

APPENDIX 14

UNITIZING PROCEDURES FOR PROPELLING CHARGES PACKED IN CYLINDRICAL METAL CONTAINERS ON 4-WAY ENTRY PALLETS

PA92 SERIES CONTAINER

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NOTICE: THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION PROCEDURES DRAWING 19-48-4042A-20PM1001.

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OCTOBER 1983			
CLASS	DIVISION	DRAWING	FILE
REVISION NO. 2	APRIL 1997	19	48
SEE THE REVISION LISTING ON PAGE 2		4042A/ 14	20PM 1001

DO NOT SCALE

PALLET UNIT DATA				
ITEMS INCLUDED		HAZARD CLASS AND DIVISION •		APPROX WEIGHT LBS
NSN	DODIC	DD CLASS	COMP GROUP	
1320-01-231-7231	D662	1.3	C	1,955

- 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 AUGUST 1986, CONSISTS OF:

1. ADDING ITEM BY NATIONAL STOCK NUMBER (NSN) TO "PALLET UNIT DATA" CHART.

REVISION NO. 2, DATED APRIL 1997, CONSISTS OF:

1. UPDATING TO CAD
2. ADDING SPECIAL NOTE 5 ON PAGE 4.
3. DELETING GENERAL NOTE RELATING TO STRAP CUTTER AND RELETTERING OTHER GENERAL NOTES.
4. ADDING GENERAL NOTE RELATING TO PALLET CHAMFERS.

GENERAL NOTES

- A. THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION PROCEDURES DRAWING 19-48-4042A-20PM1001. 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 AND THE WEIGHT OF THE SPECIFIC ITEM BEING UNITIZED.
- C. THE FOLLOWING AMC DRAWINGS ARE APPLICABLE FOR OUTLOADING AND STORAGE OF THE ITEMS COVERED BY THIS APPENDIX.
- | | | |
|----------------------------|-----------|--------------------------------|
| BOXCAR | - - - - - | 19-48-4042B/13-5PM1000 |
| STORAGE | - - - - - | 19-48-4145/ -1-3-4-14-22PM1003 |
| VAN TRAILER | - - - - - | 19-48-4042C/13-11PM1000 |
| END OPENING ISO CONTAINER | - - - - - | 19-48-4154/14-15PM1002 |
| MILVAN | - - - - - | 19-48-4106-15PM1001 |
| SIDE OPENING ISO CONTAINER | - - - - - | 19-48-4264/14-15PM1003 |
- 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 PROPELLING CHARGES WHEN IDENTIFIED BY DIFFERENT NATIONAL STOCK NUMBERS (NSN) THAN THOSE SHOWN ON PAGE 2, PROVIDED THE ITEM IS PACKED IN THE PA92 SERIES CONTAINER. THE EXPLOSIVE CLASSIFICATION OF OTHER ITEMS MAY BE DIFFERENT THAN WHAT IS SHOWN.
- F. FOR DETAILS OF THE PA92 SERIES CONTAINER, SEE U.S. ARMY ARMAMENT RESEARCH AND DEVELOPMENT CENTER DRAWING NO. 9331197.
- | | | |
|--------------------------------|-----------|----------------------------|
| CONTAINER DIMENSIONS | - - - | 36-5/8" LONG X 9-1/4" WIDE |
| | | BY 9-1/4" HIGH. |
| CONTAINER CUBE | - - - - - | 1.81 CUBIC FEET (APPROX). |
| CONTAINER WEIGHT (WITH CHARGE) | - - - - - | 72 POUNDS (APPROX). |
- G. IF DEEMED MORE ECONOMICAL FOR SHIPPING AND STORAGE BY THE RESPONSIBLE COMMAND, THE UNIT DEPICTED IN THE FOLLOWING PAGES MAY BE DECREASED BY ONE COMPLETE LAYER OF CONTAINERS. FOR FURTHER UNITIZATION GUIDANCE, SEE SPECIAL NOTES 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.

LOAD STRAP, 1-1/4" X .031" OR .035" X 17'-1" LONG STEEL STRAPPING (2 REQD). THREAD THRU THE PALLET STRAP SLOTS.

TOP DUNNAGE ASSEMBLY (1 REQD). SEE THE "TOP DUNNAGE ASSEMBLY" DETAIL ON PAGE 5.

SEAL FOR 1-1/4" STRAP (2 REQD, 1 PER STRAP). CRIMP EACH SEAL WITH TWO PAIR OF NOTCHES.

STAPLE, 1-17/32" WIDE BY 3/4" LEG LENGTH (8 REQD, 4 PER LOAD STRAP).

INDICATES THE PA92 SERIES CONTAINER.

PALLET DUNNAGE ASSEMBLY (1 REQD). SEE THE "PALLET DUNNAGE ASSEMBLY" DETAIL AND THE "PALLET DUNNAGE LOCATION" DETAIL ON PAGE 5.

INTERMEDIATE DUNNAGE ASSEMBLY (3 REQD). SEE THE "INTERMEDIATE DUNNAGE ASSEMBLY" DETAIL ON PAGE 5.

35" X 45-1/2" PALLET.

36-5/8"

48-3/4"

52-1/2"

45-1/2"

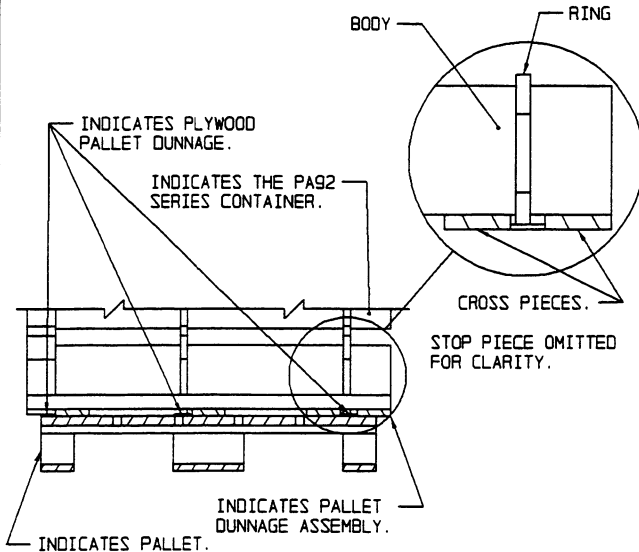
35"

VIEW A

ISOMETRIC VIEW

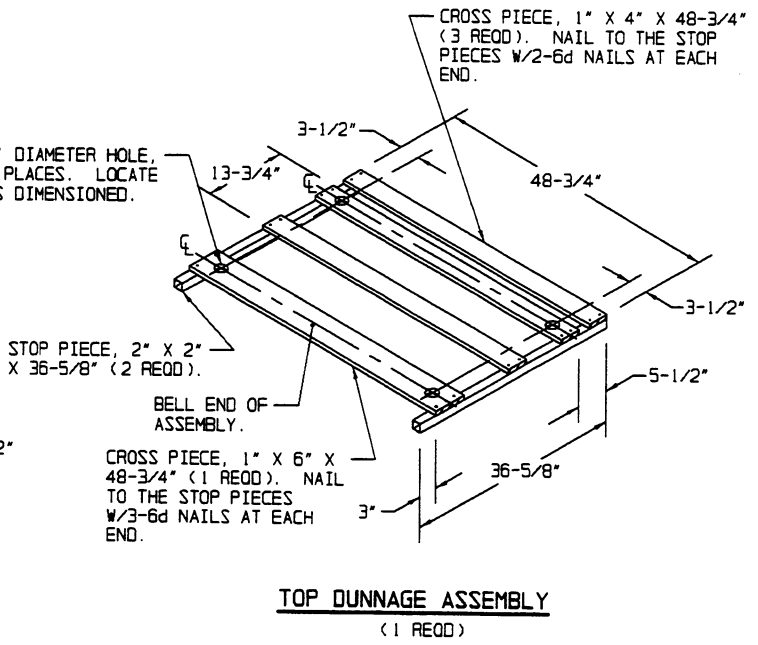
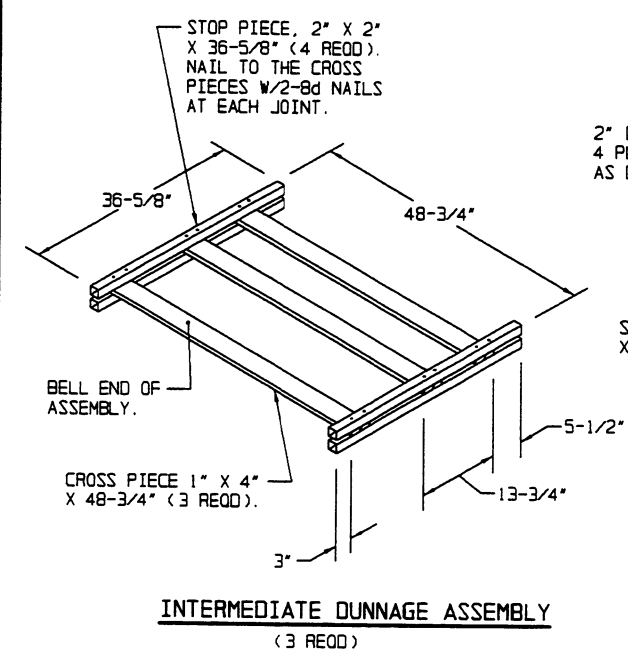
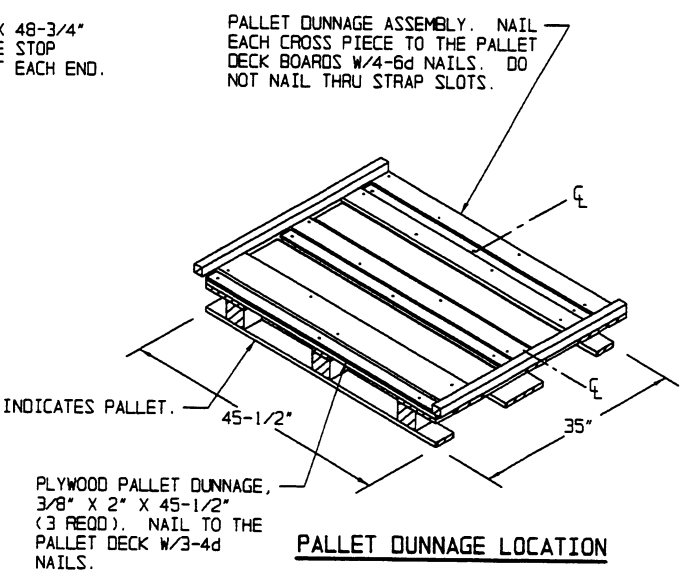
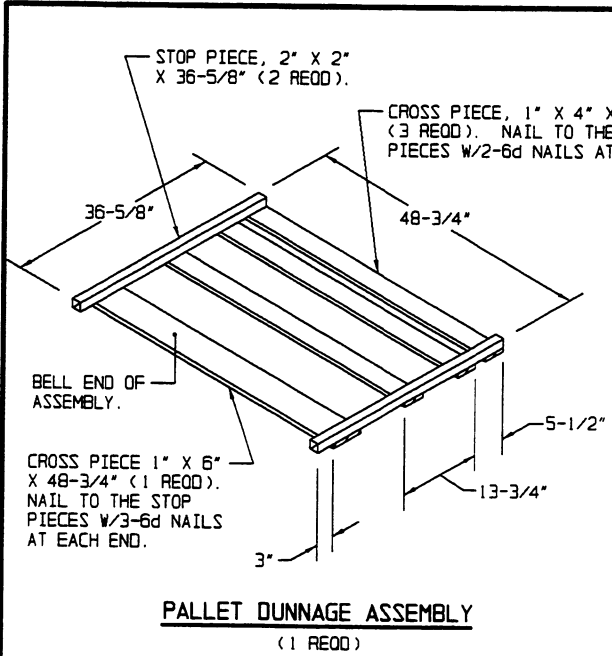
SPECIAL NOTES:

1. WHEN THE UNIT LOAD DEPICTED ABOVE IS TO BE USED FOR UNITIZING MARINE CORPS AMMUNITION, ONE LAYER OF CONTAINERS MUST BE OMITTED, THE UPPERMOST "INTERMEDIATE DUNNAGE ASSEMBLY" MUST BE OMITTED, THE LOAD STRAP LENGTH MUST BE DECREASED TO 15'-6". THIS WILL RESULT IN AN OVERALL UNIT HEIGHT OF 43-1/4", A GROSS UNIT WEIGHT OF 1,558 LBS, AND A UNIT CUBE OF 44.7 CUBIC FEET.
2. THE UNIT LOAD DEPICTED ABOVE MAY ALSO BE REDUCED BY ONE LAYER OF CONTAINERS, AS DESCRIBED IN SPECIAL NOTE 1, WHEN SHIPPED BY MILVAN OR COMMERCIAL INTERMODAL FREIGHT CONTAINER. THE DETERMINATION TO REDUCE THE LOAD BY A LAYER WILL BE MADE BY THE RESPONSIBLE COMMAND AND WILL BE BASED UPON ECONOMICS OF TRANSPORTATION AND HANDLING.
3. 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 CONTAINER DIMENSIONS, ADJUSTMENTS MAY BE REQUIRED AS TO THE LOCATION OF CERTAIN PIECES OF DUNNAGE IN A DUNNAGE ASSEMBLY.
4. 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.
5. 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 AND THE ISOMETRIC VIEW ON THIS PAGE.



PARTIAL VIEW A

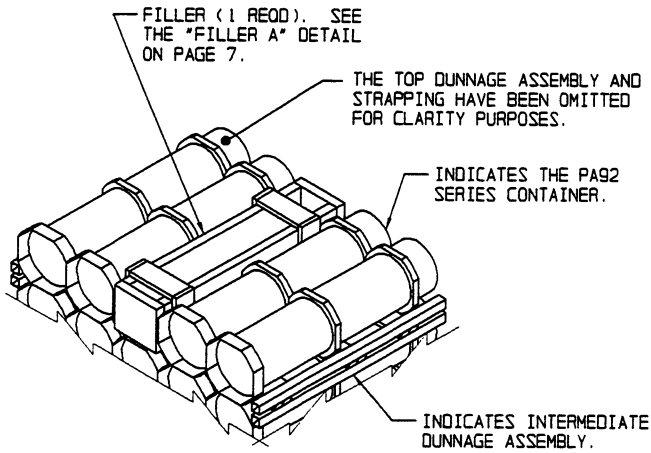
UNIT DETAIL



BILL OF MATERIAL			
LUMBER	NO. REOD	LINEAR FEET	BOARD FEET
1" X 4" X 48-3/4"	15	60.94	20.31
1" X 6" X 48-3/4"	2	8.13	4.07
2" X 2" X 36-5/8"	16	48.83	16.28
NAILS	NO. REOD	POUNDS	
4d (1-1/2")	9	0.03	
6d (2")	52	0.31	
8d (2-1/2")	72	0.76	
PALLET, 35" X 45-1/2"	1 REOD	65	LBS
STEEL STRAPPING, 1-1/4"	34.17' REOD	4.88	LBS
SEAL FOR 1-1/4" STRAPPING	2 REOD	NIL	
STRAP STAPLE, 1-17/32" X 3/4"	8 REOD	NIL	
PLYWOOD, 3/8"	1.89 SQ FT REOD	1.95	LBS

UNIT DATA	WEIGHT
CUBE	54.2 CUBIC FEET (APPROX)
CONTAINER, PA92 SERIES	25 EA AT 72 LBS
DUNNAGE	90 LBS
PALLET	65 LBS
TOTAL WEIGHT	1,955 LBS (APPROX)

DUNNAGE DETAILS

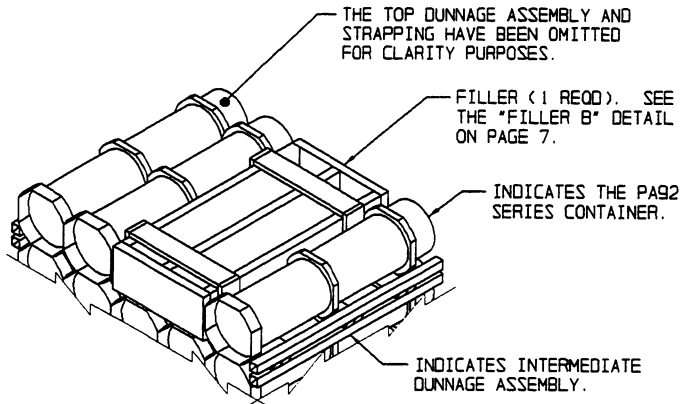


SPECIAL NOTES:

1. WHEN FIVE CONTAINERS ARE TO BE OMITTED FROM A PALLET UNIT, A COMPLETE LAYER OF CONTAINERS MUST BE OMITTED. WHEN FOUR CONTAINERS ARE TO BE OMITTED FROM A PALLET UNIT, A COMBINATION OF FILLER ASSEMBLIES DEPICTED ON PAGE 7 MUST BE USED. WHEN THREE 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 OF A PALLET UNIT.
2. THE OVERALL HEIGHT OF THE FILLER ASSEMBLIES DEPICTED ON PAGE 7 MUST BE REDUCED FROM 9" TO 8-1/4" WHEN INSTALLED BETWEEN A TOP DUNNAGE ASSEMBLY AND AN INTERMEDIATE DUNNAGE ASSEMBLY OR BETWEEN ANOTHER FILLER ASSEMBLY AND AN INTERMEDIATE DUNNAGE ASSEMBLY.

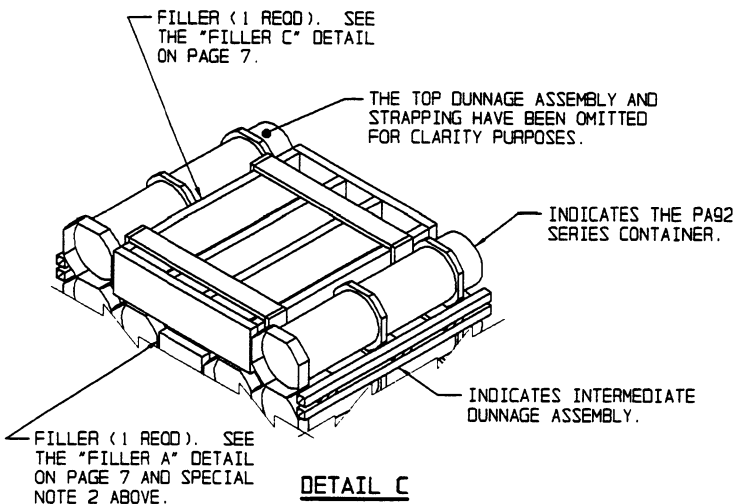
DETAIL A

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

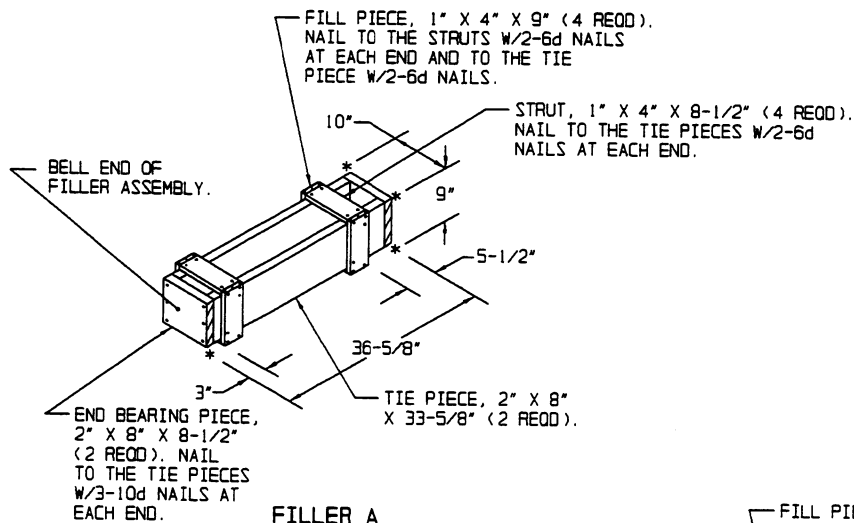


DETAIL B

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

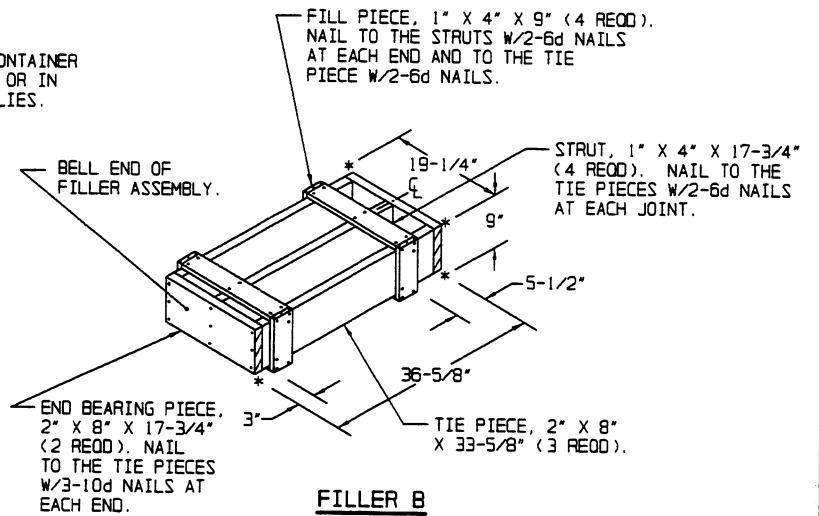


THIS DETAIL DEPICTS PROCEDURES TO BE USED WHEN A STANDARD PALLET UNIT MINUS FOUR CONTAINERS IS TO BE UNITIZED. THE FILLER ASSEMBLIES MUST BE INSTALLED IN THE MIDDLE OF THE TOP LAYERS OF THE PALLET UNIT.



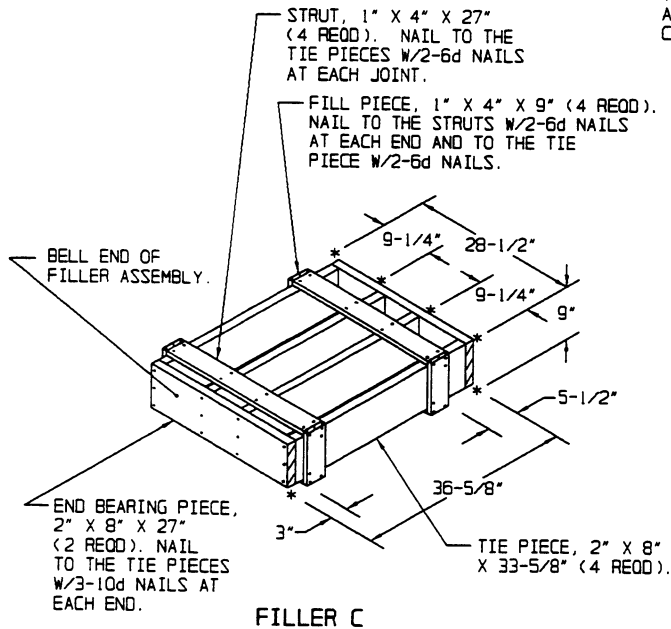
FILLER A

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

