

APPENDIX 43E

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

CARTRIDGE, 81MM, PACKED 3 PER WIREBOUND BOX,
UNITIZED 30 BOXES PER 40" X 48" PALLET;
APPROX BOX SIZE 26-1/8" L X 15-1/4" W X
7-1/2" H

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

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U.S. ARMY MATERIEL COMMAND DRAWING					
APPROVED, U.S. ARMY ARMAMENT, MUNITIONS AND CHEMICAL COMMAND <i>David D. Robinson</i> ^{NH} <i>Jim Fore</i> AMSTA-AR-ESK AMSMC-TMJ	DRAFTSMAN ENGINEER BETTY J. KUNDERT SANDRA M. SCHULTZ	SUPPLY ENGINEERING DIVISION <i>T. J. Michel</i>	TRANSPORTATION ENGINEERING DIVISION <i>Laura A. Fuffe</i>	VALIDATION ENGINEERING DIVISION <i>W. Ernst</i>	
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REVISION NO. 1	DECEMBER 1994	CLASS 19	DIVISION 48	DRAWING 4116/ 43E	FILE 20PA 1002
SEE THE REVISION LISTING ON PAGE 2					

DO NOT SCALE

PALLET UNIT DATA				
ITEMS INCLUDED		HAZARD CLASS AND DIVISION ●		APPROX WEIGHT LBS
NSN	DDIC	DD CLASS	COMP GROUP	
1315-00-563-7072	C256	(08)1.2	E	1,614

- 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).

REVISION

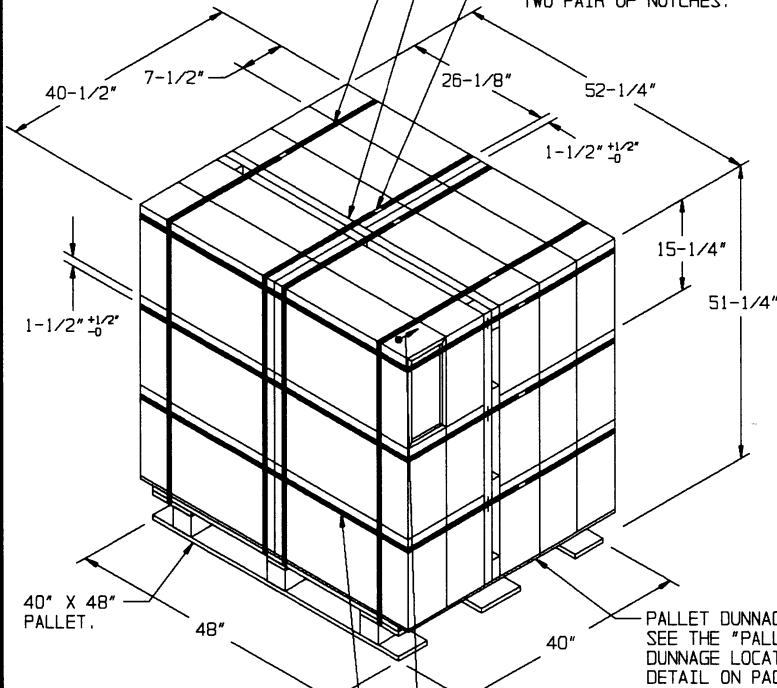
REVISION NO. 1, DATED DECEMBER 1994, CONSISTS OF:

1. DELETING ITEM BY NATIONAL STOCK NUMBER FROM "PALLET UNIT DATA" CHART.

TIEDOWN STRAP, 3/4" X .035" OR .031" X 15'-7" LONG STEEL STRAPPING (4 REOD). SEE GENERAL NOTE "D" AT RIGHT.

SPACER ASSEMBLY (1 REOD). SEE THE DETAIL ON PAGE 4. STAPLE HORIZONTAL STRAPS TO THE "SPACER ASSEMBLY" AS SHOWN.

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



40" X 48" PALLET.

PALLET DUNNAGE. SEE THE "PALLET DUNNAGE LOCATION" DETAIL ON PAGE 4.

HORIZONTAL STRAP, 3/4" X .035" OR .031" X 16'-6" LONG STEEL STRAPPING (3 REOD). SEE GENERAL NOTE "C" AT RIGHT.

TYPICAL LOCATION FOR SECUREMENT OF A STRAP CUTTER. WIRE TIE TO STRAP. SEE GENERAL NOTE "F" AT RIGHT.

PALLET UNIT

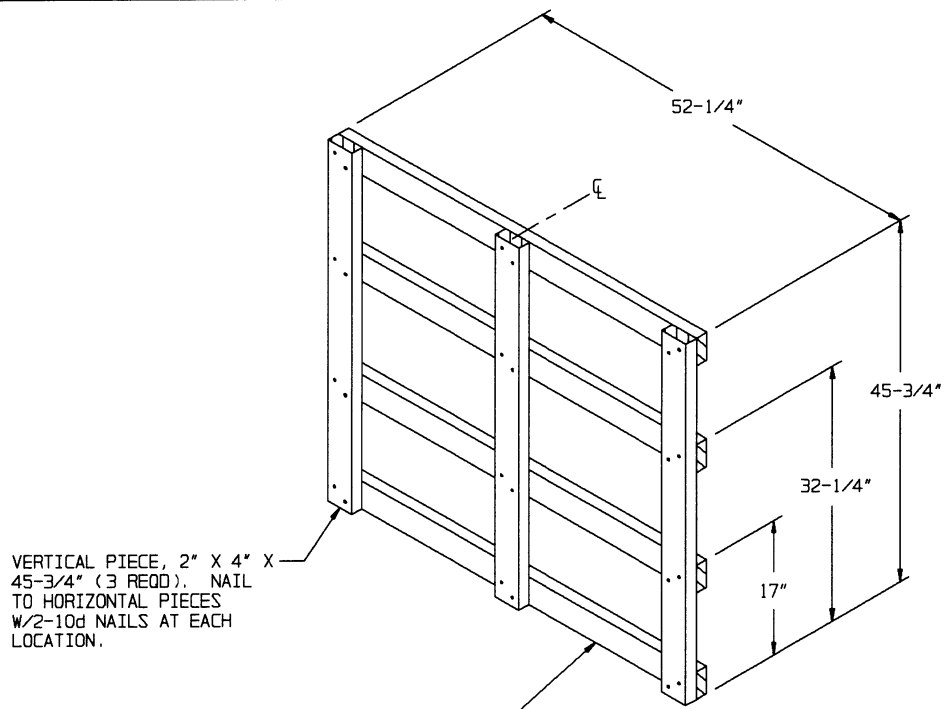
SEE GENERAL NOTE "B" AT RIGHT.

30 BOXES OF 81MM CTG (3 PER BOX) AT 49 LBS	-----	1,470 LBS (APPROX)
DUNNAGE	-----	64 LBS
PALLET	-----	80 LBS
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TOTAL WEIGHT	-----	1,614 LBS (APPROX)
CUBE	-----	63.7 CU FT (APPROX)

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 6"	16.67	8.33
2" X 4"	28.85	19.24
NAILS	NO. REOD	POUNDS
4d (1-1/2")	20	0.07
10d (3")	24	0.37
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PALLET, 40" X 48"	----- 1 REOD	----- 80 LBS
STEEL STRAPPING, 3/4"	----- 111.83' REOD	----- 7.99 LBS
SEAL FOR 3/4" STRAPPING	----- 7 REOD	----- NIL
STAPLE 15/16" W X 3/4"	----- 6 REOD	----- NIL

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, NEAR THE TOP OF EACH LAYER. HORIZONTAL STRAPS MUST BE TENSIONED AND SEALED PRIOR TO THE APPLICATION OF TIEDOWN STRAPS.
- D. INSTALL EACH TIEDOWN STRAP TO PASS UNDER THE DECK/STRINGER BOARDS OF THE PALLET AND TO BE LOCATED AS SHOWN. 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. FOR METHOD OF SECURING A STRAP CUTTER TO THE PALLET UNIT, SEE AMC DRAWING 19-48-4127-20P1000.
- G. IF ITEMS COVERED HEREIN ARE UNITIZED PRIOR TO ISSUANCE OF THIS APPENDIX, THE BOXES NEED NOT BE REUNITIZED SOLELY TO CONFORM TO THIS APPENDIX.
- H. THE UNITIZATION PROCEDURES DEPICTED HEREIN MAY ALSO BE USED FOR UNITIZING 81MM CARTRIDGES 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.
- J. WHEN THE UNIT LOAD DEPICTED AT LEFT IS TO BE USED FOR UNITIZING MARINE CORPS AMMUNITION, ONE LAYER OF BOXES MUST BE OMITTED, TIEDOWN STRAP LENGTHS MUST BE DECREASED TO 13'-1", ONE HORIZONTAL STRAP MUST BE OMITTED, AND THE SPACER ASSEMBLY MUST BE MODIFIED. SPACER ASSEMBLY MODIFICATIONS INCLUDE ELIMINATING ONE HORIZONTAL PIECE, LOCATING THE TOP OF THE CENTER HORIZONTAL AT 17", AND CHANGING VERTICAL PIECE LENGTH TO 30-1/2". THIS WILL RESULT IN AN OVERALL UNIT HEIGHT OF 36-3/4", A GROSS UNIT WEIGHT OF 1,101 POUNDS, AND A UNIT CUBE OF 45.0 CUBIC FEET. ADDITIONALLY, THE UNIT MAY BE MODIFIED AS DESCRIBED WHEN BEING SHIPPED BY MILVAN OR END OR SIDE OPENING 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. 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.
- L. ALL DUNNAGE SHALL BE PRESERVATIVE TREATED IN ACCORDANCE WITH GENERAL NOTE "X" IN THE BASIC PROCEDURES.

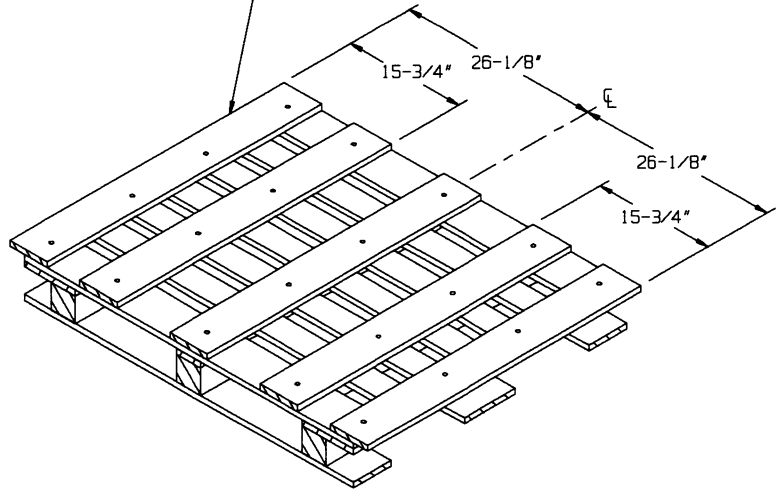


VERTICAL PIECE, 2" X 4" X 45-3/4" (3 REOD). NAIL TO HORIZONTAL PIECES W/2-10d NAILS AT EACH LOCATION.

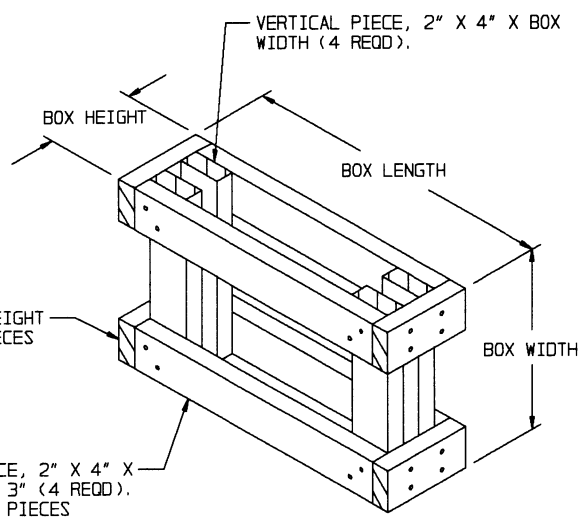
HORIZONTAL PIECE, 2" X 4" X 52-1/4" (4 REOD).

SPACER ASSEMBLY

DECK DUNNAGE, 1" X 6" X 40" (5 REOD). NAIL TO PALLET DECK W/4-4d NAILS.



PALLET DUNNAGE LOCATION



VERTICAL PIECE, 2" X 4" X BOX WIDTH (4 REOD).

LATERAL PIECE, 2" X 4" X BOX HEIGHT (4 REOD). NAIL TO VERTICAL PIECES W/2-10d NAILS AT EACH END.

LONGITUDINAL PIECE, 2" X 4" X BOX LENGTH MINUS 3" (4 REOD). NAIL TO VERTICAL PIECES W/2-10d NAILS AT EACH END.

FILLER ASSEMBLY

(FOR MINUS ONE BOX)