

# APPENDIX 45S

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

PROPELLING CHARGE, FOR 105MM, PACKED 36  
PER METAL DRUM, UNITIZED 6 DRUMS PER 35"  
X 45-1/2" PALLET; APPROX DRUM SIZE  
16-1/2" DIA X 25-1/4" H

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

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U.S. ARMY MATERIEL COMMAND DRAWING			
APPROVED, U.S. ARMY INDUSTRIAL OPERATIONS COMMAND <i>N2</i>  <i>David L. Perkowski</i> <i>David C. Stachuk</i> AMSTA-AR-ESK                      AMSIO-TMJ	DRAFTSMAN	BETTY J. KUNDERT	
	ENGINEER	SANDRA M. SCHULTZ	
	SUPPLY ENGINEERING DIVISION	TRANSPORTATION ENGINEERING DIVISION	VALIDATION ENGINEERING DIVISION
	<i>T. J. Meinh</i>	<i>W. French</i>	<i>D. K. K...</i>
APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND  <i>Terry V. Dumble</i>	LOGISTICS ENGINEERING OFFICE		
	<i>William J. Ernst</i>		
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REVISION NO. 1	MAY 1996	19	48
SEE THE REVISION LISTING ON PAGE 2		4116/ 45S	20PA 1002

DO NOT SCALE

PALLET UNIT DATA				
ITEMS INCLUDED		HAZARD CLASS AND DIVISION ●		APPROX WEIGHT LBS
NSN	DODIC	OD CLASS	COMP GROUP	
1315-01-237-9775	C436	1.3	C	885

- 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).

#### REVISION

REVISION NO. 1, DATED MAY 1996, CONSISTS OF:

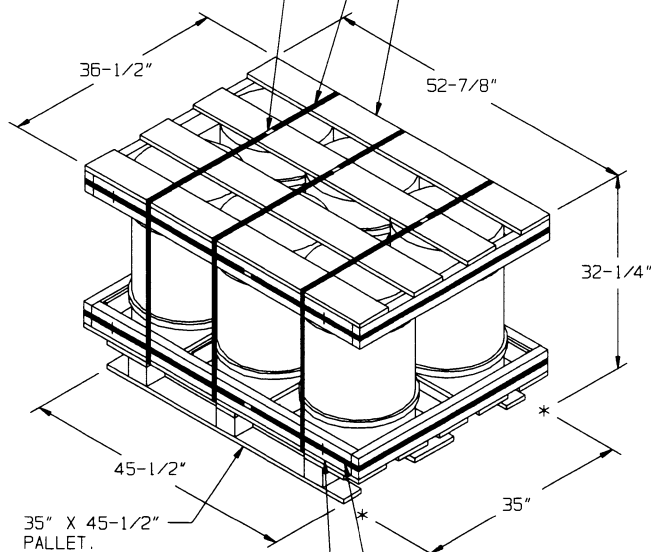
1. ADDING ITEM BY NATIONAL STOCK NUMBER TO THE "PALLET UNIT DATA" CHART.
2. DELETING ITEM BY NATIONAL STOCK NUMBER FROM "PALLET UNIT DATA" CHART.
3. DELETING GENERAL NOTE RELATING TO THE STRAP CUTTER AND RE-LETTERING OTHER GENERAL NOTES.
4. CHANGING THE QUANTITY IN THE METAL DRUM.
5. CHANGING THE DIAMETER OF THE DRUM.
6. CHANGING THE WEIGHT OF THE DRUM.
7. MODIFYING THE BOTTOM ASSEMBLY.

**GENERAL NOTES**

TIEDOWN STRAP, 3/4" X .035" OR .031" X 11'-8" LONG STEEL STRAPPING (3 REOD). SEE GENERAL NOTE "D" AT RIGHT.

SEAL FOR 3/4" STRAPPING (5 REOD, 1 PER STRAP). CRIMP EACH SEAL WITH TWO PAIR OF NOTCHES.

TOP ASSEMBLY (1 REOD). SEE THE DETAIL ON PAGE 4. STAPLE HORIZONTAL STRAP TO TOP ASSEMBLY AS SHOWN.



BOTTOM ASSEMBLY (1 REOD). SEE THE DETAIL ON PAGE 4. STAPLE HORIZONTAL STRAP TO BOTTOM ASSEMBLY AS SHOWN.

HORIZONTAL STRAP, 3/4" X .035" OR .031" X 15'-11" LONG STEEL STRAPPING (2 REOD). SEE GENERAL NOTE "C" AT RIGHT.

**PALLET UNIT**

SEE GENERAL NOTE "B" AT RIGHT.

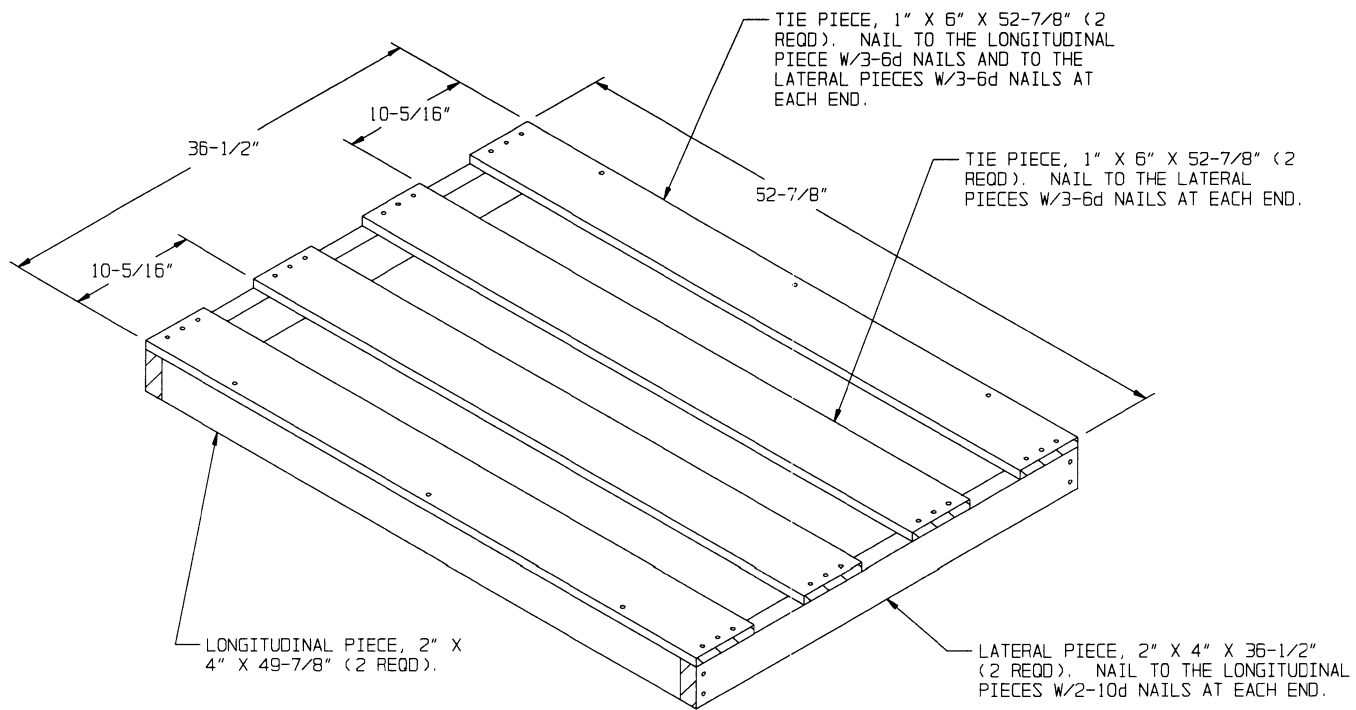
6 DRUMS OF PROPELLING CHARGES AT 121 LBS	-----	726 LBS (APPROX)
DUNNAGE	-----	94 LBS
PALLET	-----	65 LBS

TOTAL WEIGHT	-----	885 LBS (APPROX)
CUBE	-----	36.0 CU FT (APPROX)

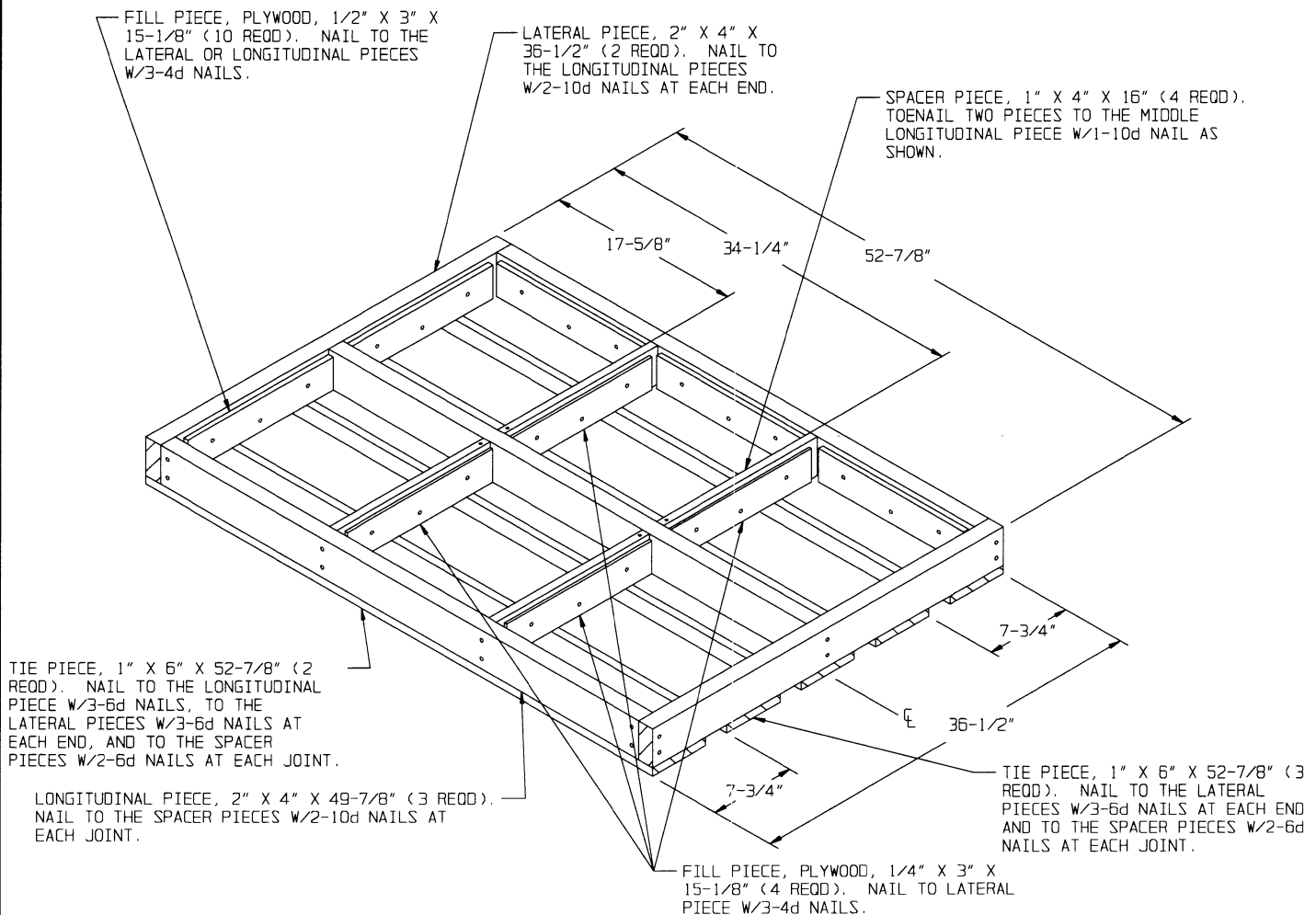
- A. THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION PROCEDURES DRAWING 19-48-4116-20PA1002. TO PRODUCE AN APPROVED UNIT LOAD, ALL PERTINENT PROCEDURES, SPECIFICATIONS AND CRITERIA SET FORTH WITHIN THE BASIC DRAWING WILL APPLY TO THE PROCEDURES DELINEATED IN 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 DRUMS AND THE WEIGHT OF THE SPECIFIC ITEM BEING UNITIZED.
- C. INSTALL EACH HORIZONTAL STRAP TO ENCIRCLE A DUNNAGE ASSEMBLY. HORIZONTAL STRAPS MUST BE TENSIONED AND SEALED PRIOR TO THE APPLICATION OF TIEDOWN STRAPS.
- D. INSTALL EACH TIEDOWN STRAP TO PASS UNDER THE TOP DECK BOARDS OF THE PALLET AND TO BE LOCATED AS SHOWN. TIEDOWN STRAPS WILL NOT BE APPLIED UNTIL THE HORIZONTAL STRAPS HAVE BEEN TENSIONED AND SEALED.
- E. THE FOLLOWING AMC DRAWINGS ARE APPLICABLE FOR OUTLOADING AND STORAGE OF THE ITEMS COVERED BY THIS APPENDIX.
  - CARLOADING - - - - 19-48-4115-5PA1002
  - TRUCKLOADING - - - - 19-48-4117-11PA1003
  - STORAGE - - - - - 19-48-4118-1-2-3-4-14-22PA1002
  - END OPENING ISO CONTAINER - - - - 19-48-4153-15PA1002
  - MILVAN - - - - - 19-48-4166-15PA1003
  - SIDE OPENING ISO CONTAINER - - - - 19-48-4267-15PA1009
- F. IF ITEMS COVERED HEREIN ARE UNITIZED PRIOR TO ISSUANCE OF THIS APPENDIX, THE DRUMS NEED NOT BE REUNITIZED SOLELY TO CONFORM TO THIS APPENDIX.
- G. THE UNITIZATION PROCEDURES DEPICTED HEREIN MAY ALSO BE USED FOR UNITIZING PROPELLING CHARGES WHEN IDENTIFIED BY DIFFERENT NATIONAL STOCK NUMBERS (NSN) THAN WHAT IS SHOWN ON PAGE 2, PROVIDED THE DRUM DOES NOT VARY FROM WHAT IS DELINEATED HEREIN. THE EXPLOSIVE CLASSIFICATION OF OTHER ITEMS MAY BE DIFFERENT THAN WHAT IS SHOWN.
- H. THE STYLE 1A 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 ITEMS COVERED BY THIS APPENDIX.
- J. ALL DUNNAGE SHALL BE PRESERVATIVE TREATED IN ACCORDANCE WITH GENERAL NOTE "AA" IN THE BASIC PROCEDURES.
- K. FOR DETAILS OF THE METAL DRUM SEE MILITARY STANDARD MS27683-2.

**BILL OF MATERIAL**

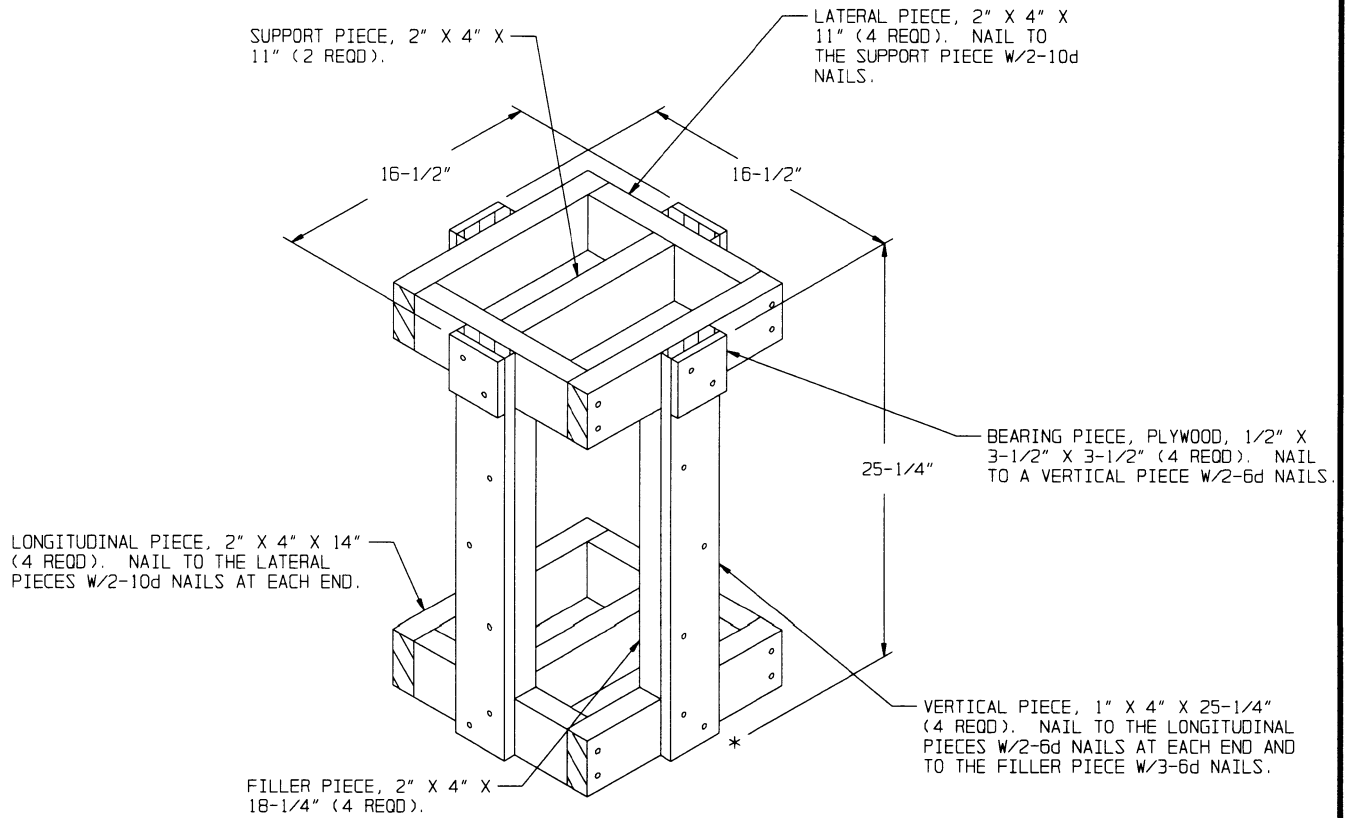
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	5.33	1.78
1" X 6"	35.25	17.63
2" X 4"	32.95	21.96
NAILS	NO. REQD	POUNDS
4d (1-1/2")	42	0.25
6d (2")	86	0.51
10d (3")	32	0.49
PALLET, 35" X 45-1/2"	1 REOD	65 LBS
PLYWOOD, 1/4"	1.38 SQ FT REQD	0.95 LBS
PLYWOOD, 1/2"	3.15 SQ FT REQD	4.33 LBS
STEEL STRAPPING, 3/4"	66.83' REQD	5.97 LBS
SEAL FOR 3/4" STRAPPING	5 REOD	NIL
STAPLES 3/4"	8 REOD	NIL



**TOP ASSEMBLY**



**BOTTOM ASSEMBLY**



**FILLER ASSEMBLY**  
(FOR MINUS ONE DRUM)

