

APPENDIX 44F

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

CARTRIDGE, 90MM, PACKED 2 PER WOODEN BOX,
UNITIZED 28 BOXES PER 40" X 48" PALLET; APPROX
BOX SIZE $32 \frac{7}{8}$ " L X $10 \frac{1}{8}$ " W X $6 \frac{1}{2}$ " H

PALLET UNIT DATA						
ITEMS INCLUDED		HAZARD CLASSIFICATION ①				WEIGHT (LBS)
NSN	DODIC	DOT CLASS	CG CLASS	QD CLASS	COMP GROUP	
1315- 00-068-8472	C282	A	IV	(12) 1.2	E	1,428
00-892-4307	C282	A	IV	(12) 1.2	E	1,428
00-889-2019	C283	B	II-B	(08) 1.2	C	1,428

REVISIONS

- REVISION NO. 1, DATED AUGUST 1986, CONSISTS OF:
1. CHANGING BOX DIMENSIONS.
 2. UPDATING PALLET UNIT TO CONFORM TO 1 ABOVE.
- REVISION NO. 2, DATED JANUARY 1987, CONSISTS OF:
1. CHANGING BOX DIMENSIONS.
 2. UPDATING PALLET UNIT TO CONFORM TO 1 ABOVE.

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 SPECIFIED DATA SHOULD BE MADE BY CONSULTING THE MOST RECENT JOINT HAZARD CLASSIFICATION SYSTEM LISTING OR OTHER APPROVED LISTING (S).

DO NOT SCALE

REVISIONS				DRAFTSMAN <i>Dice</i>	PROJ ENG <i>WRF/WRF</i>
NO.	DATE	BY	CHECKER	LOG ENGRD OFFICE	LOG ENGRD OFFICE
1	AUG 86	<i>WRF</i>	<i>WRF</i>	<i>WRF</i>	<i>WRF</i>
2	JAN 87	<i>WRF</i>	<i>WRF</i>	<i>WRF</i>	<i>WRF</i>
APPROVED BY ORDER OF COMMANDING GENERAL U.S. ARMY MATERIEL DEVELOPMENT AND READINESS COMMAND (DARCOM) <i>William F. Conat</i> U.S. ARMY DEFENSE AMMUNITION CENTER AND SCHOOL					
U. S. ARMY DARCOM DRAWING					
OCTOBER 1982					
CLASS		DIVISION		DRAWING	FILE
19		48		4116/ 44F	20PA 1002

LOAD STRAP, 3/4" X .035" OR .031 X 14'-8" LONG STEEL STRAPPING (4 REQD). SEE GENERAL NOTE "C" AT RIGHT.

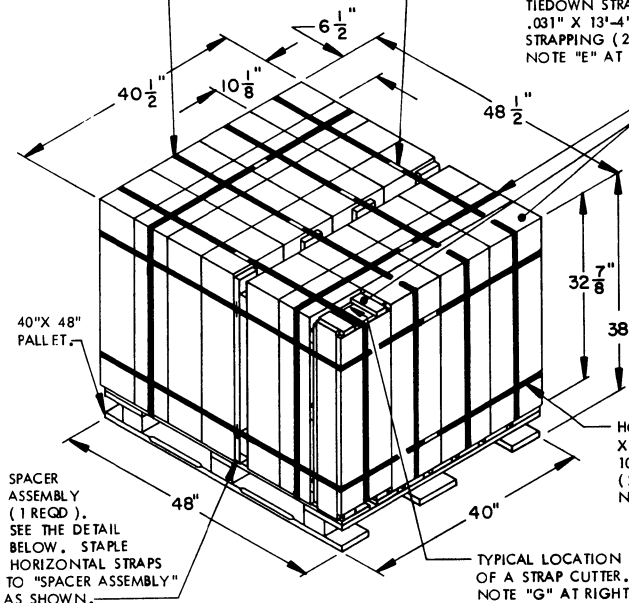
SEAL FOR 3/4" STRAPPING (8 REQD, 1 PER STRAP). CRIMP EACH SEAL WITH TWO PAIR OF NOTCHES.

TIEDOWN STRAP, 3/4" X .035" OR .031" X 13'-4" LONG STEEL STRAPPING (2 REQD). SEE GENERAL NOTE "E" AT RIGHT.

TOP CLEATS ON THE BOXES IN THE OUTWARD STACKS WILL BE TURNED INWARD EXCEPT AS OTHERWISE SPECIFIED IN MIL-STD-129.

HORIZONTAL STRAP, 3/4" X .035" OR .031" X 15'-10" LONG STEEL STRAPPING (2 REQD). SEE GENERAL NOTE "D" AT RIGHT.

TYPICAL LOCATION FOR SECUREMENT OF A STRAP CUTTER. SEE GENERAL NOTE "G" AT RIGHT.



PALLET UNIT

SEE GENERAL NOTE "B" AT RIGHT.

28 BOXES OF 90MM CARTRIDGE (2 PER BOX) @ 47 LBS ----- 1,316 LBS (APPROX)
 DUNNAGE ----- 32 LBS
 PALLET ----- 80 LBS

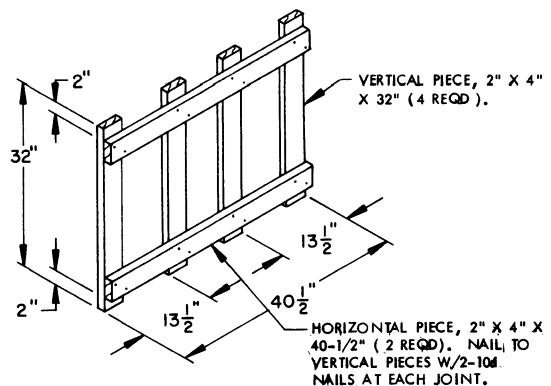
TOTAL WEIGHT ----- 1,428 LBS (APPROX)
 CUBE ----- 43.6 CU FT (APPROX)

BILL OF MATERIAL

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	17.42	11.61
NAILS	NO. REQD	POUNDS
10d (3")	16	0.25
PALLET, 40" X 48"	1 REQD	80 LBS
STEEL STRAPPING, 3/4"	117.00' REQD	8.36 LBS
SEAL FOR 3/4" STRAPPING	8 REQD	NIL
STAPLE, 15/16" X 3/4"	4 REQD	NIL

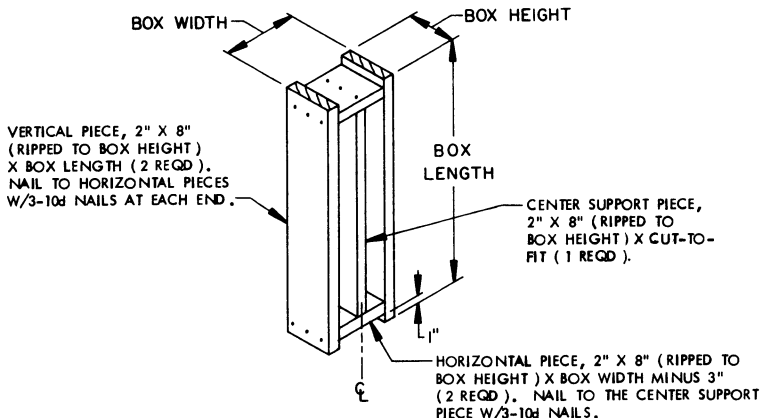
GENERAL NOTES

- 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 WILL BE PRE-POSITIONED ON THE PALLET DECK PRIOR TO PLACING BOXES ON THE PALLET. LOAD STRAPS MUST BE TENSIONED AND SEALED PRIOR TO APPLICATION OF HORIZONTAL STRAPS.
- D. INSTALL EACH HORIZONTAL STRAP TO ENCIRCLE THE LAYER OF BOXES ON THE PALLET. HORIZONTAL STRAPS MUST BE TENSIONED AND SEALED PRIOR TO APPLICATION OF TIEDOWN STRAPS.
- E. INSTALL EACH TIEDOWN STRAP TO PASS UNDER THE TOP DECK BOARDS OF THE PALLET. TIEDOWN STRAPS WILL NOT BE APPLIED UNTIL THE HORIZONTAL STRAPS HAVE BEEN TENSIONED AND SEALED.
- F. THE FOLLOWING AMC (DARCUM) DRAWINGS ARE APPLICABLE FOR OUTLOADING 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
- G. FOR METHOD OF SECURING A STRAP CUTTER TO THE PALLET UNIT, SEE DARCUM DRAWING 19-48-4127-20P1000.
- H. IF ITEMS COVERED HEREIN ARE UNITIZED PRIOR TO ISSUANCE OF THIS APPENDIX, THE BOXES NEED NOT BE REUNITIZED SOLELY TO CONFORM TO THIS APPENDIX.
- J. THE UNITIZATION PROCEDURES DEPICTED HEREIN MAY ALSO BE USED FOR UNITIZING 90MM CARTRIDGES 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.
- K. IF THERE IS A NEED TO USE FILLER ASSEMBLIES AND AT LEAST TWO PALLET UNITS ARE BEING CONSTRUCTED, NOT MORE THAN TWENTY-FOUR FILLERS WILL BE INSTALLED IN ANY ONE PALLET UNIT. ADDITIONAL FILLERS CAN BE PUT IN A SECOND PALLET UNIT AS REQUIRED WHEN THE QUANTITY OF TWENTY-FOUR FILLERS IN THE FIRST REDUCED PALLET UNIT IS INSUFFICIENT TO SATISFY THE TOTAL REDUCTION NEEDED. USING TWO PALLET UNITS TO SATISFY THE PALLETIZATION CRITERIA APPLICABLE TO LESS-THAN-FULL PALLET UNITS IS AN EXCEPTION TO THE BASIC PROCEDURES. HOWEVER, THE EXCEPTION IS NECESSARY FOR THE AMMUNITION PACK COVERED BY THIS APPENDIX TO MOST EFFECTIVELY GET AN ACCEPTABLE, COMPACT AND SOUND PALLET UNIT.
- L. THE STYLE 1 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 THE ITEMS COVERED BY THIS APPENDIX.



SPACER ASSEMBLY

(ONE REQUIRED)



FILLER ASSEMBLY

(FOR MINUS ONE BOX)