

# APPENDIX 89

## UNITIZATION PROCEDURES FOR BOXED AMMUNITION AND COMPONENTS ON SKIDDED BASES

MINES, M74, M75 AND M79, PACKED 40 PER  
METAL BOX, UNITIZED 6 BOXES PER TYPE II  
SKID BASE; APPROX BOX SIZE  $27\frac{3}{8}$ " L X  $13\frac{3}{4}$ " W  
X  $13\frac{3}{8}$ " H

SKIDDED UNIT DATA						
ITEMS INCLUDED		HAZARD CLASSIFICATION ①				WEIGHT
NSN	DODIC	DOT CLASS	CG CLASS	QD CLASS	COMP GROUP	( LBS )
1345-						
01-076-3497	K151	A	VII	1,1	D	1,222
01-078-4104	K184	A	VII	1,1	D	1,438
01-074-9370	K234	INERT				1,330

NOTICE: THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED  
IN CONJUNCTION WITH THE BASIC UNITIZATION PROCEDURES  
DRAWING 19-48-4138-20PA1000.

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

REVISIONS				DRAWN BY <i>WJF</i>	PROJ. ENG. <i>TM</i>	CHKD BY <i>LAF/WRF</i>
				APPROVED, U.S. ARMY ARMAMENT, MUNITIONS AND CHEMICAL COMMAND		
				<i>John B. Holcomb</i> <i>William A. Stachul</i>		
				APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIAL COMMAND (AMC)		
				<i>John A. Byrd</i>		
				U.S. ARMY AMC DRAWING		
				MAY 1989		
CLASS	DIVISION	DRAWING	FILE			
19	48	4138/ 89	20PA 1000			

**DO NOT SCALE**

TIEDOWN STRAP, 3/4" X .035" OR .031" X 13'-2" LONG STEEL STRAPPING (4 REQD). SEE GENERAL NOTE "K" AT RIGHT.

SEAL FOR 3/4" STRAPPING (6 REQD, 1 PER STRAP). CRIMP EACH SEAL WITH TWO PAIR OF NOTCHES.

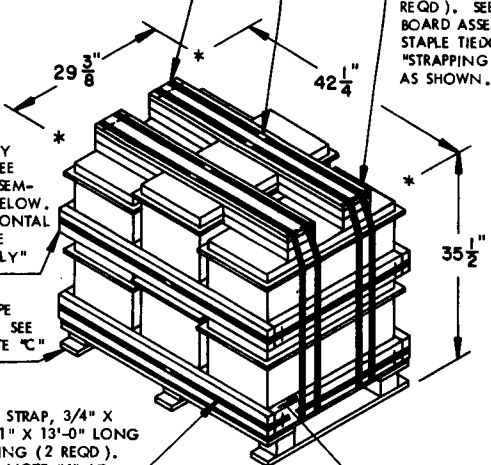
STRAPPING BOARD ASSEMBLY (2 REQD). SEE THE "STRAPPING BOARD ASSEMBLY" DETAIL BELOW. STAPLE TIEDOWN STRAPS TO "STRAPPING BOARD ASSEMBLY" AS SHOWN.

RISER ASSEMBLY (2 REQD). SEE THE "RISER ASSEMBLY" DETAIL BELOW. STAPLE HORIZONTAL STRAPS TO THE "RISER ASSEMBLY" AS SHOWN.

INDICATES TYPE II SKID BASE. SEE GENERAL NOTE "C" AT RIGHT.

HORIZONTAL STRAP, 3/4" X .035" OR .031" X 13'-0" LONG STEEL STRAPPING (2 REQD). SEE GENERAL NOTE "J" AT RIGHT.

TYPICAL LOCATION FOR SECUREMENT OF A STRAP CUTTER. SEE GENERAL NOTE "E" AT RIGHT.



### SKIDDED UNIT

SEE GENERAL NOTE "B" AT RIGHT.

6 BOXES OF MINES (40 PER METAL BOX) @ 219 LBS -----1,314 LBS (APPROX)  
 DUNNAGE ----- 91 LBS  
 SKID ----- 33 LBS

TOTAL WEIGHT -----1,438 LBS (APPROX)  
 CUBE -----25.5 CU FT (APPROX)

### BILL OF MATERIAL

NUMBER	LINEAR FEET	BOARD FEET
1" X 6"	6.54	3.27
2" X 4"	31.92	17.19
2" X 6"	17.29	17.19
NAILS	NO. REQD	POUNDS
6d (2")	8	0.05
10d (3")	72	1.11

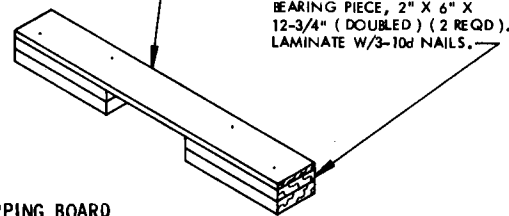
TYPE II SKID BASE, 29" W X 42" L	1 REQD	33 LBS
STEEL STRAPPING, 3/4"	78.67 REQD	5.62 LBS
SEAL FOR 3/4" STRAPPING	6 REQD	NIL
STAPLE	16 REQD	NIL

### GENERAL NOTES

- THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION PROCEDURES DRAWING 19-48-4138-20PA1000. 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.
- DIMENSIONS, CUBE AND WEIGHT OF A SKIDDED UNIT WILL VARY SLIGHTLY DEPENDING UPON THE ACTUAL DIMENSIONS OF THE BOXES AND THE WEIGHT OF THE SPECIFIC ITEM BEING UNITIZED.
- ONLY A TYPE II SKID BASE WILL BE USED TO ASSEMBLE THIS UNIT. THE "W" DIMENSION OF THE SKID BASE WILL BE 29" AND THE "L" DIMENSION WILL BE 42". NOTE: A TYPE I SKID BASE IS NOT APPROVED FOR USE IN UNITIZING THIS ITEM.
- THE FOLLOWING AMC (DARCOM) DRAWINGS ARE APPLICABLE FOR OUTLOADING AND STORAGE OF THE ITEMS COVERED BY THIS APPENDIX.  
 CARLOADING -----DRAWING 19-48-4123-5PA1003.  
 TRUCKLOADING -----DRAWING 19-48-4124-11PA1004.  
 STORAGE -----DRAWING 19-48-4125-1-2-3-4-14-22PA1003.
- FOR METHOD OF SECURING A STRAP CUTTER TO THE PALLET UNIT, SEE DARCOM DRAWING 19-48-4127-20P1000.
- IF ITEMS COVERED HEREIN ARE UNITIZED PRIOR TO ISSUANCE OF THIS APPENDIX, THE BOXES NEED NOT BE REUNITIZED SOLELY TO CONFORM TO THIS APPENDIX.
- THE UNITIZATION PROCEDURES DEPICTED HEREIN MAY ALSO BE USED FOR UNITIZING MINES 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 EXPLOSIVES CLASSIFICATION OF OTHER ITEMS MAY BE DIFFERENT THAN WHAT IS SHOWN.
- POSITION THE METAL BOXES WITH THE HUMIDITY INDICATORS LOCATED ON ONLY ONE SIDE OF THE SKIDDED UNIT.
- INSTALL EACH HORIZONTAL STRAP TO ENCIRCLE A DUNNAGE ASSEMBLY. HORIZONTAL STRAPS MUST BE TENSIONED AND SEALED PRIOR TO APPLICATION OF TIEDOWN STRAPS.
- INSTALL EACH TIEDOWN STRAP TO PASS UNDER THE TOP DECK BOARDS OF THE SKID BASE AND TO BE LOCATED AS SHOWN. TIEDOWN STRAPS WILL NOT BE APPLIED UNTIL THE HORIZONTAL STRAPS HAVE BEEN TENSIONED AND SEALED.

TIE PIECE, 1" X 6" X 39-1/4" (1 REQD). NAIL TO THE BEARING PIECES W/2-6d NAILS AT EACH LOCATION.

BEARING PIECE, 2" X 6" X 12-3/4" (DOUBLED) (2 REQD). LAMINATE W/3-10d NAILS.



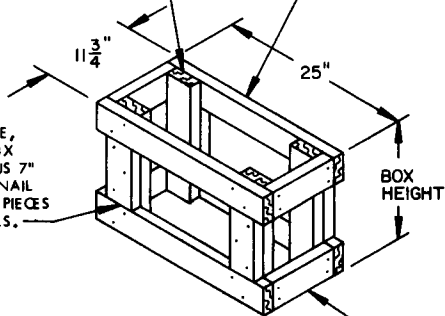
### STRAPPING BOARD

(2 REQD)

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

LONGITUDINAL PIECE, 2" X 4" X 25" (4 REQD). NAIL TO THE VERTICAL PIECE W/2-10d NAILS AT EACH END.

SUPPORT PIECE, 2" X 4" X BOX HEIGHT MINUS 7" (4 REQD). NAIL TO VERTICAL PIECES W/3-10d NAILS.



### FILLER ASSEMBLY

(FOR MINUS ONE BOX)

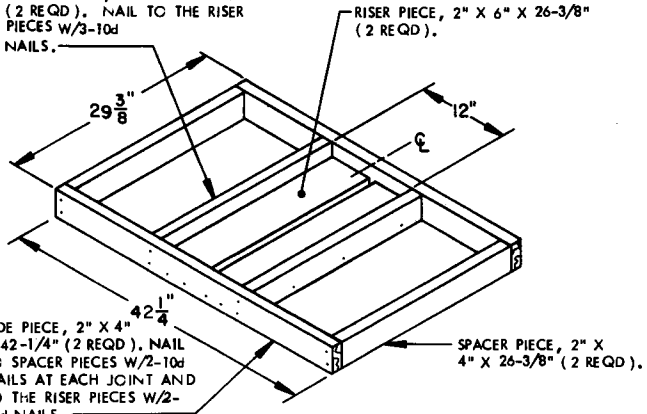
LATERAL PIECE, 2" X 4" X 8-3/4" (4 REQD). NAIL TO THE VERTICAL PIECES W/2-10d NAILS AT EACH JOINT.

SPACER PIECE, 2" X 4" X 26-3/8" (2 REQD). NAIL TO THE RISER PIECES W/3-10d NAILS.

RISER PIECE, 2" X 6" X 26-3/8" (2 REQD).

SIDE PIECE, 2" X 4" X 42-1/4" (2 REQD). NAIL TO SPACER PIECES W/2-10d NAILS AT EACH JOINT AND TO THE RISER PIECES W/2-10d NAILS.

SPACER PIECE, 2" X 4" X 26-3/8" (2 REQD).



### RISER ASSEMBLY

(2 REQD)