

Job # 20

# LOADING AND BRACING<sup>⊕</sup> IN MILVAN CONTAINERS<sup>⊕</sup> OF COMPLETE ROUNDS PACKED IN PA116 CYLINDRICAL METAL CONTAINERS

- ⊙ LOADING AND BRACING SPECIFICATIONS SET FORTH WITHIN THIS DRAWING ARE APPLICABLE TO LOADS THAT ARE TO BE SHIPPED BY TRAILER/CONTAINER-ON-FLAT-CAR (T/COFC) RAIL CARRIER SERVICE. THESE SPECIFICATIONS MAY ALSO BE USED FOR LOADS THAT ARE TO BE MOVED BY MOTOR OR WATER CARRIERS. SEE GENERAL NOTE "M" ON PAGE 3.
- ⊕ ONLY MILVAN CONTAINERS WHICH HAVE BEEN MODIFIED TO INCLUDE A MECHANICAL LOAD-BRACING SYSTEM THAT SATISFIES THE REQUIREMENTS OF THE BUREAU OF EXPLOSIVES PAMPHLET 6C WILL BE USED FOR THE MOVEMENT OF AMMUNITION BY T/COFC SERVICE. **CAUTION:** OTHER REQUIREMENTS OF PAMPHLET 6C ALSO APPLY.

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DO NOT SCALE

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APPROVED, U.S. ARMY ARMAMENT, MUNITIONS AND CHEMICAL COMMAND  
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 U.S. ARMY MATERIEL COMMAND  
 OCTOBER 1991

## GENERAL NOTES

- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1 AND AUGMENTS TM 743-200-1 (CHAPTER 5).
- B. THE OUTLOADING PROCEDURE SPECIFIED HEREIN IS APPLICABLE TO PALLETIZED UNITS OF COMPLETE ROUNDS PACKED IN PA116 SERIES CYLINDRICAL METAL CONTAINERS. SUBSEQUENT REFERENCE TO PALLET UNIT MEANS THE PALLETIZED UNIT WITH AMMUNITION ITEMS. SEE PAGE 3 OF THIS DRAWING AND U.S. AMC DRAWING NO. 19-48-4079/7 - 20PM1002 FOR DETAIL OF THE PALLETIZED UNIT. **CAUTION:** REGARDLESS OF THE QUANTITY OF UNITS TO BE SHIPPED THE "MAXIMUM GROSS WEIGHT" OF 44,800 POUNDS MUST NOT BE EXCEEDED.
- C. THE LOADS AS SHOWN ARE BASED ON A 20' LONG BY 8' WIDE BY 8' HIGH MILVAN CONTAINER WITH INSIDE DIMENSIONS OF 19'-4" LONG BY 92" WIDE BY 87" HIGH. THE LOADS ARE DESIGNED FOR TRAILER/CONTAINER - ON - FLAT-CAR (T/C/OC) SHIPMENT.
- D. THE SPECIFIED OUTLOADING PROCEDURES ARE FOR CONTAINERS EQUIPPED WITH SELF-CONTAINED MECHANICAL BRACING DEVICES AS DESCRIBED WITHIN BUREAU OF EXPLOSIVES PAMPHLET 6C. CROSS MEMBER ATTACHMENT FACILITIES WITHIN THESE CONTAINERS MUST PROVIDE FOR THE INSTALLATION OF LOAD BLOCKING CROSS MEMBERS AT THE HEIGHTS SPECIFIED. THE HEIGHT DIMENSIONS SPECIFIED WITHIN THIS DRAWING FOR THE INSTALLATION OF CROSS MEMBERS CONFORM WITH BUREAU OF EXPLOSIVES PAMPHLET 6C. WITH THE EXCEPTION THAT TWO (2) ADDITIONAL BELT RAILS HAVE BEEN SHOWN; ONE AT 72" AND ONE AT 83" HIGH FROM THE CONTAINER FLOOR. VOIDS LENGTHWISE WITHIN THE LOAD MUST BE HELD TO A MINIMUM. CROSS MEMBERS MUST BE PLACED AGAINST THE LADING AS TIGHTLY AS THE HOLE SPACING IN THE CROSS MEMBER ATTACHMENT FACILITY PERMITS. EACH CROSS MEMBER WILL BE INSTALLED WITH THE ENDS ATTACHED AS NEARLY AS POSSIBLE IN "MATED" POSITIONS (AT EQUAL HEIGHTS AND AT EQUAL DISTANCES FROM THE END OF THE CONTAINER). CROSS MEMBERS IN EMPTY CONTAINERS AND THOSE NOT USED IN LOADED CONTAINERS MUST BE FASTENED INTO BELT RAILS FOR SHIPMENT. COMPONENTS ASSIGNED TO EACH CONTAINER MUST REMAIN THERE WITH EVEN THOUGH UNUSED DURING SOME SHIPMENTS. SEE THE "FILL DETAIL" ON PAGE 8 FOR THE DUNNAGING METHOD REQUIRED TO ELIMINATE AN EXCESSIVE LENGTHWISE VOID WITHIN A LOAD. THE LOAD BLOCKING COMPONENT DESIGNATED AS "CROSS MEMBER" HEREIN, IS IDENTIFIED AS "BEAM ASSEMBLY" WITHIN TMS5-8115-200-23 & P, DATED DECEMBER 1979. THE BEAM ASSEMBLY IS FURTHER IDENTIFIED AS NSN 8115-00-165-6623 (FSN 8115-165-6623).
- E. DUNNAGE LUMBER SPECIFIED IS OF A NORMAL SIZE. FOR EXAMPLE, 1" X 4" MATERIAL IS ACTUALLY 3/4" THICK BY 3-1/2" WIDE AND 2" X 6" MATERIAL IS ACTUALLY 1-1/2" THICK BY 5-1/2" WIDE.
- F. **CAUTION:** DO NOT NAIL DUNNAGE MATERIAL TO THE CONTAINER WALLS OR FLOOR. ALL NAILING WILL BE WITHIN THE DUNNAGE.
- G. A STAGGERED NAILING PATTERN WILL BE USED WHEREVER POSSIBLE WHEN NAILS ARE DRIVEN INTO JOINTS OF DUNNAGE ASSEMBLIES OR WHEN LAMINATING DUNNAGE. ADDITIONALLY, THE NAILING PATTERN FOR AN UPPER PIECE OF LAMINATED DUNNAGE WILL BE ADJUSTED AS REQUIRED SO THAT A NAIL FOR THAT PIECE WILL NOT BE DRIVEN THROUGH ONTO, OR RIGHT BESIDE A NAIL IN A LOWER PIECE.
- H. PORTIONS OF THE CONTAINER DEPICTED WITHIN THIS DRAWING, SUCH AS ONE OF THE SIDEWALLS, HAVE NOT BEEN SHOWN IN THE LOAD VIEWS FOR CLARITY PURPOSES.
- J. CONVERSION TO METRIC EQUIVALENTS: DIMENSIONS WITHIN THIS DOCUMENT ARE EXPRESSED IN INCHES, AND WEIGHTS ARE EXPRESSED IN POUNDS. WHEN NECESSARY, THE METRIC EQUIVALENTS MAY BE COMPUTED ON THE BASIS OF ONE INCH EQUALS 25.4MM AND ONE POUND EQUALS 0.454KG.

(CONTINUED AT RIGHT)

## MATERIAL SPECIFICATIONS

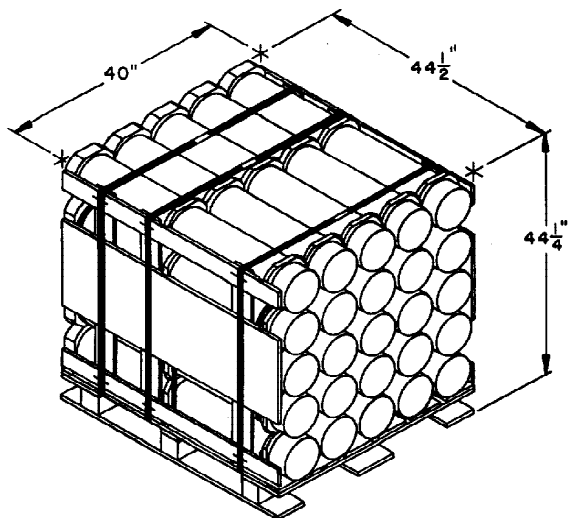
LUMBER	SEE TM 743-200-1, DUNNAGE LUMBER: FED SPEC MM-L-751.
NAILS	FED SPEC FF-N-105; COMMON.
WIRE	FED SPEC QQ-W-461.
STAPLE, STRAP	COMMERCIAL GRADE.
PLYWOOD	FED SPEC NN-P-530; GROUP B, CONSTRUCTION AND INDUSTRIAL PLYWOOD, INTERIOR WITH EXTERIOR GLUE, GRADE C-D. IF SPECIFIED GRADE IS NOT AVAILABLE, A BETTER INTERIOR OR AN EXTERIOR GRADE MAY BE SUBSTITUTED.

## (GENERAL NOTES CONTINUED)

- K. TO MAKE LOADING EASIER, TO HELP ACHIEVE A TIGHT LOAD ACROSS A CONTAINER, AND TO PREVENT UNACCEPTABLE DAMAGE TO LADING UNITS WHEN LOADING A MILVAN, A SLIP-SHEET CAN BE USED EFFECTIVELY AS A "SHOE-HORN" TYPE DEVICE. THE SLIP-SHEET WILL PROVIDE A SMOOTH SURFACE THAT WILL PREVENT UNIT STRAPS AND/OR CONTAINERS FROM INTERLOCKING OR CATCHING ON OTHER PROJECTIONS WHEN LATERALLY ADJACENT LADING UNITS ARE BEING LOADED. A SLIP-SHEET WILL BE USED AFTER ONE-HALF OF A STACK IS LOADED WITH ONE OF ITS SIDES IN TIGHT CONTACT AT ONE SIDE OF THE MILVAN. THE SLIP-SHEET IS TO BE PLACED AGAINST THE OTHER SIDE OF THE HALF-STACK BEFORE THE LAST HALF OF THE STACK IS LOADED. AFTER A STACK IS COMPLETED, THE SLIP-SHEET IS TO BE REMOVED FOR SUBSEQUENT USE WITH THE NEXT STACK. A SLIP-SHEET OF SUITABLE SIZE CAN BE MADE FROM A SHEET OF 1/8" TEMPERED HARDBOARD (MASONITE) OR FROM A SHEET OF ANY OTHER MATERIAL THAT WILL SATISFY THE REQUIREMENTS.
- L. **MAXIMUM LOAD WEIGHT CRITERIA:**
- THE ITEMIZED LOAD WEIGHTS ARE CONTROLLED BY EQUIPMENT CAPABILITY FACTORS. ALSO, THESE LISTED LOAD WEIGHTS IDENTIFY THE COMBINED WEIGHT OF AMMUNITION LADING UNITS AND DUNNAGE THAT CAN BE PLACED INTO ONE MILVAN CONTAINER WITHOUT VIOLATING ONE OR MORE OF THE "CAPABILITY FACTORS". SEE NOTES 1 AND 2.
- 39,100 LBS IN 20-FT CONTAINER (W/O CHASSIS) ABOARD CONTAINERSHIP.  
39,100 LBS IN CONTAINER ON 20-FT CHASSIS WITH DOUBLE BOGIE. SEE NOTE 3.  
25,300 LBS IN CONTAINER ON 20-FT CHASSIS WITH SINGLE BOGIE. SEE NOTE 4.  
21,300 LBS IN EACH CONTAINER ON 40-FT CHASSIS (COUPLED WITH DOUBLE BOGIE). SEE NOTE 3.
- NOTE 1:** DUNNAGE INCLUDES MATERIALS, OTHER THAN COMPONENTS OF THE MECHANICAL LOAD-BRACING SYSTEM, USED TO BLOCK AND BRACE A LOAD.
- NOTE 2:** ALTHOUGH THE HEAVIEST MAXIMUM LOAD IS DELINEATED IN THE LOAD VIEW, PROVISIONS ARE INCLUDED WITHIN THIS DRAWING SO THAT THE BASIC LOAD CAN BE ADJUSTED TO SATISFY A LESSER QUANTITY OF LADING UNITS.
- NOTE 3:** DEPENDING ON TRANSPORTATION ROUTING, IT MAY BE NECESSARY TO REDUCE THE LOAD WEIGHT TO SATISFY "WEIGHT LAWS" OF CERTAIN STATES. ALSO, IT MAY BE NECESSARY TO REDUCE THE LOAD WEIGHT TO SATISFY OTHER WEIGHT RESTRICTIONS IMPOSED ON THE MILVAN SYSTEM.
- NOTE 4:** BY SPECIAL AUTHORITY, IT MAY BE POSSIBLE TO MOVE HEAVIER LOADS ON SINGLE BOGIE CHASSIS WITHIN AN INSTALLATION.

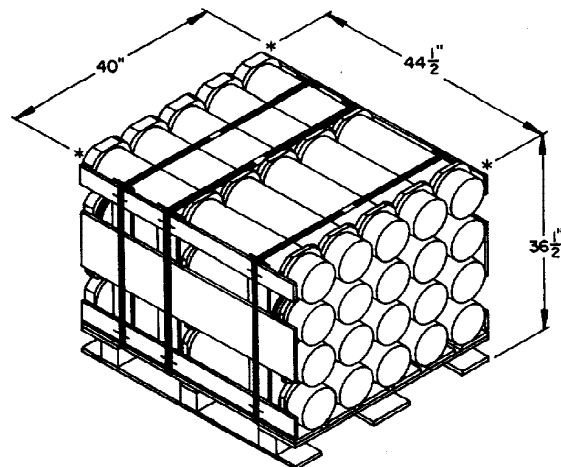
## M. SPECIAL T/C/OC NOTES:

- CAUTION:** LOADED CONTAINERS MUST BE ON CHASSIS EQUIPPED WITH TWO BOGIE ASSEMBLIES WHEN BEING MOVED IN TOFC SERVICE, REGARDLESS OF LOAD WEIGHT WITHIN THE CONTAINERS.
  - LOAD LIMITS OF T/C/OC RAIL CARS MUST NOT BE EXCEEDED, NOR WILL A CAR BE LOADED SO THAT THE TRUCK UNDER ONE END OF THE CAR CARRIES MORE THAN ONE-HALF OF THE LOAD LIMIT FOR THAT CAR.
  - CHASSIS/CONTAINERS COUPLED INTO A 40-FOOT TRAILER CONFIGURATION MUST BE PLACED AT THE B-END OF A TOFC RAIL CAR. THE REAR END OF THE 40-FOOT UNIT WILL OVERHANG THE END OF THE CAR IF IT IS PLACED AT THE A-END. TWENTY-FOOT AND 40-FOOT UNITS CAN BE LOADED ON THE SAME CAR.
- N. THE THICKNESS OF THE SIDE FILL PIECES AS DEPICTED ON EACH SIDE OF THE LOAD MUST BE ADJUSTED, AS REQUIRED, TO COMPLY WITH THE DIMENSIONAL VARIANCE OF THE PALLET UNIT, SO AS TO NOT ALLOW MORE THAN ONE AND ONE-HALF INCHES (1-1/2") VOID ACROSS THE WIDTH OF A BRACED LOAD. ADJUSTMENTS CAN BE MADE BY USING A DIFFERENT THICKNESS SIDE FILL PIECE OR BY LAMINATING ADDITIONAL PIECES TO THE SIDE FILL PIECES ON ONE OR BOTH SIDES OF THE LOAD W/1 APPROPRIATELY SIZED NAIL EVERY 12".
- O. IF DEEMED MORE ECONOMICAL BY THE SHIPPING INSTALLATION/ACTIVITY, THE SIDE FILL PIECES REQUIRED IN THE LOADS DELINEATED ON PAGES 4, 6, AND 10 MAY BE REPLACED BY "ALTERNATIVE SIDE/CENTER FILL ASSEMBLIES", AS DELINEATED ON PAGE 9. THREE ASSEMBLIES ARE REQUIRED FOR EACH LATERALLY ADJACENT PAIR OF PALLET UNITS LOADED INTO THE MILVAN CONTAINER, ONE BETWEEN EACH PALLET UNIT AND THE MILVAN SIDEWALL, AND ONE BETWEEN LATERALLY ADJACENT PALLET UNITS.
- P. **REDUCED LOAD PROVISIONS**
- WHEN A MILVAN CONTAINER IS TO BE LOADED WITH A REDUCED QUANTITY OF LADING UNITS, THE LENGTHWISE CENTER OF GRAVITY OF A LOAD MUST BE WITHIN 12" IN EITHER DIRECTION, OF THE MID-POINT IN A MILVAN. COMBINATIONS OF THE DEPICTED LOADING PATTERNS (PAGES 4, 6, AND 10) MAY BE USED TO SATISFY THE NUMBER OF UNITS TO BE SHIPPED. HOWEVER, EACH LOAD BAY WILL BE INDEPENDENTLY BLOCKED AS A SEPARATE LOAD BAY IN ACCORDANCE WITH THE DEPICTED PROCEDURES FOR THAT SPECIFIC LOADING PATTERN.



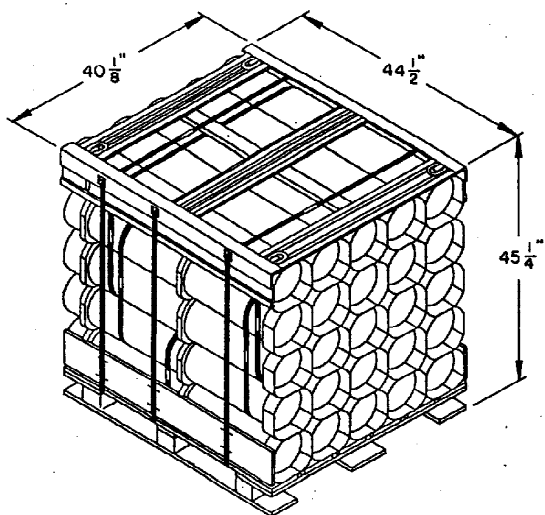
**\*BASIC HEIGHT PALLET UNIT (W/O TOP LIFT)**

UNIT WEIGHT ----- 1,999 LBS (APPROX)  
 CUBE ----- 45.6 CUBIC FEET (APPROX)



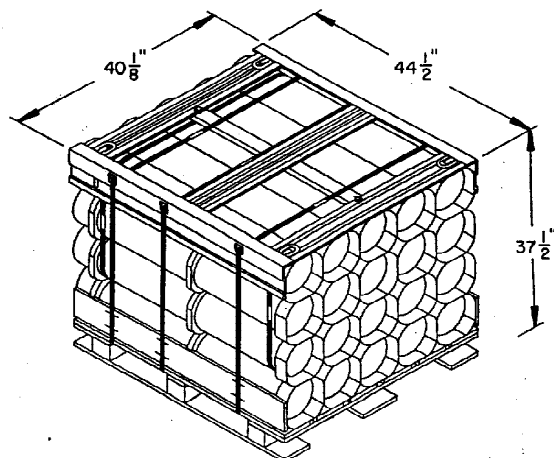
**\*DECREASED HEIGHT PALLET UNIT (W/O TOP LIFT)**

UNIT WEIGHT ----- 1,616 LBS (APPROX)  
 CUBE ----- 37.6 CUBIC FEET (APPROX)



**\*BASIC HEIGHT PALLET UNIT (W/ TOP LIFT)**

UNIT WEIGHT ----- 2,033 LBS (APPROX)  
 CUBE ----- 46.8 CUBIC FEET (APPROX)



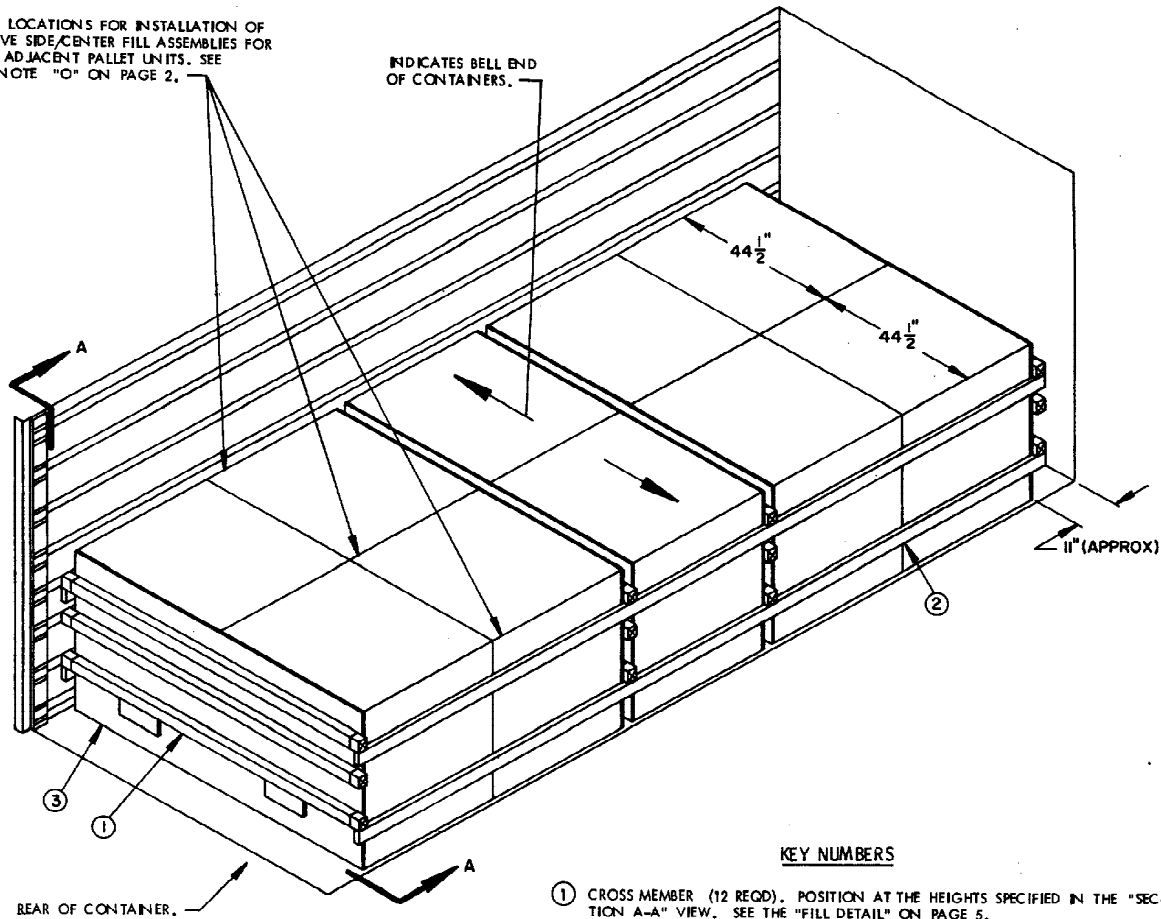
**\*DECREASED HEIGHT PALLET UNIT (W/ TOP LIFT)**

UNIT WEIGHT ----- 1,656 LBS (APPROX)  
 CUBE ----- 38.7 CUBIC FEET (APPROX)

\* FOR CONSTRUCTION DETAILS OF THE ABOVE  
 DEPICTED PALLET UNITS, REFER TO U.S. ARMY  
 AMC DRAWING 19-48-4079/7-20PM1002.

INDICATES LOCATIONS FOR INSTALLATION OF ALTERNATIVE SIDE/CENTER FILL ASSEMBLIES FOR LATERALLY ADJACENT PALLET UNITS. SEE GENERAL NOTE "O" ON PAGE 2.

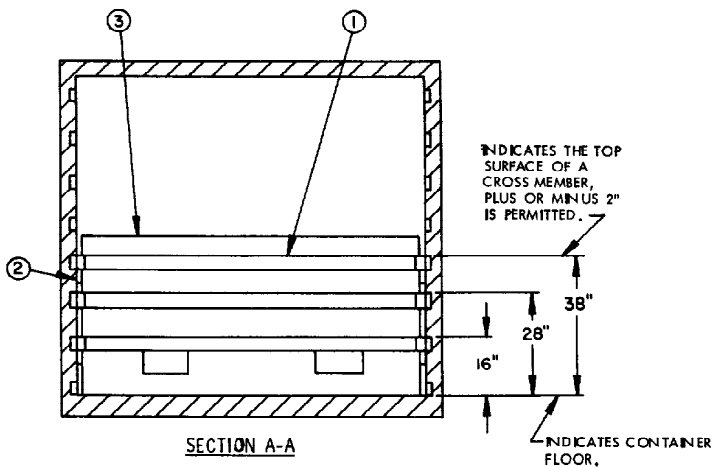
INDICATES BELL END OF CONTAINERS.



ISOMETRIC VIEW

KEY NUMBERS

- ① CROSS MEMBER (12 REQD). POSITION AT THE HEIGHTS SPECIFIED IN THE "SECTION A-A" VIEW. SEE THE "FILL DETAIL" ON PAGE 5.
- ② SIDE FILL, 1" OR 2" (AS REQD) X 4" BY LADING LENGTH (4 REQD). INSTALLATION MAY BE MADE FROM RANDOM LENGTH PIECES. WIRE TIE TO THE 14" AND 38" HIGH BELT RAILS ON EACH SIDE OF THE CONTAINER. SEE THE "SIDE FILL" DETAIL ON PAGE 5 AND GENERAL NOTE "N" ON PAGE 2.
- ③ LOAD BEARING GATE (6 REQD). SEE THE "LOAD BEARING GATE A" DETAIL ON PAGE 8.



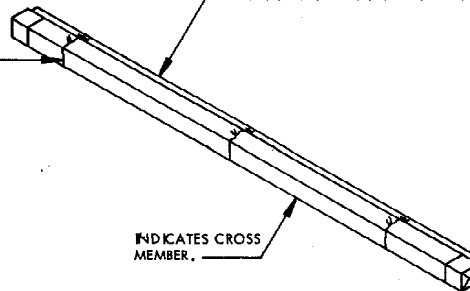
SECTION A-A

**SPECIAL NOTE:**

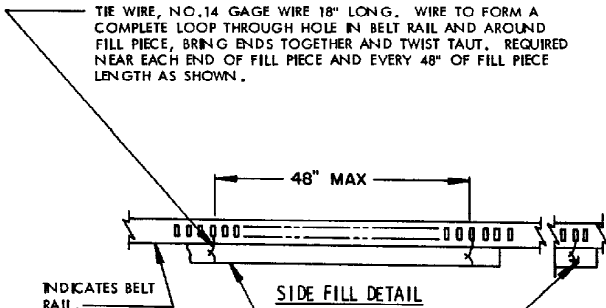
THE PALLET UNIT SHOWN IN THE TYPICAL LOAD ON PAGE 4 IS THE BASIC HEIGHT PALLET UNIT (W/O TOP LIFT). THE DEPICTED LOADING PROCEDURE IS ALSO APPLICABLE FOR THE BASIC HEIGHT PALLET UNIT (W/TOP LIFT).

TIE WIRE, NO. 14 GAGE WIRE 18" LONG (3 REQD./CROSS MEMBER). INSTALL TO FORM A COMPLETE LOOP AROUND FILL MATERIAL AND CROSS MEMBER. BRING ENDS TOGETHER AND TWIST TAUT. SECURE TO THE FILL MATERIAL WITH A PARTIALLY DRIVEN 10d NAIL BENT OVER THE WIRE OR WITH A STRAP STAPLE.

FILL MATERIAL, 1" X 4" OR 2" X 4" MATERIAL BY CONTAINER WIDTH MINUS 1" (AS REQD).



TIE WIRE, NO. 14 GAGE WIRE 18" LONG. WIRE TO FORM A COMPLETE LOOP THROUGH HOLE IN BELT RAIL AND AROUND FILL PIECE, BRING ENDS TOGETHER AND TWIST TAUT. REQUIRED NEAR EACH END OF FILL PIECE AND EVERY 48" OF FILL PIECE LENGTH AS SHOWN.



FILL PIECE, 2" X 4" BY LADING LENGTH, RANDOM LENGTH PIECES MAY BE USED (4 REQD). REQUIRED AT 16" AND 38" HIGH BELT RAILS.

RETAINER NAIL. PARTIALLY DRIVEN 10d NAIL BENT OVER THE WIRE TO PREVENT LONGITUDINAL MOVEMENT OF FILL PIECES (1 REQD NEAR EACH END OF EACH LENGTH OF SIDE FILL PIECE). A STRAP STAPLE MAY BE USED IN LIEU OF A RETAINER NAIL.

**FILL DETAIL**

THIS DETAIL DEPICTS METHOD OF POSITIONING FILL MATERIAL BETWEEN CROSS MEMBER AND LADING, WHEN THE VOID BETWEEN THE TWO IS GREATER THAN ONE INCH (1") FOR LONGITUDINAL BRACING.

**BILL OF MATERIAL**

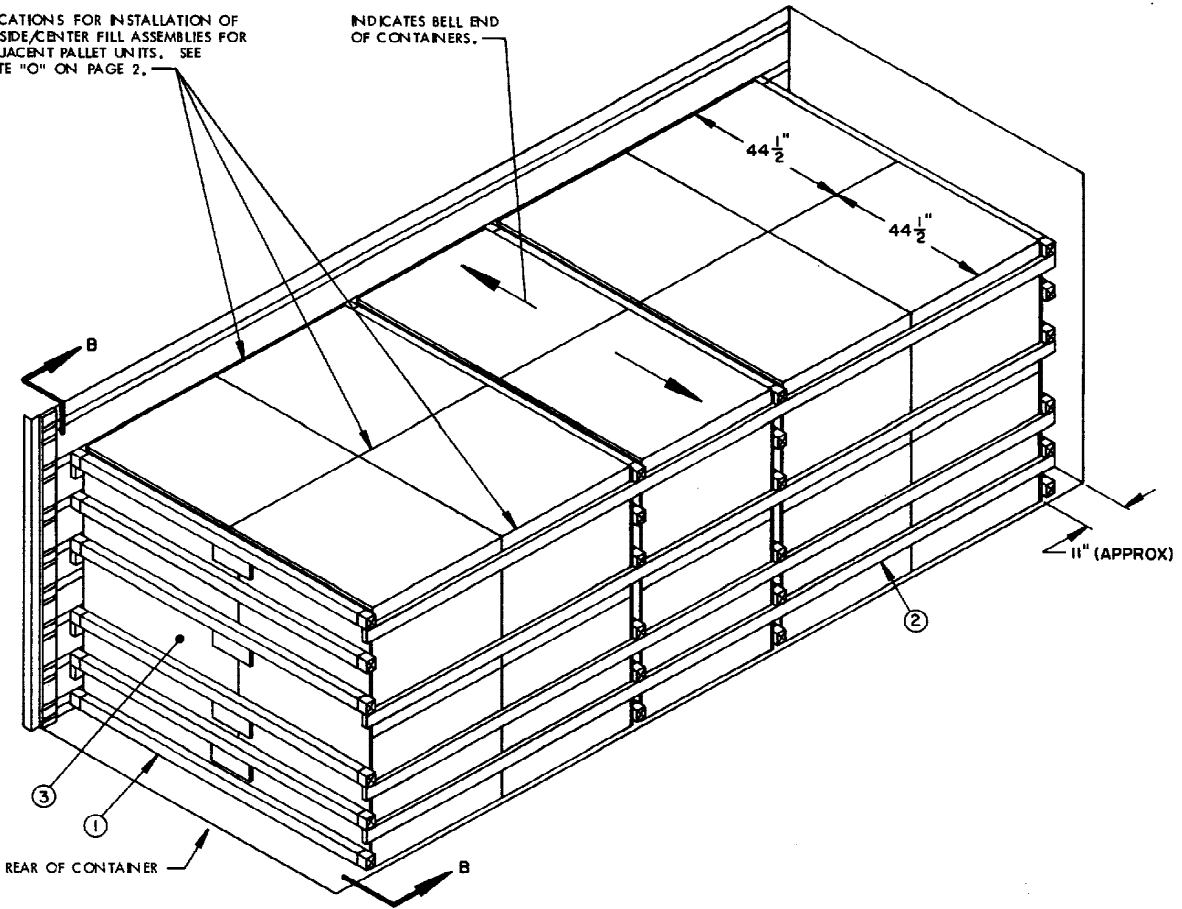
LUMBER	LINEAR FEET	BOARD FEET
1" X 6"	12	6
2" X 4"	72	48
NAILS	NO. REQD	POUNDS
6d (2")	48	1/2
10d (3")	20	1/2
PLYWOOD, 1/2"	168 SQ FT. REQD	224 LBS
WIRE, NO. 14 GAGE	30' REQD	1/2 LB
CROSS MEMBER		12 REQD

**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	10	19,990 LBS
DUNNAGE		334 LBS
CONTAINER		5,700 LBS
<b>TOTAL WEIGHT</b>		<b>26,024 LBS (APPROX)</b>

INDICATES LOCATIONS FOR INSTALLATION OF ALTERNATIVE SIDE/CENTER FILL ASSEMBLIES FOR LATERALLY ADJACENT PALLET UNITS. SEE GENERAL NOTE "O" ON PAGE 2.

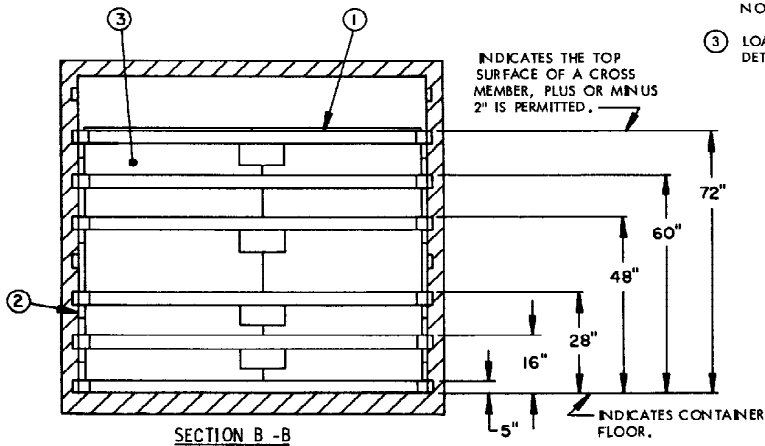
INDICATES BELL END OF CONTAINERS.



ISOMETRIC VIEW

KEY NUMBERS

- ① CROSS MEMBER (24 REQD). POSITION AT THE HEIGHTS SPECIFIED IN THE "SECTION B-B" VIEW. SEE THE "FILL DETAIL" ON PAGE 5.
- ② SIDE FILL, 1" OR 2" (AS REQD) X 4" BY LADING LENGTH (8 REQD). INSTALLATION MAY BE MADE FROM RANDOM LENGTH PIECES. WIRE TIE TO THE 16", 28", 48", AND 72" HIGH BELT RAILS ON EACH SIDE OF THE CONTAINER. SEE THE "SIDE FILL" DETAIL ON PAGE 5 AND GENERAL NOTE "N" ON PAGE 2.
- ③ LOAD BEARING GATE (6 REQD). SEE THE "LOAD BEARING GATE C" DETAIL ON PAGE 9.



SECTION B - B

INDICATES THE TOP SURFACE OF A CROSS MEMBER, PLUS OR MINUS 2" IS PERMITTED.

INDICATES CONTAINER FLOOR.

SPECIAL NOTE:

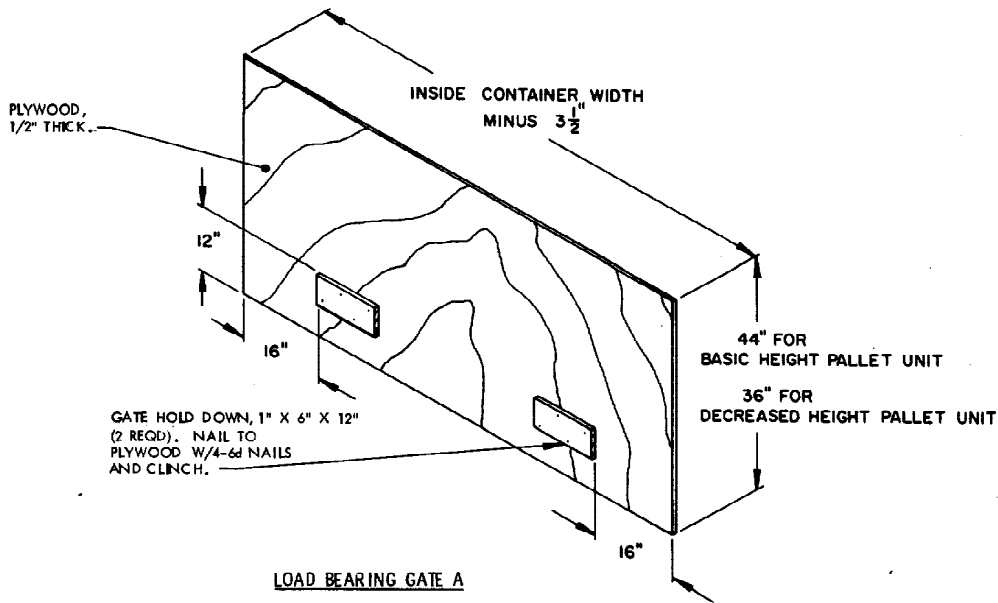
THE PALLET UNIT SHOWN IN THE TYPICAL LOAD ON PAGE 6 IS THE DECREASED HEIGHT PALLET UNIT (W/O TOP LIFT). THE DEPICTED LOADING PROCEDURE IS ALSO APPLICABLE FOR THE DECREASED HEIGHT PALLET UNIT (W/TOP LIFT).

**BILL OF MATERIAL**

LUMBER	LINEAR FEET	BOARD FEET
1" X 6"	24	12
2" X 4"	143	96
NAILS	NO. REQD	POUNDS
6d (2")	144	1
10d (3")	40	3/4
PLYWOOD, 1/2" -----268 SQ. FT. REQD-----366 LBS		
WIRE, NO. 14 GAGE-----60' REQD----- 1 LB		
CROSS MEMBER ----- 24 REQD		

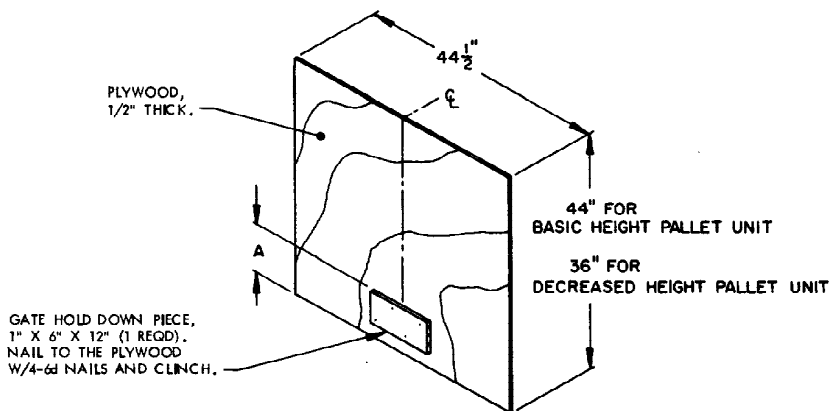
LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	20	32,320 LBS
DUNNAGE		585 LBS
CONTAINER		5,700 LBS
TOTAL WEIGHT		38,605 LBS (APPROX)



**LOAD BEARING GATE A**

NOTE: IF DEEMED MORE ECONOMICAL BY THE SHIPPING INSTALLATION/ACTIVITY, THE HEIGHT OF THE PLYWOOD MAY BE INCREASED TO 48" WHEN THE LOAD BEARING GATE IS UTILIZED IN A ONE-HIGH LOAD BAY ONLY.

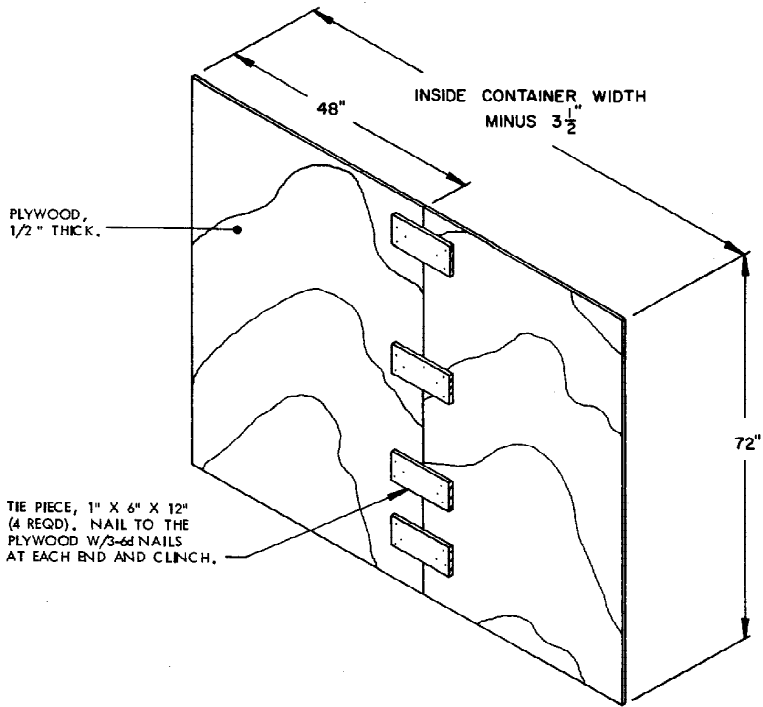


**LOAD BEARING GATE B**

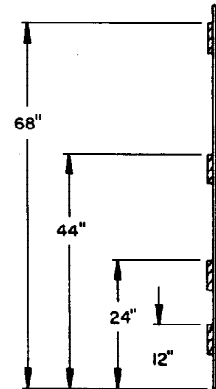
NOTE: IF DEEMED MORE ECONOMICAL BY THE SHIPPING INSTALLATION/ACTIVITY, THE HEIGHT OF THE PLYWOOD MAY BE INCREASED TO 48" WHEN THE LOAD BEARING GATE IS UTILIZED IN A ONE-HIGH LOAD BAY OR IN THE TOP LAYER OF A TWO-HIGH LOAD BAY.

DIMENSION "A"	
BASIC HEIGHT PALLET UNIT	12"
DECREASED HEIGHT PALLET UNIT (TOP LAYER)	8"
DECREASED HEIGHT PALLET UNIT (BOTTOM LAYER)	12"

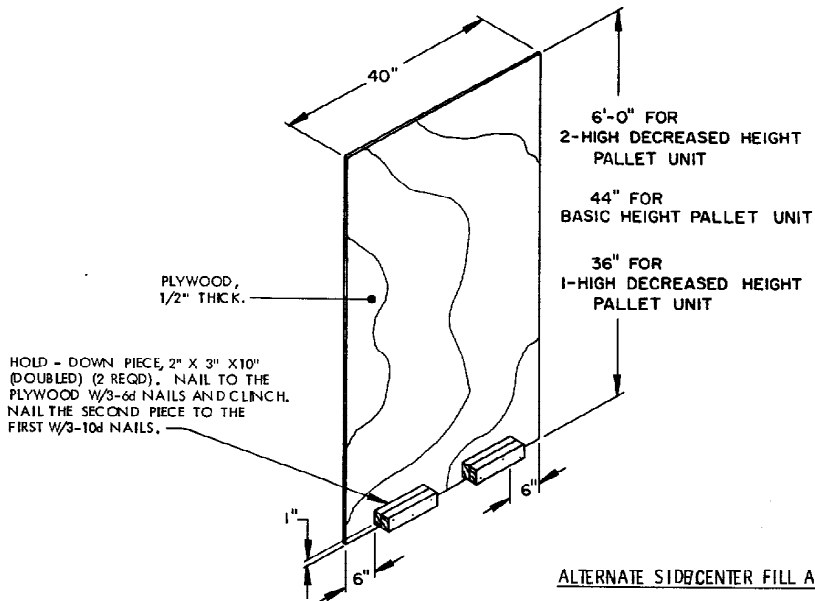




LOADING BEARING GATE C



END VIEW



ALTERNATE SIDE/CENTER FILL ASSEMBLY

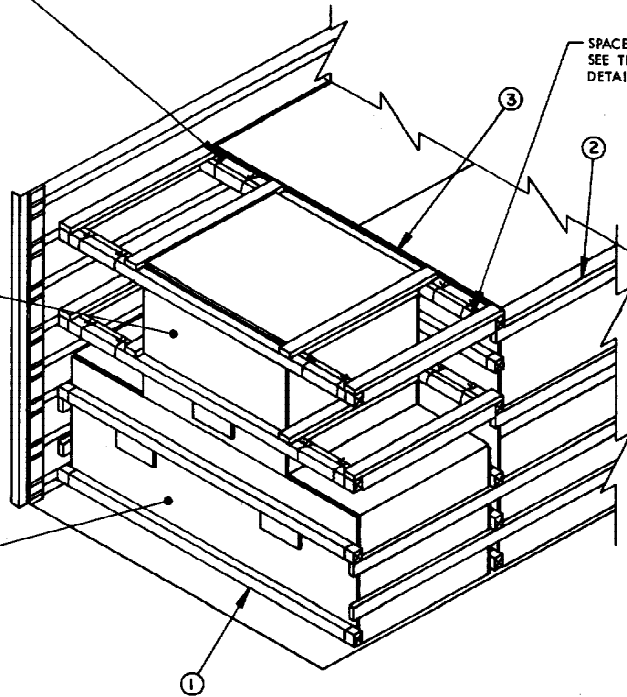
NOTE: IF DEEMED MORE ECONOMICAL BY THE SHIPPING INSTALLATION/ACTIVITY, THE HEIGHT OF THE PLYWOOD MAY BE INCREASED TO 48" FOR ANY ONE-HIGH LOAD. SEE GENERAL NOTE "O" ON PAGE 2.

TIE WIRE, NO. 14 GAGE WIRE 18" LONG (16 REQD). WIRE TO FORM A LOOP AROUND CROSS MEMBER AND SPACER ASSEMBLY, BRING ENDS TOGETHER AND TWIST TAUT. SECURE TO THE SPACER ASSEMBLY WITH A PARTIALLY DRIVEN 10d NAIL BENT OVER WIRE, OR WITH A STRAP STAPLE.

LOAD BEARING GATE (2 REQD). SEE THE "LOAD BEARING GATE B" DETAIL ON PAGE 8.

LOAD BEARING GATE (2 REQD). SEE THE "LOAD BEARING GATE A" DETAIL ON PAGE 8.

SPACER ASSEMBLY (4 REQD). SEE THE "SPACER ASSEMBLY" DETAIL BELOW.



**ALTERNATIVE LOADING PROCEDURE**

KEY NUMBERS REFER TO KEY NUMBERS LISTED ON PAGE 6.

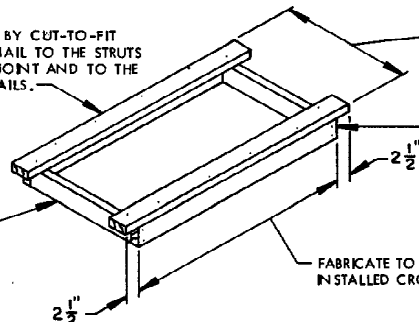
RETAINER PIECE, 2" X 4" BY CUT-TO-FIT IN LENGTH (2 REQD). NAIL TO THE STRUTS W/1-10d NAIL AT EACH JOINT AND TO THE BUFFER PIECE W/4-10d NAILS.

STRUT, 2" X 4" BY CUT-TO-FIT IN LENGTH (2 REQD).

FABRICATE TO FIT BETWEEN CONTAINER SIDE WALL AND PALLET UNIT.

BUFFER PIECE, 2" X 4" BY CUT-TO-FIT IN LENGTH (2 REQD). NAIL TO THE STRUTS W/2-10d NAILS AT EACH JOINT.

FABRICATE TO FIT BETWEEN INSTALLED CROSS MEMBERS.



**SPACER ASSEMBLY**