

# APPENDIX 121B

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

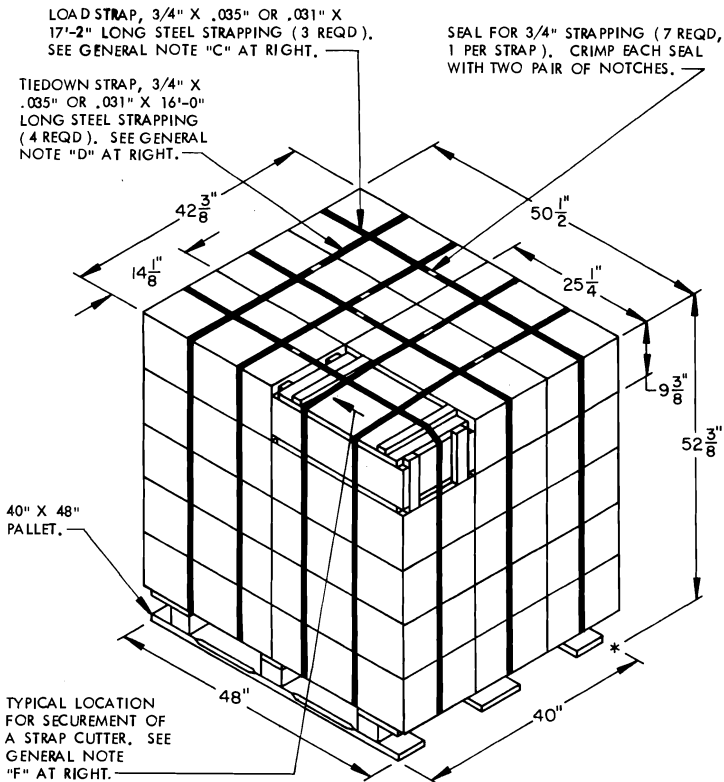
CAP, BLASTING, ELECTRIC, M4, PACKED 30 PER  
WOODEN BOX, UNITIZED 30 BOXES PER 40" X 48"  
PALLET; APPROX BOX SIZE 25 $\frac{1}{4}$ " L X 14 $\frac{1}{8}$ " W X 9 $\frac{3}{8}$ " H

PALLET UNIT DATA						
ITEMS INCLUDED		HAZARD CLASSIFICATION				WEIGHT (LBS)
NSN	DODIC	DOT CLASS	CG CLASS	QD CLASS	COMP GROUP	
1375- 00-180-9474	M078	A	VIII	1.1	B	2,489

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

REVISIONS				DRAFTSMAN <i>DBB</i>	PROJ. ENG. <i>MSK</i>	LOG. ENG. OFFICER <i>RSW</i>
				CHECKER <i>RSW</i>	LOG. ENG. OFFICER <i>John [Signature]</i>	
APPROVED, U. S. ARMY ARMAMENT MATERIEL READINESS COMMAND						
				<i>John [Signature]</i>	<i>BO Skahan</i>	
APPROVED BY ORDER OF COMMANDING GENERAL, U. S. ARMY MATERIEL DEVELOPMENT AND READINESS COMMAND (DARCOM)						
<i>John L. Spald</i> US ARMY DEFENSE AMMUNITION CENTER AND SCHOOL						
U. S. ARMY DARCOM DRAWING						
FEBRUARY 1983						
CLASS	DIVISION	DRAWING	FILE			
19	48	4116/ 121B	20PA 1002			

**DO NOT SCALE**



**PALLET UNIT**

SEE GENERAL NOTE "B" AT RIGHT.

30 BOXES OF BLASTING CAP (30 PER BOX) @ 80 LBS-----	2,400 LBS (APPROX)
DUNNAGE-----	9 LBS
PALLET-----	80 LBS

TOTAL WEIGHT-----	2,489 LBS (APPROX)
CUBE-----	64.9 CUBIC FEET (APPROX)

**BILL OF MATERIAL**

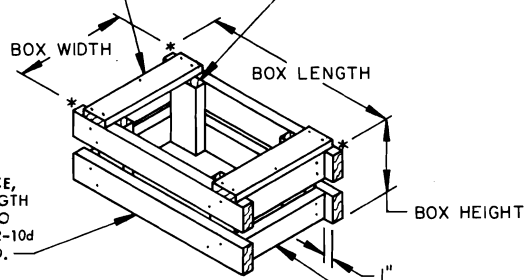
PALLET, 40" X 48"-----	1 REQD	80 LBS
STEEL STRAPPING, 3/4"-----	115.50' REQD	8.25 LBS
SEAL FOR 3/4" STRAPPING-----	7 REQD	NIL

**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 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 WILL BE TENSIONED AND SEALED PRIOR TO LOAD STRAPS.
- E. THE FOLLOWING 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 BLASTING CAPS 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, ONE LAYER OF BOXES MUST BE OMITTED, TIEDOWN STRAP LENGTHS MUST BE DECREASED TO 14'-5", AND LOAD STRAP LENGTHS MUST BE DECREASED TO 15'-9". THIS WILL RESULT IN AN OVERALL UNIT HEIGHT OF 43", A GROSS UNIT WEIGHT OF 2,008 POUNDS, AND A UNIT CUBE OF 53.3 CUBIC FEET. ADDITIONALLY, THE UNIT LOAD MAY BE MODIFIED AS DESCRIBED WHEN BEING SHIPPED BY MILVAN OR COMMERCIAL INTERMODAL FREIGHT CONTAINER, CONVENTIONAL VAN TRAILER OR CONVENTIONAL OR HIGH-CAPACITY BOXCAR. 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.

TIE PIECE, 1" X 4" X BOX WIDTH (2 REQD). NAIL TO LONGITUDINAL PIECES W/2-6d NAILS AT EACH END AND TO LATERAL PIECE W/1-6d NAIL.

VERTICAL PIECE, 2" X 4" X BOX HEIGHT MINUS 3/4" (4 REQD).



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

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

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