

# APPENDIX 7A

## UNITIZATION PROCEDURES FOR COMPLETE ROUNDS PACKED IN CYLINDRICAL METAL CONTAINERS ON 4-WAY ENTRY PALLETS\*

### PA116 SERIES CONTAINER

**NOTICE:** THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION PROCEDURES DRAWING 19-48-4079-20PM1002.

**DISTRIBUTION STATEMENT A:**

APPROVED FOR PUBLIC RELEASE;  
DISTRIBUTION IS UNLIMITED.

\*SEE GENERAL NOTE "J" ON PAGE 3.

### U.S. ARMY MATERIEL COMMAND DRAWING

<p>APPROVED, U.S. ARMY FIELD SUPPORT COMMAND <i>NK</i> <i>David A. Hilborn</i> AMSRD-AAR-AIL-TP</p>	<p><b>CAUTION:</b> VERIFY PRIOR TO USE AT <a href="http://WWW.DAC.ARMY.MIL">WWW.DAC.ARMY.MIL</a> THAT THIS IS THE MOST CURRENT VERSION OF THIS DOCUMENT. THIS IS PAGE 1 OF 4.</p>			
<p><i>David [Signature]</i> AMSF5-ST</p> <p>APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND</p> <p><i>[Signature]</i> U.S. ARMY DEFENSE AMMUNITION CENTER</p>	<p><b>DO NOT SCALE</b></p>		<p><b>JANUARY 1986</b></p>	
	ENGINEER OR TECHNICIAN	BASIC REV.	<p>LAURA A. FIEFFER</p> <p>MARK GRACE</p>	<p>REVISION NO. 4</p> <p>MARCH 2004</p>
<p>TRANSPORTATION ENGINEERING DIVISION</p> <p>VALIDATION ENGINEERING DIVISION</p> <p>ENGINEERING DIRECTORATE</p>	<p><i>G. L. Willis</i></p> <p><i>[Signature]</i></p> <p><i>[Signature]</i></p>	<p>TESTED</p>	<p>SEE THE REVISION LISTING ON PAGE 2</p>	
	CLASS	DIVISION	DRAWING	FILE
	19	48	4079/7A	20PM1002

PALLET UNIT DATA				
ITEMS INCLUDED		●HAZARD CLASS AND DIVISION	●COMPATIBILITY GROUP	WEIGHT (LBS)
NSN	DODIC			
<b>1315-</b>				
01-269-2256	C380	1. 2. 1	C	2, 241
01-508-1349	C785	1. 2. 1	C	2, 101
01-226-7418	C786	1. 2. 1	C	2, 061
01-232-4638	C787	1. 2. 1	E	2, 421

- 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).

### REVISIONS

REVISION NO.1, DATED JUNE 1986, CONSISTS OF:

1. ADDING ITEMS BY NATIONAL STOCK NUMBER (NSN) TO "PALLET UNIT DATA" CHART.
2. CHANGING CONTAINER WEIGHT.

REVISION NO. 2, DATED OCTOBER 1986, CONSISTS OF:

1. ADDING GENERAL NOTES "H" THROUGH "M".
2. DELETING PAGES 4 AND 5 (WOODEN FILLER ASSEMBLES).

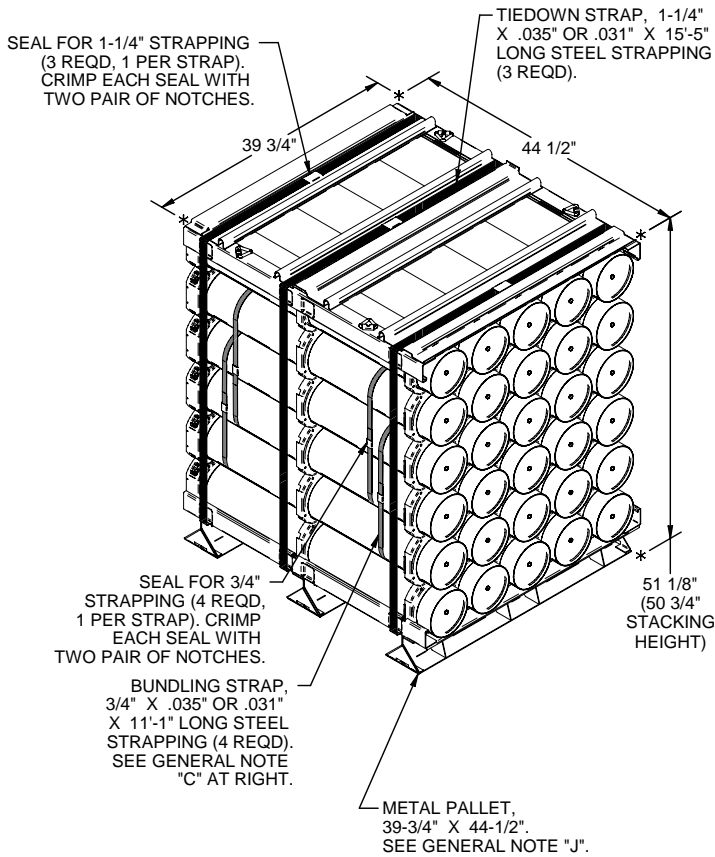
REVISION NO. 3, DATED JANUARY 1989, CONSISTS OF:

1. ADDING ITEM BY NATIONAL STOCK NUMBER (NSN) TO "PALLET UNIT DATA" CHART.

REVISION NO.4, DATED MARCH 2004, CONSISTS OF:

1. UPDATING DRAWING FORMAT.
2. ADDING / DELETING ITEMS BY NATIONAL STOCK NUMBER (NSN) TO / FROM "PALLET UNIT DATA" CHART.

**GENERAL NOTES**



- A. THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION PROCEDURES DRAWING 19-48-4079-20PM1002. TO PRODUCE AN APPROVED UNIT LOAD, ALL PERTINENT PROCEDURES, MARKINGS, 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 CONTAINERS AND THE WEIGHT OF THE SPECIFIC ITEM BEING UNITIZED.
- C. BUNDLING STRAPS MUST BE TENSIONED AND SEALED PRIOR TO THE APPLICATION OF THE TIEDOWN 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 THAT THE "PINS" OF THE INTERLOCKS ARE FACING DOWNWARD. THIS ORIENTATION WILL AID IN THE PREVENTION OF CONTAINER MOVEMENT, BOTH LATERALLY AND LONGITUDINALLY, DURING SHIPMENT OF THE UNIT LOAD.
- E. INSTALL EACH TIEDOWN STRAP TO PASS UNDER THE DECK OF THE PALLET AND TO BE LOCATED AS SHOWN. TIEDOWN STRAPS WILL NOT BE APPLIED UNTIL THE BUNDLING STRAPS HAVE BEEN TENSIONED AND SEALED.
- F. THE FOLLOWING AMC DRAWINGS ARE APPLICABLE FOR OUTLOADING AND STORAGE OF THE ITEMS COVERED BY THIS APPENDIX.

BOXCAR	-----	19-48-4212/8A-5PM1003
END OPENING ISO CONTAINER	---	19-48-4215/8A-15PM1013
MILVAN	-----	19-48-4214/8A-15PM1006
SIDE OPENING ISO CONTAINER	---	19-48-4265/8A-15PM1014
STORAGE	-----	19-48-4145/8A-1-2-3-4-14-22PM1003
VAN TRAILER	-----	19-48-4213/8A-11PM1000

- G. 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.
- H. CONVERSION TO METRIC EQUIVALENTS: DIMENSIONS WITHIN THIS DOCUMENT ARE EXPRESSED IN INCHES, AND WEIGHTS ARE EXPRESSED IN POUNDS. WHEN NECESSARY, THE METRIC EQUIVALENTS MAY BE COMPUTED ON THE BASIS OF ONE INCH EQUALS 25.4MM AND ONE POUND EQUALS 0.454 KG.
- J. FOR DETAILS OF THE METAL PALLET SEE MILITARY SPECIFICATION MIL-P-48663.
- K. THE UNITIZATION PROCEDURES DEPICTED HEREIN MAY ALSO BE USED FOR UNITIZING COMPLETE ROUNDS WHEN IDENTIFIED BY DIFFERENT NATIONAL STOCK NUMBERS (NSN) THAN THOSE SHOWN ON PAGE 2, PROVIDED THE CONTAINER PACK DOES NOT VARY FROM WHAT IS DELINEATED HEREIN. THE EXPLOSIVE CLASSIFICATION OF OTHER ITEMS MAY BE DIFFERENT THAN WHAT IS SHOWN.
- L. EMPTY OR REJECT PA116 METAL CONTAINERS WILL BE USED AS FILLER CONTAINERS AS NECESSARY. IF FIVE FULL CONTAINERS ARE TO BE OMITTED, ONE FULL LAYER OF CONTAINERS WILL BE OMITTED. WHEN (EMPTY) FILLER CONTAINERS ARE USED IN PLACE OF OMITTED CONTAINERS TO COMPLETELY FILL OUT A LAYER ON A PALLET, THEY WILL BE MARKED AS SPECIFIED IN SPECIFIED IN ARDEC DRAWING NO. 12982865.
- M. FOR DETAILS OF THE PA116 CONTAINER SEE ARDEC DRAWING 9386831.
 

CONTAINER DIMENSIONS	---	44-1/2" LONG X 7-3/4" WIDE X 7-3/4" HIGH
CONTAINER CUBE	---	1.5 CUBIC FEET
CONTAINER WEIGHT (WITH ROUND)	---	64, 69 OR 75 POUNDS
(EMPTY)	---	23 POUNDS
- N. FOR NSN 1315-01-226-7418-C786 ONLY, THE TOP COVER OF THE PALLET WILL BE MARKED "DOT-E-9649" IN ONE-INCH LETTERS NEAR THE CLOSED END OF THE CONTAINER.

**PALLET UNIT**

SEE GENERAL NOTE "B" AT RIGHT

CONTAINERS 30 @ 75 LBS	-----	2,250 LBS
DUNNAGE	-----	11 LBS
PALLET	-----	161 LBS

TOTAL WEIGHT	-----	2,421 LBS
CUBE	-----	52.4 CU FT

**BILL OF MATERIAL**

DESCRIPTION	QUANTITY	WEIGHT
METAL PALLET, 39-3/4" X 44-1/2"	1 REQD	161 LBS
STEEL STRAPPING, 3/4"	44.33' REQD	3.96 LBS
STEEL STRAPPING, 1-1/4"	46.25' REQD	6.61 LBS
SEAL FOR 3/4" STRAPPING	4 REQD	NIL
SEAL FOR 1-1/4" STRAPPING	3 REQD	NIL

