

APPENDIX 28C

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

CARTRIDGE, 60MM, PACKED 9 PER WOODEN BOX,
UNITIZED 40 BOXES PER 40" X 48" PALLET;
APPROX BOX SIZE 18 $\frac{15}{16}$ " L X 10 $\frac{3}{4}$ " W X 11 $\frac{27}{32}$ " H

PALLET UNIT DATA						
ITEMS INCLUDED		HAZARD CLASSIFICATION ^①				WEIGHT
NSN	DODIC	DOT CLASS	CG CLASS	QD CLASS	COMP GROUP	(LBS)
1310- 00-143-7056 00-782-5518	B627	A	IV	(08)1.2	G	2,416
	B627	A	IV	(08)1.2	G	2,576

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

①HAZARD 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).

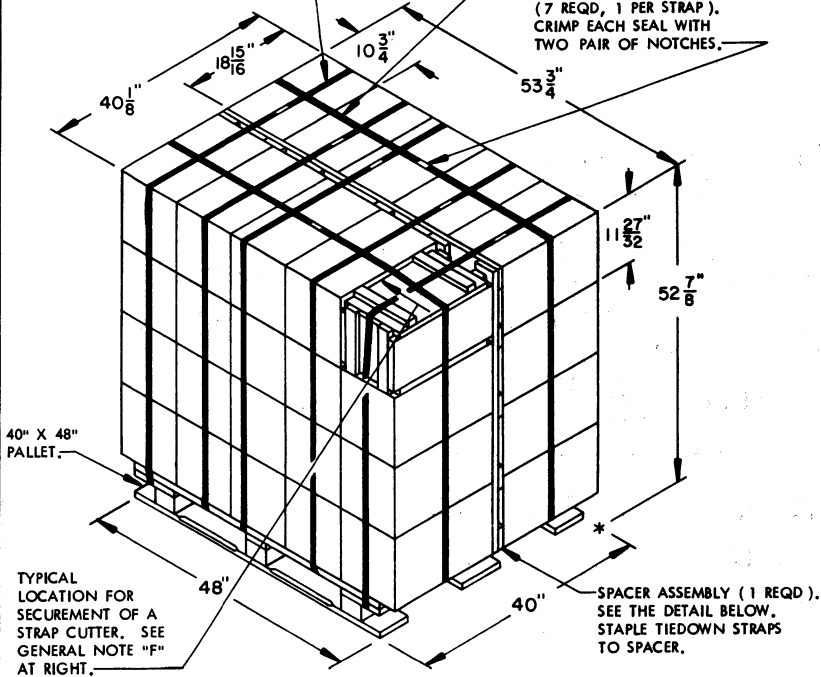
REVISIONS			
			<small>DRAFTERMAN</small> <i>BZ</i> <small>PROJ ENG</small> <i>YBF/AMM</i> <small>CHKD BY</small> <i>MSK</i> <small>LOG ENGINE OFFICE</small> <small>CRS/REG</small> <i>RSW/REG</i> <i>John G. J.</i> <small>APPROVED, U. S. ARMY ARMAMENT, SUPPORT AND SERVICE COMMAND</small>
/	/	/	<small>DRAWN BY</small> <i>John L. Byrd</i> <small>OR 803-118</small> <small>APPROVED BY ORDER OF COMMANDING GENERAL, U. S. ARMY MATERIAL DEVELOPMENT AND READINESS COMMAND (DARCOM)</small> <i>John L. Byrd</i> <small>DARCOM AMMO CENTER</small>
U. S. ARMY DARCOM DRAWING			
NOVEMBER 1983			
CLASS	DIVISION	DRAWING	FILE
19	48	4116/28C	20PA 1002

DO NOT SCALE

TIEDOWN STRAP, 3/4" X .035" OR .031" X 15'-8" LONG STEEL STRAPPING (5 REQD). SEE GENERAL NOTE "D" AT RIGHT.

LOAD STRAP, 3/4" X .035" OR .031" X 18'-0" (2 REQD). SEE GENERAL NOTE "C" AT RIGHT.

SEAL FOR 3/4" STRAPPING (7 REQD, 1 PER STRAP). CRIMP EACH SEAL WITH TWO PAIR OF NOTCHES.



PALLET UNIT

SEE GENERAL NOTE "B" AT RIGHT.

40 BOXES OF 60MM CARTRIDGE (9 PER BOX) @ 57 LBS ----- 2,280 LBS (APPROX)
 DUNNAGE ----- 56 LBS
 PALLET ----- 80 LBS

TOTAL WEIGHT ----- 2,416 LBS (APPROX)
 CUBE ----- 66.0 CU FT (APPROX)

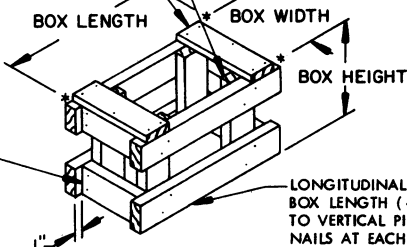
BILL OF MATERIAL

LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	22.40	7.47
2" X 4"	23.69	15.79
NAILS	NO. REQD	POUNDS
6d (2")	60	0.35
PALLET, 40" X 48" -----	1 REQD	80 LBS
STEEL STRAPPING, 3/4" -----	114.33' REQD	8.17 LBS
SEAL FOR 3/4" STRAPPING -----	7 REQD	NIL
STAPLE -----	5 REQD	NIL

TIE PIECE, 1" X 4" X BOX WIDTH (2 REQD). NAIL TO LONGITUDINAL PIECES W/2-6d NAILS AT EACH END AND TO LATERAL PIECE W/1-6d NAIL.

VERTICAL PIECE, 2" X 4" X BOX HEIGHT MINUS 3/4" (4 REQD).

LATERAL PIECE, 2" X 4" X BOX WIDTH MINUS 3" (4 REQD). NAIL TO VERTICAL PIECES W/2-10d NAILS AT EACH END.



FILLER ASSEMBLY

(FOR MINUS ONE BOX)

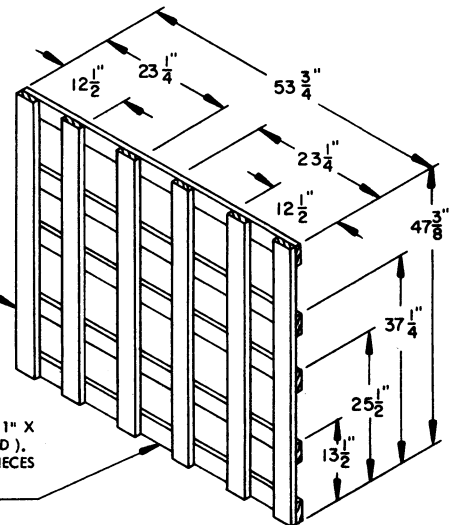
LONGITUDINAL PIECE, 2" X 4" X BOX LENGTH (4 REQD). NAIL TO VERTICAL PIECES W/2-10d NAILS AT EACH END.

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 SEALED UNTIL THE LOAD STRAPS HAVE BEEN TENSIONED AND SEALED.
- E. THE FOLLOWING DARCOM 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
- 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 60MM CARTRIDGES WHEN IDENTIFIED BY DIFFERENT NATIONAL STOCK NUMBERS (NSN) THAN WHAT IS SHOWN ON THE TITLE PAGE, PROVIDED THE BOX PACK DOES NOTE 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 13'-9", LOAD STRAP LENGTHS MUST BE DECREASED TO 16'-4", AND THE SPACER ASSEMBLY MUST BE MODIFIED. SPACER ASSEMBLY MODIFICATIONS INCLUDE CHANGING VERTICAL PIECE LENGTH TO 35'-1/2", ELIMINATING THE HORIZONTAL PIECE LOCATED AT THE 37'-1/4" HEIGHT DIMENSION, AND LOCATING THE UPPER HORIZONTAL PIECE EVEN WITH THE TOP OF THE VERTICAL PIECES. THIS WILL RESULT IN AN OVERALL UNIT HEIGHT OF 41", A GROSS UNIT WEIGHT OF 1,834 POUNDS, AND A UNIT CUBE OF 51.2 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 OF 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.

VERTICAL PIECE, 2" X 4" X 47-3/8" (6 REQD).

HORIZONTAL PIECE, 1" X 4" X 53-3/4" (5 REQD). NAIL TO VERTICAL PIECES W/2-6d NAILS AT EACH LOCATION.



SPACER ASSEMBLY

(1 REQD).