APPENDIX 14

UNITIZATION PROCEDURES FOR COMPLETE ROUNDS PACKED IN CYLINDRICAL METAL CONTAINERS ON 4-WAY ENTRY PALLETS

PA103A1 SERIES CONTAINER

INDEX

NOTICE: THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION PROCEDURES DRAWING 19-48-4079-20PM1002.

U.S. ARMY MATERIEL COMMAND DRAWING

APPROVED, U.S. ARMY INDUSTRIAL OPERATIONS COMMAND

AMSTA-AR-ESK | AMSIO-TMD

APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND

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MARCH 1997

CLASS	DIVISION	DRAWING	FILE
19	48	4079/ 14	20PM 1002

DO NOT SCALE

PROJECT FSA 63/14-66

PALLET UNIT DATA				
ITEMS INCLUDED		HAZARD CLASS AND DIVISION ●		APPROX WEIGHT LBS
NSN	DODIC	QD CLASS	COMP GROUP	
1375- 01-429-3510 01-429-3509	 MN26 MN27	 1.4 1.4	 B B	 1,082 962

● 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).

GENERAL NOTES

A. THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZING PROCEDURES DRAWING 19-48-4079-20PM1002. 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 CONTAINER, WEIGHT OF THE SPECIFIC ITEM, AND METHOD OF UNITIZATION.

C. FOR OUTLOADING OF THE ITEMS COVERED BY THIS APPENDIX CONTACT THE U.S. ARMY DEFENSE AMMUNITION CENTER, ATTN: SIOAC-DET, SAVANNA, IL 61074-9639. FOR STORAGE OF THE ITEMS COVERED BY THIS APPENDIX, CONTACT THE U.S. ARMY DEFENSE AMMUNITION CENTER, ATTN: SIOAC-DES, SAVANNA, IL 61074-9639 FOR SPECIFIC PROCEDURAL GUIDANCE.

D. IF ITEMS COVERED HEREIN ARE UNITIZED PRIOR TO ISSUANCE OF THIS APPENDIX, THE CONTAINERS NEED NOT BE REUNITIZED SOLELY TO CONFORM TO THIS APPENDIX.

E. THE UNITIZATION PROCEDURES DEPICTED HEREIN MAY ALSO BE USED FOR UNITIZING DEMO KITS WHEN IDENTIFIED BY DIFFERENT NATIONAL STOCK NUMBERS (NSN) THAN THOSE SHOWN ON PAGE 2, PROVIDED THE ITEM IS PACKED IN THE PA103A1 SERIES CONTAINER. THE EXPLOSIVE CLASSIFICATION OF OTHER ITEMS MAY BE DIFFERENT THAN THOSE SHOWN.

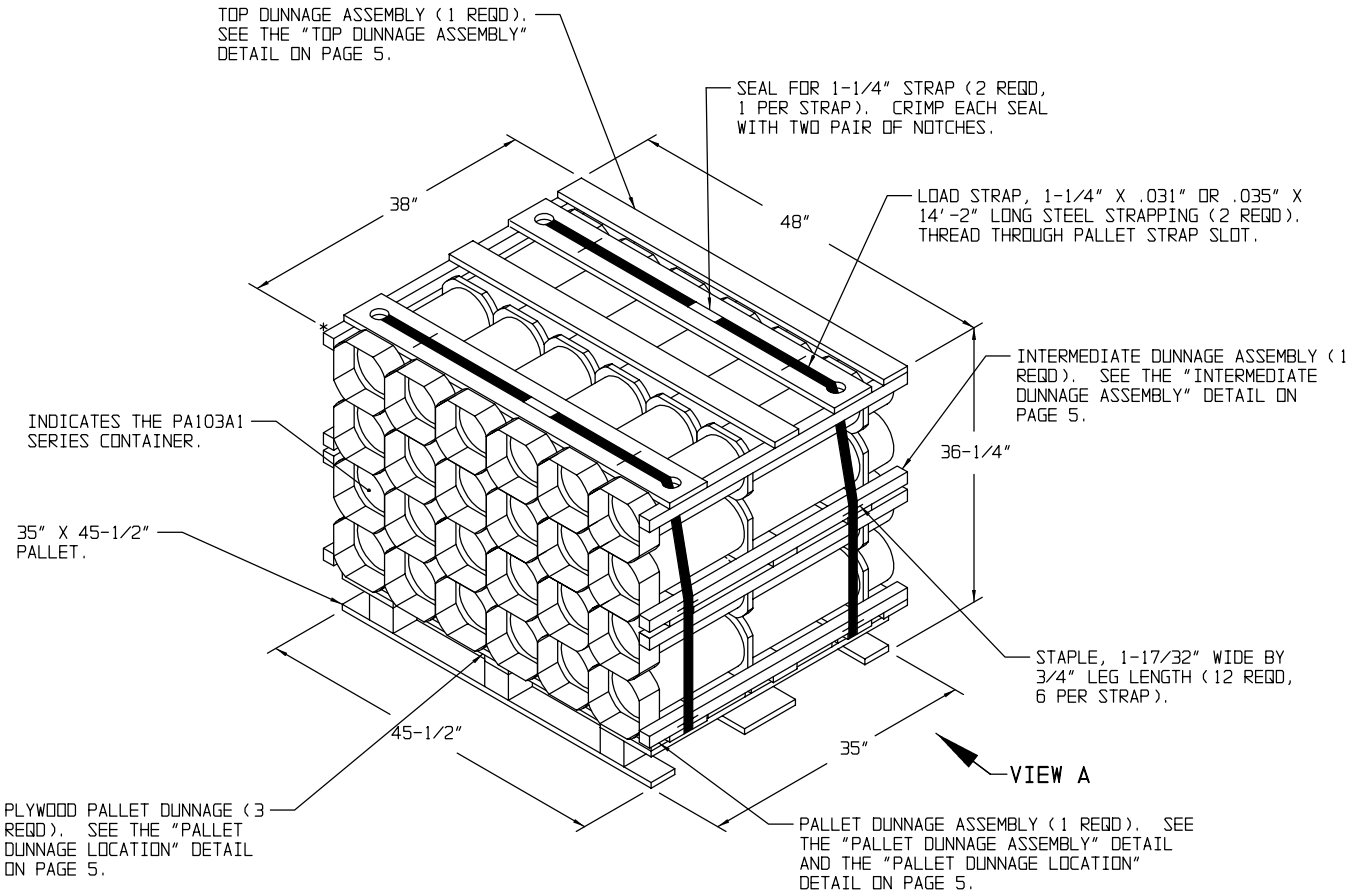
F. FOR DETAILS OF THE PA103A1 SERIES CONTAINER, SEE US ARMY ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER DRAWING NO. 12960798.

CONTAINER DIMENSIONS - 38" LONG BY 7-1/2" WIDE BY 7-1/2" HIGH.
CONTAINER CUBE - - - - - - - - - - - - 1.24 CUBIC FEET.
CONTAINER WEIGHT (WITH ROUNDS)
2 XM300 KITS PER CONTAINER - - - - - 40 LBS (APPROX)
4 XM301 KITS PER CONTAINER - - - - - 35 LBS (APPROX)

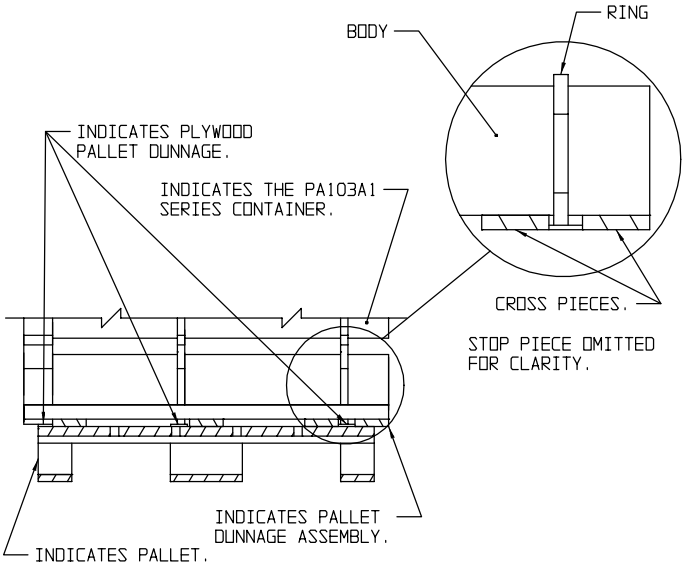
G. IF DEEMED MORE ECONOMICAL FOR SHIPPING AND STORAGE BY THE RESPONSIBLE COMMAND, THE UNIT DEPICTED ON THE FOLLOWING PAGES MAY BE INCREASED BY ONE OR TWO COMPLETE LAYERS OF CONTAINERS. FOR FURTHER UNITIZATION GUIDANCE, SEE SPECIAL NOTE 3 ON PAGE 4.

H. THE STYLE 1A PALLET DELINEATED IN THE VIEW ON PAGE 4 NEED NOT HAVE CHAMFERS AS SPECIFIED WITHIN MILITARY SPECIFICATION MIL-P-15011 WHEN USED FOR THE UNITIZATION OF THE ITEMS COVERED BY THIS APPENDIX.

J. ALL DUNNAGE SHALL BE PRESERVATIVE TREATED IN ACCORDANCE WITH GENERAL NOTE "X" IN THE BASIC PROCEDURES.



ISOMETRIC VIEW



PARTIAL VIEW A

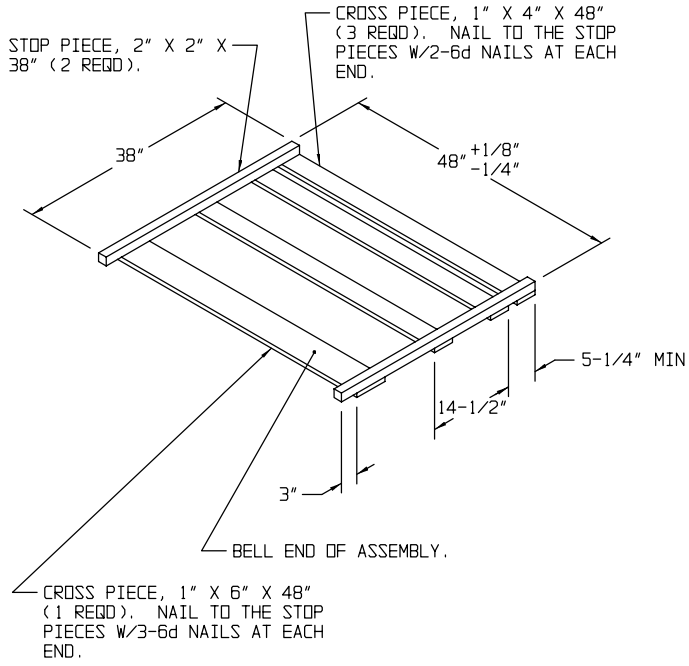
SPECIAL NOTES:

1. DIMENSIONS GIVEN FOR DUNNAGE PIECES OR DUNNAGE ASSEMBLIES WILL BE FIELD CHECKED PRIOR TO THEIR ASSEMBLY TO THE PALLET UNIT. CONTAINERS MUST FIT SNUGLY IN THE DUNNAGE ASSEMBLIES. ALSO, DUE TO THE VARIATION OF THE CONTAINER DIMENSIONS, ADJUSTMENTS MAY BE REQUIRED AS TO THE LOCATION OF CERTAIN PIECES OF DUNNAGE IN A DUNNAGE ASSEMBLY.

2. ALTHOUGH THE PROPELLING CHARGE CONTAINERS DEPICTED IN THE UNIT LOAD ABOVE ARE CONSTRUCTED WITH INTERLOCKING DEVICES, THE INTERLOCKS WILL NOT FUNCTION PROPERLY UNLESS THE CONTAINERS ARE POSITIONED SO THAT THE "PINS" OF THE INTERLOCKS ARE IN AN UPRIGHT ORIENTATION. THIS ORIENTATION WILL PRECLUDE INTERFERENCE OF THE "PINS" AND THE PLYWOOD PALLET DUNNAGE AND WILL AID IN THE PREVENTION OF CONTAINER MOVEMENT, BOTH LATERALLY AND LONGITUDINALLY, DURING SHIPMENT OF THE UNIT LOAD.

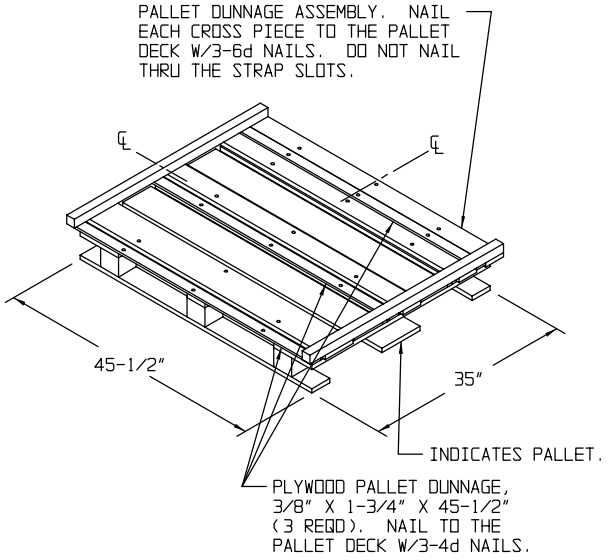
3. THE UNIT LOAD DEPICTED ABOVE MAY BE INCREASED BY ONE OR TWO LAYERS WHEN DEEMED ADVANTAGEOUS FOR A CERTAIN MODE OF TRANSPORTATION. IN THIS EVENT, A SECOND "INTERMEDIATE DUNNAGE ASSEMBLY" MUST BE ADDED AND THE LOAD STRAP LENGTHS MUST BE INCREASED. THE DECISION TO INCREASE THE LOAD BY ONE OR TWO LAYERS WILL BE MADE BY THE RESPONSIBLE COMMAND AND WILL BE BASED ON THE ECONOMICS OF TRANSPORTATION AND HANDLING.

4. THE DUNNAGE ASSEMBLIES AID IN PREVENTING MOVEMENT BY CAPTURING THE BELL END AND CONTAINER RINGS. THE BODY OF THE CONTAINER SHOULD REST ON THE CROSS PIECES. THE BELL END AND RINGS SHOULD REST BESIDE AND BETWEEN THE CROSS PIECES AS SHOWN IN PARTIAL VIEW A DETAIL AND THE ISOMETRIC VIEW ON THIS PAGE.

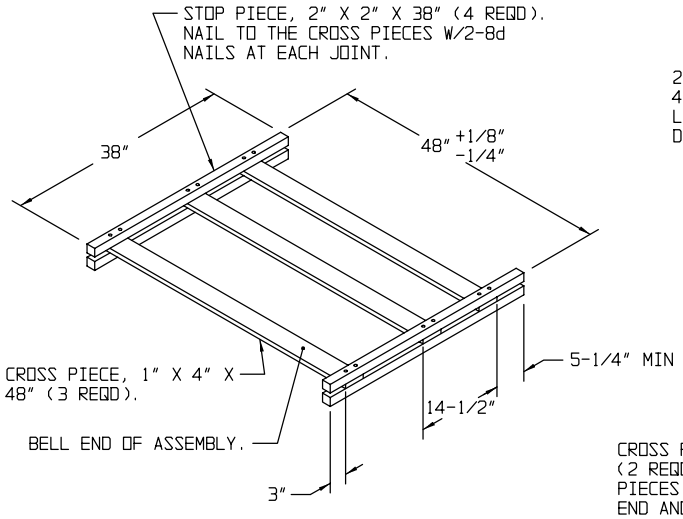


PALLET DUNNAGE ASSEMBLY

(1 REQD)

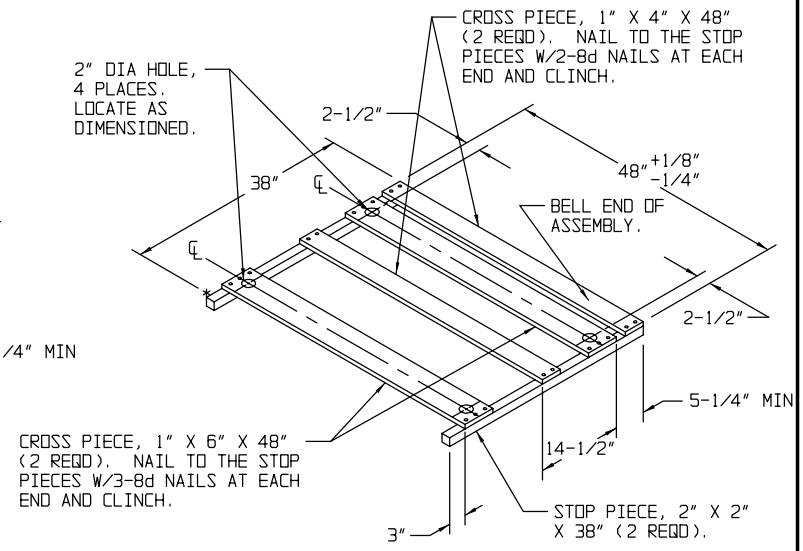


PALLET DUNNAGE LOCATION



INTERMEDIATE DUNNAGE ASSEMBLY

(1 REQD)



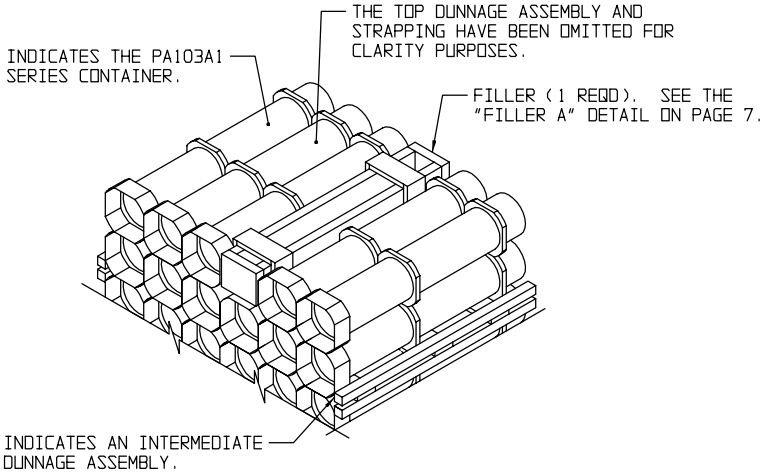
TOP DUNNAGE ASSEMBLY

(1 REQD)

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	32.00	10.67
1" X 6"	12.00	6.00
2" X 2"	25.33	8.44
NAILS	NO. REQD	POUNDS
4d (1-1/2")	9	0.03
6d (2")	30	0.18
8d (2-1/2")	44	0.46
PALLET, 35" X 45-1/2" - - - - - 1 REQD - - - 65 LBS		
STEEL STRAPPING, 1-1/4" - - 28.33' REQD - - 4.05 LBS		
SEAL FOR 1-1/4" STRAPPING - - - 2 REQD - - - - NIL		
STAPLE, 1-17/32 X 3/4" - - - - 12 REQD - - - - NIL		
PLYWOOD, 3/8" - - - - - 1.66 SQ FT REQD - - 1.71 LBS		

UNIT DATA	WEIGHT
CUBE -	38.3 CUBIC FEET (APPROX)
CONTAINER, PA103A1 SERIES - 24 EACH AT 40 LBS - -	960 LBS (APPROX)
DUNNAGE - - - - - - - - - - - - - - - - - - -	57 LBS
PALLET -	65 LBS
TOTAL WEIGHT - - - - - - - - - - - - - -	1,082 LBS (APPROX)

PROJECT FSA 63/14-66 DRAWING 19-48-4079/14



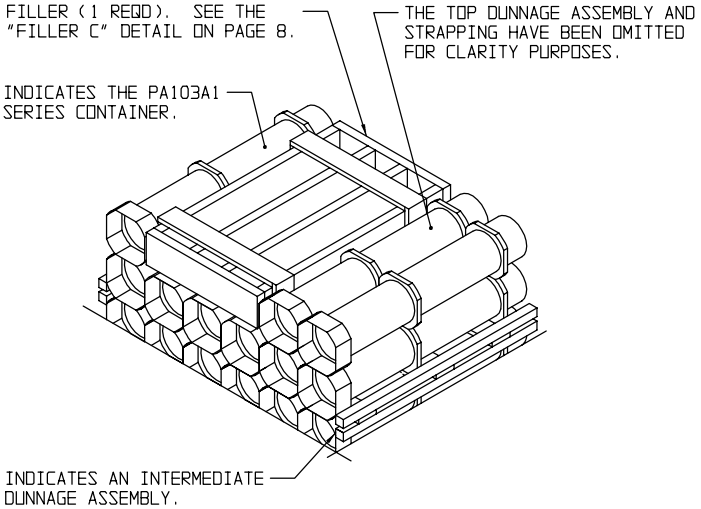
DETAIL A

THIS DETAIL DEPICTS PROCEDURES TO BE USED WHEN A STANDARD PALLET UNIT MINUS ONE CONTAINER IS TO BE UNITIZED. THE FILLER ASSEMBLY DEPICTED MUST BE INSTALLED IN THE MIDDLE OF THE TOP LAYER OF THE PALLET UNIT.

SPECIAL NOTES

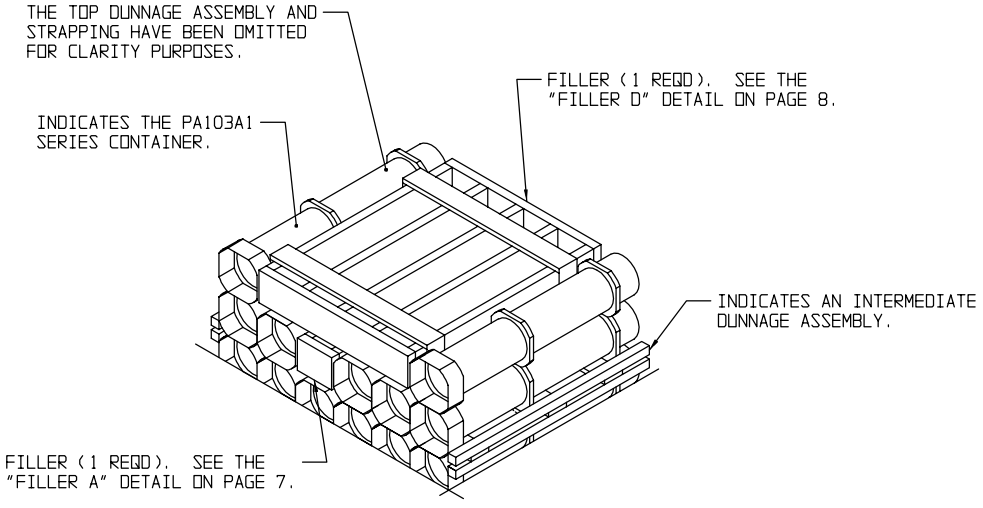
1. WHEN SIX CONTAINERS ARE TO BE OMITTED FROM A PALLET UNIT, A COMPLETE LAYER OF CONTAINERS MUST BE OMITTED. WHEN FIVE CONTAINERS ARE TO BE OMITTED FROM A PALLET UNIT, A COMBINATION OF FILLER ASSEMBLIES DEPICTED ON PAGE 7 MUST BE USED. WHEN FOUR OR LESS CONTAINERS ARE TO BE OMITTED FROM A PALLET UNIT, A COMBINATION OR ONE OF THE FILLER ASSEMBLIES DEPICTED ON PAGE 7 MAY BE USED. ALL FILLER ASSEMBLIES MUST BE INSTALLED IN THE MIDDLE OF THE TOP LAYER OR LAYERS OF A PALLET UNIT.

2. THE OVERALL HEIGHT OF THE FILLER ASSEMBLIES DEPICTED ON PAGE 7 MUST BE REDUCED FROM 7-1/4" TO 6-1/2" WHEN INSTALLED BETWEEN A TOP DUNNAGE ASSEMBLY AND AN INTERMEDIATE DUNNAGE ASSEMBLY OR BETWEEN ANOTHER FILLER ASSEMBLY AND AN INTERMEDIATE DUNNAGE ASSEMBLY.



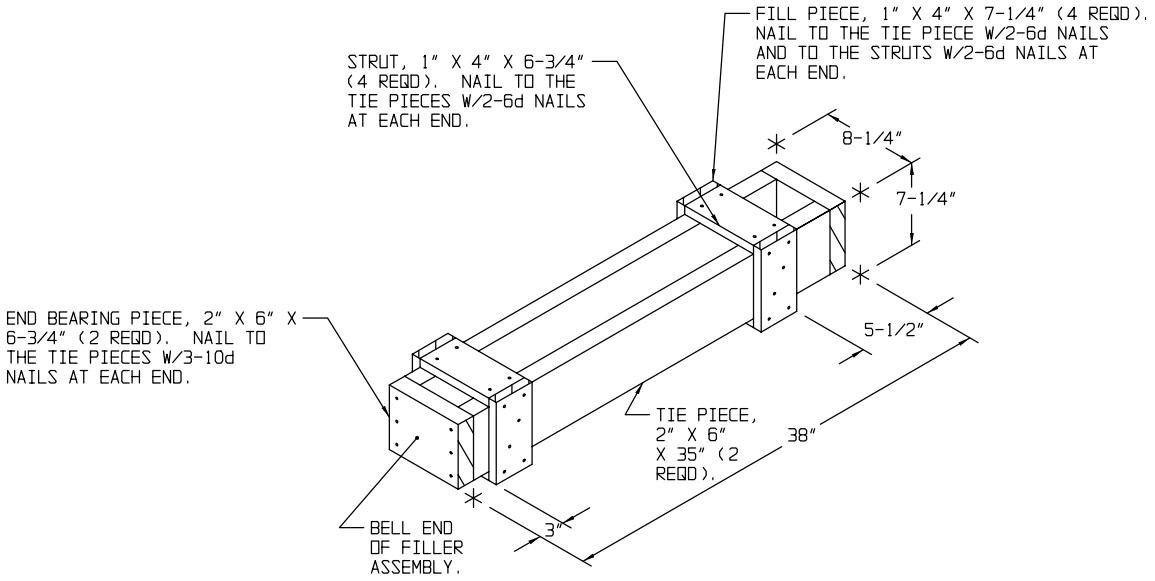
DETAIL B

THIS DETAIL DEPICTS PROCEDURES TO BE USED WHEN A STANDARD PALLET UNIT MINUS THREE CONTAINERS IS TO BE UNITIZED. THE FILLER ASSEMBLY DEPICTED MUST BE INSTALLED IN THE MIDDLE OF THE TOP LAYER OF THE PALLET UNIT.



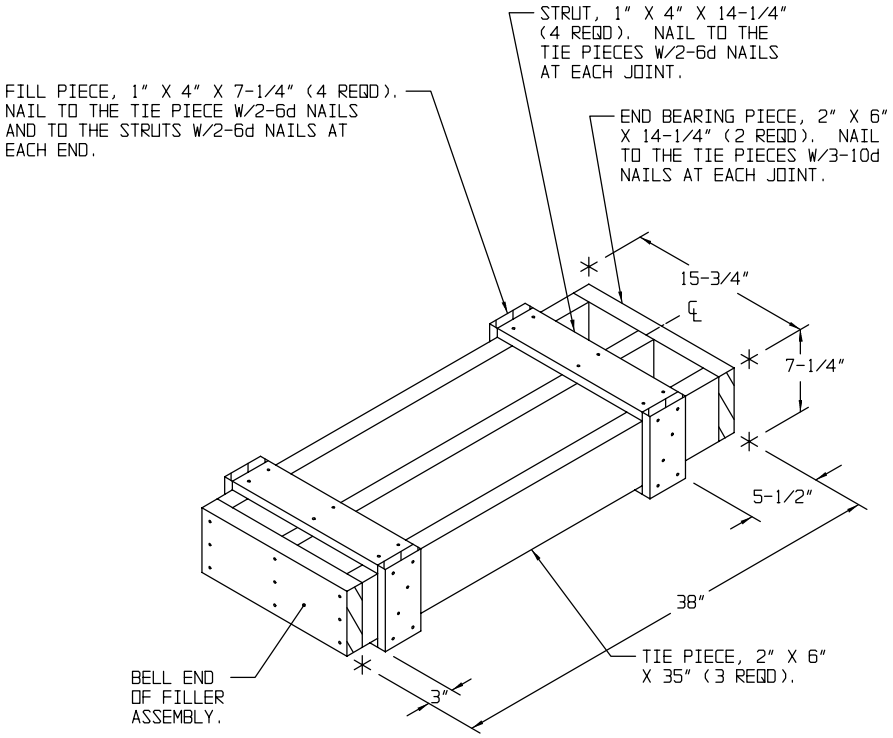
DETAIL C

THIS DETAIL DEPICTS PROCEDURES TO BE USED WHEN A STANDARD PALLET UNIT MINUS FIVE CONTAINERS IS TO TO UNITIZED. THE FILLER ASSEMBLIES DEPICTED MUST BE INSTALLED IN THE MIDDLE OF THE TOP LAYERS OF THE PALLET UNIT.



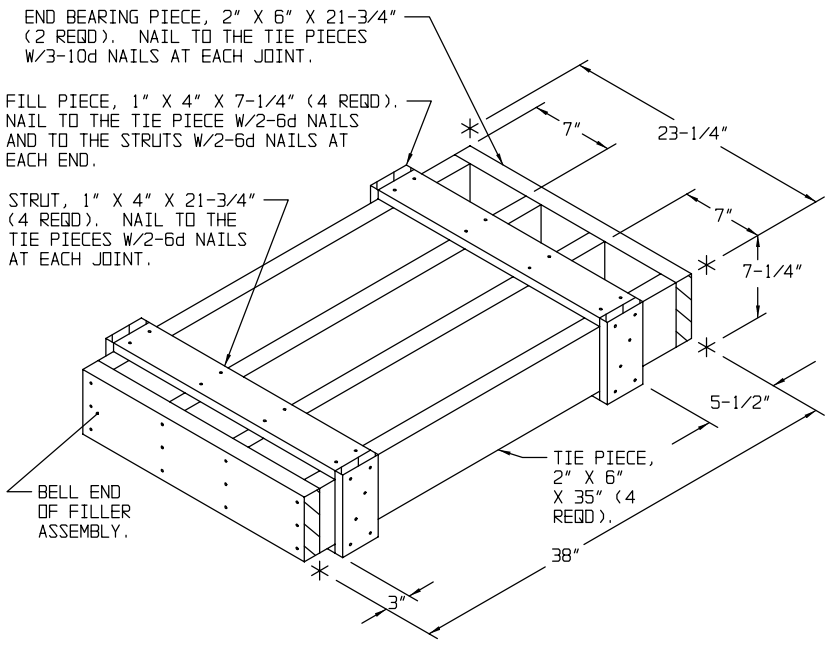
FILLER A

THIS FILLER ASSEMBLY IS TO BE USED WHEN ONE CONTAINER IS TO BE OMITTED FROM A PALLET UNIT, OR IN COMBINATION WITH OTHER FILLER ASSEMBLIES.



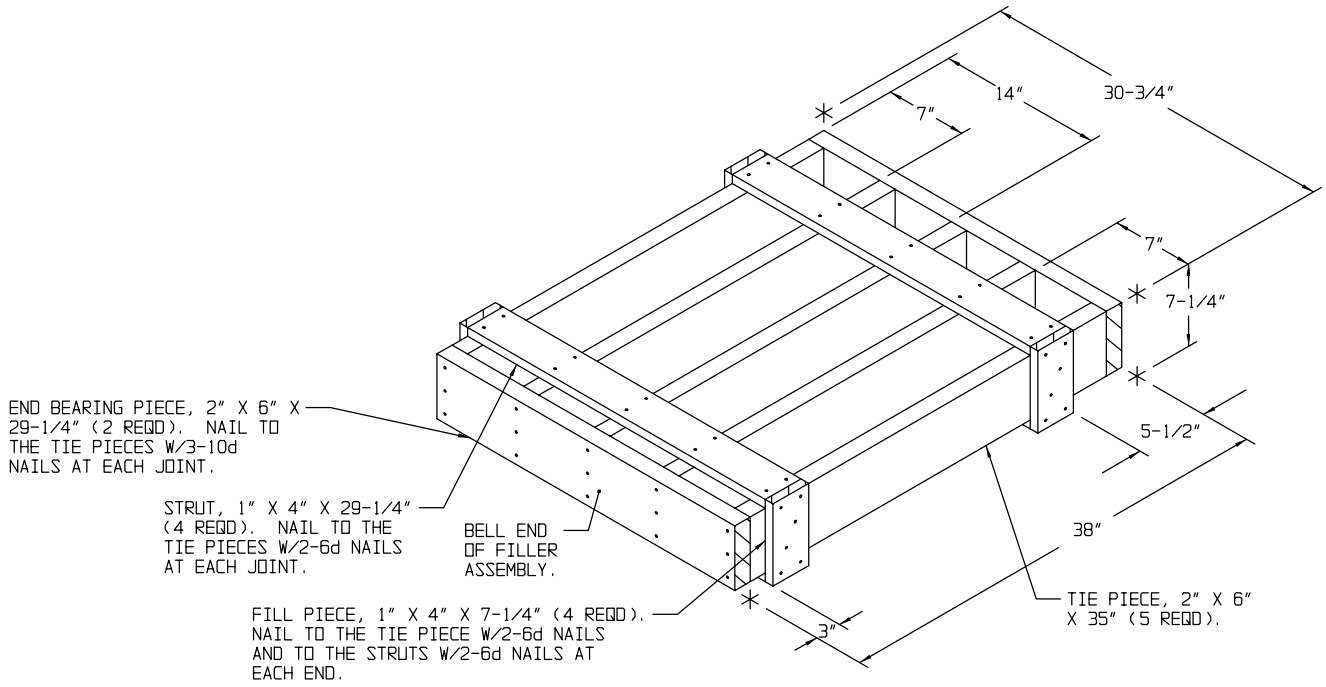
FILLER B

THIS FILLER ASSEMBLY IS TO BE USED WHEN TWO CONTAINERS ARE TO BE OMITTED FROM A PALLET UNIT, OR IN COMBINATION WITH OTHER FILLER ASSEMBLIES.



FILLER C

THIS FILLER ASSEMBLY IS TO BE USED WHEN THREE CONTAINERS ARE TO BE OMITTED FROM A PALLET UNIT, OR IN COMBINATION WITH OTHER FILLER ASSEMBLIES.



FILLER D

THIS FILLER ASSEMBLY IS TO BE USED WHEN FOUR CONTAINERS ARE TO BE OMITTED FROM A PALLET UNIT, OR IN COMBINATION WITH OTHER FILLER ASSEMBLIES.

FILLERS AND INSTALLATION PROCEDURES FOR OMITTED CONTAINERS