

APPENDIX IIOD

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

FLARE, PACKED 80 PER WOODEN BOX, UNITIZED
60 BOXES PER 40" X 48" PALLET; APPROX
BOX SIZE 20" L X 10" W X 5" H

PALLET UNIT DATA						
ITEMS INCLUDED		HAZARD CLASSIFICATION ①				WEIGHT (LBS)
NSN	DODIC	DOT CLASS	CG CLASS	QD CLASS	COMP GROUP	
1370- 00-249-9410	LW53	B	II-C	1.3	G	3,949

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).

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

REVISIONS				DRAWN BY <i>KC B...</i>	PUB. ENG. <i>NRF/ADMP</i>
				<i>GRS</i>	<i>W. J. Con...</i>
APPROVED, U. S. ARMY ARMAMENT MATERIEL READINESS COMMAND					
				<i>Martin</i>	<i>...</i>
APPROVED BY ORDER OF COMMANDING GENERAL, U. S. ARMY MATERIEL DEVELOPMENT AND READINESS COMMAND (MARCOS)					
<i>William F. Ernst</i> U. S. ARMY DEFENSE AMMUNITION CENTER AND SCHOOL					
U. S. ARMY DARCOM DRAWING					
JUNE 1983					
				CLASS	DIVISION
				DRAWING	FILE
				19	48
				4116/ IIOD	20PA 1002

DO NOT SCALE

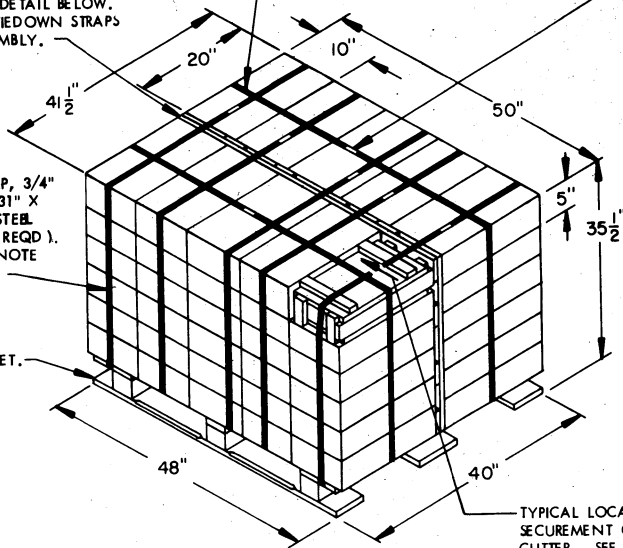
LOAD STRAP, 3/4" X .035" OR .031" X 14'-0" LONG STEEL STRAPPING (2 REQD). SEE GENERAL NOTE "C" AT RIGHT.

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

SPACER ASSEMBLY (1 REQD). SEE THE DETAIL BELOW. STAPLE TIEDOWN STRAPS TO ASSEMBLY.

TIEDOWN STRAP, 3/4" X .035" OR .031" X 13'-0" LONG STEEL STRAPPING (5 REQD). SEE GENERAL NOTE "D" AT RIGHT.

40" X 48" PALLET.



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

PALLET UNIT

SEE GENERAL NOTE "B" AT RIGHT.

60 BOXES OF FLARES (80 PER BOX) @ 64 LBS	-----	3,840 LBS (APPROX)
DUNNAGE	-----	29 LBS
PALLET	-----	80 LBS
TOTAL WEIGHT	-----	3,949 LBS (APPROX)
CUBE	-----	42.6 CU FT (APPROX)

GENERAL NOTES

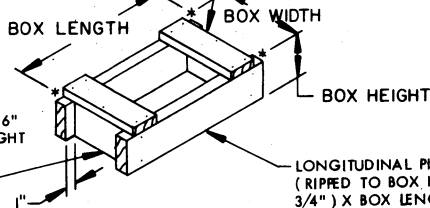
- A. THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION PROCEDURES DRAWING 19-48-4116-20PA1002. TO PRODUCE AN APPROVED UNIT LOAD, ALL PERTINENT PROCEDURES, SPECIFICATIONS AND CRITERIA SET FORTH WITHIN THE BASIC DRAWING WILL APPLY TO THE PROCEDURES DELINEATED IN 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 THREADED THROUGH THE STRAP SLOTS OF A 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 AS SHOWN. TIEDOWN STRAPS WILL NOT BE APPLIED 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 FLARES 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, THREE LAYERS OF BOXES MUST BE OMITTED, TIEDOWN STRAP LENGTHS MUST BE DECREASED TO 10'-6", LOAD STRAP LENGTHS MUST BE DECREASED TO 11'-11", AND THE SPACER ASSEMBLY MUST BE MODIFIED. SPACER ASSEMBLY MODIFICATIONS INCLUDE CHANGING VERTICAL PIECE LENGTH TO 15", ELIMINATING ONE HORIZONTAL PIECE, LOCATING THE CENTER HORIZONTAL PIECE AT A HEIGHT DIMENSION OF 9-1/4", AND LOCATING THE UPPER HORIZONTAL PIECE EVEN WITH THE TOP OF THE VERTICAL PIECES. THIS WILL RESULT IN AN OVERALL UNIT HEIGHT OF 20-1/2", A GROSS UNIT WEIGHT OF 2,019 POUNDS, AND A UNIT CUBE OF 24.6 CUBIC FEET.

BILL OF MATERIAL

LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	31.67	10.56
NAILS	NO. REQD	POUNDS
6d (2")	48	0.28

PALLET, 40" X 48"	-----	1 REQD	-----	80 LBS
STEEL STRAPPING, 3/4"	-----	93.83 REQD	-----	6.70 LBS
SEAL FOR 3/4" STRAPPING	-----	7 REQD	-----	NIL
STAPLE, 15/16" X 3/4"	-----	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.

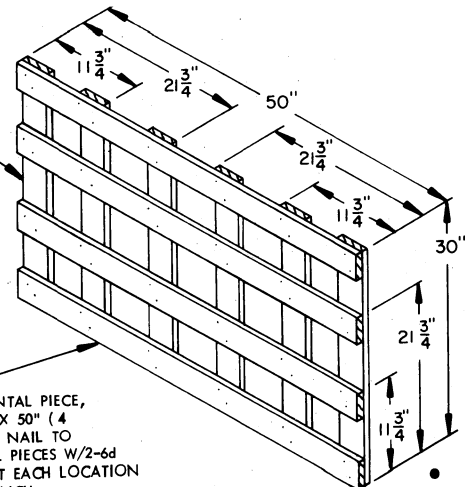


LATERAL PIECE, 2" X 6" (RIPPED TO BOX HEIGHT MINUS 3/4") X BOX WIDTH MINUS 3" (2 REQD).

LONGITUDINAL PIECE, 2" X 6" (RIPPED TO BOX HEIGHT MINUS 3/4") X BOX LENGTH (2 REQD). NAIL TO LATERAL PIECES W/2-10d NAILS AT EACH JOINT.

FILLER ASSEMBLY
(FOR MINUS ONE BOX)

VERTICAL PIECE, 1" X 4" X 30" (6 REQD).



HORIZONTAL PIECE, 1" X 4" X 50" (4 REQD). NAIL TO VERTICAL PIECES W/2-6d NAILS AT EACH LOCATION AND CLINCH.

SPACER ASSEMBLY
(ONE REQD)