

# APPENDIX 117A

## UNITIZATION PROCEDURES FOR BOXED AMMUNITION AND COMPO- NENTS ON SKIDDED BASES

**DEMOLITION KIT, RAPID WALL BREACHING, TACTI-  
CAL, M322, BLASTING, PRACTICE, M323, OR TRAIN-  
ING, M324, PACKED 2 PER METAL DRUM, UNITIZED  
4 DRUMS PER TYPE II SKID BASE; APPROX DRUM  
SIZE 24-3/8" DIA X 17-1/2" H**

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

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### U.S. ARMY MATERIEL COMMAND DRAWING

<p><b>APPROVED, U.S. ARMY RESEARCH, DEVELOPMENT AND ENGINEERING COMMAND</b></p> <p>REHMSTEDT.MA RK.J.1230548400</p> <p style="font-size: small;">Digitally signed by REHMSTEDT.MARK.J.1230548400 DN: cn=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, c=US, email=REHMSTEDT.MARK.J.1230548400 Date: 2009.10.26 20:34:00 -0500</p> <p style="text-align: right;">RDAR-EIL-TP</p>	<p><b>CAUTION: VERIFY PRIOR TO USE AT WWW.DAC.ARMY.MIL THAT THIS IS THE MOST CURRENT VERSION OF THIS DOCUMENT. THIS IS PAGE 1 OF 4.</b></p>			<p><b>NOVEMBER 2007</b></p>			
<p><b>APPROVED, U.S. ARMY JOINT MUNITIONS COMMAND</b></p> <p>CASILLAS.GILBERT. J.1230393644</p> <p style="font-size: small;">Digitally signed by CASILLAS.GILBERT. DN: cn=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, ou=CASILLAS.GILBERT. J.1230393644 Date: 2009.10.30 10:47:04 -0500</p> <p style="text-align: right;">AMSJM-LIT</p>	<p><b>DO NOT SCALE</b></p>	<p><b>ENGINEER OR TECHNICIAN</b></p>	<p><b>BASIC</b></p>	<p><b>ADIN FELICIANO</b></p>	<p><b>REVISION NO. 1</b></p>	<p><b>SEPTEMBER 2009</b></p>	
<p><b>APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND</b></p> <p>CARNEY.GARY Y.BURTON.10 38708038</p> <p style="font-size: small;">Digitally signed by CARNEY.GARY.BURTON.1038708038 DN: cn=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=CARNEY.GARY.BURTON.1038708 038 Date: 2009.11.04 09:19:09 -0600</p> <p style="text-align: center;">U.S. ARMY DEFENSE AMMUNITION CENTER</p>	<p><b>TRANSPORTATION ENGINEERING DIVISION</b></p>	<p><b>FIEFFER.LAURA. A.1230375727</b></p> <p style="font-size: x-small;">Digitally signed by FIEFFER.LAURA.A.1230375727 DN: cn=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=FIEFFER.LAURA.A.1230375727 Date: 2009.10.11 13:04:10 -0500</p>	<p><b>VALIDATION ENGINEERING DIVISION</b></p>	<p><b>BARICKMAN. PHILIP.W.123 0202202</b></p> <p style="font-size: x-small;">Digitally signed by BARICKMAN.PHILIP.W.12302022 DN: cn=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=BARICKMAN.PHILIP.W.12302022 Date: 2009.10.18 07:45:34 -0500</p>	<p><b>TESTED</b></p>	<p><b>SEE THE REVISION LISTING ON PAGE 2</b></p>	
	<p><b>ENGINEERING DIRECTORATE</b></p>	<p><b>BEAVER.JERRY .W.1230949952</b></p> <p style="font-size: x-small;">Digitally signed by BEAVER.JERRY.W.1230949952 DN: cn=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=BEAVER.JERRY.W.1230949952 Date: 2009.10.13 05:18:24 -0500</p>		<p><b>CLASS</b></p>	<p><b>DIVISION</b></p>	<p><b>DRAWING</b></p>	<p><b>FILE</b></p>
			<p><b>19</b></p>	<p><b>48</b></p>	<p><b>4138/ 117A</b></p>	<p><b>20PA1000</b></p>	

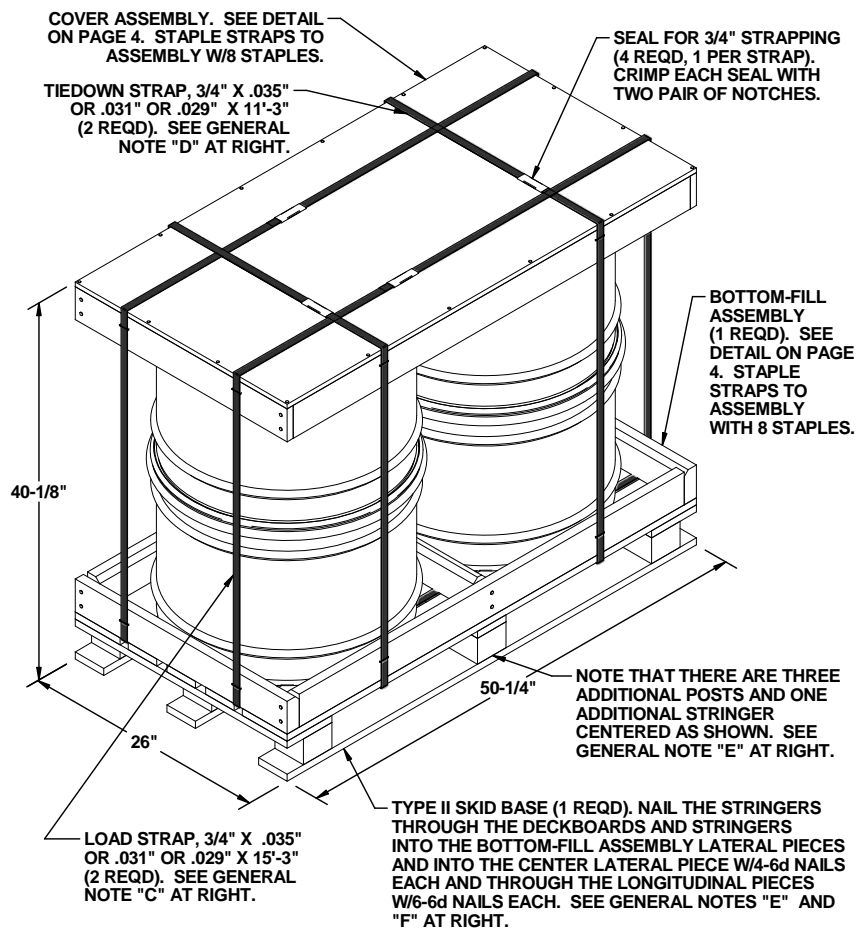
PALLET UNIT DATA				
ITEMS INCLUDED		*HAZARD CLASS AND DIVISION	*COMPATI- BILITY GROUP	APPROX WEIGHT (LBS)
NSN	DODIC			
1375- 01-517-9435	MN95	1.1	B	426
01-517-9437	MPO2	1.1	B	426
6920- 01-518-2412	MZ06	I NERT	I NERT	426

\*HAZARD AND 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 SEPTEMBER 2009, CONSISTS OF:

1. REDUCING DRUM HEIGHT AND MODIFYING SKIDDED UNIT AS NECESSARY.
2. MODIFYING DUNNAGE ASSEMBLIES.



**SKIDDED UNIT**  
SEE GENERAL NOTE "B" AT RIGHT.

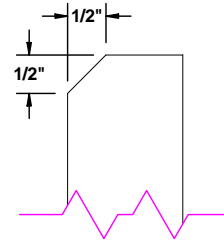
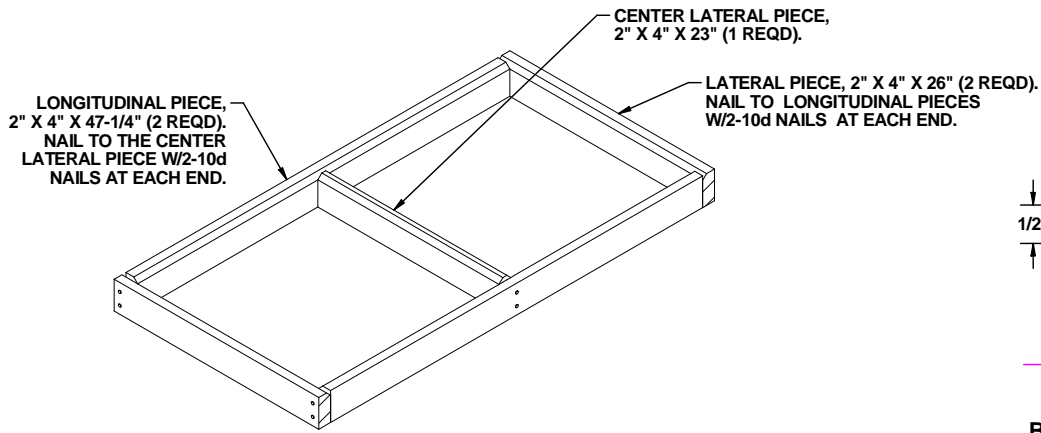
4 DRUMS OF DEMOLITION KIT @ 88 LBS	352 LBS
DUNNAGE	46 LBS
SKID BASE	38 LBS
<b>TOTAL WEIGHT</b>	<b>436 LBS (APPROX)</b>
<b>CUBE</b>	<b>30.8 CU FT (APPROX)</b>

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	12.46	4.15
2" X 4"	14.63	9.75
NAI LS	NO. REQD	POUNDS
6d (2")	48	1/2
10d (3")	12	1/4
PLYWOOD, 1/2"	9.07 SQ FT REQD	12.48 LBS
STRAP STAPLE, 15/16" X 3/4"	16 REQD	NIL
STEEL STRAPPING, 3/4"	53.00' REQD	4.75 LBS
SEAL FOR 3/4" STRAPPING	4 REQD	NIL

**GENERAL NOTES**

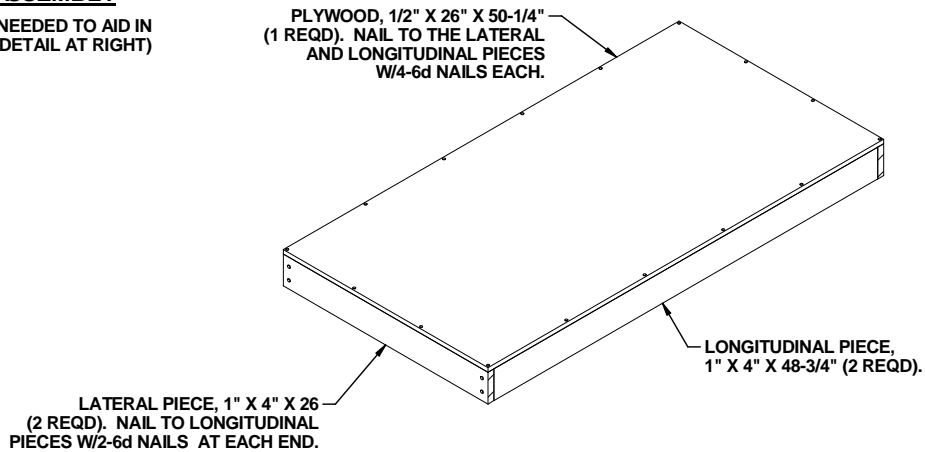
- A. THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION PROCEDURES DRAWING 19-48-4138-20PA1000. TO PRODUCE AN APPROVED SKIDDED LOAD, ALL PERTINENT PROCEDURES, SPECIFICATIONS AND CRITERIA SET FORTH WITHIN THE BASIC DRAWING WILL APPLY TO THE PROCEDURES DELINEATED IN THIS APPENDIX. ANY EXCEPTIONS TO THE BASIC PROCEDURES ARE SPECIFIED IN THIS APPENDIX.
- B. DIMENSIONS, CUBE AND WEIGHT OF A SKIDDED UNIT WILL VARY SLIGHTLY DEPENDING UPON THE ACTUAL DIMENSIONS OF THE DRUMS AND THE WEIGHT OF THE SPECIFIC ITEM BEING UNITIZED.
- C. THE LOAD STRAPS MUST BE PRE-POSITIONED ON THE SKID BASE DECK PRIOR TO PLACING DRUMS ON THE SKID BASE. LOAD STRAPS MUST BE TENSIONED AND SEALED PRIOR TO APPLICATION OF TIEDOWN STRAPS.
- D. INSTALL EACH TIEDOWN STRAP TO PASS UNDER THE TOP DECK BOARDS OF THE SKIDDED BASE AND TO BE LOCATED AS SHOWN. TIEDOWN STRAPS WILL NOT BE APPLIED UNTIL THE LOAD STRAPS HAVE BEEN TENSIONED AND SEALED.
- E. ONLY A TYPE II SKID BASE WILL BE USED TO ASSEMBLE THIS UNIT. THE "W" DIMENSION OF THE SKID BASE WILL BE 50-1/4" AND THE "L" DIMENSION OF THE SKID BASE WILL BE 26". CONSTRUCT THE SKID BASE IAW DRAWING 19-48-4138-20PA1000 BY ADDING THREE POSTS AND A 1" X 4" BY DIM "L" STRINGER CENTERED AS SHOWN. CAUTION: DO NOT USE LUMBER FROM GROUP I (TABLE 1, BASIC DRAWING) TO CONSTRUCT THE TOP DECK BOARDS. A TYPE I SKID BASE WILL NOT BE USED.
- F. THE RUNNERS IN THE SKID MAY BE INSTALLED AFTER ATTACHING THE DECK BOARDS TO THE BOTTOM SUPPORT ASSEMBLY IF IT FACILITATES INSTALLATION.
- G. THE FOLLOWING AMC DRAWINGS ARE APPLICABLE FOR OUTLOADING AND STORAGE OF THE ITEMS COVERED BY THIS APPENDIX.
 

CARLOADING	19-48-4123-5PA1003
TRUCKLOADING	19-48-4124-11PA1004
STORAGE	19-48-4125-1-2-3-4-14-22PA1003
END OPENING ISO CONTAINER	19-48-4153-15PA1002
MILVAN	19-48-4166-15PA1003
SIDE OPENING ISO CONTAINER	19-48-4267-15PA1009
- H. IF ITEMS COVERED HEREIN ARE UNITIZED PRIOR TO ISSUANCE OF THIS REVISION, THE DRUMS NEED NOT BE REUNITIZED SOLELY TO CONFORM TO THIS REVISION TO THIS APPENDIX.
- J. THE UNITIZATION PROCEDURES DEPICTED HEREIN MAY ALSO BE USED FOR UNITIZING RAPID WALL BREACHING DEMOLITION KITS WHEN IDENTIFIED BY DIFFERENT NATIONAL STOCK NUMBERS (NSN) THAN WHAT IS SHOWN ON PAGE 2, PROVIDED THE DRUM PACK DOES NOT VARY FROM WHAT IS DELINEATED HEREIN. THE EXPLOSIVE CLASSIFICATION OF OTHER ITEMS MAY BE DIFFERENT THAN WHAT IS SHOWN.
- K. ALL DUNNAGE SHALL BE PRESERVATIVE TREATED IN ACCORDANCE WITH GENERAL NOTE "X" IN THE BASIC PROCEDURES.
- L. FOR DETAILS OF THE METAL DRUM SEE MILITARY STANDARD MS27683-5.
- M. DIMENSIONS GIVEN FOR DUNNAGE PIECES WILL BE FIELD CHECKED PRIOR TO THEIR ASSEMBLY TO THE SKIDDED UNIT. DRUMS MUST FIT SNUGLY IN THE DUNNAGE ASSEMBLIES. ALSO, DUE TO THE VARIATION OF DRUM DIMENSIONS, ADJUSTMENTS MAY BE REQUIRED AS TO THE LOCATION OF CERTAIN PIECES OF DUNNAGE IN A DUNNAGE ASSEMBLY.
- N. THE UNIT MAY BE REDUCED TO TWO DRUMS BY ELIMINATING ONE LAYER, OR ONE DRUM BY ELIMINATING ONE LAYER AND USING A FILLER ASSEMBLY TO REPLACE ONE DRUM.

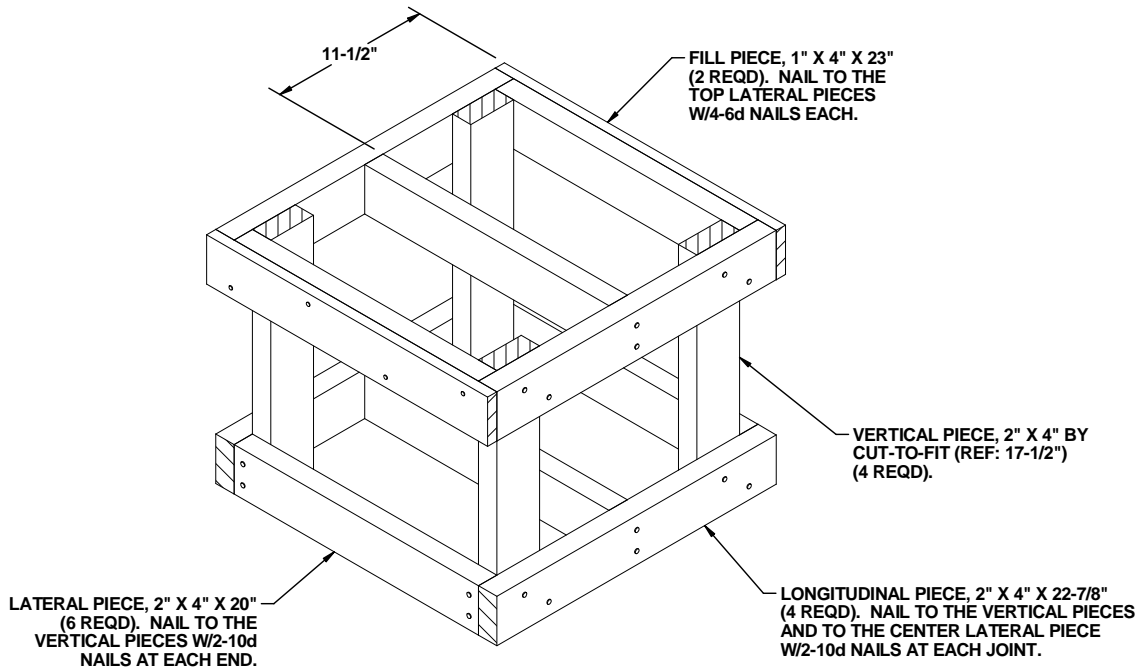


**BEVEL-CUT DETAIL**

**BOTTOM-FILL ASSEMBLY**  
(BEVEL-CUT EDGES AS NEEDED TO AID IN DRUM INSERTION. SEE DETAIL AT RIGHT)



**COVER ASSEMBLY**



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