

# APPENDIX 16I

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

PLUNGER, DELAY, PACKED 300 PER WOODEN BOX,  
UNITIZED 48 BOXES PER 35" X 45 $\frac{1}{2}$ " PALLET;  
APPROX BOX SIZE 18 $\frac{1}{2}$ " L X 7 $\frac{7}{8}$ " W X 8 $\frac{5}{8}$ " H

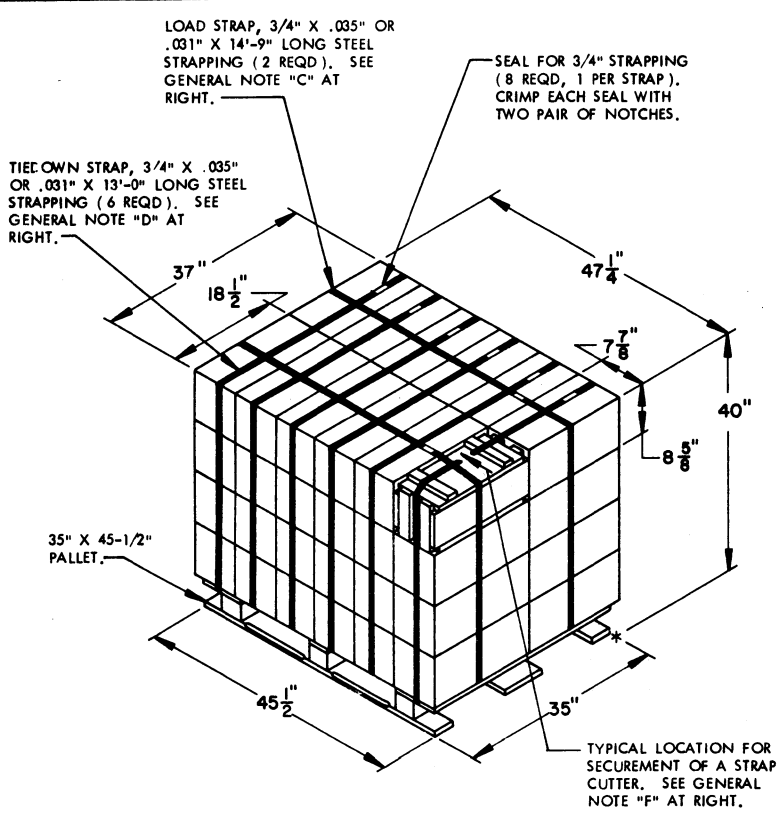
PALLET UNIT DATA						
ITEMS INCLUDED		HAZARD CLASSIFICATION ①				WEIGHT (LBS)
NSN	DODIC	DOT CLASS	CG CLASS	QD CLASS	COMP GROUP	
1390- 00-069-3072	—	—	—	—	—	2,857

NOTICE: THIS APPENDIX CANNOT STAND ALONE BUT MUST  
BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION  
PROCEDURES DRAWING 19-48-4116-20PA1002.

① HAZARD CLASSIFICATION DATA CONTAINED IN THE  
ABOVE CHART IS FOR GUIDANCE AND INFORMATIONAL  
PURPOSES ONLY. VERIFICATION OF THE SPECIFIC DATA  
SHOULD BE MADE BY CONSULTING THE MOST RECENT  
JOINT HAZARD CLASSIFICATION SYSTEM LISTING OR  
OTHER APPROVED LISTING(S).

REVISIONS				DRAFTSMAN <i>[Signature]</i>	PROJ ENG <i>[Signature]</i>
				CHECKER <i>[Signature]</i>	LOG ENGINE OFFICE <i>[Signature]</i>
APPROVED, U. S. ARMY ARMAMENT, MUNITIONS AND CHEMICAL COMMAND					
<div style="display: flex; justify-content: space-between;"> <div style="text-align: left;"> <i>[Signature]</i>            DIRECTOR            U. S. ARMY DEPERM AMMUNITION CENTER AND SCHOOL         </div> <div style="text-align: right;">           DRSWG - TND            APPROVED BY ORDER OF COMMANDING GENERAL, U. S. ARMY            MATERIEL DEVELOPMENT AND READINESS COMMAND (DARCOM)         </div> </div>					
U. S. ARMY DARCOM DRAWING					
NOVEMBER 1983					
CLASS	DIVISION	DRAWING	FILE		
19	48	4116/16I	20PA 1002		

**DO NOT SCALE**



**PALLET UNIT**

SEE GENERAL NOTE "B" AT RIGHT.

48 BOXES OF PLUNGER, DELAY (300 PER BOX) @ 58 LBS	-----	2,784 LBS (APPROX)
DUNNAGE	-----	8 LBS
PALLET	-----	65 LBS
<b>TOTAL WEIGHT</b>	-----	<b>2,857 LBS (APPROX)</b>
<b>CUBE</b>	-----	<b>40.5 CU FT (APPROX)</b>

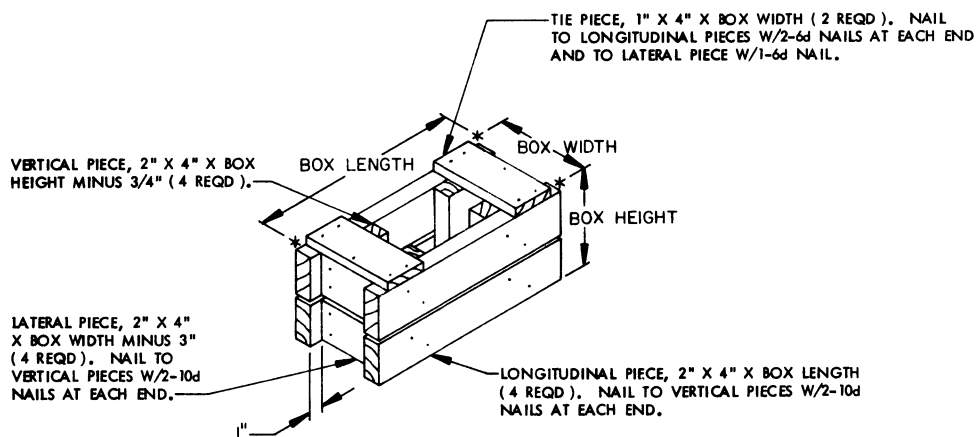
**BILL OF MATERIAL**

PALLET, 35" X 45-1/2"	-----	1 REQD	-----	65 LBS
STEEL STRAPPING, 3/4"	-----	107.50' REQD	-----	7,68 LBS
SEAL FOR 3/4" STRAPPING	-----	8 REQD	-----	NIL

**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 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 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 DECK/STRINGER BOARDS OF THE PALLET AND TO BE LOCATED BETWEEN THE VERTICAL END CLEATS OF THE BOXES. TIEDOWN STRAPS WILL NOT BE APPLIED UNTIL THE LOAD STRAPS HAVE BEEN TENSIONED AND SEALED.
- E. THE FOLLOWING DARCOM DRAWINGS ARE APPLICABLE FOR OUT-LOADING AND STORAGE OF THE ITEMS COVERED BY THIS APPENDIX.
 

CARLOADING	-----	DRAWING 19-48-4115-5PA1002
TRUCKLOADING	-----	DRAWING 19-48-4117-11PA1003
STORAGE	-----	DRAWING 19-48-4118-1-2-3-4-14-22PA1002
- F. FOR METHOD OF SECURING A STRAP CUTTER TO THE PALLET UNIT, SEE DARCOM DRAWING 19-48-4127-20P1000.
- G. IF ITEMS COVERED HEREIN ARE UNITIZED PRIOR TO ISSUANCE OF THIS APPENDIX, THE BOXES NEED NOT BE REUNITIZED SOLELY TO CONFORM TO THIS APPENDIX.
- H. THE UNITIZATION PROCEDURES DEPICTED HEREIN MAY ALSO BE USED FOR UNITIZING PLUNGERS WHEN IDENTIFIED BY DIFFERENT NATIONAL STOCK NUMBERS (NSN) THAN WHAT IS SHOWN ON THE TITLE PAGE, 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.
- J. 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 11'-7", AND LOAD STRAP LENGTHS MUST BE DECREASED TO 13'-4". THIS WILL RESULT IN AN OVERALL UNIT HEIGHT OF 31'-3/8", A GROSS UNIT WEIGHT OF 2,161 POUNDS, AND A UNIT CUBE OF 31.7 CUBIC FEET. ADDITIONALLY, THE UNIT LOAD MAY BE MODIFIED AS DESCRIBED WHEN BEING SHIPPED BY MILVAN OR COMMERCIAL INTERMODAL FREIGHT CONTAINER, CONVENTIONAL VAN TRAILER OR CONVENTIONAL OR HIGH-CAPACITY BOXCAR. 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.



**FILLER ASSEMBLY**

(FOR MINUS ONE BOX)