

APPENDIX 1

UNITIZING PROCEDURES FOR COMPLETE ROUNDS PACKED IN CYLINDRICAL COMPOSITE CONTAINERS WITH EXTERNAL INSENSITIVE MUNITION (IM) SEPARATORS ON 4-WAY ENTRY PALLET

MORTAR, 120MM, PACKED ONE PER COMPOSITE MONOPACK, UNITIZED 48 MONOPACKS PER 42" X 53" PALLET; APPROX MONOPACK SIZE 5-1/2" L X 5-1/2" W X 29-15/16" H

NOTICE: THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION PROCEDURES DRAWING 19-48-4352-20PM1013.

CAUTION: UNITIZATION PROCEDURES DEPICTED WITHIN THIS DRAWING ARE NOT TO BE UTILIZED IN THE FIELD UNTIL SUCCESSFUL COMPLETION OF TRANSPORTABILITY TESTING PER TP-94-01 AND FIRST ARTICLE MIL-STD-1660 TESTING.

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U.S. ARMY MATERIEL COMMAND DRAWING

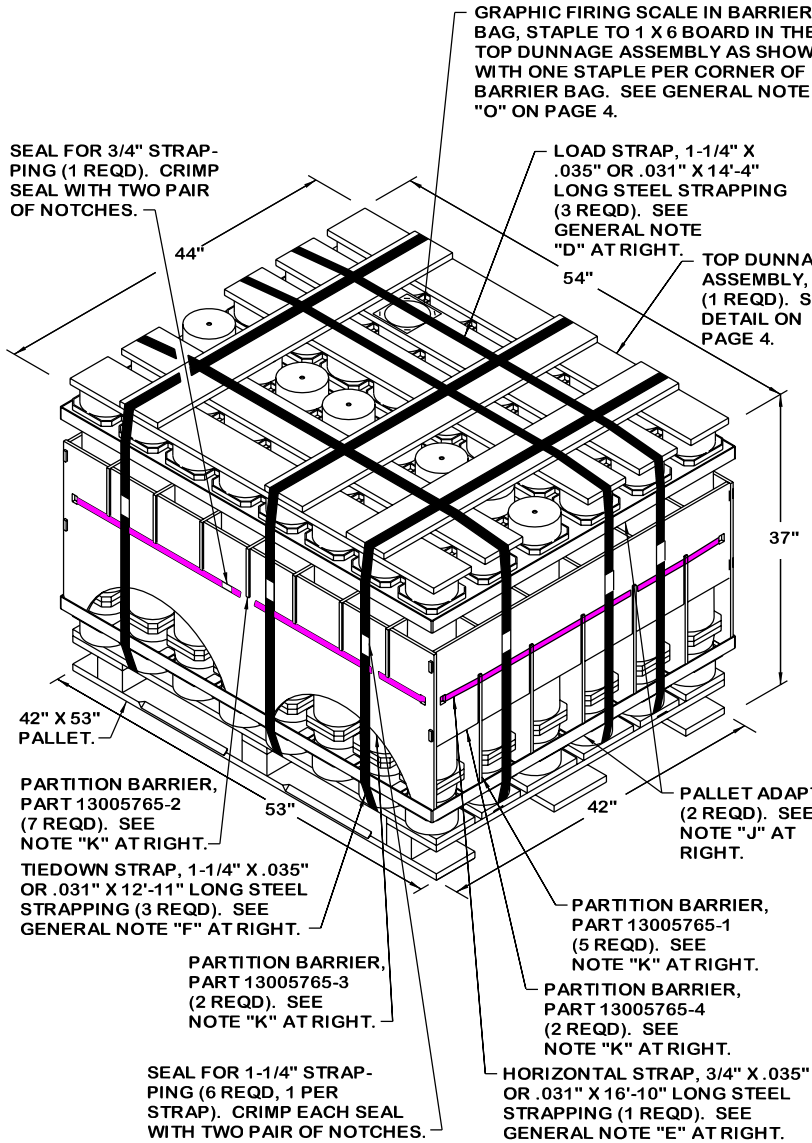
<p>APPROVED, U.S. ARMY FIELD SUPPORT COMMAND <i>TPR</i> <i>David G. Penkovich</i> AMSRD-AAR-AIL-TP</p> <p><i>David Hoff</i> AMSFS-ST</p> <p>APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND <i>J. P. White</i></p> <p>U.S. ARMY DEFENSE AMMUNITION CENTER</p>	<p>CAUTION: VERIFY PRIOR TO 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;">APRIL 2005</td> </tr> <tr> <td style="width: 15%;">ENGINEER OR TECHNICIAN</td> <td style="width: 15%;">BASIC REV.</td> <td colspan="2" style="text-align: center;">MICHAEL BARTOSIAK</td> </tr> <tr> <td>TRANSPORTATION ENGINEERING DIVISION</td> <td colspan="3" style="text-align: center;"><i>H. L. Willis</i></td> </tr> <tr> <td>VALIDATION ENGINEERING DIVISION</td> <td style="text-align: center;"><i>David W. Dean</i></td> <td style="text-align: center;">TESTED</td> <td></td> </tr> <tr> <td>ENGINEERING DIRECTORATE</td> <td colspan="3" style="text-align: center;"><i>Robert J. ...</i></td> </tr> <tr> <td style="text-align: center;">CLASS</td> <td style="text-align: center;">DIVISION</td> <td style="text-align: center;">DRAWING</td> <td style="text-align: center;">FILE</td> </tr> <tr> <td style="text-align: center;">19</td> <td style="text-align: center;">48</td> <td style="text-align: center;">4352/ 1</td> <td style="text-align: center;">20PM1013</td> </tr> </table>	DO NOT SCALE		APRIL 2005		ENGINEER OR TECHNICIAN	BASIC REV.	MICHAEL BARTOSIAK		TRANSPORTATION ENGINEERING DIVISION	<i>H. L. Willis</i>			VALIDATION ENGINEERING DIVISION	<i>David W. Dean</i>	TESTED		ENGINEERING DIRECTORATE	<i>Robert J. ...</i>			CLASS	DIVISION	DRAWING	FILE	19	48	4352/ 1	20PM1013
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PALLET UNIT DATA				
ITEMS INCLUDED		● HAZARD CLASS AND DIVISION	● COMPATIBILITY GROUP	APPROX WEIGHT LBS
NSN	DODIC			
1315-01-531-2076	CA04	TBD	TBD	2, 155

- INTERIM 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 19-48-4352-20PM1013. 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 MONOPACKS AND THE WEIGHT OF THE SPECIFIC ITEM BEING UNITIZED.
- C. NOTE: MONOPACK COMPOSITE CONTAINERS IN THE UNIT LOAD DEPICTED ARE ORIENTED WITH THE TOP LID OF THE CONTAINER FACING INTO THE BOTTOM ADAPTER. FOR DETAILS OF THE MONOPACK CONTAINER SEE ARDEC DRAWING 13005750.
- D. THE LOAD STRAPS MUST BE PREPOSITIONED ON THE TOP DECK BOARDS OF THE PALLET PRIOR TO PLACING THE BOTTOM ADAPTER AND CONTAINERS ON THE PALLET. LOAD STRAPS MUST BE TENSIONED AND SEALED PRIOR TO APPLICATION OF TIEDOWN STRAPS.
- E. INSTALL THE HORIZONTAL STRAP TO BE LOCATED AS SHOWN THROUGH THE HOLES AT THE ENDS OF THE OUTER PARTITION BARRIERS. THE HORIZONTAL STRAP MUST BE TENSIONED AND SEALED BEFORE THE APPLICATION OF THE LOAD AND TIEDOWN STRAPS.
- F. INSTALL EACH TIEDOWN STRAP TO PASS UNDER THE DECK/STRINGER BOARDS OF THE PALLET AND TO BE LOCATED AS SHOWN. TIEDOWN STRAPS WILL NOT BE APPLIED UNTIL THE HORIZONTAL AND LOAD STRAPS HAVE BEEN TENSIONED AND SEALED.
- G. 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 - - - 19-48-4153-15-PA1002
 - SIDE OPENING ISO CONTAINER - - - 19-48-4267-15PA1009
- H. IF ITEMS COVERED HEREIN ARE UNITIZED PRIOR TO ISSUANCE OF THIS APPENDIX, THE CONTAINERS NEED NOT BE REUNITIZED SOLELY TO CONFORM TO THIS APPENDIX.
- J. FOR DETAILS OF THE PALLET ADAPTERS, SEE ARDEC DRAWING 13005764.
- K. FOR DETAILS OF THE PARTITION BARRIERS, INSENSITIVE MUNITIONS FOR 120MM MORTAR AMMUNITION, SEE ARDEC DRAWING 13005765.
- L. EMPTY OR REJECT MONOPACK CONTAINERS WILL BE USED AS FILLER CONTAINERS WHERE POSSIBLE TO ASSEMBLE LIGHT UNIT LOADS. FILLER CONTAINERS MUST BE INSTALLED IN THE MIDDLE OF AN OUTSIDE ROW(S) OF CONTAINERS. A MAXIMUM OF FOUR EMPTY CONTAINER PER OUTSIDE ROW IS ALLOWED (MAXIMUM OF 16 PER UNIT LOAD). WHEN (EMPTY/REJECT) FILLER CONTAINERS ARE USED TO COMPLETE A ROW ON A PALLET UNIT, THEY WILL BE MARKED AS SPECIFIED IN ARDEC DRAWING 1292865. FOR FURTHER GUIDANCE SEE "TOP VIEW OF LIGHT PALLET UNIT LOAD DETAIL" ON PAGE 4. ALSO SEE GENERAL NOTE "V" ON PAGE 3 AND "PROVISIONS FOR LESS-THAN-FULL-LAYER UNITS" ON PAGE 5 OF BASIC PROCEDURE DRAWING 19-48-4352-20PM1013 FOR ADDITIONAL GUIDANCE.
- M. IF EMPTY OR REJECT CONTAINERS ARE NOT AVAILABLE, THE TWO MIDDLE CONTAINERS ON EACH OUTSIDE ROW OF CONTAINERS CAN BE OMITTED TO ASSEMBLE A PARTIAL UNIT LOAD. ONLY A MAXIMUM OF EIGHT CONTAINERS PER PALLET UNIT MAY BE OMITTED. THE NUMBER OF OMITTED CONTAINERS SHALL BE IDENTIFIED AS A PARTIAL UNIT LOAD AS SPECIFIED IN DAC DRAWING ACV00561. FOR FURTHER GUIDANCE SEE "TOP VIEW OF PARTIAL PALLET UNIT DETAIL" ON PAGE 4. ALSO SEE GENERAL NOTE "V" ON PAGE 3 AND "PROVISIONS FOR LESS-THAN-FULL-LAYER UNITS" ON PAGE 5 OF BASIC PROCEDURE DRAWING 19-48-4352-20PM1013 FOR ADDITIONAL GUIDANCE.



PALLET UNIT

SEE GENERAL NOTE "B" AT RIGHT.

48 MONPACKS OF 120MM MORTARS @ 39 LBS EACH	- - - -	1,872 LBS (APPROX)
DUNNAGE	- - - -	193 LBS
PALLET	- - - -	90 LBS

TOTAL WEIGHT	- - - - -	2,155 LBS (APPROX)
CUBE	- - - - -	50.9 CU FT (APPROX)

BILL OF MATERIAL

LUMBER	LINEAR FEET	BOARD FEET
1" x 6"	32.83	16.42
NAILS	NO. REQD	POUNDS
6d (2")	30	0.18

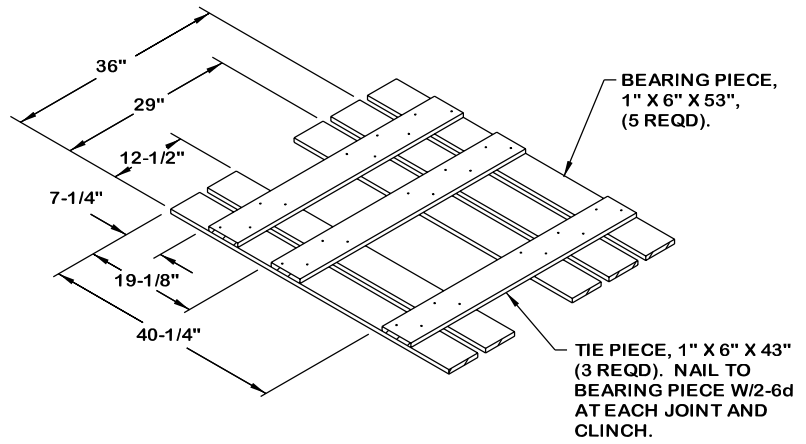
PALLET, 42" X 53"	- - - -	1 REQD	- - - -	90 LBS
STEEL STRAPPING, 3/4"	- - - -	16.83' REQD	- - - -	1.52 LBS
STEEL STRAPPING, 1-1/4"	- - - -	81.75' REQD	- - - -	12.43 LBS
SEAL FOR 3/4" STRAPPING	- - - -	1 REQD	- - - -	NIL
SEAL FOR 1-1/4" STRAPPING	- - - -	6 REQD	- - - -	NIL
PARTITION BARRIERS	- - - -	16 REQD	- - - -	110 LBS
PALLET ADAPTER	- - - -	2 REQD	- - - -	35 LBS
FIRING SCALE	- - - -	1 REQD	- - - -	.5 LBS
STAPLE, 15/16" X 3/4"	- - - -	4 REQD	- - - -	NIL

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(GENERAL NOTES CONTINUED)

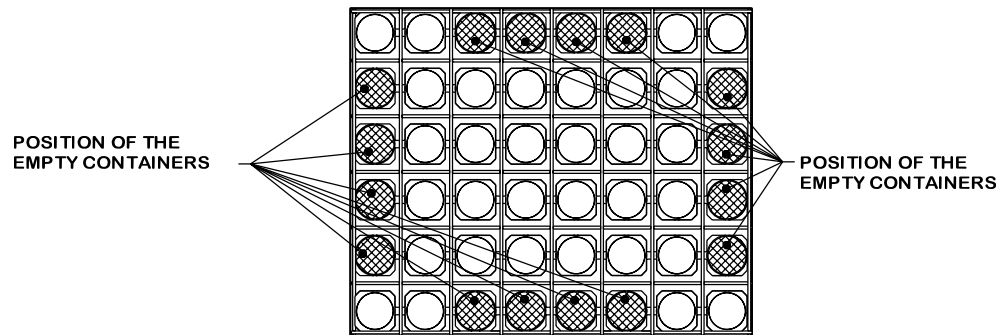
N. THE STYLE 1B PALLET DELINEATED IN THE DETAIL AT LEFT NEED NOT HAVE CHAMFERS AS SPECIFIED WITHIN MILITARY SPECIFICATION MIL-P-15011 WHEN USED FOR THE UNITIZATION OF ITEMS COVERED BY THIS APPENDIX.

O. ONE PACK OF GRAPHICAL FIRING SCALES PACKAGED IN ACCORDANCE WITH SPECIAL PACKAGING INSTRUCTION (TBD) SHALL BE CENTERED ON THE BOARD SHOWN ON THE TOP ADAPTER AND STAPLED TO THE BOARD WITH ONE $15/16$ " X $3/4$ " STAPLE IN EACH CORNER OF THE BARRIER BAG. NOTE: CARE SHALL BE TAKEN TO ENSURE THAT THE STAPLES GO THROUGH THE BARRIER BAG AND NOT THE FIRING SCALES TO AVOID DAMAGING THE SCALES. FOR DETAILS OF THE GRAPHICAL FIRING SCALE, SEE ARDEC DRAWING 13012517.

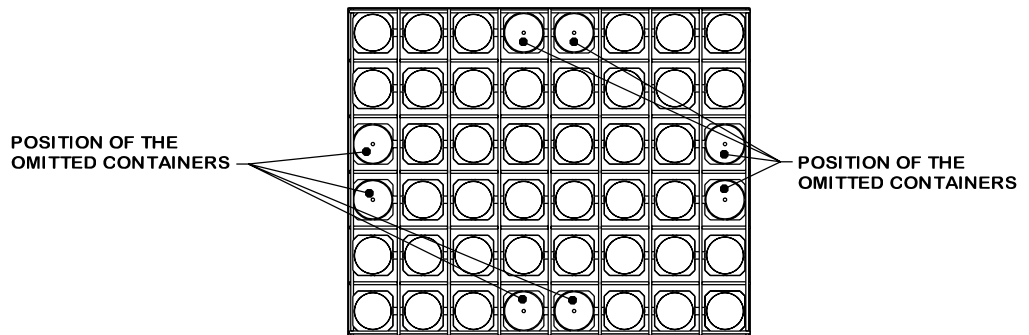


TOP DUNNAGE ASSEMBLY

(1 REQD)



TOP VIEW OF LIGHT UNIT LOAD DETAIL
TOP DUNNAGE AND TOP ADAPTER REMOVED FOR CLARITY.



TOP VIEW OF PARTIAL UNIT LOAD DETAIL
TOP DUNNAGE AND TOP ADAPTER REMOVED FOR CLARITY.