

# APPENDIX 5B

## UNITIZATION PROCEDURES FOR BOXED WHITE PHOSPHORUS (WP) AND PLASTICIZED WHITE PHOS- PHORUS (PWP) LOADED AMMUNI- TION ON 4-WAY ENTRY PALLETS

**CARTRIDGE, 81MM, PACKED 4 PER WIREBOUND  
BOX, UNITIZED 20 BOXES PER 35" X 45-1/2" PAL-  
LET; APPROX BOX SIZE 24-1/2" L X 8-7/8" W X  
8-3/4" H**

NOTICE: THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION  
PROCEDURES DRAWING 19-48-4015-20PA1004.

**DISTRIBUTION STATEMENT A:**

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### U.S. ARMY MATERIEL COMMAND DRAWING

<p style="font-size: small;">APPROVED, U.S. ARMY FIELD SUPPORT COMMAND</p> <p style="font-size: x-large; font-family: cursive;"><i>David G. ...</i></p> <p style="font-size: x-small;">AMSRD-AAR-AIL-TP</p>	<p><b>CAUTION: VERIFY PRIOR TO USE AT WWW.DAC.ARMY.MIL THAT THIS IS THE MOST CURRENT VERSION OF THIS DOCUMENT. THIS IS PAGE 1 OF 4.</b></p>					
<p style="font-size: x-large; font-family: cursive;"><i>David ...</i></p> <p style="font-size: x-small;">AMSF5-ST</p> <p style="font-size: small;">APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND</p> <p style="font-size: x-large; font-family: cursive;"><i>J.P. White</i></p> <p style="font-size: x-small;">U.S. ARMY DEFENSE AMMUNITION CENTER</p>	<p><b>DO NOT SCALE</b></p>		<p><b>FEBRUARY 1983</b></p>			
	ENGINEER OR TECHNICIAN	BASIC REV.	<p><b>WILLIAM R. FRERICHS</b></p> <p><b>MARK GRACE</b></p>			
	TRANSPORTATION ENGINEERING DIVISION		<p style="font-size: x-large; font-family: cursive;"><i>G. L. Willie</i></p>			
	VALIDATION ENGINEERING DIVISION	TESTED	<p style="font-size: x-large; font-family: cursive;"><i>Ray ...</i></p>			
ENGINEERING DIRECTORATE	<p style="font-size: x-large; font-family: cursive;"><i>...</i></p>		CLASS	DIVISION	DRAWING	FILE
			19	48	4015/ 5B	20PA1004

PALLET UNIT DATA				
ITEMS INCLUDED		*HAZARD CLASS AND DIVISION	*COMPATIBILITY GROUP	APPROX WEIGHT (LBS)
NSN	DODIC			
1315-				
00-782-5543	C276	1. 2. 1	H	1, 084
00-782-5838	C276	1. 2. 1	H	1, 084
00-935-6003	C276	1. 2. 1	H	1, 084

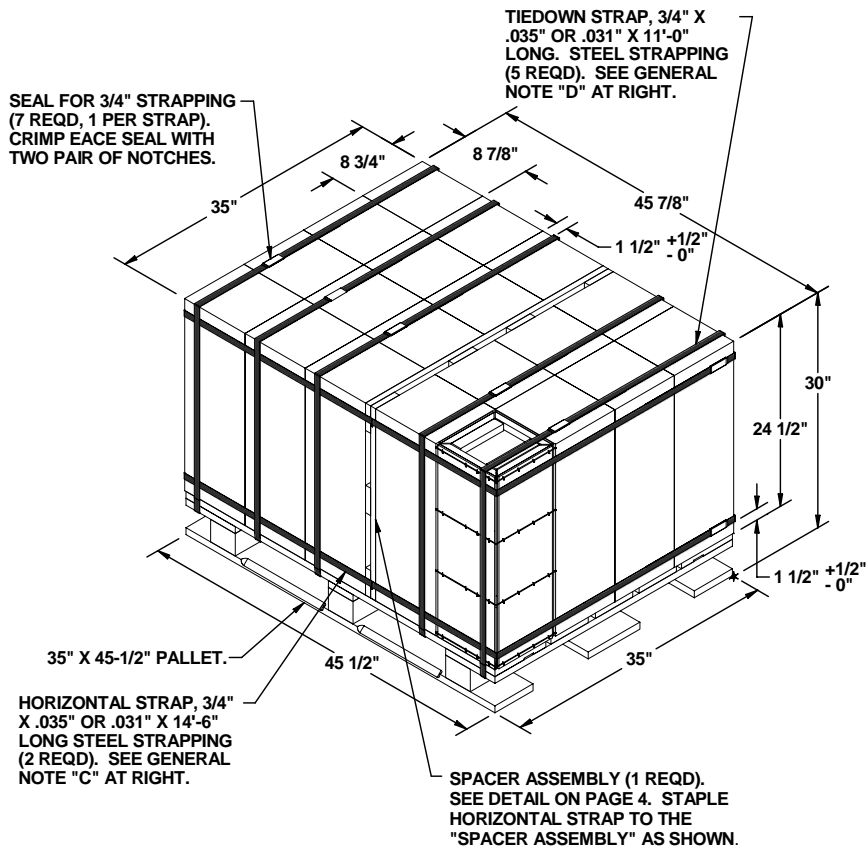
\*HAZARD AND CLASSIFICATION DATA CONTAINED IN THE ABOVE CHART IS FOR GUIDANCE AND INFORMATIONAL PURPOSES ONLY. VERIFICATION OF THE SPECIFIED DATA SHOULD BE MADE BY CONSULTING THE MOST RECENT JOINT HAZARD CLASSIFICATION SYSTEM LISTING OR OTHER APPROVED LISTING(S).

### REVISION

REVISION NO. 1, DATED MAY 2005, CONSISTS OF:

1. REMOVING DOT CLASS AND CG CLASS COLUMNS FROM "PALLET UNIT DATA" CHART.
2. ADDING NSN 1315-00-935-6003 TO "PALLET UNIT DATA" CHART.
3. UPDATING "PALLET UNIT DATA" HAZARD CLASS AND DIVISION COLUMN.
4. REMOVING STRAP CUTTER FROM VIEW AND STRAP CUTTER NOTE.

**GENERAL NOTES**



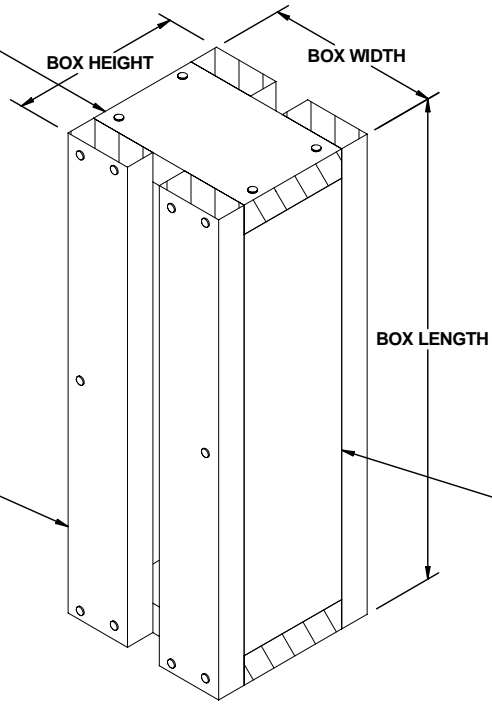
**PALLET UNIT**  
SEE GENERAL NOTE "B" AT RIGHT.

20 BOXES OF 81MM CARTRIDGE (4 PER BOX) @ 50 LBS	1,000 LBS (APPROX)
DUNNAGE	19 LBS
PALLET	65 LBS
<b>TOTAL WEIGHT</b>	<b>1,084 LBS (APPROX)</b>
<b>CUBE</b>	<b>27.9 CU FT (APPROX)</b>

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	16.92	5.64
NAI LS	NO. REQD	POUNDS
6d (2")	24	0.14
PALLET, 35" X 45-1/2"	1 REQD	65 LBS
STEEL STRAPPING, 3/4"	84.00' REQD	7.50 LBS
SEAL FOR 3/4" STRAPPING	7 REQD	NIL
STAPLE, 15/16" X 3/4"	4 REQD	NIL

- A. THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION PROCEDURES DRAWING 19-48-4015-20PA1004. 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 THE HORIZONTAL STRAP TO ENCIRCLE THE LAYER OF BOXES AS SHOWN. HORIZONTAL STRAP 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 UNLOADING 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
  - MI LVAN - - - - - 19-48-4166-15PA1003
  - SIDE OPENING ISO CONTAINER - - - - 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 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.
- H. IF THERE IS NEED FOR FILLER ASSEMBLIES AND AT LEAST TWO PALLET UNITS ARE BEING CONSTRUCTED, NOT MORE THAN 16 FILLERS WILL BE INSTALLED IN ANY ONE PALLET UNIT. ADDITIONAL FILLERS CAN BE PUT IN A SECOND PALLET UNIT AS REQUIRED WHEN THE QUANTITY OF 16 FILLERS IN THE FIRST REDUCED PALLET UNIT IS INSUFFICIENT TO SATISFY THE TOTAL REDUCTION NEEDED. USING TWO PALLET UNITS TO SATISFY THE PALLETIZATION CRITERIA APPLICABLE TO LESS-THAN-FULL PALLET UNITS IS AN EXCEPTION TO THE BASIC PROCEDURES. HOWEVER, THE EXCEPTION IS NECESSARY FOR THE AMMUNITION PACK COVERED BY THIS APPENDIX TO MOST EFFECTIVELY GET AN ACCEPTABLE, COMPACT AND SOUND PALLET UNIT.
- J. FOR DETAILS OF THE WIREBOUND BOX SEE ARDEC DRAWING 8864663.

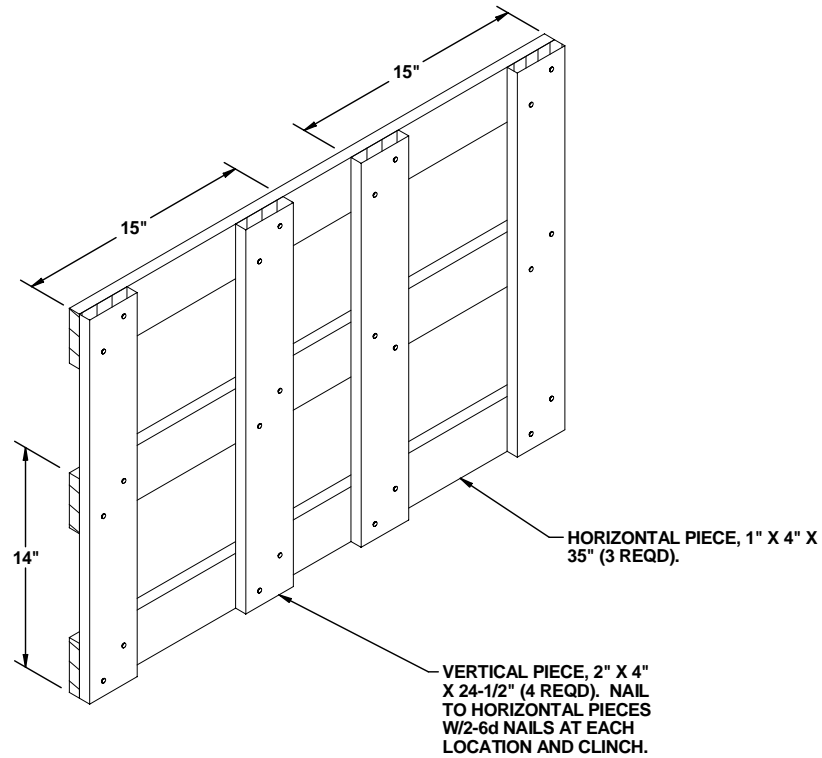
TIE PIECE, 2" X 8" (RIPPED TO BOX HEIGHT MINUS 3") X BOX WIDTH (2 REQD). NAIL TO SUPPORT PIECE W/2-10d NAILS AT EACH END.



VERTICAL PIECE, 2" X 4" X BOX LENGTH (4 REQD). NAIL TO TIE PIECES W/2-10d NAILS AT EACH END AND TO SUPPORT PIECE W/1-10d NAIL.

SUPPORT PIECE, 2" X 8" (RIPPED TO BOX HEIGHT MINUS 3") X BOX LENGTH MINUS 3" (2 REQD).

**FILLER ASSEMBLY**  
(FOR MINUS ONE BOX)



HORIZONTAL PIECE, 1" X 4" X 35" (3 REQD).

VERTICAL PIECE, 2" X 4" X 24-1/2" (4 REQD). NAIL TO HORIZONTAL PIECES W/2-6d NAILS AT EACH LOCATION AND CLINCH.

**SPACER ASSEMBLY**  
(ONE REQD)