

## APPENDIX 46A

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

CARTRIDGE, 106MM, PACKED 2 PER WOODEN BOX,  
UNITIZED 18 BOXES PER 35" X 45 $\frac{1}{2}$ " PALLET;  
APPROX BOX SIZE 45 $\frac{1}{16}$ " L X 12 $\frac{13}{16}$ " W X 8" H

PALLET UNIT DATA						
ITEMS INCLUDED		HAZARD CLASSIFICATION <sup>①</sup>				WEIGHT (LBS)
NSN	DODIC	DOT CLASS	CG CLASS	QD CLASS	COMP GROUP	
1315-						
00-343-3612	C650	A	IV	(12)1.2	E	2,247
00-585-3573	C653	B	II-B	(08)1.2	C	2,265
00-965-0564	C650	A	IV	(12)1.2	E	2,247

### REVISION

REVISION NO. 1, DATED NOVEMBER 1985, CONSISTS OF:  
CHANGING PALLET UNIT CUBE.

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

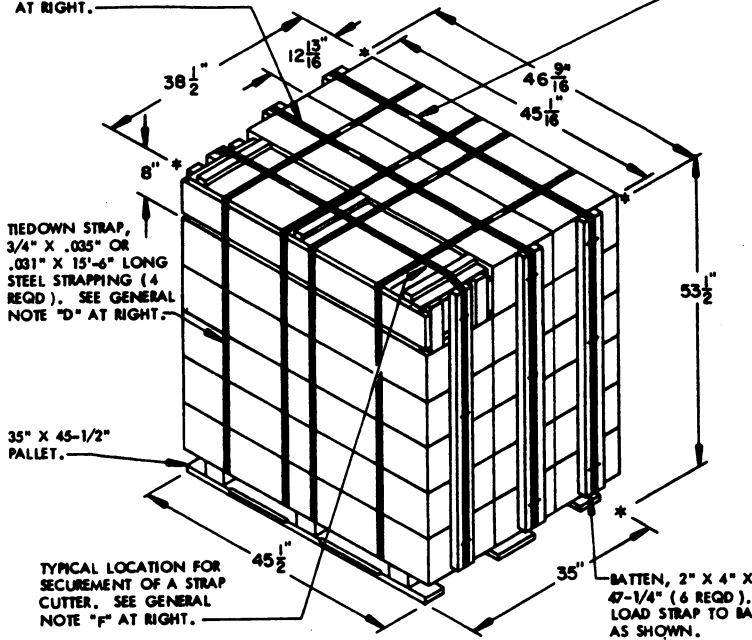
<sup>①</sup>HAZARD CLASSIFICATION DATA CONTAINED IN THE ABOVE CHART IS FOR GUIDANCE AND INFORMATIONAL PURPOSES ONLY. VERIFICATION OF THE SPECIFIED DATA SHOULD BE MADE BY CONSULTING THE MOST RECENT JOINT HAZARD CLASSIFICATION SYSTEM LISTING OR OTHER APPROVED LISTING(S).

REVISIONS		DESIGNED BY	DATE	REVISED BY	DATE
1	NOV 85	<i>WIFE</i>	<i>11/85</i>	<i>WIFE</i>	<i>11/85</i>
		<i>William F. Ernst</i>			
APPROVED BY SUPERVISOR OF DRAWINGS, U.S. ARMY DEFENSE DEVELOPMENT AND CLASSIFICATION CENTER <i>John X. Reynolds</i> U.S. ARMY DEFENSE DEVELOPMENT CENTER AND CENTER					
<b>U. S. ARMY DARCOM DRAWING</b> <b>NOVEMBER 1983</b>					
		CLASS	DIVISION	DRAWING	FILE
		19	48	4116/ 46A	20PA 1002

**DO NOT SCALE**

LOAD STRAP, 3/4" X .035" OR .031" X 16'-11" 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.



**PALLET UNIT**

SEE GENERAL NOTE "B" AT RIGHT

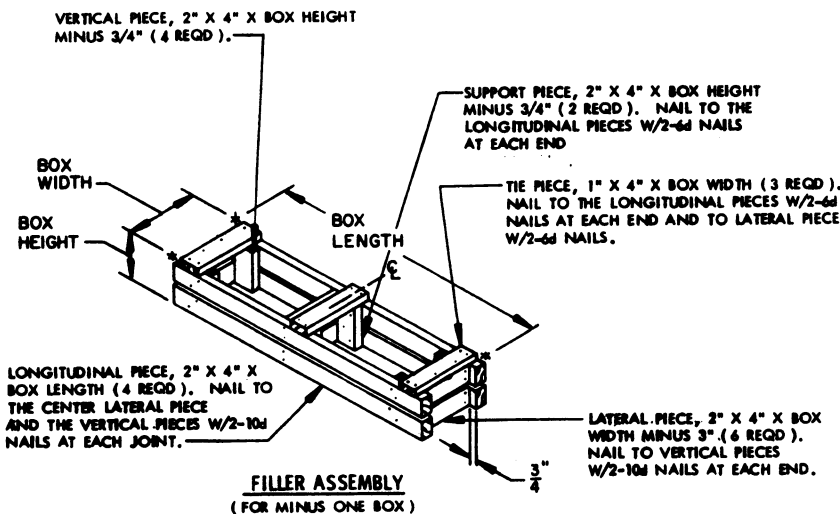
18 BOXES OF 10MM CARTRIDGES (2 PER BOX) @ 120 LBS	2,160 LBS (APPROX)
DUNNAGE	40 LBS
PALLET	65 LBS
<b>TOTAL WEIGHT</b>	<b>2,265 LBS (APPROX)</b>
<b>CUBE</b>	<b>55.5 CU FT (APPROX)</b>

**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. THE LOAD STRAPS WILL BE PRE-POSITIONED ON THE PALLET DECK PRIOR TO PLACING BOXES ON THE PALLET.
- D. INSTALL EACH TIEDOWN STRAP TO PASS UNDER THE TOP DECK BOARDS OF THE PALLET AND TO BE LOCATED AS SHOWN. TIEDOWN STRAPS MUST BE TENSIONED AND SEALED PRIOR TO APPLICATION OF LOAD STRAPS.
- E. THE FOLLOWING AFRC (DARCOM) DRAWINGS ARE APPLICABLE FOR OUTLOADING AND STORAGE OF THE ITEMS COVERED BY THIS APPENDIX.  
 CARLOADING ----- DRAWING 19-48-4115-5PA1002  
 TRUCKLOADING ----- DRAWING 19-48-4117-11PA1003  
 STORAGE ----- DRAWING 19-48-4118-1-2-3-4-14-22PA1002
- F. FOR METHOD OF SECURING A STRAP CUTTER TO THE PALLET UNIT, SEE DARCOM 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 10MM CARTRIDGES WHEN IDENTIFIED BY DIFFERENT NATIONAL STOCK NUMBERS (NSN) THAN WHAT IS SHOWN ON THE TITLE PAGE, 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, 2 LAYERS OF BOXES MUST BE OMITTED, TIEDOWN STRAP LENGTHS MUST BE DECREASED TO 12'-10", LOAD STRAP LENGTHS MUST BE DECREASED TO 14'-3" AND THE BATTEN LENGTH MUST BE DECREASED TO 31'-1/4". THIS WILL RESULT IN AN OVERALL UNIT HEIGHT OF 37'-1/2", A GROSS UNIT WEIGHT OF 1,533 POUNDS, AND A UNIT CUBE OF 38.9 CUBIC FEET. ADDITIONALLY, THE UNIT LOAD MAY BE MODIFIED AS DESCRIBED WHEN BEING SHIPPED BY MILVAN OR COMMERCIAL INTERMODAL FREIGHT CONTAINER. THE DETERMINATION TO REDUCE THE LOAD BY LAYERS FOR TRANSPORTATION WILL BE MADE BY THE RESPONSIBLE COMMAND AND WILL BE BASED UPON ECONOMICS OF TRANSPORTATION AND HANDLING.

**BILL OF MATERIAL**

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	24	16
PALLET, 35" X 45-1/2"	1 REQD	65 LBS
STEEL STRAPPING, 3/4"	112.75' REQD	8.05 LBS
SEAL FOR 3/4" STRAPPING	7 REQD	NIL
STAPLE, 15/16" X 3/4"	18 REQD	NIL



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