

APPENDIX 43M

UNITIZATION PROCEDURES FOR BOXED AMMUNITION AND COMPO- NENTS ON 4-WAY ENTRY PALLETS

**CARTRIDGE, 81MM, PACKED 3 PER WIREBOUND BOX,
UNITIZED 42 BOXES PER 40" X 48" PALLET; APPROX
BOX SIZE 23-11/16" L X 13-3/8" W X 5-5/16" H**

**NOTICE: THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION
PROCEDURES DRAWING 19-48-4116-20PA1002.**

DISTRIBUTION STATEMENT A:

**APPROVED FOR PUBLIC RELEASE
DISTRIBUTION IS UNLIMITED.**

U.S. ARMY MATERIEL COMMAND DRAWING

<p>APPROVED, U.S. ARMY RESEARCH, DEVELOPMENT AND ENGINEERING COMMAND</p> <p>REHMSTEDT, MARK.J.1230548400 48400</p> <p><small>Digitally signed by REHMSTEDT.MARK.J.1230548400 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=REHMSTEDT.MARK.J.1230548400 Date: 2016.12.27 15:52:50 -06'00'</small></p> <p style="text-align: right;">RDAR-EIL-TP</p>	<p>CAUTION: VERIFY PRIOR TO USE AT HTTPS://MHP.REDSTONE.ARMY.MIL THAT THIS IS THE MOST CURRENT VERSION OF THIS DOCUMENT. THIS IS PAGE 1 OF 4.</p>		<p style="font-size: 24pt;">SEPTEMBER 1989</p>									
<p>APPROVED, U.S. ARMY JOINT MUNITIONS COMMAND</p> <p>RUS.ALLEN.J.1230354282</p> <p><small>Digitally signed by RUS.ALLEN.J.1230354282 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=RUS.ALLEN.J.1230354282 Date: 2017.01.03 13:21:58 -06'00'</small></p> <p style="text-align: right;">AMSJM-MMT</p>	<p>DO NOT SCALE</p>	<p style="font-size: 24pt;">NOVEMBER 2016</p>										
<p>APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND</p> <p>SHIMP.UPTON.R.1231257183</p> <p><small>Digitally signed by SHIMP.UPTON.R.1231257183 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=SHIMP.UPTON.R.1231257183 Date: 2017.01.13 09:43:53 -06'00'</small></p> <p style="text-align: right;">U.S. ARMY DEFENSE AMMUNITION CENTER</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">DESIGN ENGINEER</td> <td style="width: 10%;">BASIC</td> <td colspan="2" style="text-align: center;">SANDRA SCHULTZ</td> </tr> <tr> <td></td> <td>REV.</td> <td colspan="2" style="text-align: center;">QUYEN TRAN</td> </tr> </table>	DESIGN ENGINEER	BASIC	SANDRA SCHULTZ			REV.	QUYEN TRAN		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">REVISION NO. 2</td> <td style="width: 50%;">NOVEMBER 2016</td> </tr> </table>	REVISION NO. 2	NOVEMBER 2016
DESIGN ENGINEER	BASIC	SANDRA SCHULTZ										
	REV.	QUYEN TRAN										
REVISION NO. 2	NOVEMBER 2016											
<p>TEST ENGINEER</p> <p>TEST REPORT</p> <p>EXPLOSIVE SAFETY DIRECTORATE</p>	<p>ENGINEERING DIVISON</p> <p>TEST REPORT</p> <p>EXPLOSIVE SAFETY DIRECTORATE</p>	<p>FIEFFER.LAUR A.A.1230375727</p> <p>FELICIANO.AD IN.1259200373</p> <p>TIRONE.JOSEPH.A NDREW.1026683749</p> <p><small>Digitally signed by FIEFFER.LAURA.A.1230375727 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=FIEFFER.LAURA.A.1230375727 Date: 2016.11.14 11:24:52 -06'00'</small></p> <p><small>Digitally signed by FELICIANO.ADRIAN.1259200373 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=FELICIANO.ADRIAN.1259200373 Date: 2016.12.09 06:52:32 -06'00'</small></p> <p><small>Digitally signed by TIRONE.JOSEPH.ANDREW.1026683749 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=TIRONE.JOSEPH.ANDREW.1026683749 Date: 2016.12.09 10:50:38 -06'00'</small></p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">SEE THE REVISION LISTING ON PAGE 2</td> </tr> <tr> <td>CLASS</td> <td>DIVISION</td> <td>DRAWING</td> <td>FILE</td> </tr> <tr> <td style="text-align: center;">19</td> <td style="text-align: center;">48</td> <td style="text-align: center;">4116/43M</td> <td style="text-align: center;">20PA1002</td> </tr> </table>	SEE THE REVISION LISTING ON PAGE 2	CLASS	DIVISION	DRAWING	FILE	19	48	4116/43M	20PA1002
SEE THE REVISION LISTING ON PAGE 2												
CLASS	DIVISION	DRAWING	FILE									
19	48	4116/43M	20PA1002									

PALLET UNIT DATA				
ITEMS INCLUDED		*HAZARD CLASS AND DIVISION	*COMPATIBILITY GROUP	APPROX WEIGHT (LBS)
NSN	DODIC			
1315-01-537-7915	C875	1. 2. 2	C	2, 153
01-539-6966	C875	1. 2. 2	C	2, 153

*HAZARD CLASSIFICATION DATA CONTAINED IN THE ABOVE CHART IS FOR GUIDANCE AND INFORMATIONAL PURPOSES ONLY. VERIFICATION OF THE SPECIFIED DATA SHOULD BE MADE BY CONSULTING THE MOST RECENT JOINT HAZARD CLASSIFICATION SYSTEM LISTING OR OTHER APPROVED LISTING(S).

REVISIONS

REVISION NO. 1, DATED OCTOBER 2007, CONSISTS OF:

1. REMOVING THE "DOT CLASS" AND "CG CLASS" COLUMNS FROM "PALLET UNIT DATA" CHART.
2. ADDING ITEM BY NATIONAL STOCK NUMBER TO "PALLET UNIT DATA" CHART.
3. REMOVING STRAP CUTTER GENERAL NOTE AND REFERENCE.
4. UPDATING DRAWING FORMAT.
5. DELETING ITEM BY NATIONAL STOCK NUMBER FROM "PALLET UNIT DATA" CHART.

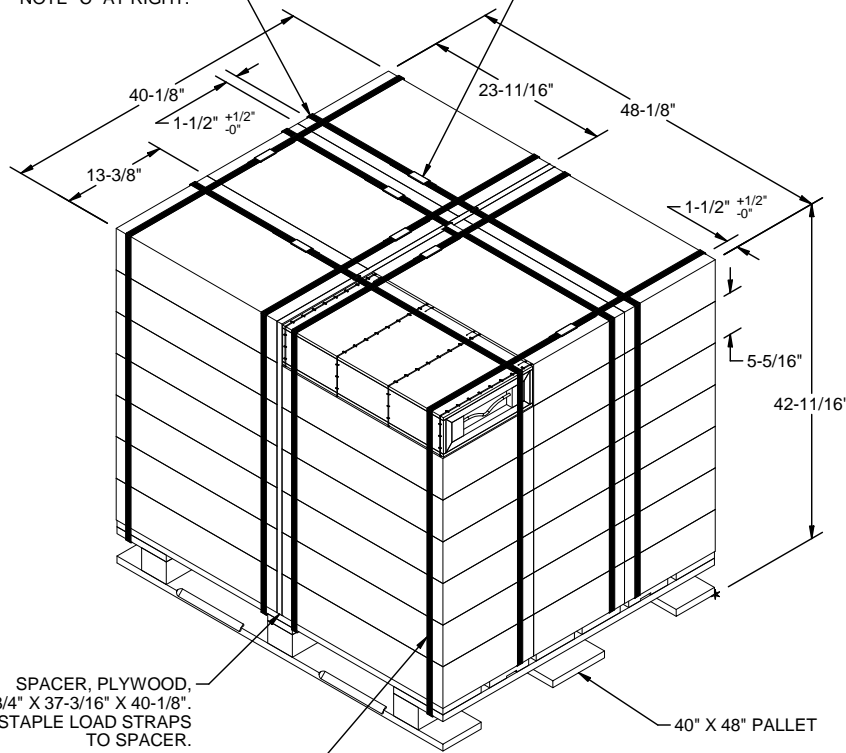
REVISION NO. 2, DATED NOVEMBER 2016, CONSISTS OF:

1. ADDING ITEMS BY NATIONAL STOCK NUMBER TO THE PALLET UNIT DATA CHART.
2. ADDING .029" THICKNESS STRAPPING TO THE LEADERS (2) ON PAGE 3.
3. UPDATING GENERAL NOTES "H" AND "J" ON PAGE 3.

GENERAL NOTES

LOAD STRAP, 3/4" X .035" OR .031" OR .029" X 15'-4" LONG STEEL STRAPPING (3 REQD). SEE GENERAL NOTE "C" AT RIGHT.

SEAL FOR 3/4" STRAPPING (7 REQD, 1 PER STRAP). CRIMP EACH SEAL WITH TWO PAIR OF NOTCHES.



SPACER, PLYWOOD, 3/4" X 37-3/16" X 40-1/8". STAPLE LOAD STRAPS TO SPACER.

TIEDOWN STRAP, 3/4" X .035" OR .031" OR .029" X 14'-0" LONG STEEL STRAPPING (4 REQD). SEE GENERAL NOTE "D" AT RIGHT.

PALLET UNIT

SEE GENERAL NOTE "B" AT RIGHT.

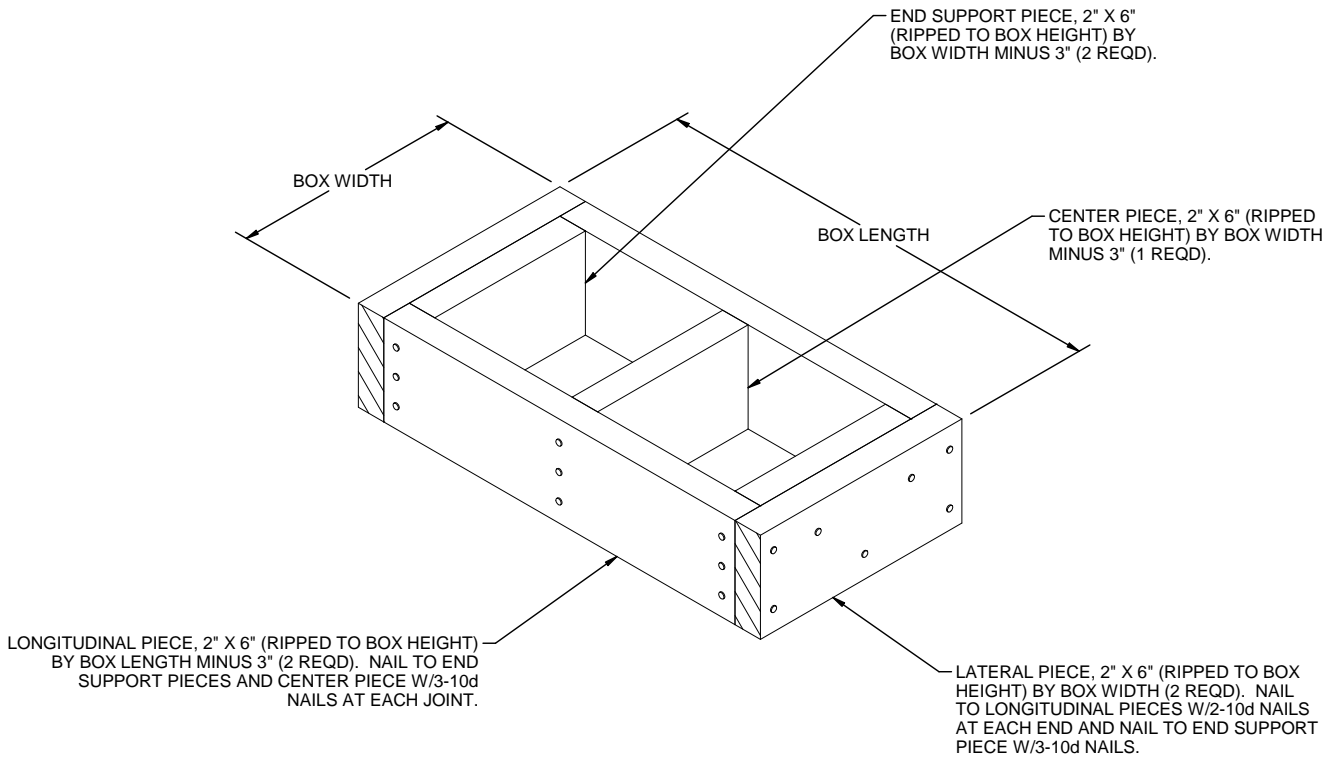
42 BOXES OF 81MM CARTRIDGES (3 PER BOX) @ 48.6 LBS	---	2,042 LBS (APPROX)
DUNNAGE	---	31 LBS
PALLET	---	80 LBS
TOTAL WEIGHT	---	2,153 LBS (APPROX)
CUBE	---	47.7 CU FT (APPROX)

BILL OF MATERIAL

PALLET, 40" X 48"	---	1 REQD	---	80 LBS
STEEL STRAPPING, 3/4"	---	102.00'	REQD	9.11 LBS
SEAL FOR 3/4" STRAPPING	---	7 REQD	---	NIL
PLYWOOD, 3/4"	---	10.36 SQ FT	REQD	21.37 LBS
STAPLE, 15/16" X 3/4"	---	3 REQD	---	NIL

- A. THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION PROCEDURES DRAWING 19-48-4116-20PA1002. TO PRODUCE AN APPROVED UNIT LOAD, ALL PERTINENT PROCEDURES, SPECIFICATIONS AND CRITERIA SET FORTH WITHIN THE BASIC DRAWING WILL APPLY TO THE PROCEDURES DELINEATED IN THIS APPENDIX. ANY EXCEPTIONS TO THE BASIC PROCEDURES ARE SPECIFIED IN THIS APPENDIX.
- B. DIMENSIONS, CUBE AND WEIGHT OF A PALLET UNIT WILL VARY SLIGHTLY DEPENDING UPON THE ACTUAL DIMENSIONS OF THE BOXES AND THE WEIGHT OF THE SPECIFIC ITEM BEING UNITIZED.
- C. THE LOAD STRAPS MUST BE PRE-POSITIONED ON THE PALLET DECK PRIOR TO PLACING BOXES ON THE PALLET. **NOTE:** THE LOAD STRAPS WILL BE LOCATED AS SHOWN, NEAR THE SIDE CLEATS OF THE END PANELS OF THE WIREBOUND BOX. LOAD STRAPS MUST BE TENSIONED AND SEALED PRIOR TO APPLICATION OF TIE-DOWN STRAPS.
- D. INSTALL EACH TIEDOWN STRAP TO PASS UNDER THE DECK/STRINGER BOARDS OF THE PALLET AND TO BE LOCATED AS SHOWN. **NOTE:** THE STRAPS WILL BE LOCATED AS SHOWN. TIEDOWN STRAPS WILL NOT BE APPLIED UNTIL THE LOAD STRAPS HAVE BEEN TENSIONED AND SEALED.
- E. THE FOLLOWING AMC DRAWINGS ARE APPLICABLE FOR OUTLOADING AND STORAGE OF THE ITEMS COVERED BY THIS APPENDIX.

CARLOADING	---	19-48-4115-5PA1002
TRUCKLOADING	---	19-48-4117-11PA1003
STORAGE	---	19-48-4118-1-2-3-4-14-22PA1002
END OPENING ISO CONTAINER	---	19-48-4153-15PA1002
MILVAN SIDE OPENING ISO CONTAINER	---	19-48-4166-15PA1003
---	---	19-48-4267-15PA1009
- F. IF ITEMS COVERED HEREIN ARE UNITIZED PRIOR TO ISSUANCE OF THIS REVISION TO THIS APPENDIX, THE BOXES NEED NOT BE REUNITIZED SOLELY TO CONFORM TO THIS REVISION.
- G. THE UNITIZATION PROCEDURES DEPICTED HEREIN MAY ALSO BE USED FOR UNITIZING 81MM MORTAR CARTRIDGES WHEN IDENTIFIED BY DIFFERENT NATIONAL STOCK NUMBERS (NSN) THAN WHAT IS DELINEATED ON PAGE 2, PROVIDED THE BOX PACK DOES NOT VARY FROM WHAT IS DELINEATED HEREIN. THE EXPLOSIVE CLASSIFICATION OF OTHER ITEMS MAY BE DIFFERENT THAN WHAT IS SHOWN.
- H. THE STYLE 1 PALLET DELINEATED IN THE DETAIL AT LEFT NEED NOT HAVE CHAMFERS OR STRAP SLOTS AS SPECIFIED WITHIN MILITARY SPECIFICATION MIL-DTL-15011 WHEN USED FOR THE UNITIZATION OF ITEMS COVERED BY THIS APPENDIX.
- J. FOR DETAILS OF THE MIL-DTL-46506 WIREBOUND BOX SEE ARDEC DRAWING 12630597.



FILLER ASSEMBLY
(FOR MINUS ONE BOX)