

# APPENDIX 61

## UNITIZATION PROCEDURES FOR AMMUNITION AND COMPONENTS PACKED IN CYLINDRICAL METAL OR PLASTIC CONTAINERS ON 4- WAY ENTRY PALLETS

**2.75 INCH HYDRA ROCKET, PACKED 4 PER PA151  
SERIES CONTAINER, UNITIZED 12 PER 70-3/4" X 29-  
5/16" SPECIAL METAL PALLET: APPROX CONTAIN-  
ER SIZE 70-3/4" L X 9-1/4" W X 9-1/4" H**

**NOTICE: THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION  
PROCEDURES DRAWING 19-48-4231-20PM1006.**

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### U.S. ARMY MATERIEL COMMAND DRAWING

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<b>APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND</b> CARNEY.GARY.BU RTON.1038708038 <small>Digitally signed by CARNEY.GARY.BURTON.1038708038 DN: cn=US, ou=U.S. Government, ou=DoD, ou=PKI, ou=USA, c=US, email=CARNEY.GARY.BURTON.1038708038 Date: 2011.07.18 07:46:03 -0500</small>		<b>APRIL 1994</b>	
<b>AMSJM-LIT</b>		<b>REVISION NO. 4</b>	
<b>TRANSPORTATION ENGINEERING DIVISION</b>		<b>SANDRA SCHULTZ</b>	
<b>VALIDATION ENGINEERING DIVISION</b>		<b>MADELINE BANKS</b>	
<b>ENGINEERING DIRECTORATE</b>		<b>TESTED</b>	
<b>U.S. ARMY DEFENSE AMMUNITION CENTER</b>		<b>SEE THE REVISION LISTING ON PAGE 2</b>	
<b>CLASS</b>		<b>DIVISION</b>	
<b>DRAWING</b>		<b>FILE</b>	
<b>19</b>		<b>48</b>	
<b>4231/61</b>		<b>20PM1006</b>	

PALLET UNIT DATA				
ITEMS INCLUDED		*HAZARD CLASS AND DIVISION	*COMPATIBILITY GROUP	APPROX WEIGHT (LBS)
NSN	DODIC			
1340-				
01-379-6215	H163	1. 1	E	2, 029
01-379-7246	H163	1. 1	E	2, 029
01-379-6302	H164	1. 1	E	2, 029
01-379-6484	H164	1. 1	E	2, 029
01-379-7798	H582	1. 1	E	2, 029
01-379-6277	H583	1. 1	E	2, 029
01-446-7380	HA12	1. 1	E	2, 113
01-446-4094	HA13	1. 2. 1	G	2, 101
01-567-0419	HA75	1. 1	E	2, 365
01-572-6400	HA76	1. 2. 1	H	2, 115

\*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).

### REVISIONS

REVISION NO. 1, DATED MARCH 1996, CONSISTS OF CHANGES PER ECP M5T3003 INCLUDING:

CHANGING GENERAL NOTE "H" (PALLET AND ADAPTER SPECIFICATIONS) ON PAGE 3.

REVISION NO. 2, DATED FEBRUARY 1998, CONSISTS OF CHANGES PER ECP R8A3002 (NO. 1-2) INCLUDING:

1. ADDING ITEMS BY NATIONAL STOCK NUMBER (NSN) (HA12 AND HA13) AND UPDATING HAZARD CLASSIFICATION ON "PALLET UNIT DATA" CHART.
2. CHANGING DODIC FOR 1340-01-379-6277 FROM H163 TO H583.
3. DELETING GENERAL NOTE RELATING TO STRAP CUTTER AND RE-LETTERING OTHER GENERAL NOTES.
4. CHANGING GENERAL NOTE CALLING OUT STORAGE DRAWING TO 19-48-4250/61-1-2-3-4-14-22PM1004.

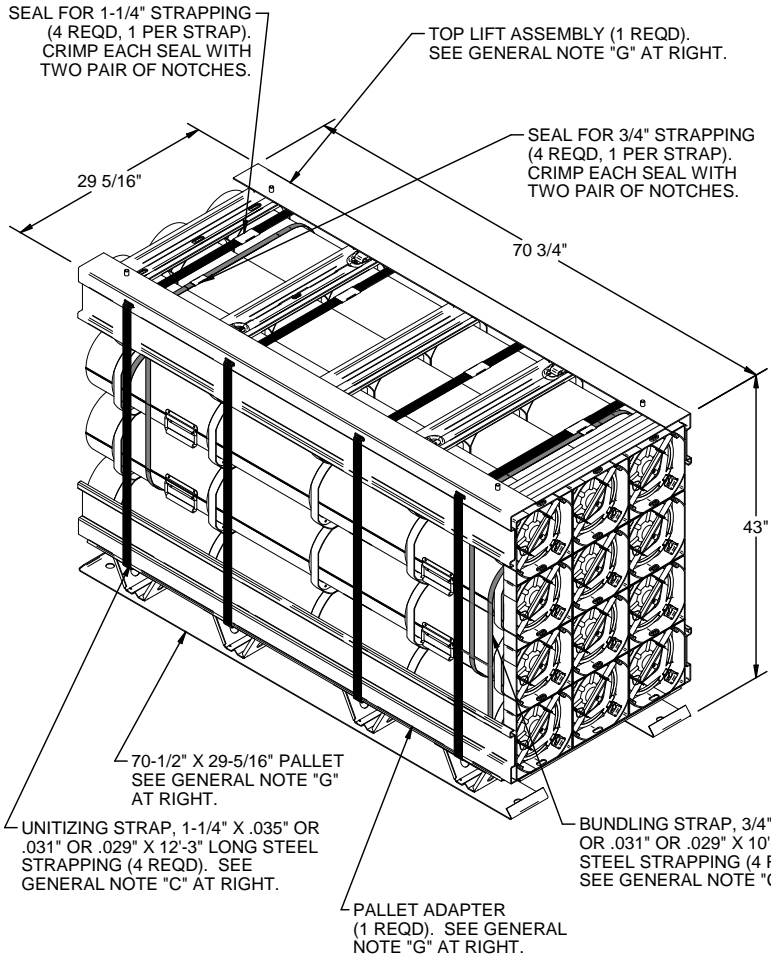
REVISION NO. 3, DATED DECEMBER 2000, CONSISTS OF CHANGES PER ECP R0K3004 (NO. 1-2) AND ECP R1K9000 (NUMBER 3) INCLUDING:

1. CHANGING PALLET UNIT ON PAGE 3 TO SHOW 4 POSTS.
2. CHANGING TO NEW DRAWING FORMAT.
3. DELETING FOUR NSNs (TRAINING ROUNDS).
4. CHANGING GENERAL NOTE "J" (FILLER CONTAINERS) ON PAGE 3.

REVISION NO. 4, DATED APRIL 2011, CONSISTS:

1. ADDING ITEMS BY NATIONAL STOCK NUMBER (NSN) TO THE "PALLET UNIT DATA" CHART.
2. ADDING .029" THICKNESS STRAPPING TO THE ISOMETRIC LEADER CALLOUTS.

**GENERAL NOTES**



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

12 CONTAINERS OF 2.75" HYDRA ROCKETS (4 PER CONTAINER) @ 175 LBS	2,100 LBS
DUNNAGE	165 LBS
PALLET	100 LBS
<b>TOTAL WEIGHT</b>	<b>2,365 LBS (APPROX)</b>
<b>CUBE</b>	<b>51.6 CU FT (APPROX)</b>

BILL OF MATERIAL			
METAL PALLET, 70-1/2" X 29-5/16"	1 REQD	100 LBS	
TOP ASSEMBLY	1 REQD	80 LBS	
BOTTOM ASSEMBLY	1 REQD	75 LBS	
STEEL STRAPPING, 3/4"	41.00' REQD	2.93 LBS	
STEEL STRAPPING, 1-1/4"	49.00' REQD	7.00 LBS	
SEAL FOR 3/4" STRAPPING	4 REQD	NIL	
SEAL FOR 1-1/4" STRAPPING	4 REQD	NIL	

- A. THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION PROCEDURES DRAWING 19-48-4231-20PM1006. 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. BUNDLING STRAPS MUST BE TENSIONED AND SEALED PRIOR TO THE APPLICATION OF THE UNITIZING STRAPS. BUNDLING STRAPS MUST ALSO BE INSTALLED AS CLOSE TO THE OUTER RINGS AS POSSIBLE, TO AVOID DAMAGE TO THE CONTAINER.
- D. ALTHOUGH THE CONTAINERS DEPICTED IN THE UNIT LOAD AT LEFT ARE CONSTRUCTED WITH INTERLOCKING DEVICES, THE INTERLOCKS WILL NOT FUNCTION PROPERLY UNLESS THE CONTAINERS ARE POSITIONED SO THE "PINS" OF THE INTERLOCKS ARE FACING UPWARD. THIS ORIENTATION WILL AID IN THE PREVENTION OF CONTAINER MOVEMENT, BOTH Laterally and Longitudinally, DURING SHIPMENT OF THE UNIT LOAD.
- E. THE FOLLOWING AMC DRAWINGS ARE APPLICABLE FOR OUTLOADING AND STORAGE OF THE ITEMS COVERED BY THIS APPENDIX.
 

CARLOADING	- - - -	19-48-4242/61-5PM1004
TRUCKLOADING	- - - -	19-48-4243/61-11PM1004
STORAGE	- - - -	19-48-4250/61-1-2-3-4-14-22PM1004
END OPENING ISO CONTAINER	- - - -	19-48-4245/61-15PM1009
MILVAN	- - - -	19-48-4244/61-15PM1008
SIDE OPENING ISO CONTAINER	- - - -	19-48-4272/61-15PM1016
- F. IF ITEMS COVERED HEREIN ARE UNITIZED PRIOR TO ISSUANCE OF THIS REVISION TO THIS APPENDIX, THE CONTAINERS NEED NOT BE REUNITIZED SOLELY TO CONFORM TO THIS REVISION.
- G. FOR DETAILS OF THE PALLET AND PALLET ADAPTERS, SEE DAC DRAWING ACV00155, MIL-A-70788 AND MIL-P-70786.
- H. THE UNITIZATION PROCEDURES DEPICTED HEREIN MAY ALSO BE USED FOR UNITIZING .275 INCH HYDRA ROCKETS WHEN IDENTIFIED BY DIFFERENT NATIONAL STOCK NUMBERS (NSN) THAN WHAT IS SHOWN ON PAGE 2, PROVIDED THE CONTAINER DOES NOT VARY FROM WHAT IS DELINEATED HEREIN. THE EXPLOSIVE CLASSIFICATION OF OTHER ITEMS MAY BE DIFFERENT THAN WHAT IS SHOWN.
- J. EMPTY OR REJECT PA151 CONTAINERS WILL BE USED AS FILLER CONTAINERS AS NECESSARY. FILLER CONTAINERS MUST BE INSTALLED IN THE MIDDLE OF THE TOP LAYER(S) OF CONTAINERS. IF THREE FULL CONTAINERS ARE OMITTED, ONE FULL LAYER OF CONTAINERS WILL BE OMITTED. WHEN (EMPTY/REJECTED) FILLER CONTAINERS ARE USED IN PLACE OF OMITTED CONTAINERS TO COMPLETE A LAYER ON A PALLET, THEY WILL BE MARKED AS SPECIFIED IN ARDEC DRAWING NO. 12982865.
- K. FOR DETAILS OF THE PA151 CONTAINER SEE ARDEC DRAWING 12937856-1.

