

# APPENDIX 92C

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

**SPIDER SYSTEM NETWORK COMMAND MUNITION COMPONENTS, MUNITION KIT, CONTROL UNIT, XM332, OR TRAINER, CONTROL UNIT, MUNITION (MCUT) KIT, PACKED 1 PER STEEL PAIL, UNITIZED 36 PAILS PER 40" X 48" PALLET; APPROX PAIL SIZE 11-13/16" DIA X 11-1/8" HIGH**

**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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### U.S. ARMY MATERIEL COMMAND DRAWING

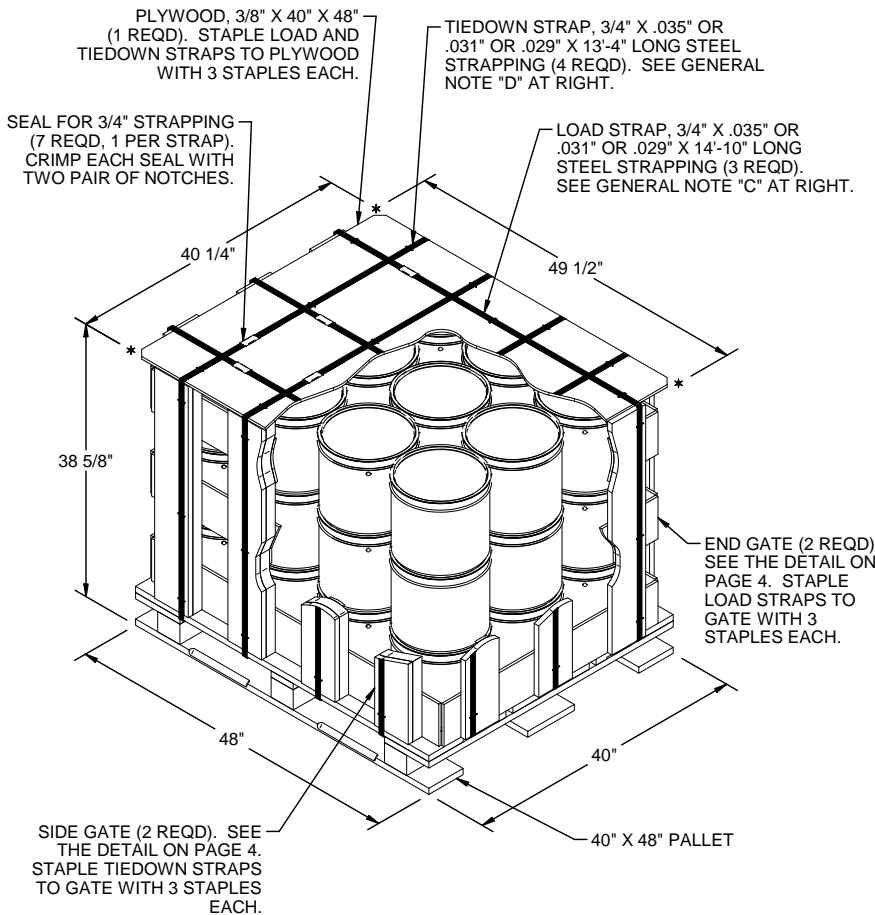
<b>APPROVED, U.S. ARMY RESEARCH, DEVELOPMENT AND ENGINEERING COMMAND</b> REHMSTEDT.MA RK.J.1230548400 <small>Digitally signed by REHMSTEDT.MARK.J.1230548400 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=REHMSTEDT.MARK.J.1230548400 Date: 2014.03.05 08:56:17 -0500</small> <b>RDAR-EIL-TP</b>		<b>CAUTION: VERIFY PRIOR TO USE AT <a href="https://mhp.redstone.army.mil">HTTPS://MHP.REDSTONE.ARMY.MIL</a> THAT THIS IS THE MOST CURRENT VERSION OF THIS DOCUMENT. THIS IS PAGE 1 OF 4.</b>											
<b>APPROVED, U.S. ARMY JOINT MUNITIONS COMMAND</b> CASILLAS.GILBE RT.J.1230393644 <small>Digitally signed by CASILLAS.GILBERT.J.1230393644 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=CASILLAS.GILBERT.J.1230393644 Date: 2014.03.12 14:15:57 -0500</small> <b>AMSJM-LIT</b>		<b>DO NOT SCALE</b> DESIGN ENGINEER BASIC REV. <b>MADELINE BANKS</b>		<b>APRIL 2014</b>									
<b>APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND</b> SHIMP.UPTON .R.1231257183 <small>Digitally signed by SHIMP.UPTON.R.1231257183 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=SHIMP.UPTON.R.1231257183 Date: 2014.03.13 07:36:53 -0500</small> <b>U.S. ARMY DEFENSE AMMUNITION CENTER</b>		ENGINEERING DIVISON FIEFFER.LAUR A.A.1230375727 <small>Digitally signed by FIEFFER.LAURA.A.1230375727 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=FIEFFER.LAURA.A.1230375727 Date: 2013.12.12 15:36:56 -0500</small>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>CLASS</td> <td>DIVISION</td> <td>DRAWING</td> <td>FILE</td> </tr> <tr> <td style="text-align: center;">19</td> <td style="text-align: center;">48</td> <td style="text-align: center;">4116/92C</td> <td style="text-align: center;">20PA1002</td> </tr> </table>		CLASS	DIVISION	DRAWING	FILE	19	48	4116/92C	20PA1002
CLASS	DIVISION	DRAWING	FILE										
19	48	4116/92C	20PA1002										
TEST ENGINEER TEST REPORT <b>NA</b>		BELLIS.WILLIAM.M ORGAN.11631543 46 <small>Digitally signed by BELLIS.WILLIAM.MORGAN.1163154346 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=BELLIS.WILLIAM.MORGAN.1163154346 Date: 2013.12.16 14:37:20 -0500</small>		TRIVITT.TERRY .F.1230872011 <small>Digitally signed by TRIVITT.TERRY.F.1230872011 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=TRIVITT.TERRY.F.1230872011 Date: 2013.12.13 05:24:16 -0500</small>									

PALLET UNIT DATA				
ITEMS INCLUDED		*HAZARD CLASS AND DIVISION	*COMPATIBILITY GROUP	APPROX WEIGHT (LBS)
NSN	DODIC			
1346-01-606-5980	TS09	- - - - I NERT	- - - -	818
6920-01-609-7722	----	- - - - I NERT	- - - -	818

\*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 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 PAILS AND THE WEIGHT OF THE SPECIFIC ITEM BEING UNITIZED.
- C. THE LOAD STRAPS MUST BE PRE-POSITIONED ON THE PALLET DECK PRIOR TO PLACING PAILS ON THE PALLET. LOAD STRAPS MUST BE TENSIONED AND SEALED PRIOR TO APPLICATION OF TIEDOWN STRAPS.
- 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 PAILS NEED NOT BE REUNITIZED SOLELY TO CONFORM TO THIS APPENDIX.
- G. THE UNITIZATION PROCEDURES DEPICTED HEREIN MAY ALSO BE USED FOR UNITIZING CONTROL UNIT MUNITION KIT OR TRAINER WHEN IDENTIFIED BY DIFFERENT NATIONAL STOCK NUMBERS (NSN) THAN WHAT IS SHOWN ON PAGE 2, PROVIDED THE PAIL PACK DOES NOT VARY FROM WHAT IS DELINEATED HEREIN. THE EXPLOSIVE CLASSIFICATION OF OTHER ITEMS MAY BE DIFFERENT THAN WHAT IS SHOWN.
- H. THE STYLE 1 PALLET DELINEATED IN THE DETAIL AT LEFT 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 APPENDIX.
- J. ALL WOODEN DUNNAGE SHALL BE PRESERVATIVE TREATED IN ACCORDANCE WITH GENERAL NOTE "AA" IN THE BASIC PROCEDURES, AND HEAT TREATED IN ACCORDANCE WITH GENERAL NOTE "JJ" IN THE BASIC PROCEDURES.
- K. EMPTY OR REJECT STEEL PAILS MAY BE USED AS FILLER PAILS AS NECESSARY. FILLER PAILS MUST BE INSTALLED IN THE TOP LAYER OF STEEL PAILS. IF 12 FULL PAILS ARE TO BE OMITTED, ONE FULL LAYER OF PAILS WILL BE OMITTED. WHEN (EMPTY) FILLER PAILS ARE USED IN PLACE OF OMITTED STEEL PAILS TO COMPLETELY FILL OUT A LAYER ON A PALLET, THEY WILL BE MARKED AS SPECIFIED IN ARDEC DRAWING 12982865.
- L. FOR DETAILS OF THE STEEL PAIL, SEE ARDEC DRAWINGS NO. 13042513 AND NO. 13042763.

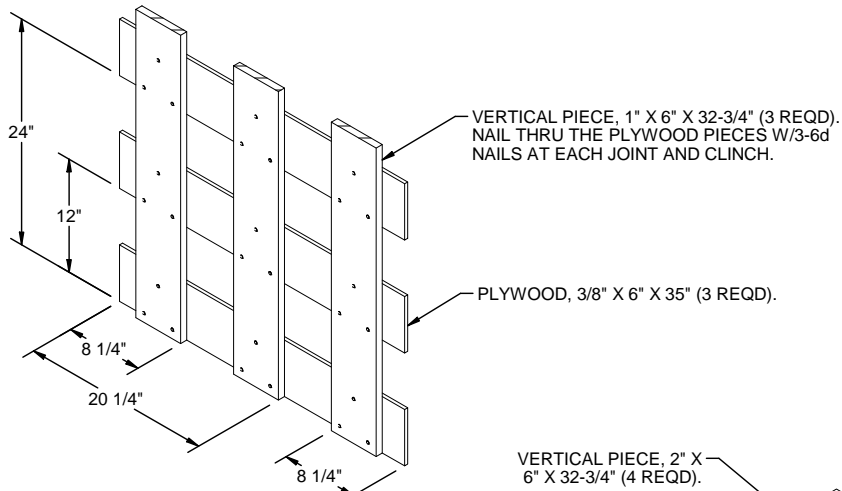


**PALLET UNIT**

SEE GENERAL NOTE "B" AT RIGHT. **NOTE:** STACK PAILS SO THAT HANDLES ARE IN VOID AREA. SEE "PAIL PLACEMENT" DETAL ON PAGE 4.

36 PAILS OF MUNITION KIT (1 PER PAIL) @ 17 LBS	612 LBS
DUNNAGE	126 LBS
PALLET	80 LBS
<b>TOTAL WEIGHT</b>	<b>818 LBS (APPROX)</b>
<b>CUBE</b>	<b>44.5 CU FT (APPROX)</b>

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 6"	38.21	19.10
2" X 6"	21.83	21.83
NAI LS	NO. REQD	POUNDS
6d (2")	166	0.98
PALLET, 40" X 48" - - - - 1 REQD - - - - 80 LBS		
PLYWOOD, 3/8" - - - 33.83 SQ FT REQD - - - 34.89 LBS		
STEEL STRAPPING, 3/4" - 91.67' REQD - - - - 8.19 LBS		
SEAL FOR 3/4" STRAPPING - - - 7 REQD - - - - NIL		
STAPLE, 15/16" X 3/4" - - - 63 REQD - - - - 0.18 LB		



**END GATE**

FOR A TWO HIGH LOAD, ELIMINATE THE UPPER PLYWOOD AND REDUCE THE LENGTH OF THE VERTICAL PIECES TO 21-7/8". FOR A ONE HIGH LOAD, ELIMINATE THE TWO UPPER PLYWOOD PIECES AND REDUCE THE LENGTH OF THE VERTICAL PIECES TO 11-3/4".

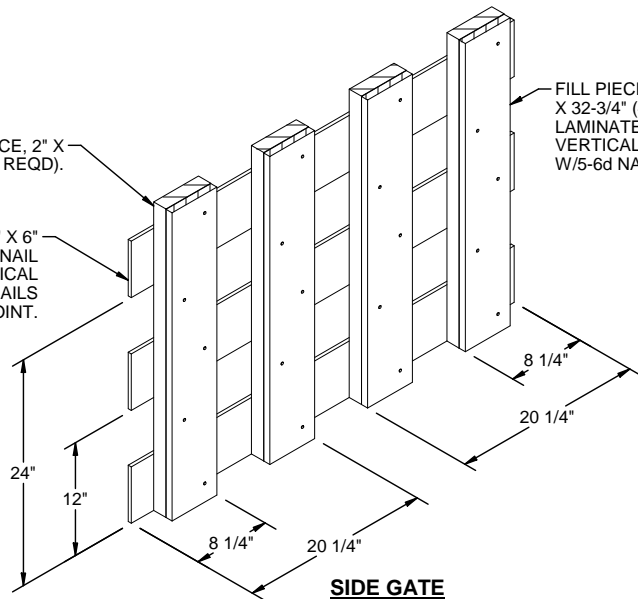
PLYWOOD, 3/8" X 6" X 35" (3 REQD).

VERTICAL PIECE, 1" X 6" X 32-3/4" (3 REQD).  
NAIL THRU THE PLYWOOD PIECES W/3-6d NAILS AT EACH JOINT AND CLINCH.

VERTICAL PIECE, 2" X 6" X 32-3/4" (4 REQD).

PLYWOOD, 3/8" X 6" X 47" (3 REQD). NAIL TO THE VERTICAL PIECES W/3-6d NAILS AT EACH JOINT.

FILL PIECE, 1" X 6" X 32-3/4" (4 REQD). LAMINATE TO THE VERTICAL PIECE W/5-6d NAILS.

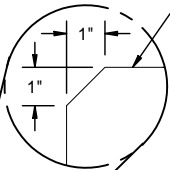


**SIDE GATE**

FOR A TWO HIGH LOAD, ELIMINATE THE UPPER PLYWOOD PIECE AND REDUCE THE HEIGHT OF THE VERTICAL PIECES TO 21-7/8". FOR A ONE HIGH LOAD, ELIMINATE THE TWO UPPER PLYWOOD PIECES AND REDUCE THE LENGTH OF THE VERTICAL AND FILL PIECES TO 11-3/4".

INDICATES 3/8" PLYWOOD.

**CHAMFER DETAIL**

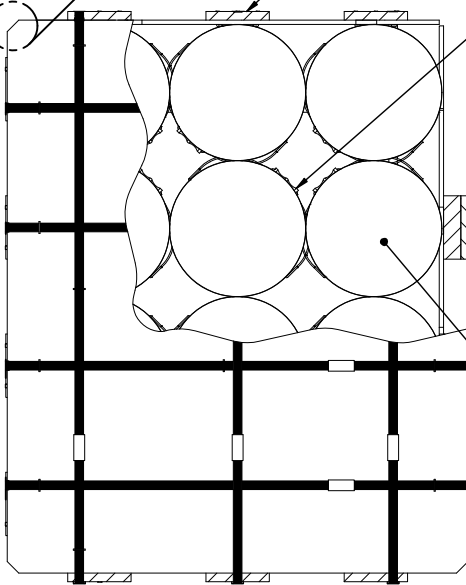


INDICATES END GATE

STACK PAILS SO THAT HANDLES ARE IN VOID AREA.

INDICATES SIDE GATE

INDICATES PAIL

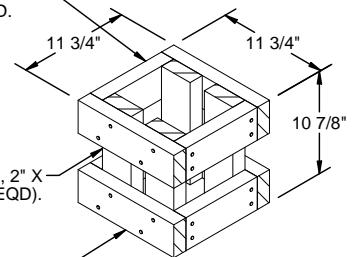


**PAIL PLACEMENT**

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

VERTICAL PIECE, 2" X 4" X 10-7/8" (4 REQD).

LONGITUDINAL PIECE, 2" X 4" X 11-3/4" (4 REQD). NAIL TO THE VERTICAL PIECES W/2-10d NAILS AT EACH JOINT.



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