

# APPENDIX 120BB

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

CHARGE, DEMOLITION, SHEET, PACKED 2 PER  
WOODEN BOX, UNITIZED 24 BOXES PER 40" X  
48" PALLET; APPROX BOX SIZE 20-5/8" L X  
15-3/8" W X 10-1/2" 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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	LOGISTICS ENGINEERING OFFICE		
	<i>William J. Ernst</i>		
	FEBRUARY 1988		
REVISION NO. 1	JULY 1997	CLASS	DIVISION
SEE THE REVISION LISTING ON PAGE 2		DRAWING	FILE
	19	48	4116/ 120BB
			20PA 1002

DO NOT SCALE

PALLET UNIT DATA				
ITEMS INCLUDED		HAZARD CLASS AND DIVISION ●		APPROX WEIGHT LBS
NSN	DODIC	OD CLASS	COMP GROUP	
1375-				
01-036-0443	M980	1.1	D	1,549
01-036-0444	M981	1.1	D	1,549
01-036-0445	M982	1.1	D	1,549
01-036-0446	M983	1.1	D	1,549
01-036-0447	M984	1.1	D	1,549
01-036-0448	M985	1.1	D	1,549
01-036-0449	M986	1.1	D	1,549
01-038-6884	M993	1.1	D	1,549
01-038-6885	M994	1.1	D	1,549

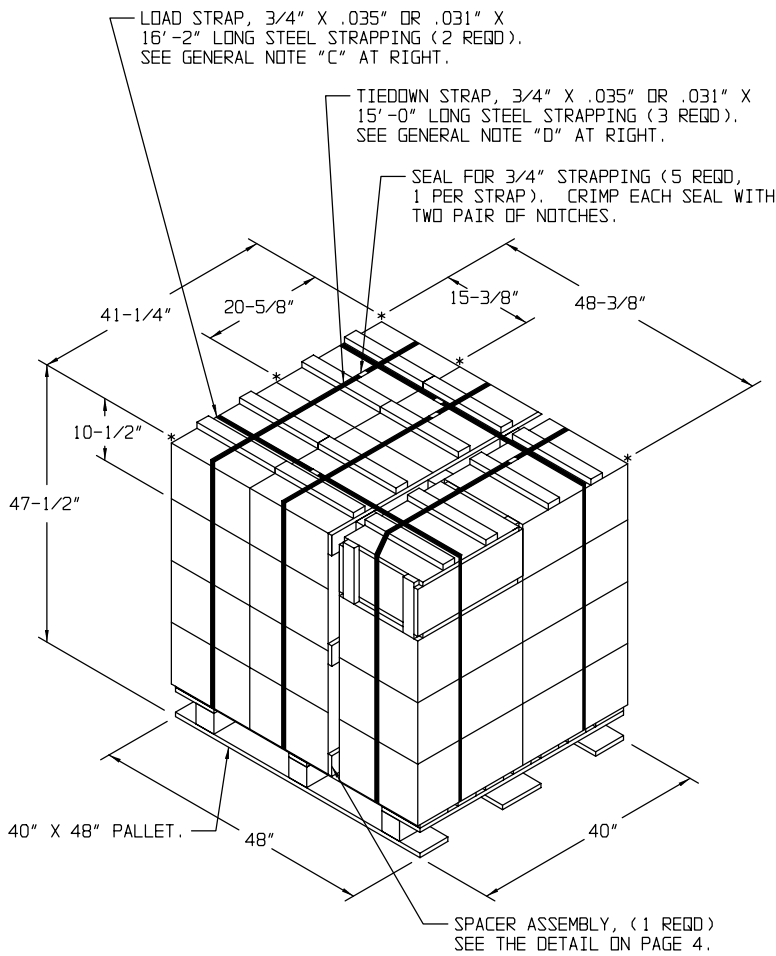
- HAZARD CLASSIFICATION DATA CONTAINED IN THE ABOVE CHART IS FOR GUIDANCE AND INFORMATIONAL PURPOSES ONLY. VERIFICATION OF THE SPECIFIED DATA SHOULD BE MADE BY CONSULTING THE MOST RECENT JOINT HAZARD CLASSIFICATION SYSTEM LISTING OR OTHER APPROVED LISTING(S).

#### REVISION

REVISION NO. 1, DATED JULY 1997, CONSISTS OF:

1. ADDING ITEM BY NATIONAL STOCK NUMBER (NSN) TO "PALLET UNIT DATA" CHART.
2. ROTATE BOXES ON PALLET.
3. ADD FILLER.
4. ADD WOODEN BOX DRAWING REFERENCE.

**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 MUST BE PRE-POSITIONED ON THE PALLET DECK PRIOR TO PLACING BOXES ON THE PALLET. LOAD STRAPS MUST BE TENSIONED AND SEALED PRIOR TO APPLICATION OF TIEDOWN STRAPS. LOAD STRAPS WILL NOT CONTACT HASPS OR HINGES ON THE TOP OF BOXES.
- D. INSTALL EACH TIEDOWN STRAP TO PASS UNDER THE DECK BOARDS OF THE PALLET AND TO BE LOCATED AS SHOWN. TIEDOWN STRAPS WILL NOT BE APPLIED UNTIL THE LOAD STRAPS HAVE BEEN TENSIONED AND SEALED.
- 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 - - - - - 19-48-4118-1-2-3-4-14-22PA1002
  - 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 ISSUANCE OF THIS APPENDIX, THE BOXES NEED NOT BE REUNITIZED SOLELY TO CONFORM TO THIS APPENDIX.
- G. THE UNITIZATION PROCEDURES DEPICTED HEREIN MAY ALSO BE USED FOR UNITIZING DEMOLITION CHARGES WHEN IDENTIFIED BY DIFFERENT NATIONAL STOCK NUMBERS (NSN) 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 13'-3", AND LOAD STRAP LENGTHS MUST BE DECREASED TO 14'-5". THIS WILL RESULT IN AN OVERALL UNIT HEIGHT OF 31'-1/2" HIGH. THIS WILL RESULT IN AN OVERALL UNIT HEIGHT OF 37", A GROSS UNIT WEIGHT OF 1,180 POUNDS, AND A UNIT CUBE OF 42.7 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. ALL DUNNAGE SHALL BE PRESERVATIVE TREATED IN ACCORDANCE WITH GENERAL NOTE "AA" IN THE BASIC PROCEDURES.
- K. THE STYLE 1 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.
- L. FOR DETAILS OF THE MIL-B-2427 WOODEN BOX SEE NAVSEA DRAWING 3139754.

**PALLET UNIT**

SEE GENERAL NOTE "B" AT RIGHT.

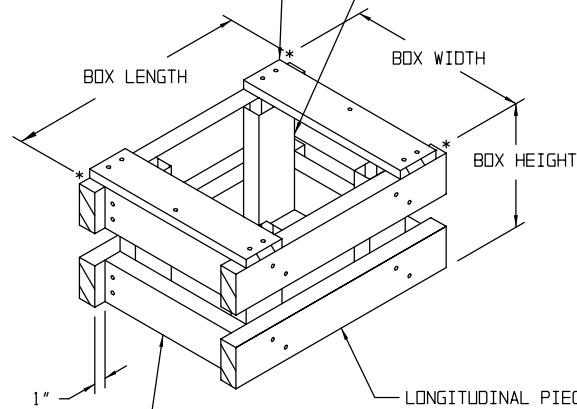
24 BOXES OF DEMOLITION CHARGE (2 PER BOX) AT 60 LBS	---	1,440 LBS (APPROX)
DUNNAGE	---	29 LBS
PALLET	---	80 LBS
<b>TOTAL WEIGHT</b>	---	<b>1,549 LBS (APPROX)</b>
<b>CUBE</b>	---	<b>54.9 CU FT (APPROX)</b>

**BILL OF MATERIAL**

LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	10.31	3.44
2" X 4"	10.31	6.87
NAILS	NO. REQD	POUNDS
6d (2")	18	NIL
PALLET, 40" X 48"	1 REQD	80 LBS
STEEL STRAPPING, 3/4"	77.33' REQD	6.90 LBS
SEAL FOR 3/4" STRAPPING	7 REQD	NIL

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).

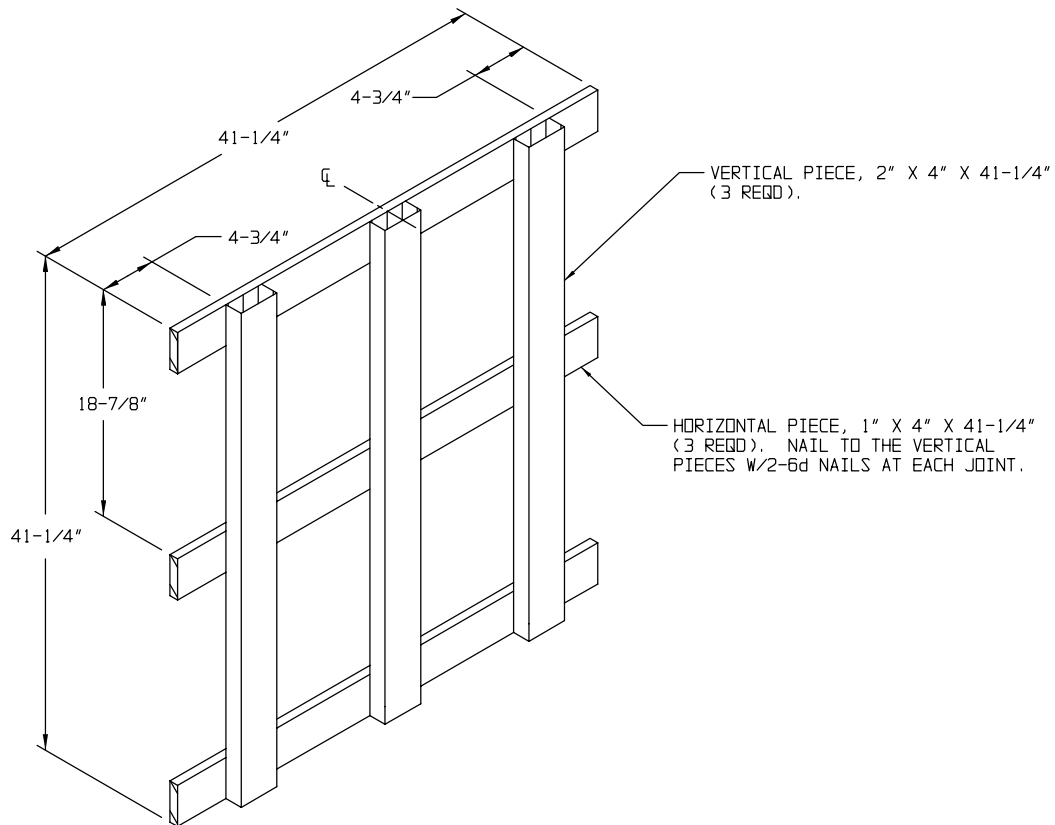


LATERAL PIECE, 2" X 4" X  
 BOX WIDTH MINUS 3" (4 REQD).  
 NAIL TO VERTICAL PIECES  
 W/2-10d NAILS AT EACH END.

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

**FILLER ASSEMBLY**

(FOR MINUS ONE BOX)



**SPACER ASSEMBLY**