filler, "U" End:
8596108		1	Filler, Side:
8596108		1	Filler, Bottom:
8596108		1	Tape Removal:
7553315	19203	1	Chest, Ammunition: M19A1
5581378	19200		Box, Packing, Ammunition: Wirebound Nato, Grenade, M64
		1	Packing for:
7553850	19200	1	Carton: (5 Rd)
7553851	19200	1	Envelope, Waterproof:

(1)	(2)	(3)	(4)
Part Number/ Drawing Number	CAGEC	Figure Number	Description
			Cartridge, 7.62 Millimeter - Continued
7553296	19200		Chest, Ammunition: M2A1
9395772	19200		Box Assembly: consisting of box, wirebound; filler end; separator
MIL-P-15011	19203		Pallet, Material Handling: (all 7.62 mm ctgs may use this pallet)
7258943			Cartridge, 20 Millimeter
			HEI, M97 Series; Incendiary M96, TP, M99A1, TP-T, M220, TP, M204; HEI, M56 Series; HEI-T, M242; APT-T, M95 Dummy, M51A2, TP-T, M55A2; API-T, M53; TP-T, M206; HEI-T, M242, HEI-T, M599; API-T, M601; API-T, M52E1, HEI-T-SD, M246/M246A1; MPT-SD, M940
			Packing for:
7258943	19201		Shipping and Storage Container, Cartridge, Cartridge: M548
MIL-B-3106	81349		Pad, Cushioning:
10542308	19200		Shipping and Storage Container, Cartridge: M528
MIL-P-15011	19203		Pallet, Material Handling: (all 20 mm ctgs may use this pallet)
7238242	19206		Link: DM10
11686411	19200		Link, Cartridge: M22
NO RECORD			Link, Cartridge: M14
11010274	19200		Link, Cartridge: M14A1
8447633	19204		Link, Cartridge: M14A2
11010333	19205		Link, Cartridge: M17A1
7147028	19200		Link, Cartridge: M12
11577416	19204		Link, Cartridge: M24
8445027	19200		Link, Cartridge: M26
130-147-0100-4	19200		Link, Cartridge: DM1
130-147-0000-3	19200		Link, Cartridge: DM1A
5871716	53711		Link, Cartridge: MK7, Mod 1

Part Number/ Drawing Number         CAGEC         Figure Number         Description           Part Number Drawing Number         CAGEC         Figure Number         Cartridge, 22 Millimeter           Sub-caliber Practice Cartridges, M744, M745, M746, M747         Packing for:           9322201         19200         Box, Ammunition:           9322198         19200         Polystyrene Compartment           Cartridge, 25 Millimeter APDS-T, M791; HEI-T, M792; TP-T, M793; TPDS-T, M910; APFSDS-T, M919         Packing for:           12913842         19200         Box, Wood:           12013213         19204         Link, Cartridge: M28 designed for 25MM           12013880         19200         Dummy Cartridge, 22mm:           19-48-4116/17         19204         Pallet, Wood:           12929427         19200         Container, Shipping: PA125	
Sub-caliber Practice Cartridges, M744, M745, M746, M747  Packing for:  Box, Ammunition:  Polystyrene Compartment  Cartridge, 25 Millimeter  APDS-T, M791; HEI-T, M792; TP-T, M793; TPDS-T, M910;  APFSDS-T, M919  Packing for:  12913842  19200  Box, Wood:  12013213  19204  Link, Cartridge: M28 designed for 25MM  12013880  19200  Dummy Cartridge, 22mm:  19-48-4116/17  19204  Pallet, Wood:	
9322201 19200 Box, Ammunition: 9322198 19200 Polystyrene Compartment  Cartridge, 25 Millimeter APDS-T, M791; HEI-T, M792; TP-T, M793; TPDS-T, M910; APFSDS-T, M919  Packing for: 12913842 19200 Box, Wood: 12013213 19204 Link, Cartridge: M28 designed for 25MM 12013880 19200 Dummy Cartridge, 22mm: 19-48-4116/17 19204 Pallet, Wood:	
9322201 19200 Box, Ammunition: 9322198 19200 Polystyrene Compartment  Cartridge, 25 Millimeter APDS-T, M791; HEI-T, M792; TP-T, M793; TPDS-T, M910; APFSDS-T, M919  Packing for: 12913842 19200 Box, Wood: 12013213 19204 Link, Cartridge: M28 designed for 25MM 12013880 19200 Dummy Cartridge, 22mm: 19-48-4116/17 19204 Pallet, Wood:	
Cartridge, 25 Millimeter APDS-T, M791; HEI-T, M792; TP-T, M793; TPDS-T, M910; APFSDS-T, M919  Packing for: Box, Wood: Link, Cartridge: M28 designed for 25MM  12013880 19200 Dummy Cartridge, 22mm: 19-48-4116/17 19204 Pallet, Wood:	
APDS-T, M791; HEI-T, M792; TP-T, M793; TPDS-T, M910; APFSDS-T, M919  Packing for:  12913842  19200  Box, Wood:  Link, Cartridge: M28 designed for 25MM  12013880  19200  Dummy Cartridge, 22mm:  19-48-4116/17  19204  Pallet, Wood:	
12913842       19200       Box, Wood:         12013213       19204       Link, Cartridge: M28 designed for 25MM         12013880       19200       Dummy Cartridge, 22mm:         19-48-4116/17       19204       Pallet, Wood:	
12013213       19204       Link, Cartridge: M28 designed for 25MM         12013880       19200       Dummy Cartridge, 22mm:         19-48-4116/17       19204       Pallet, Wood:	
12013880 19200 Dummy Cartridge, 22mm: 19-48-4116/17 19204 Pallet, Wood:	
19-48-4116/17 19204 Pallet, Wood:	
12929427   19200   Container, Shipping: PA125	
12926880 19200 Separater Assembly:	
12910048 19200 Retaining Plate:	
12576132 19200 Filler, Pad:	
1257657 19200 Gasket, Rubber:	
Cartridge, 25.4 Millimeter Decoy, M839	
9332576 19200 Box, Wood:	
8865541 19203 Shipping And Storage Container Munitions: PA19	
Cartridge, 30 Millimeter TP, M788, HEDP, M789, HEI-T, M799	
Packing For:	ĺ
9229066 Metal Container: M592	ĺ
11825879 19200 Link, Cartridge: M29	ĺ
19-48-4116/18 19200 Pallet, Wood:	
12902719 19200 Strip, Ammunition:	
12902723 19200 Channel, Edge Guard:	ĺ

(1)	(2)	(3)	(4)
Part Number/ Drawing Number	CAGEC	Figure Number	Description
			Cartridge, 30 Millimeter Continued.
12902725	19200		Liner, Ammunition Can:
12902724	19200		Strap, Removal:

#### **SECTION III SPECIAL PACKING TOOLS LIST**

(1)	(2)	(3)	(4)
Part Number/ Drawing Number	CAGEC	Figure Number	Description
			Clip, Cartridge
8864731	19203		Sallee Closer (5120-00-319-5434)
MIL-S-43104	81349		Strapping And Sealing Kit: 5/8-inch Strapping (3540-00-565-6242)
MIL-S-43104	81349		Strapping And Sealing Kit: 1-1/4-inch Strapping (3540-00-565-6244)

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# APPENDIX D EXPENDABLE AND DURABLE ITEMS LIST

#### SECTION I INTRODUCTION

#### D.1 SCOPE.

This appendix lists expendable and durable items you will need to operate and maintain the Small Arms Ammunition to 30 Millimeter Inclusive. This listing is for information purposes only and is not authority to requisition the listed items. These items are authorized to you by CTA 50-970, Expendable/Durable Items (Except: Medical, Class V, Repair Parts and Heraldic Items).

#### D.2 EXPLANATION OF COLUMNS.

- D.2.1 <u>Column (1) Item Number</u>. This number is assigned to the entry in the listing for reference when required.
- D.2.2 <u>Column (2) Level</u>. This column identifies the lowest level of maintenance that requires the listed item.
  - C Operator/Crew
  - O Unit Maintenance
  - F Direct Support Maintenance
  - H General Support Maintenance

- D.2.3 <u>Column (3) National Stock Number</u>. This is the national stock number assigned to the item; use it to request or requisition the item.
- D.2.4 <u>Column (4) Description</u>. Indicates the federal item name and, if required, a description to identify the item. The last line for each item indicates the Commercial and Government Entity Code (CAGEC) in parentheses followed by the part number.
- D.2.5 Column (5) Unit of Measure (U/M)/Unit of Issue (U/I). This measure is expressed by a two-character alphabetical abbreviation (e.g., EA, IN, PR). If the unit of measure differs from the unit of issue as shown in the Army Master Data File (AMDF), requisition the lowest unit of issue that will satisfy your requirements.

## SECTION II EXPENDABLE AND DURABLE ITEMS LIST

(1)	(2)	(3)	(4)	(5)
Item Number	Level	National Stock Number	Description	(U/M/ U/I)
1	0	6810-00-184- 4796	Acetone, Technical: liquid (81346) ASTM D329	cn
2	0	6810-00-543- 7415	Alcohol, Denatured: liquid, grade III (0MUS3) 27 CFR 21.35	gl
3	0	8020-00-246- 8504	Brush, Artists: A1 round, flat edge (80244) GSAPD 8020-00-224-8010 ITEM 12	ea
4	0	7920-00-255- 5135	Brush, Wire Scratch: copper beryllium alloy, curved handle, 14 in. oa lg (61452) B-82-2017	ea
5	0	7920-00-269- 0933	Brush, Wire Scratch: copper beryllium alloy, straight handle, 7 in. block lg (61452) B-80-2015	ea
6	0	8020-00-889- 7919	Brush, Paint: 1-1/2 in. nom w x 13/32 in. nom thk (80244) GSAPD 8020-00-245-4517	ea
7	0	8020-00-262- 9084	Brush, Varnish: 1/2 in. nom w x 1/4 in nom thk (45092) 608-1	ea
8	0	6850-00-174- 9672	Corrosion Removing Compound: liquid, Type II (81349) MILC10578	gl
9	0	7930-00-249- 8036	Detergent, General Purpose: flake or powder, 5 lb. box (80244) 7930-00-249-8036	со
10	0	8010-00-910- 8154	Enamel: Black, No. 37038, lusterless (81348) TT-E-516	pt
11	0	8010-01-418- 5436	Enamel: Green, No. 34088, Lead and Chromate Free, Type 3 (81348) TT-E-2784	gl
12	0	8010-00-878- 5761	Enamel: White, No. 37875, lusterless (81348) TT-E-516	pt
13	0	8010-00-851- 5525	Enamel: Yellow, No. 23538, semigloss (81349) MIL-E-16663	bx
14	0	8010-01-418- 5440	Enamel: Black, No. 37038, Lead and Chromate Free, Type 3 (81348) TT-E-2784	gl
15	0	8010-01-418- 5442	Enamel: Green, No. 35109, Lead and Chromate Free, Type 3 (81348) TT-E-3784	gl
16	0	8010-01-088- 0096	Enamel: Orange, No. 32246, lusterless (81348) TT-E-516	qt

(1)	(2)	(3)	(4)	(5)
Item Number	Level	National Stock Number	Description	(U/M/ U/I)
17	0	8010-01-418- 5446	Enamel: White, No. 37875, Lead and Chromate Free, Type 3 (81348) TT-E-2784	gl
18	0	NO NSN	Enamel: Forest Green, No. 34079 Fed-STD-595	gl
19	0	5315-00-597- 9766	Fasterner, Corrugated, Wood, Joint: saw tooth edge 1/2 in. nom w (58536) A-A-1957	hd
20	0	7520-00-973- 1059	Marker, Tube Type: black, permanent ink, felt tip (03042) MARKSALOTBLACK	dz
21	0	7520-00-973- 1062	Marker, Tube Type: red, permanent ink, felt tip (03042) MARKSALOTRED	dz
22	0	7520-00-079- 0288	Marker, Tube Type: yellow, permanent ink, felt tip (83421) 7520-00-079-0288	dz
23	0	5315-00-889- 2743	Nail: 1-1/2 in fastening lg, stl, 19 flat, size 4D (81346) ASTM F1667	pg
24	0	5315-00-889- 2744	Nail: 2 in. fastening lg, stl, 19 flat (81346) ASTM F1667	pg
25	0	8010-00-515- 2208	Primer, Paint: yellow, type 1 (54636) E90Y3	gl
26	0	7920-00-205- 1711	Rag, Wiping: cotton, unbleached, mixed colors (80244) 7920-00-205-1711	be
27	0	8135-00-239- 5291	Seal, Strapping: 5/8 in. nom w, stl, grade 2, type d, style II (81346) ASTM D 3953-87	bx
28	0	8135-00-239- 5294	Seal, Strapping: 1-1/4 in nom w, stl, grade 2, type d, style II (81346) ASTM D 3953-87	bx
29	0	8135-00-281- 4071	Strapping: Steel, 5/8 in. nom w, 0.020 in nom thk (81346) ASTM D 3953-87	cl
30	0	8135-00-283- 0671	Strapping: Steel, 1-1/4 in nom w, 0.035 in nom thk (81346) ASTM D 3953-87	cl
31	0	7510-00-266- 6711	Tape, Pressure Sensitive Adhesive: one side, tan masking, crepe back, 3/4 in nom w., 60.0 yd nom lg, lusterless (52170) 232 3/4 IN.	ro
32	0	7510-00-266- 5016	Tape, Pressure Sensitive Adhesive: one side, Olive Drab, cotton and linen, water resistant, 2 in. nom w., 60.0 yd nom lg, lusterless (81348) PPP-T-60	ro
33	0	8010-01-441- 5940	Thinner, Paint Products: General Purpose (58536) A-A-3007	gl

#### TM 9-1305-201-20&P

(1)	(2)	(3)	(4)	(5)
Item Number	Level	National Stock Number	Description	(U/M/ U/I)
34	0	5350-00-242- 4405	Wool, Metallic: stl (80244) 5350-00-242-4405	lb
35	0	5350-00-255- 7736	Wool, Metallic: copper, (80244) 5350-00-255-7736	lb

#### APPENDIX E

### PACKING, MARKING AND STORAGE DATA

#### Section I. INTRODUCTION

#### E-1. Scope

This appendix contains information required by organizational level of maintenance for repacking of small arms munitions.

#### E-2. Explanation of Columns

- a. Item. Column 1 indicates the nomenclature of the munition.
- b. Outer Pack. Column 2 indicates the type of package.
- c. Inner Pack. Column 3 indicates the type of pack.
- d. Number of Items in Package. Column 4 indicates the quantity of munitions in the outer pack.

- e. Number of Items per Inner Pack. Column 5 indicates the quantity of munitions in the inner pack.
- f. Total Weight (lbs). Column 6 indicates total weight of the outer and inner pack and contents.
- g. Total Explosives Weight (lbs). Column 7 indicates the total weight of explosives of the packaged munitions.
- h. Cube. Column 8 indicates result of the length, multiplied by the width, multiplied by height of the outer pack.
- i. Field Storage Compatibility. Column 9 indicates the primary groups into which ammunition is segregated for storage in the field.

#### TM 9-1305-201-20&P

Item	Outer	Inner pack	No. items in package	No. items inner	Total weight (lb)	Total explosive weight	Cube	Field storage	Remarks and dwg No.
SHOTGUN	pack	раск	package	pack	(10)	weight	Cube	cat.	dwg No.
CARTRIDGES									
CARTRIDGE, SHOTGUN .410, NO. 6, M35, CALI- BER .22/.410 GAGE	Wood box	Carton	500	25/ctn	78.0	0.5	1.49	A	Commercial pack
CARTRIDGE, SHOTGUN, 10 GAGE, BLANK	Wood box	Carton	500	10/ctn 24/ctn	37.5	-	0.80	A	Commercial pack
CARTRIDGE, SHOTGUN, 12 GAGE, NO. 00, M19	Wood box	Carton/ metal box (2)	480	10/ctn 24/ctn/ metal box	88.0	1.7	1.28	A	10521660
CARTRIDGE, SHOTGUN, 12 GAGE, NO. 4, M257	Wirebound box	Metal box (2)	480	10/ctn 24/ctn 2/ctn metal box	88.0	1.7	1.28	A	7553347
CARTRIDGE, SHOTGUN, 12 GAGE, NO. 4, M274	-	-	-	25/ctn	-	-	-	A	Commercial pack
CARTRIDGE , SHOTGUN, 12 GAGE, NO. 00, M162, COMMERCIAL PACK	Wirebound box	Metal box (2)	480	10/ctn 24/ctn metal box	81.7	-	1.52	A	
CARTRIDGE, SHOTGUN, 12 GAGE, NO. 00, PAPER, COMMERCIAL PACK	Wirebound box	Metal box (2)	350	25/ctn 14/ctn metal box	66.3	-	0.90	A	
CARTRIDGE, SHOTGUN, 12 GAGE, NON-LETHAL, POINT CONTROL, M1012	Wirebound box	Metal box (2)	320	160	34.0	0.27	0.90	S	9396206 9296197
CARTRIDGE, SHOTGUN, 12 GAGE, NON-LETHAL, CROWD DISPERSAL, M1013	Wirebound box	Metal box (2)	320	160	32.0	0.48	0.90	S	9396206 9396197
CARTRIDGE, SHOTGUN, 12 GAGE, BREACHING, M1030	Wirebound box	Metal box (2)	320	5/ctn/32/ metal box	53.0	1.1	0.85	A	9396197
CALIBER .22 CARTRIDGES									
CARTRIDGE, CALIBER .22, BALL, LONG RIFLE, M24	Wirebound box	Metal box	10,200	50/ctn 10/ctn 8 ctn/22 ctn	40.0	2.5	1.47	A	7553769
CARTRIDGE, CALIBER .22, BALL, HORNET, M65 (SOFT POINT)	Wood box	Carton/ containers	2,000	50 ctn/ 40 ctn/box	37.0	3.0	0.38	A	Commercial pack
CARTRIDGE, CALIBER .22, BALL, LONG RIFLE, MATCH SHADE, COM- MERCIAL PACK	-	-	-	-	-	-	-	A	Commercial pack

Item	Outer pack	Inner pack	No. items in package	No. items inner pack	Total weight (lbs)	Total explosive weight	Cube	Field storage cat.	Remarks and Dwg. No.
CALIBER .22 CARTRIDGES-Continued CARTRIDGE, CAL .22 ball, short super match or equal commercial pack.	-	-	2,000	-	-	-		A	*Commercial pack
CARTRIDGE, CAL .22 Tracer, Long Rifle M861	-	-		-	-	_	-	A	*Commercial pack
CALIBER .32 CARTRIDGES CARTRIDGE, CAL .32, BALL.	wood box	Carton	2,500	50/ctn 50 ctn/box	40.0	_	0.33	A	Commercial
CALIBER .38 CARTRIDGES CARTRIDGE, CAL .38 BALL.	Wood box	Carton	2,000	50/ctn 40 ctn/MB	94.4	_	0.90	Α	* Commercial 6038
CARTRIDGE, CAL .38, BALL WAD CUTTER	Wirebound box	Ctn metal box (2)	2.400	50/ctn 24 ctn/MB	94.4	-	0.90	A	* 10522441
CARTRIDGE, CAL .38, BALL, SPECIAL, M41	Wirebound box	Ctn metal box (2)	2,400	50/ctn 24 ctn/MB	94.4	1.5	0.90	Α	* 7553763
CALIBER .45 CARTRIDGES CARTRIDGE, CAL .45. BALL, HIGH PRESSURE TEST, M1.	Wirebound box	Cartons Wood box (2)	2,000	20/ctn 50 ctn/wood box	117.0	2.0	0.90	A	*10534191
CARTRIDGE, CAL .45, BLANK, M9.	wood box	Cartons metal box (2)	2,000	50/ctn 12 ctn/MB	102.3	2.8	0.90	A	*7553728
CARTRIDGE, CAL .45, TRACER M26.	Wirebound box	Cartons metal box (2)	2.000	50/ctn 20 ctn/MB	102.3	1.70	0.90	D	* 7553728
CARTRIDGE, CAL .45, LINE THROWING, M32 (Blank).	wood box	Carton	1,000	20/ctn 50 ctn/		-	1.04	A	10542548
CARTRIDGE, CAL .45, BALL, M1911.	Wirebound box	Cartons metal box (2)	2,000	50/ctn 20/ctn metal box	102.3	1.43	090	A	* 10553728

<sup>\*</sup>For additional packing, refer to SC 1305/30-IL

-	1								
Item	Outer pack	Inner pack	No. items in package	No. items inner pack	Total weight (lbs)	Total explosive weight	Cube	Field storage cat.	Remarks and Dwg. No.
CALIBER .45 CARTRIDGES-Continued									
CARTRIDGE, CAL .45, BALL, MATCH, M1911.	Wirebound box	Cartons metal box (2)	2,000	50/ctn 20 ctn/wood box	115.0	1.43	0.90	A	8596134
DUMMY CARTRIDGE, CAL .45, M1921.	Wirebound box	Carton metal box	2,000	50/ctn 20 ctn/MB	102.3	N/A	0.90	A	*10553728
CARTRIDGE, CAL .45, WAD CUTTER.	Wood Box	Carton	1,000	20/ctn 50 ctn	55.0	-	1.04	A	*Commercial
CALIBER .50 CARTRIDGES CARTRIDGE, CAL .50, TRACER, MI.	Wirebound box								
CARTRIDGE, CAL .50, TRACER, M10.	Wirebound box								
CARTRIDGE, CAL .50, TRACER. M17.	Wirebound box	Metal box (2)	200	100				D	*7553346 8596993
CARTRIDGE, CAL .50, BALL HIGH PRES- SURE TEST, M1.	Wirebound box	Carton metal box (2)	180	10ctn 9 ctn/MB				A	*10534277
CARTRIDGE, CAL .50, BALL HIGH PRES- SURE TEST, M251.	Wirebound box	Carton metal box (2)	220	10/ctn 11 ctn/MB					
CARTRIDGE, CAL .50, BALL M2.	Wirebound box	Metal box (2)	200	100	77.1	6.7	0.90	A	7553346
CARTRIDGE, CAL .50, BALL, M33.	Wirebound box	Metal box (2)	200	100	77.1	6.7	0.90	A	7553346
CARTRIDGE, CAL .50, BALL, SPOTTER- TRACER, M48A2 (A1 Rifle M8C).	Wirebound box	Carton * Metal box (2)	220	10/ctn 11 ctn/MB	76.6	3.48	0.90	D	*7553719
CARTRIDGE, CAL .50, BALL, PRACTICE T249E2 (A1 Rifle M8C).	Wirebound box	Carton Metal box (2)	220	10/ctn 11 ctn/MB	76.6	3.48	0.90	A	10534780
CARTRIDGE, CAL .50, BALL, ARMOR PIERC- ING, M2.	Wirebound box	Metal box (2)	200	100	77.1	6.7	0.90	A	*7553346

For additional packing, refer SC 1305/30-IL.

-			No			Total			
Item	Outer pack	Inner pack	No. items in pack- age	No. items inner pack	Total weight (lb)	explo- sive weight	Cube	Field storage cat.	Remarks and Dwg No.
CALIBER .50 CARTRIDGES - Continued CARTRIDGE, CAL .50, BALL, ARMOR PIERC- ING INDENDIARY, TRACER, M8.	Wirebound box	Metal box (2)	200	100	77.1	6.55	0.90	D	*7553346 8596993
CARTRIDGE, CAL .50, BALL, ARMOR PIERC- ING INCENDIARY, TRACER, M20.	Wirebound box	Metal box (2)	200	100	77.1	6.5	0.90	D	*7553346
CARTRIDGE, CAL .50, INCENDIARY, M1.	Wirebound box	Metal box (2)	200	100	77.1	6.8	0.90	D	*7553346
CARTRIDGE, CAL .50, INCENDIARY, M23.	Wirebound box	Metal box (2)	200	100	77.1	6.8	0.90	D	*7553346
CARTRIDGE, CAL .50, BLANK, M1.	Wirebound box	Metal box	200	100	77.1	6.7	0.90	A	*7553346
CARTRIDGE, CAL .50, BLANK, M1A1.	Wirebound box	Metal box	200	100	77.1	6.7	0.90	A	*7553346
DUMMY CARTRIDGE, CAL .50, M2.	Wood box	Container	350	20/ctn 35 ctn/box	85.0	N/A	1.49	A	*7690572
CARTRIDGE, CAL .50, BALL, PLASTIC, PRAC- TICE, M858.	Wirebound box	Metal box (2)	200	100	40.4	1.4	0.90	A	*9340557
CARTRIDGE, CAL .50, TRACER, PLASTIC PRACTICE, M860.	Wirebound box	Metal box (2)	200	100	40.4	1.4	0.90	A	*9340558
CARTRIDGE, CAL .50, SABOTED LIGHT ARMOR PENETRATOR (SLAP), M903.	Wirebound box	Metal box (2)	200	100	77.1	6.9	0.90	D	*12902945
CARTRIDGE, CAL .50, SABOTED LIGHT ARMOR PENETRATOR, TRACER (SLAP-T), M962.	Wirebound box	Metal box (2)	200	100	77.1	6.9	0.90	D	*12902945
CARTRIDGE, CAL .50, API MK 211.	Wirebound box	Metal box (2)	200	100	77.1	7.0	0.90	D	12576457
5.56MM CARTRIDGES CARTRIDGE, 5.56MM, BALL, M193.	Wirebound box	Bandoleers Metal box (2)	1,120	560	50.84	4.0	0.90	A	*10534605 10542258 10542651
CARTRIDGE, 5.56MM, GRENADE, M195.	Wirebound box	Carton Metal box (2)	2,280	20/ctn 52 ctn/MB	57.12	8.0	0.90	A	10542290 *10542291
CARTRIDGE, 5.56MM, TRACER, M196.	Wirebound box	Bandoleers Metal box (2)	1,120	560	50.84	4.56	0.90	A	*10534605 10542258 10542651
CARTRIDGE, 5.56MM, HIGH PRESSURE TEST, M197.	Wirebound box	Carton Metal box (2)	1,640	820	62.70	3.8	0.90	A	*10534012 10542540
CARTRIDGE, 5.56MM, BLANK, M200.	Wirebound box	Carton Metal box (2)	2,280	20/ctn 52 ctn/MB	57.12	2.28	0.90	A	10542290 *10542291
DUMMY CARTRIDGE, 5.56MM, M232.	Wirebound box	Carton Metal box (2)	1,640	820	64.5	N/A	0.90	A	*10535858

#### TM 9-1305-201-20&P

Item	Outer pack	Inner pack	No. items in pack- age	No. items inner pack	Total weight (lb)	Total explo- sive weight	Cube	Field storage cat.	Remarks and Dwg No.
5.56MM CARTRIDGES - Continued CARTRIDGE, 5.56MM: GRENADE M755.		ITEM IS F	DL M743 46 B638		D122-3-141				
CARTRIDGE, 5.56MM: BALL, M855.	Wirebound box	Carton Metal box (2)	1,120	560	50.84	4.0	0.90	A	9342862
CARTRIDGE, 5.56MM: TRACER, M856	Wirebound box	Carton Metal box (2)	1,120	560	50.84	4.56	0.90	D	9342863
CARTRIDGE, 5.56MM: SHORT RANGE TRAIN- ING, M862	Fiberboard carton	Cartons Cardboard box (2)	2,400	30/Carton 40/Cartons/1.C 2 intermediate containers/1.C	N/A	N/A	N/A	A	Commercial Pack MIL-C-70725
CARTRIDGE, 5.56MM: ARMOR PIERCING, M995	Brass- bound box	Carton plastic laminate bag	2,160	30/ctn 12 ctn/inner pack 360	59.3	7.40	0.89	A	12956131
7.62MM CARTRIDGES CARTRIDGE, 7.62MM, BALL, M59	Wirebound box	Cartons Metal box (4)	960	20/ctn 12 ctn/MB 240	7.65	6.30	0.93	A	*7553708
CARTRIDGE, 7.62MM, HIGH PRESSURE TEST, M60	Wirebound box	Cartons Metal box (4)	960	20 ctn/MB 12 ctn/MB 240	78.8	5.62	0.93	A	*8595430
CARTRIDGE, 7.62MM, BALL, M80	Wirebound box	Cartons Metal box (4)	960	20/ctn 12 ctn/MB 240	76.5	6.30	0.93	A	*10523087
CARTRIDGE, 7.62MM, BALL, MATCH, M118	Wirebound box	Cartons Metal box (2)	920	20/ctn 23 ctn/MB 460	73.42	5.71	0.90	A	*8596112 7553296
CARTRIDGE, 7.62MM, SPECIAL BALL: LONG RANGE, M118	Wirebound box	Cartons Metal Box (2)	920	20/ctn 23 ctn/MB 460	73.5	5.75	0.90	A	8597555
CARTRIDGE, 7.62MM, BALL, MATCH, M852	Wirebound box	Cartons Metal box (2)	920	20/ctn 23 ctn/MB 460	73.42	5.72	0.90	A	7553296
CARTRIDGE, 7.62MM, BALL, DUPLEX, M198	Wirebound box	Cartons Metal box (2)	800	20/ctn 10 ctn/MB 200	77.8	4.55	0.93	A	*8597306
CARTRIDGE, 7.62MM, ARMOR PIERCING, M61	Wirebound box	Carton Metal box (4)	960	20/ctn 12 ctn/MB 240	76.5	5.62	0.93	A	*7553708
CARTRIDGE, 7.62MM, TRACER, M62	Wirebound box	Carton Metal box (4)	960	20/ctn 12 ctn/MB 240	76.5	6.28	0.93	D	*7553708
CARTRIDGE, 7.62MM, GRENADE, M64	Wirebound box	Carton Metal box (2)	580	5/ctn 58 ctn/MB 290	39.43	3.8	0.90	A	*10521851
CARTRIDGE, 7.62MM, BLANK, M82	Wirebound box	Carton Metal box (2)	840	420	72.4	1.80	0.90	A	*8594726

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Item	Outer pack	Inner pack	No. items in package	No. items inner pack	Total weight (lb)	Total explosive weight	Cube	Field storage cat.	Remarks and Dwg No.
7.62MM CARTRIDGES - Continued									
CARTRIDGE, 7.62MM, FRANGIBLE, M160.	Wirebound box	Carton metal (4)	800	100 rd belt 2 belt/MB 200	69.48	12.0	0.93	A	10522480
DUMMY CARTRIDGE, 7.62MM, M63.	Wirebound box	Carton metal (4)	920	20/ctn 23 ctn/MB 460	55.66	N/A	0.90	A	7553747
DUMMY, CARTRIDGE, 7.62MM, M172.	Wirebound box	Carton metal box	800	600/belt 1 belt/ctn	81.00	N/A	0.90	A	10521861
9MM CARTRIDGES									
CARTRIDGE, 9MM, BALL.	Wood box	Carton metal box	2,000	58 ctn 40 ctn	-	MBR	-	A	Commercial pack
CARTRIDGE, 9MM, BALL, NATO, M882.	Wirebound box	Carton metal box (2)	2,000	50/ctn 20 ctn/box	80	1.7	0.90	A	9345211
CARTRIDGE, 9MM, TEST, HIGH PRESSURE, M905.	Wirebound box	Cartons metal box (2)	2,000	50/ctn 20 ctn/box	80	2.0	0.90	A	9378265
CARTRIDGE, 9MM, JACK- ETED-HOLLOWPOINT, MK243, MOD 0**	Wirebound box	Cartons metal box (2)	2,000	50/ctn 20 ctn/box	80	1.7	0.90	A	723215
14.5MM CARTRIDGES									
CARTRIDGE, 14.5MM TRAINER-SPOTTER, M181A1.	Wood box Wood box	Metal box Metal box (2)	500 500	10/ctn 10/ctn 50 ctn/MB	-	2.5	-	A	9098295
CARTRIDGE, 14.5MM TRAINER-SPOTTER, M182A1.	Wood box	Metal box (2)	500	10/ctn 50 ctn/MB	-	-	-	A	11738790 11738800
CARTRIDGE, 14.5MM TRAINER-SPOTTER, M183A1.	Wood box	Metal box (2)	500	10/ctn 50 ctn/MB	-	-	-	A	11738790 11738800
20MM CARTRIDGES									
CARTRIDGE, 20M, M52E1.	Metal box M548	N/A	200	200	113.0	MBR	1.30	D	7258942 7258943
CARTRIDGE, 20MM: API, M53.	Metal box M548	N/A	100	100	95.0	1.14	1.30	D	7258969 7258970
CARTRIDGE, 20MM, AP-T, M95.	Metal box	N/A	120	120	106	1.96	1.65	D	7258969 7258970
DUMMY CARTRIDGE, 20MM: M51A1.	Metal box M548	N/A	100	100	93.0	NA	1.30	A	7589943
CARTRIDGE, 20MM: HPT, M54A1.	Metal box M548	N/A	200	200	142.0	MBR*	1.30	D	7258969 7258970
CARTRIDGE, 20MM: TP, M55A2.	Metal box M548	N/A	100	100	95.0	MBR*	1.30	A	7258943

<sup>\*</sup>Meet Ballistic requirements.

<sup>\*\*</sup>For U.S. Army Law Enforcement use in the United States and it's territories only.

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Item	Outer pack	Inner pack	No. items in package	No. items inner pack	Total weight (lb)	Total explosive weight	Cube	Field storage cat.	Remarks and Dwg. No.
CARTRIDGE, 20MM: TP - continued CARTRIDGE, 20MM: TP,	Metal box	N/A	200	200	120.0	MBR*	1.30	A	*7558928
M204.	MC548	IV/A	200	200	120.0	WIDK	1.50	Λ	1330720
CARTRIDGE, 20MM: TP-T M206A1.	Wirebound box	Metal box M528	62	31/MB 2 MB/ wirebound	58.0	MBR**	0.38	D	*10542309
CARTRIDGE, 20MM: Incendiary M96.	Wood box	Metal box	120	10/ctn 20 ctn/ metal box	96.0	2.90	1.43	D	*7258943 7258940
CARTRIDGE, 20MM: TP, M99Al.	Wood box	Metal containers	150	25/cntr 6 cntr	106.0	3.5	1.39	A	*728943 7258940
CARTRIDGE, 20MM: TP-T, M220.	Metal box M548	N/A	200	200	141.0	MBR**	1.30	D	7558943
CARTRIDGE, 20MM, HEI, M56A3/M56A4.	Metal box M548	N/A	100	100	93.0	3.07	1.30	D	*7258969 7258970 725943
CARTRIDGE, 20MM HEI, M97A2.	Metal box	Metal can	165	55/can 3 cans	131.0	2.82	1.55	D	*7553334
CARTRIDGE, 20MM, HEI, M210.	Metal box M548	N/A	150	150	88.0	MBR**	1.30	D	7258189 7258190
CARTRIDGE, 20MM, HEI, M242/M242A1.	Metal box M548	N/A	100	100	45.0	8.5	1.30	D	*7559237 725943
CARTRIDGE, 20MM, HEI-T-SD, M246/M246Al.	Metal box M548	N/A	100	100	93.0	MBR**	1.30	D	*7558943 725943
CARTRIDGE, 20MM: API-T, M601.	Metal box M528	N/A	25	25	-	MBR**	.35	D	*10542309 10542308
CARTRIDGE, 20MM, HEI-T, M599.	Metal box M528	N/A	25	25	-	MBR**	.35	D	10542309 10542308
CARTRIDGE, 20MM, MPT-SD, M940	Metal box M528	N/A	100	100	90	11.00	1.30	D	7258969 7258928
22 MILLIMETER 22MM SUB-CALIBER PRACTICE CARTRIDGE, M744.	Wood box	-	100	1 per Poly- styrene com- partment	109.0	21.00	3.9	С	9322189 9332201
22MM SUB-CALIBER PRACTICE CARTRIDGE, M745.	Wood box	-	100	1 per poly- styrene com- partment	109.0	21.00	3.9	С	9322189 9332201
22MM SUB-CALIBERS PRACTICE CARTRIDGE, M746.	Wood box	-	100	1 per poly- styrene com- partment	109.0	21.00	3.9	С	9322189 9332201

<sup>\*</sup>For additional Packing, refer to SC 1305/30-IL. \*\*Meet Ballistic requirements.

Item	Outer pack	Inner pack	No. items in package	No. items inner pack	Total weight (lb)	Total explosive weight	cube	Field storage cat.	Remarks and Dwg. No.
22MM CARTRIDGESContinued 22MM SUB-CALIBER PRACTICE CARTRIDGE, M747	Wood box		100	1 per polystyrene compartment	109.0	50.00	3.9	С	9322198 9322201
CARTRIDGES, 25MM APDS-T, M791	Metal storage container PA125	1 separator assembly 2 end plates	30	30	53	6.3	.61	D	12929427
CARTRIDGES, 25MM HEI-T, M792	Metal storage container PA125	1 separator assembly 2 end plates	30	30	55	8.1	.61	D	12929427
CARTRIDGES, 25MM TP-T, M793	Metal storage container PA125	1 separator assembly 2 end plates	30	30	55	6.3	.61	D	12929427
CARTRIDGES, 25MM TPDS-T, M910	Metal storage container PA125	1 separator assembly 2 end plates	30	30	53	6.3	.61	D	12929427
CARTRIDGES, 25MM APFSDS-T, M919	Metal storage container PA126	1 separator assembly 2 end plates	30	30	55	6.3	.61	D	12929427
CARTRIDGES, 25MM APFSDS-T, M919	Plastic storage container M621	2 plastic separators	30	30	48.0	6.3	.61	D	9391300
CARTRIDGES, 25MM HEI-T, M792	Plastic storage container M621	2 plastic separator	30	30	46.0	8.1	.61	D	<b>+</b> : 12013671

<sup>†(</sup> Contractor drawings

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Item	Outer pack	Inner pack	No. items in package	No. items inner pack	Total weight (lb)	Total explosive weight	cube	Field storage cat.	Remarks and Dwg. No.
CARTRIDGES, 25MM, TP-T, M793	Plastic storage container M621	2 plastic separators	30	30	48.0	6.3	.61	D	†:12013671
CARTRIDGES, 25MM, TPDS-T, M910	Plastic storage container M621	2 plastic separators	30	30	43.0	6.3	.61	D	12556500
CARTRIDGES, 25MM. TPDS-T, M910	Wood box	Container Barrier bag	50 linked	50	71	11.22	2.33	D	12556500 12913882
25.4MM CARTRIDGE CARTRIDGE, 25.4MM, DECOY, M839	Wood box	2 Contain. ers	100	50	67.0	0.08	1.5	В	9329776
30MM CARTRIDGES CARTRIDGE, 30MM, HE-DP, M789	Metal container M592	Container	201 (121 bulk) (80 linked)	201	126	21.0	1.5	A	<b>†</b> 9229066
CARTRIDGE, 30MM, TP, M788	Metal container M592	Container	201 (121 bulk) (80 linked)	201	126	13.31	1.5	A	9229066
CARTRIDGE, 30MM, HEI	Metal container M592	Container	201 (121 bulk) (80 linked)	201	126	22.0	1.5	A	9229066
CARTRIDGE, 30MM, TP, M788, BULK STRIP	Metal container M592	Container	201 (121 bulk) (80 linked)	110	117	12.3	1.5	A	12902718
CARTRIDGE, 30MM, HE-DP, M789, BULK STRIP	Metal container M592	Container	201 (121 bulk) (80 linked)	110	117	19.0	1.5	A	12902718

<sup>†</sup> Contractor Drawings

By Order of the Secretary of the Army:

E. C. MEYER

General, United States Army

Chief of Staff

Official:

#### ROBERT M. JOYCE

Brigadier General, United States Army The Adjutant General

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