# **APPENDIX 45K**

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

CARTRIDGE, 105MM, PACKED 2 PER WOODEN BOX, UNITIZED 15 BOXES PER 35" X 45-1/2" PALLET; APPROX BOX SIZE 45-3/4" L X 14-1/4" W X 8-3/4" H

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

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### U.S. ARMY MATERIEL COMMAND DRAWING APPROVED, U.S. ARMY OPERATIONS SUPPORT COMMAND CAUTION: VERIFY PRIOR TO USE AT WWW.DAC.ARMY.MIL/DET THAT THIS IS THE MOST CURRENT VERSION OF THIS DOCUMENT. THIS IS PAGE 1 OF 4. DO NOT SCALE **MARCH 1983** BASIC WILLIAM FRERICHS ENGINEER OR **TECHNICIAN** WALTER GORDON **NOVEMBER 2002 REVISION NO. 1** APPROVED BY ORDER OF COMMANDING GENERAL, TRANSPORTATION U.S. ARMY MATERIEL COMMAND **ENGINEERING** SEE THE REVISION LISTING ON PAGE 2 DIVISION CLASS DIVISION DRAWING VALIDATION( ENGINEERING Eurle/Sci DIVISION 4116/ 19 48 20PA1002 **ENGINEERING** Wellion R. Frerich 45K DIRECTORATE U.S. ARMY DEFENSE AMMUNITION CENTER

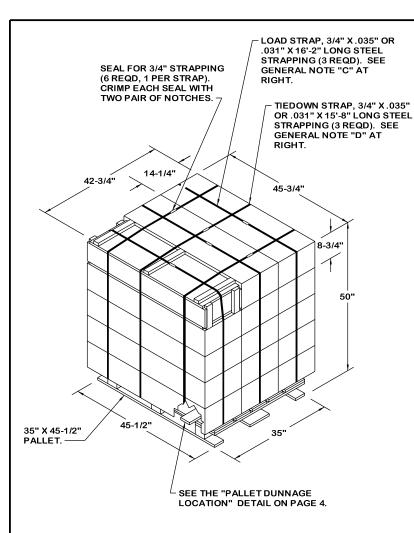
PALLET UNIT DATA						
ITEMS INCLUDED		●HAZARD	_			
NSN	DODIC	CLASS AND DIVISION	COMPAT- ABILITY GROUP	APPROX WEIGHT LBS		
1315- 00-058-0579 00-756-2886 00-889-2095 00-926-3989 01-023-7122 01-094-5294 00-965-0713 01-090-0168 01-107-2513 01-161-3683	C5 08 C5 08 C5 08 C5 08 C5 08 C5 08 C5 11 C5 11 C5 11	1. 2. 1 1. 2. 1	<ul><li>В в в в в в в в в в в в в в в в в в в в</li></ul>	2, 063 2, 063 2, 063 2, 063 2, 198 2, 063 2, 063 2, 063 2, 063 2, 063		

<sup>•</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).

## **REVISION**

REVISION NO. 1, DATED NOVEMBER 2002, CONSISTS OF:

- ADDING ITEMS BY NATIONAL STOCK NUMBER (NSN) TO THE "PALLET UNIT DATA" CHART.
- 2. DELETING ITEMS BY NATIONAL STOCK NUMBER (NSN) FROM THE "PALLET UNIT DATA" CHART.
- 3. CHANGING ALL THE NATIONAL STOCK NUMBERS IN THE "PALLET UNIT DATA" CHART TO REFLECT A PACKAGE GROSS WEIGHT OF 132 LBS, EXCEPT 1315-01-023-7122 WHICH IS 141 LBS.
- 4. ADDING BOX REFERENCE GENERAL NOTE AND DELETING STRAP CUTTER GENERAL NOTE.
- 5. UPDATING DRAWING FORMAT.



## **PALLET UNIT**

SEE GENERAL NOTE "B" AT RIGHT.

15 BOXES OF 105MM CARTRIDGE (2 PER DUNNAGE	18 LBS	APPROX)
	2,198 LBS (, 56.6 CU FT (,	

BILL OF MATERIAL				
LUMBER	LINEAR FEET	BOARD FEET		
1" X 4"	14. 00	4. 67		
NAILS	NO. REQD	POUNDS		
6d (2")	16	0. 09		
PALLET 35" X 45-1/2" 1 REOD 65 LBS				

PALLET, 35" X 45-1/2" - - - - 1 REQD - - - - 65 LBS STEEL STRAPPING, 3/4" - 95.50' REQD - - - 8.53 LBS SEAL FOR 3/4" STRAPPING - - - 6 REQD - - - - 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. THE LOAD STRAPS MAY BE INSTALLED THROUGH THE STRAP SLOTS OF A PALLET OR PRE-POSITIONED ON THE PALLET DECK DUNNAGE PRIOR TO PLACING THE BOXES ON THE PALLET
- D. INSTALL EACH TIEDOWN STRAP TO PASS UNDER THE TOP DECK BOARDS OF THE PALLET AND TO BE LOCATED ON THE BOXES AS SHOWN AND CENTERED ON THE DECK DUNNAGE BOARDS. TIE DOWN STRAPS WILL BE TENSIONED AND SEALED PRIOR TO LOAD STRAPS.
- 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 - - - - 19-48-4118-1-2-34-14-22PA1002
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 IS-SUANCE OF THIS REVISION TO THIS APPENDIX, THE CONTAINERS NEED NOT BE REUNITIZED SOLELY TO CONFORM TO THIS REVISION.
- G. THE UNITIZATION PROCEDURES DEPICTED HEREIN MAY ALSO BE USED FOR UNITIZING 105MM CARTRIDGES WHEN IDENTIFIED BY DIFFERENT NATIONAL STOCK NUMBERS 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. 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 14'-2", AND LOAD STRAP LENGTHS MUST BE DECREASED TO 14'-8". THIS WILL RESULT IN AN OVERALL UNIT HEIGHT OF 41-1/4", A GROSS UNIT WEIGHT OF 1,765 POUNDS, AND A UNIT CUBE OF 46.7 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.
- J. THE STYLE 1A 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.
- K. ALL DUNNAGE SHALL BE PRESERVATIVE TREATED IN ACCORDANCE WITH GENERAL NOTE "AA" IN THE BASIC PROCEDURES.
- L. FOR DETAILS OF THE MILITARY SPECIFICATION MIL-B-2427 WOODEN BOX, SEE DRAWINGS 9321290 AND 12960979.

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