

# APPENDIX 173

## UNITIZATION PROCEDURES FOR BOXED AMMUNITION AND COMPONENTS ON 4-WAY ENTRY PALLET

**ADAPTER KIT, 5-TON DUMP, FMTV, PACKED  
ONE PER M548 METAL BOX, UNITIZED 36  
BOXES PER 40" X 48" PALLET; APPROX BOX  
SIZE 18-19/32" L X 8-19/64" W X 14-19/32" 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

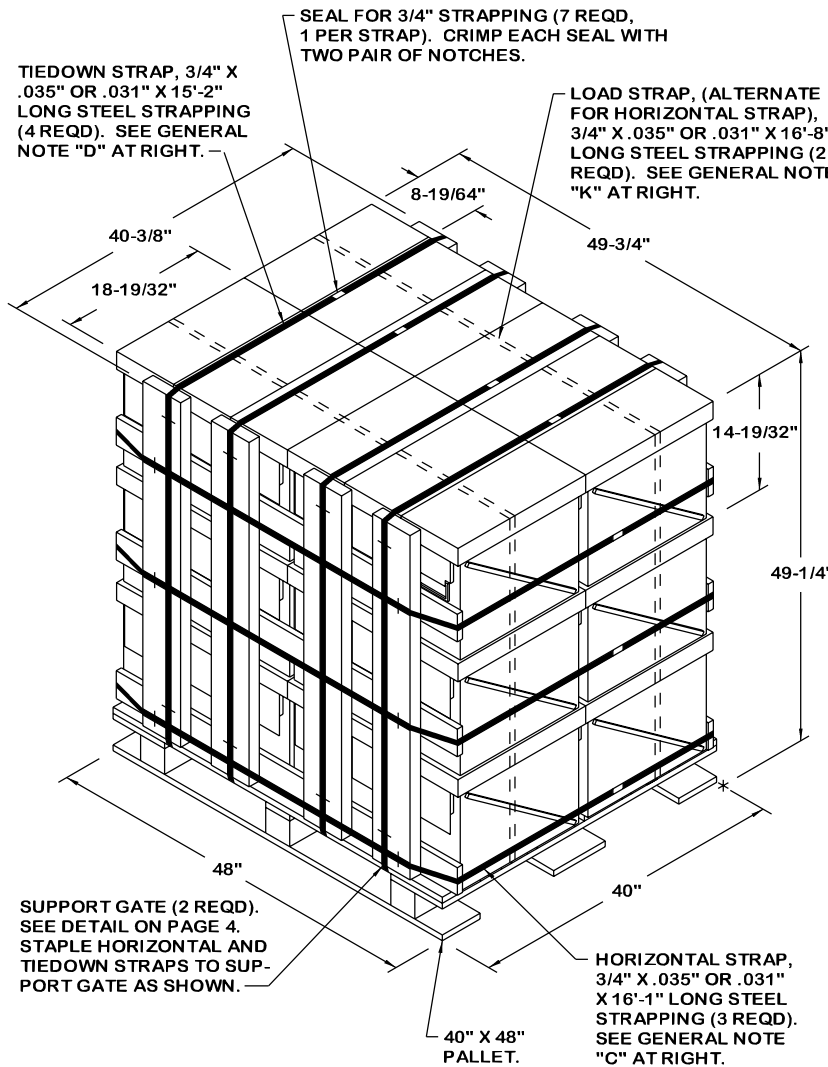
<p>APPROVED, U.S. ARMY OPERATIONS SUPPORT COMMAND</p> <p style="text-align: right;"><i>NLH</i></p> <p style="font-size: small;"><i>David M. Pinkoich</i> AMSTA-AR-WEP-RP</p> <p style="font-size: small;"><i>Simply Joe</i> AMSOS-TM</p> <p>APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND</p> <p style="font-size: small;"><i>J. P. White</i></p> <p style="font-size: x-small;">U.S. ARMY DEFENSE AMMUNITION CENTER</p>	<p>ENGINEER</p> <p>TECHNICIAN</p> <p>DRAFTSMAN</p> <p>TRANSPORTATION ENGINEERING DIVISION</p> <p>VALIDATION ENGINEERING DIVISION</p> <p>ENGINEERING DIRECTORATE</p>	<p>BASIC</p> <p>REV.</p> <p>BASIC</p> <p>REV.</p> <p>BASIC</p> <p>REV.</p> <p>TESTED</p>	<p style="text-align: center;"><b>LAURA FIEFFER</b></p> <p style="font-size: small;"><i>Laura J. Fieffer</i></p> <p style="font-size: small;"><i>William P. Frueh</i></p>	<p style="text-align: center;"><b>DO NOT SCALE</b></p> <p>WEBSITE: <a href="http://www.dac.army.mil">HTTP://WWW.DAC.ARMY.MIL</a></p> <p style="text-align: center;"><b>AUGUST 2001</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">CLASS</th> <th style="width: 10%;">DIVISION</th> <th style="width: 15%;">DRAWING</th> <th style="width: 15%;">FILE</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">19</td> <td style="text-align: center;">48</td> <td style="text-align: center;">4116/ 173</td> <td style="text-align: center;">20PA1002</td> </tr> </tbody> </table>	CLASS	DIVISION	DRAWING	FILE	19	48	4116/ 173	20PA1002
CLASS	DIVISION	DRAWING	FILE									
19	48	4116/ 173	20PA1002									

PALLET UNIT DATA				
ITEMS INCLUDED		● HAZARD CLASS AND DIVISION		APPROX WEIGHT LBS
NSN	DODIC	QD CLASS	COMP GROUP	
UNASSIGNED	UNAS	———— INERT ————		2, 505

- 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).

**GENERAL NOTES**

- 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. INSTALL EACH HORIZONTAL STRAP TO ENCIRCLE A LAYER OF BOXES ON THE PALLET. NOTE THAT THE STRAPS WILL BE LOCATED AS SHOWN, ALIGNED WITH THE HORIZONTAL PIECES OF THE SUPPORT GATE. HORIZONTAL STRAPS MUST BE TENSIONED AND SEALED PRIOR TO THE APPLICATION OF TIEDOWN STRAPS.
- D. INSTALL EACH TIEDOWN STRAP TO PASS UNDER THE TOP DECK BOARDS OF THE PALLET. NOTE THAT THE STRAPS WILL BE LOCATED AS SHOWN, ALIGNED WITH THE VERTICAL PIECES OF THE SUPPORT GATE. TIEDOWN STRAPS WILL NOT BE APPLIED UNTIL THE HORIZONTAL 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 - - - - - 19-48-4166-15PA1003
  - SIDE OPENING ISO CONTAINER - - - - 19-48-4267-15PA1009
- F. IF ITEMS COVERED HEREIN ARE UNITIZED PRIOR TO ISSUANCE OF THIS APPENDIX, THE BOXES NEED NOT BE REUNITIZED SOLELY TO CONFORM TO THIS APPENDIX.
- G. THE UNITIZATION PROCEDURES DEPICTED HEREIN MAY ALSO BE USED FOR UNITIZING ADAPTER KITS WHEN IDENTIFIED BY DIFFERENT NATIONAL STOCK NUMBERS (NSN) THAN WHAT IS SHOWN 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-P-15011 WHEN USED FOR THE UNITIZATION OF ITEMS COVERED BY THIS APPENDIX.
- J. WHEN THE UNIT LOAD DEPICTED AT LEFT IS TO BE USED FOR UNITIZING MARINE CORPS AMMUNITION, ONE LAYER OF BOXES MUST BE OMITTED, ONE HORIZONTAL STRAP MUST BE OMITTED, THE SUPPORT GATES MUST BE MODIFIED AS DELINEATED ON PAGE 4, AND THE TIEDOWN STRAP LENGTHS MUST BE DECREASED TO 12'-8". THIS WILL RESULT IN AN OVERALL UNIT HEIGHT OF 34'-5/8", A GROSS UNIT WEIGHT OF 1,698 POUNDS, AND A UNIT CUBE OF 40.3 CUBIC FEET. ADDITIONALLY, THE UNIT MAY BE MODIFIED AS DESCRIBED WHEN BEING SHIPPED BY MILVAN OR ISO INTERMODAL FREIGHT CONTAINER. THE DETERMINATION TO REDUCE THE LOAD BY A LAYER FOR TRANSPORTATION WILL BE MADE BY THE RESPONSIBLE COMMAND AND WILL BE BASED UPON ECONOMICS OF TRANSPORTATION AND HANDLING.
- K. LOAD STRAPS MAY BE USED IN LIEU OF HORIZONTAL STRAPS. LOAD STRAPS WILL BE LOCATED AS SHOWN IN THE DETAIL AT LEFT. LOAD STRAPS MAY BE PRE-POSITIONED ON THE PALLET DECK OR THREADED THROUGH THE STRAP SLOTS.
- L. ALL DUNNAGE SHALL BE PRESERVATIVE TREATED IN ACCORDANCE WITH GENERAL NOTE "AA" IN THE BASIC PROCEDURES.
- M. FOR DETAILS OF THE M548 METAL BOX SEE ARDEC DRAWING 7258943.



**PALLET UNIT**

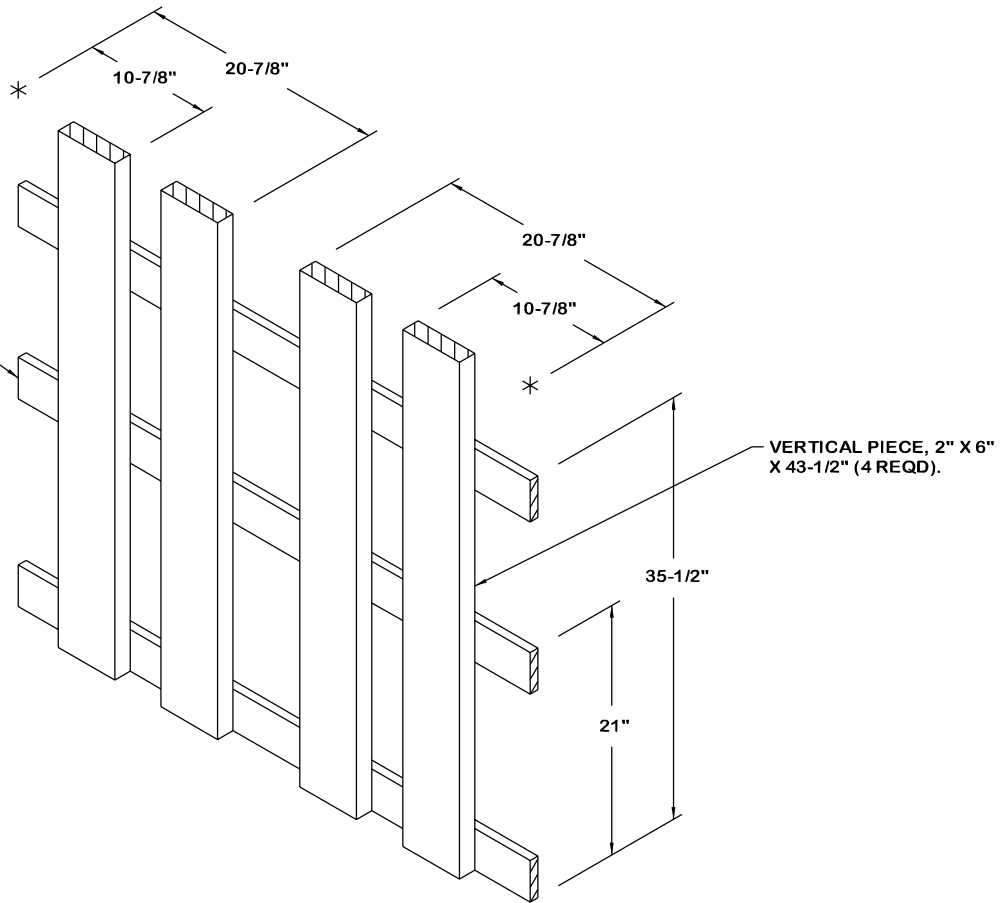
SEE GENERAL NOTE "B" AT RIGHT.

36 BOXES OF ADAPTER KITS (ONE PER BOX) @ 65 LBS - - 2,340 LBS (APPROX)  
 DUNNAGE - - - - - 85 LBS  
 PALLET - - - - - 80 LBS

TOTAL WEIGHT - - - - - 2,505 LBS (APPROX)  
 CUBE - - - - - 57.3 CU FT (APPROX)

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	24.88	8.29
2" X 6"	29.00	29.00
NAILS	NO. REQD	POUNDS
6d (2")	72	0.42
PALLET, 40" X 48"	1 REQD	80 LBS
STEEL STRAPPING, 3/4"	108.92' REQD	9.72 LBS
SEAL FOR 3/4" STRAPPING	7 REQD	NIL
STAPLE	28 REQD	NIL

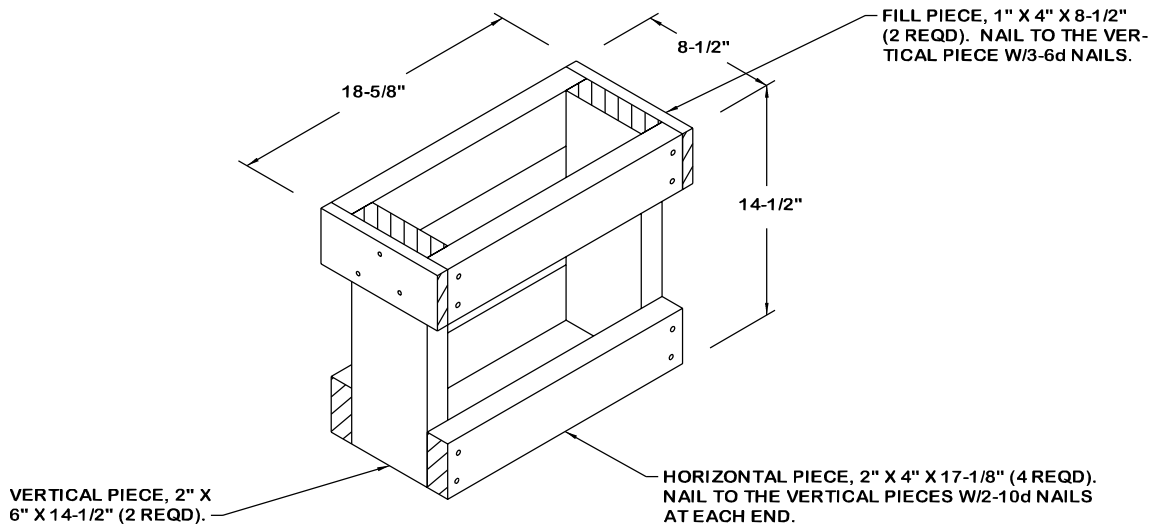
HORIZONTAL PIECE, 1" X 4" X 49-3/4" (3 REQD). NAIL TO THE VERTICAL PIECES W/3-6d NAILS AT EACH LOCATION.



VERTICAL PIECE, 2" X 6" X 43-1/2" (4 REQD).

**SUPPORT GATE**

NOTE: FOR A TWO HIGH LOAD (24 BOXES), ELIMINATE THE UPPER HORIZONTAL PIECE AND SHORTEN THE VERTICAL PIECES TO 29\".



FILL PIECE, 1" X 4" X 8-1/2" (2 REQD). NAIL TO THE VERTICAL PIECE W/3-6d NAILS.

VERTICAL PIECE, 2" X 6" X 14-1/2" (2 REQD).

HORIZONTAL PIECE, 2" X 4" X 17-1/8" (4 REQD). NAIL TO THE VERTICAL PIECES W/2-10d NAILS AT EACH END.

**FILLER ASSEMBLY**

(FOR MINUS ONE BOX)