UNITIZATION PROCEDURES* FOR SECONDARY BULK EXPLOSIVES PACKED IN FIBERBOARD BOXES, SECURED WITH STRETCH NET, **UNITIZED 36 BOXES PER 35" X 45-**1/2" PALLET; APPROX BOX SIZE 18-1/2" L X 15-1/4" W X 7-3/8" H

THE PROCEDURES DELINEATED IN THIS DRAWING ARE FOR INTERPLANT/DEPOT SHIPMENT ONLY.

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U.S. ARMY MATERIEL COMMAND DRAWING

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REVISIONS

REVISION NO. 1, DATED JUNE 1985, CONSISTS OF:

ADDING ITEM BY NATIONAL STOCK NUMBER TO "PALLET UNIT DATA" CHART.

REVISION NO. 2, DATED MARCH 1996, CONSISTS OF:

- 1. ADDING ITEMS BY NATIONAL STOCK NUMBER TO "PALLET UNIT DATA" CHART.
 2. REVISING GENERAL NOTES.
- CHANGING WEIGHTS OF ITEMS BY NATIONAL STOCK NUMBER IN "PALLET UNIT DATA" CHART.

REVISION NO. 3, DATED OCTOBER 2002, CONSISTS OF:

ADDING ITEM BY NATIONAL STOCK NUMBER TO "PALLET UNIT DATA" CHART.

REVISION NO. 4, DATED AUGUST 2010, CONSISTS OF CHANGES PER ECP R10K2052 (#1) INCLUDING:

- 1. ADDING ITEMS BY NATIONAL STOCK NUMBER TO "PALLET UNIT DATA"
- 2. REVISING GENERAL NOTES.
 3. REVISING MATERIAL SPECIFICATIONS.

REVISION NO. 5, DATED JANUARY 2017, CONSISTS OF CHANGES PER ECP R15K3013 INCLUDING:

- 1. ADDING ITEMS BY NATIONAL STOCK NUMBER TO "PALLET UNIT DATA"
- CHART.
 2. DELETING ITEMS BY NATIONAL STOCK NUMBER TO "PALLET UNIT DATA" CHART.
- 3. REVISING GENERAL NOTES.
 4. REVISING MATERIAL SPECIFICATIONS.

REVISION NO. 6, DATED NOVEMBER 2020, CONSISTS OF CHANGES PER ECP R20K3006 INCLUDING:

ADDING ITEMS BY NATIONAL STOCK NUMBER TO "PALLET UNIT DATA" CHART

PALLET UNIT DATA						
ITEMS INCL	.UDED	*HAZARD				
NSN	DODIC	CLASS AND DIVISION	*COMPATI- BILITY GROUP	APPROX WEIGHT (LBS)		
1376- 00-005-5116 00-005-7723 00-077-6402 00-147-2992 00-482-8465 00-560-2206 00-628-3300 00-628-3319 00-628-3319 00-628-3323 00-764-8065 00-764-8065 00-787-7614 00-888-7628 00-908-4216 01-055-9905 01-066-4159 01-074-0341 01-075-1965 01-076-3414 01-076-3415 01-076-3418 01-202-1854 01-208-0704 01-513-8408 01-202-1854 01-280-5339 01-291-1109 01-376-3743 01-376-576 01-393-0258 01-393-0259 01-393-0259 01-393-0259 01-561-3819 01-561-3819 01-562-8442 01-564-0493 01-561-889-2016 01-689-2016 01-689-4048 01-689-4048 01-689-4048 01-689-4048 01-689-4048 01-689-4048 01-689-4048 01-689-4048 01-689-4048 01-689-4048 01-689-4048 01-689-4048		1. 1 1. 1 1. 1 1. 1 1. 1 1. 1 1. 1 1. 1		2, 379 2, 379 2, 379 2, 019 2, 019 2, 379 2, 379 2, 379 2, 379 2, 379 2, 379 2, 379 2, 019 2,		

^{*}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 DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR740-1 AND AUGMENTS TM 743-200-1 (CHAPTER 5).
- 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. WHEN ASSEMBLING A PALLET UNIT, CARE SHALL BE TAKEN TO INSURE THAT BOXES AND FILLER ASSEMBLIES ARE EVENLY ALIGNED HORIZONTALLY AND VERTICALLY SO THAT THE SIDES AND ENDS OF THE PALLET DO NOT EXCEED A 1/2" TOLERANCE.
- D. THE FOLLOWING AMC DRAWINGS ARE APPLICABLE FOR OUTLOADING AND STORAGE OF THE ITEMS COVERED BY THIS APPENDIX.

CARLOADI NG - - - 19-48-4115-5PA1002
TRUCKLOADI NG - - 19-48-4117-11PA1003
STORAGE - - - 19-48-4118-1-2-3-4-14-22PA1002
END 0PENI NG I SO
CONTAI NER - - 19-48-4351-15PA1014
MI LVAN - - - 19-48-4166-15PA1003
SI DE OPENI NG I SO
CONTAI NER - - 19-48-4267-15PA1009

- E. THE STRETCH NET WILL BE APPLIED TO THE PALLET UNIT IN THE FOLLOW-ING MANNER WHEN UNITIZING FOUR, FIVE OR SIX LAYERS OF BOXES:
 - SIX COMPLETE WRAPS AROUND THE BOTTOM OF THE PALLET UNIT, SHALL OVERLAP THE WOOD PALLET TOP DECK.
 - 2. FOUR COMPLETE WRAPS SPIRALING TO THE TOP OF THE PALLET UNIT.
 - 3 FOUR COMPLETE WRAPS AROUND THE TOP OF THE PALLET UNIT
 - FOUR COMPLETE WRAPS SPIRALING BACK TO THE BOTTOM OF THE PALLET UNIT WHERE THE END IS TIED.
- F. THE STRETCH NET WILL BE APPLIED TO THE PALLET UNIT IN THE FOLLOW-ING MANNER WHEN UNITIZING THREE LAYERS OF THE BOXES:
 - FOUR COMPLETE WRAPS AROUND THE BOTTOM OF THE PALLET UNIT, SHALL OVERLAP THE WOOD PALLET TOP DECK.
 - 2. ONE COMPLETE WRAP SPIRALING TO THE TOP OF THE PALLET UNIT.
 - 3. THREE COMPLETE WRAPS AROUND THE TOP OF THE PALLET UNIT.
 - 4. ONE COMPLETE WRAP SPIRALING BACK TO THE BOTTOM OF THE PALLET UNIT WHERE THE END IS TIED.
- G. THE STRETCH NET WILL BE APPLIED TO THE PALLET UNIT IN THE FOLLOWING MANNER WHEN UNITIZING ONE OR TWO LAYERS OF BOXES.

FOUR COMPLETE WRAPS AROUND THE BOTTOM OF THE PALLET UNIT WHERE THE END IS TIED.

H. FOR THE PREFERRED METHOD OF INITIAL AND FINAL ATTACHMENT OF THE STRETCH NET TO THE PALLET UNIT, REFER TO THE STRETCH NET MANUFACTURER'S RECOMMENDATIONS. FOR PROPER'EVEN TENSIONING OF THE NETTING TO THE PALLET UNIT, THE STRETCH NETTING SHALL ONLY BE APPLIED USING A STRETCH-NET MACHINE FOR APPLICATION OF THE SPECIFIED NUMBER OF WRAPS.

(CONTINUED AT RIGHT)

(GENERAL NOTES CONTINUED)

- J. IF LESS THAN 36 BOXES ARE TO BE LOADED ON A PALLET, IT SHALL BE ACCOMPLISHED BY SUBSTITUTING FILLER ASSEMBLIES, AS DEPICTED ON PAGE 6, FOR OMITTED BOXES. IF MORE THAN SIX BOXES ARE TO BE OMITTED FROM THE PALLET UNIT, IT CAN BE ACCOMPLISHED BY USING A COMBINATION OF OMITTING A COMPLETE LAYER OF BOXES AND SUBSTITUTING FILLER ASSEMBLIES AS NECESSARY, TO SATISFY THE REDUCED QUANTITY OF BOXES TO BE UNITIZED
- K. ALL FILLER ASSEMBLIES WILL BE POSITIONED IN THE TOP LAYER OR LAYERS OF THE CENTER STACK OF A UNIT LOAD.
- L. UNIT LOADS MUST ONLY BE MADE UP WITH FULL LAYERS. FOR REDUCED QUANTITIES IN A UNIT LOAD, HOWEVER, ONE THROUGH FIVE LAYERS MAY BE OMITTED, AND/OR A FULL LAYER MAY CONSIST OF FOUR BOXES AND TWO FILLER ASSEMBLIES. ONLY ONE UNIT LOAD HAVING A REDUCED QUANTITY OF ITEMS SHOULD BE PERMITTED PER LOT OF THAT ITEM. CARE SHOULD BE TAKEN TO INSURE THAT "REDUCED-QUANTITY" UNITS ARE EVENLY ALIGNED HORIZONTALLY AND VERTICALLY AS SPECIFIED IN GENERAL NOTE "C" AT LEFT.
- M. CONVERSION TO METRIC EQUIVALENTS: DIMENSIONS WITHIN THIS DOCU-MENT ARE EXPRESSED IN INCHES AND WEIGHTS ARE EXPRESSED IN POUNDS. WHEN NECESSARY, THE METRIC EQUIVALENT MAY BE COMPUTED ON THE BA-SIS OF ONE INCH EQUALS 25.4MM AND ONE POUND EQUALS 0.454 KG.
- N. THE MAJORITY OF STRETCH NET HAS BEEN OMITTED FROM THE "PALLET UNIT" DETAIL ON PAGE 5 FOR CLARITY PURPOSES.
- O. DIMENSIONAL LUMBER SPECIFIED FOR THE "FILLER ASSEMBLY", DEPICTED ON PAGE 6, IS OF A NOMINAL SIZE; I.E., 2" X 8" MATERIAL IS ACTUALLY 1-1/2" THICK BY 7-1/4" WIDE.
- P. AN ALTERNATE BULK EXPLOSIVE PALLET MAY BE USED AS A SUBSTITUTE FOR THE PALLET WITH HARDBOARD. REFER TO DAC DRAWING ACV00183 FOR DETAILS OF THE SPECIAL PALLET.
- Q. UNIT LOAD MARKINGS WILL BE ACCOMPLISHED IN ACCORDANCE WITH DAC DRAWING ACV00561.
- R. THE STYLE 1A PALLET DELINEATED IN THE DETAIL ON PAGE 5 NEED NOT HAVE CHAMFERS OR STRAP SLOTS AS SPECIFIED WITHIN MILITARY SPECIFICATION MIL-DTL-15011 WHEN USED FOR THE UNITIZATION OF ITEMS COVERED BY THIS DRAWING
- S. ALL NON-MANUFACTURED WOOD USED IN PALLETIZED LOAD SHALL BE HEAT TREATED AND MARKED TO SHOW CONFORMANCE TO THE INTERNATIONAL PLANT PROTECTION CONVENTION STANDARD (IPPC), ISPM-15. SEE DAC DRAWING ACV00831 FOR ISPM-15 CERTIFICATION MARKING AND PLACEMENT DETAILS.
- T. FOR DETAILS OF THE FIBERBOARD BOX SEE ARDEC DRAWING 7548645.
- U. THE UNITIZATION PROCEDURES DEPICTED HEREIN MAY ALSO BE USED FOR UNITIZING SECONDARY BULK EXPLOSIVE WHEN IDENTIFIED BY DIFFERENT NATIONAL STOCK NUMBERS (NSN) THAN WHAT IS SHOWN ON PAGE 3, PROVIDED THE BOX PACK DOES NOT VARY FROM WHAT IS DELINEATED WHERIN. THE EXPLOSIVE CLASSIFICATION OF OTHER ITEMS MAY BE DIFFERENT THAN WHAT IS SHOWN.

MATERIAL SPECIFICATIONS

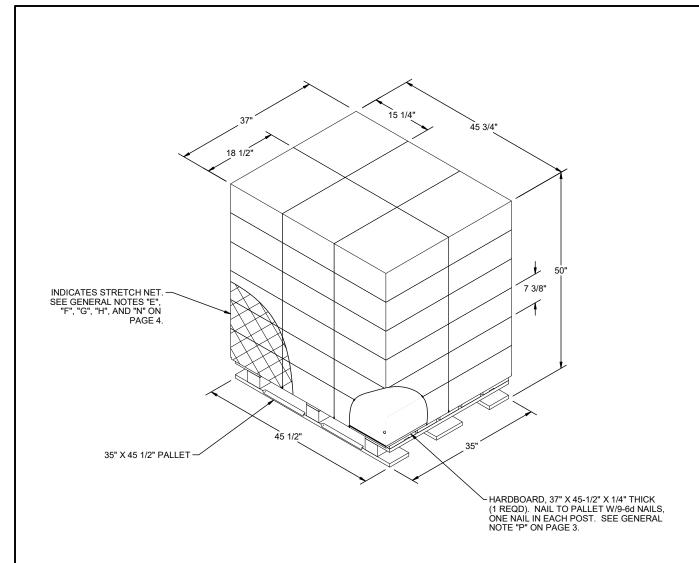
PALLET - - - - - - : MIL SPEC MIL-DTL-15011: 4-WAY ENTRY, STYLE 1A, TYPE I, CLASS 1, SEE GENERAL NOTE "P" AND DAC DRAWING ACVOO831.

<u>LUMBER</u> - - - - - SEE TM 743-200-1 (DUNNAGE LUMBER), VOLUNTARY PRODUCT STANDARD PS20, AND DAC DRAWING ACVO0831.

STRETCH NET - - - -: TENSIONET I, PRODUCT ON-0580, CONWED CORP.

HARDBOARD - - - - -: COMMERCIAL GRADE.

PAGE 4

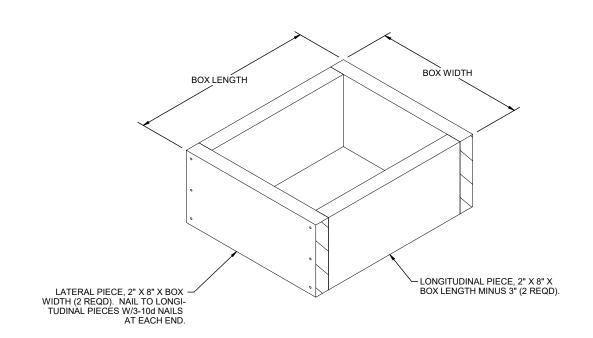


PALLET UNIT
SEE GENERAL NOTE "B" ON PAGE 4.

	10 LBS
 TOTAL WEIGHT	2, 379 LBS (APPROX) 49. 0 CU FT (APPROX)

BILL OF MATERIAL				
NAI LS	NO. REQD	POUNDS		
6d (2")	9	0. 05		
PALLET, 35" X 45-1/2 STRETCH NET, 3/4" - HARDBOARD, 1/4"	250' REQD -	0.70 LBS		

PAGE 5



FILLER ASSEMBLY (FOR MINUS ONE BOX)

SEE GENERAL NOTES "J", "K", AND "L" ON PAGE 4.