

APPENDIX 65R

UNITIZATION PROCEDURES FOR BOXED AMMUNITION AND COM- PONENTS ON 4-WAY ENTRY PALLET

**GRENAD, HAND, NON-LETHAL, STUN, M84, OR
PRACTICE, M102, PACKED 3 PER M19 SERIES
METAL CONTAINER, 4 CONTAINERS PER WIRE-
BOUND BOX, UNITIZED 40 BOXES PER 35" X
45-1/2" PALLET; APPROX BOX SIZE 17-1/2" L X
11-1/2" W X 8-1/8" 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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U.S. ARMY MATERIEL COMMAND DRAWING

<p style="font-size: small;">APPROVED, U.S. ARMY FIELD SUPPORT COMMAND</p> <p style="font-size: x-small;">TP.R.</p> <p style="font-size: x-small;">AMSRD-AAR-AIL-TP</p> <p style="font-size: x-small;">AMSF5-ST</p> <p style="font-size: x-small;">APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND</p> <p style="font-size: x-small;">U.S. ARMY DEFENSE AMMUNITION CENTER</p>	<p>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.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">DO NOT SCALE</td> <td colspan="2" style="text-align: center;">JULY 2002</td> </tr> <tr> <td style="font-size: x-small;">ENGINEER OR TECHNICIAN</td> <td style="font-size: x-small;">BASIC REV.</td> <td colspan="2" style="text-align: center;">LAURA A. FIEFFER</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: center;">LAURA A. FIEFFER</td> <td style="text-align: center;">LAURA A. FIEFFER</td> </tr> <tr> <td colspan="2" style="font-size: x-small;">TRANSPORTATION ENGINEERING DIVISION</td> <td colspan="2" style="text-align: center;">SEE THE REVISION LISTING ON PAGE 2</td> </tr> <tr> <td style="font-size: x-small;">VALIDATION ENGINEERING DIVISION</td> <td style="font-size: x-small;">TESTED</td> <td style="font-size: x-small;">CLASS</td> <td style="font-size: x-small;">DIVISION</td> </tr> <tr> <td style="font-size: x-small;">ENGINEERING DIRECTORATE</td> <td></td> <td style="text-align: center;">19</td> <td style="text-align: center;">48</td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="font-size: x-small;">DRAWING</td> <td style="font-size: x-small;">FILE</td> </tr> <tr> <td style="text-align: center;">4116/ 65R</td> <td style="text-align: center;">20PA1002</td> </tr> </table>	DO NOT SCALE		JULY 2002		ENGINEER OR TECHNICIAN	BASIC REV.	LAURA A. FIEFFER				LAURA A. FIEFFER	LAURA A. FIEFFER	TRANSPORTATION ENGINEERING DIVISION		SEE THE REVISION LISTING ON PAGE 2		VALIDATION ENGINEERING DIVISION	TESTED	CLASS	DIVISION	ENGINEERING DIRECTORATE		19	48	DRAWING	FILE	4116/ 65R	20PA1002
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PALLET UNIT DATA				
ITEMS INCLUDED		● HAZARD CLASS AND DIVISION	● COMPAT- ABILITY GROUP	APPROX WEIGHT LBS
NSN	DODIC			
1330-01-459-8141 01-518-8785	GG09 GG17	1. 4 1. 4	G G	1, 233 1, 233

- 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 JANUARY 2005, CONSISTS OF:

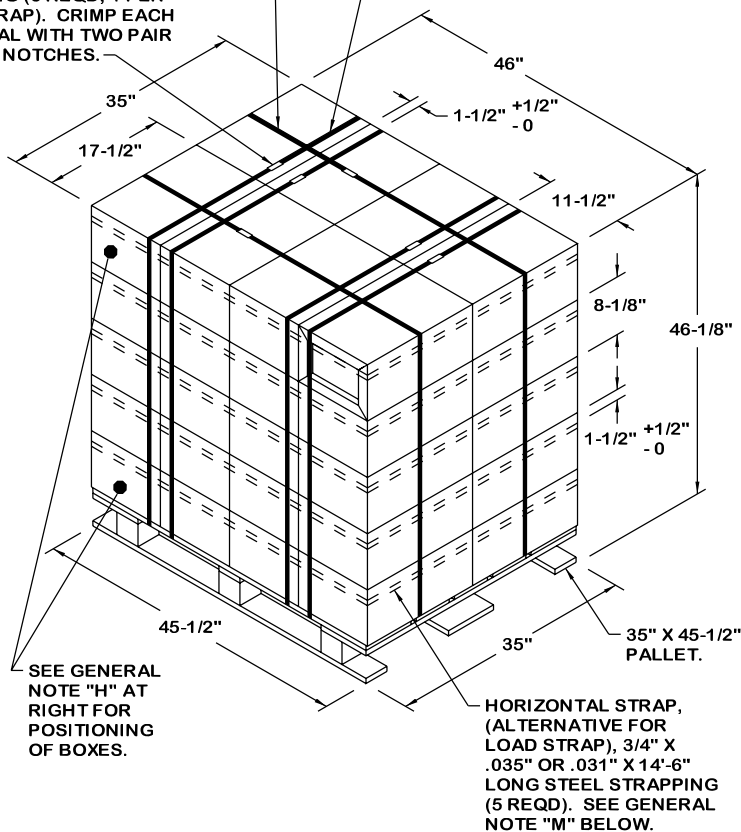
ADDING ITEM BY NATIONAL STOCK NUMBER TO THE "PALLET UNIT DATA" CHART.

GENERAL NOTES

LOAD STRAP, 3/4" X .035" OR .031" X 15'-7" LONG STEEL STRAPPING (2 REQD). SEE GENERAL NOTE "C" AT RIGHT.

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

TIEDOWN STRAP, 3/4" X .035" OR .031" X 13'-9" LONG STEEL STRAPPING (4 REQD). SEE GENERAL NOTE "D" AT RIGHT.



PALLET UNIT

SEE GENERAL NOTE "B" AT RIGHT.

40 BOXES OF STUN GRENADES (12 PER BOX) @ 29 LBS	--	1,160 LBS (APPROX)
DUNNAGE	-----	8 LBS
PALLET	-----	65 LBS
TOTAL WEIGHT		1,233 LBS (APPROX)
CUBE		43.0 CU FT (APPROX)

BILL OF MATERIAL				
PALLET, 35" X 45-1/2"	-----	1 REQD	-----	65 LBS
STEEL STRAPPING, 3/4"	-----	86.17' REQD	-----	7.69 LBS
SEAL FOR 3/4" STRAPPING	-----	6 REQD	-----	NIL

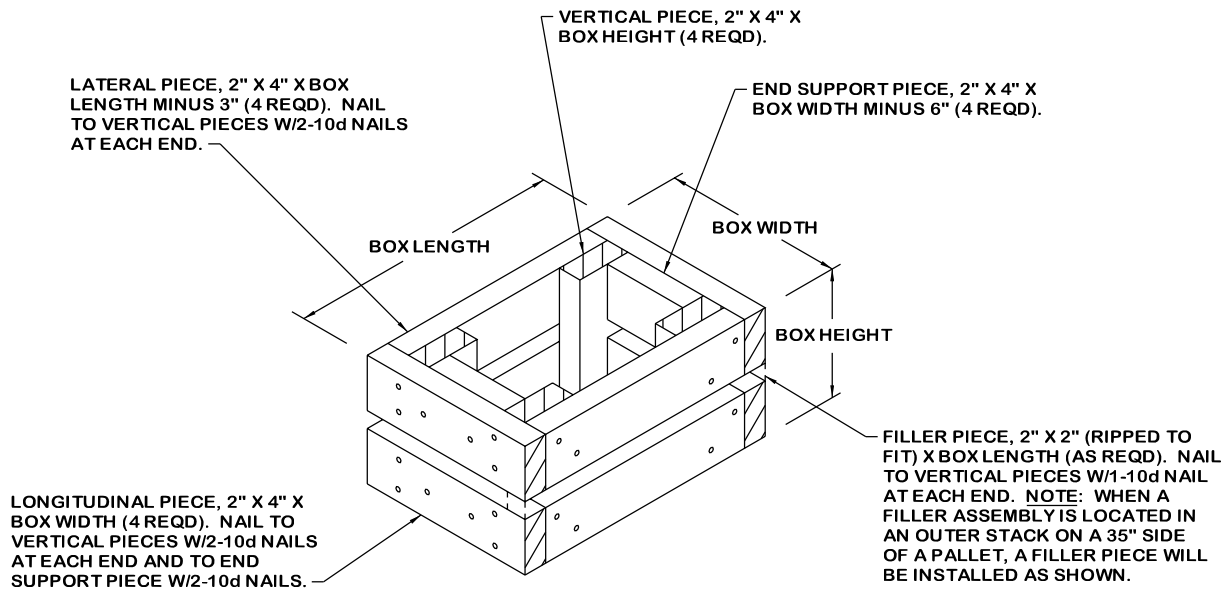
(GENERAL NOTES CONTINUED)

- M. HORIZONTAL STRAPS MAY BE USED IN LIEU OF LOAD STRAPS. NOTE THAT THE STRAPS WILL BE LOCATED AS SHOWN, NEAR THE TOP OF EACH LAYER. HORIZONTAL STRAPS MUST BE TENSIONED AND SEALED PRIOR TO THE APPLICATION OF TIEDOWN STRAPS.
- N. FOR DETAILS OF THE WIREBOUND BOX SEE FRANKFORD ARSENAL DRAWING 5581378.

- 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 MAY BE THREADED THROUGH THE STRAP SLOTS OF A PALLET OR PRE-POSITIONED ON THE PALLET DECK PRIOR TO PLACING THE BOXES 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 TOP DECK BOARDS OF THE PALLET. NOTE THAT THE STRAPS WILL BE LOCATED AS SHOWN, NEAR THE SIDE CLEATS OF THE END PANELS OF THE BOX. 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

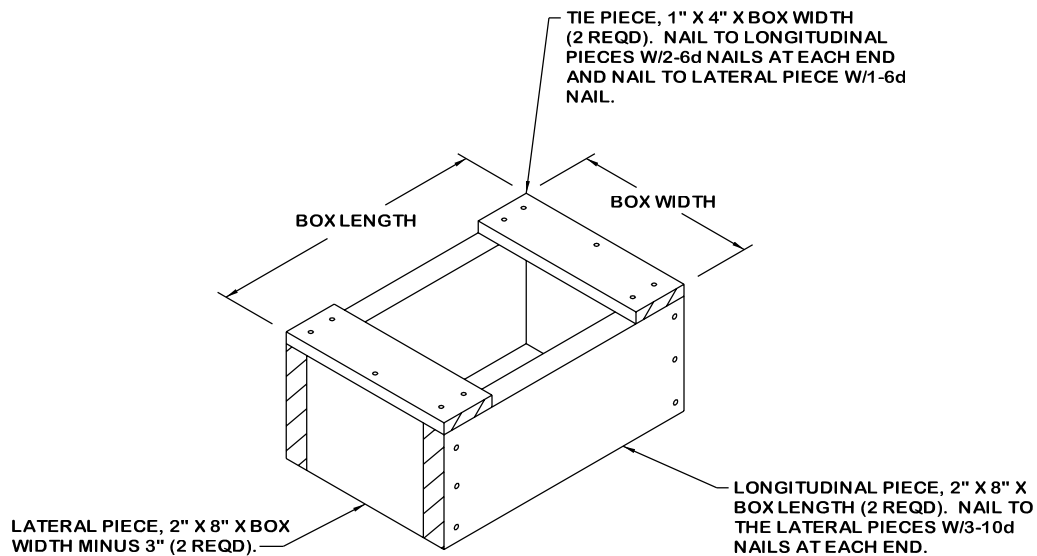
- F. IF ITEMS COVERED HEREIN ARE UNITIZED PRIOR TO ISSUANCE OF THIS REVISION TO THIS APPENDIX, THE BOXES NEED NOT BE REUNITIZED SOLELY TO CONFORM TO THIS REVISION.
- G. THE UNITIZATION PROCEDURES DEPICTED HEREIN MAY ALSO BE USED FOR UNITIZING HAND GRENADES WHEN IDENTIFIED BY DIFFERENT NATIONAL STOCK 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. POSITION THE TWO OUTBOARD BOXES ON THE 35" SIDES OF THE BOTTOM LAYER OF THE UNIT WITH THE TOPS DOWNWARD, AND THE TWO OUTWARD BOXES ON THE 35" SIDES OF THE TOP LAYER OF THE UNIT WITH TOPS UPWARDS.
- J. THE STYLE 1A 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.
- K. 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 12'-5", AND LOAD STRAP LENGTHS MUST BE DECREASED TO 14'-2". THIS WILL RESULT IN AN OVERALL UNIT HEIGHT OF 38", A GROSS UNIT WEIGHT OF 1,000 POUNDS, AND A UNIT CUBE OF 35.4 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.
- L. IF DEEMED MORE ECONOMICALLY FEASIBLE, THE ALTERNATIVE FILLER ASSEMBLY MAY BE SUBSTITUTED FOR THE FILLER ASSEMBLY TO COMPLETE A LAYER ON A PALLET.

(CONTINUED AT LEFT)



FILLER ASSEMBLY

(FOR MINUS ONE BOX)



ALTERNATIVE FILLER ASSEMBLY

(FOR MINUS ONE BOX)
SEE GENERAL NOTE "L" ON PAGE 3.