

APPROVED BY
 BUREAU OF EXPLOSIVES
A. F. Bracconeri
 MILITARY AGENCY
 DATE 3/10/69

LOADING & BRACING (TL & LTL) IN CLOSED OR OPEN TOP VAN TRAILERS OF CBU ITEMS PACKED IN THE CNU- 81/E CONTAINER

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⊙ INCLUDES PROCEDURES FOR CONVENTIONAL TRAILERS AND TRAILERS EQUIPPED WITH MECHANICAL BRACING DEVICES AS APPROVED BY THE BUREAU OF EXPLOSIVES, ASSOCIATION OF AMERICAN RAILROADS.

CAUTION:

PROCEDURES SHOWN HEREIN FOR MECHANICAL DEVICE EQUIPPED TRAILERS ARE ONLY APPLICABLE FOR HIGHWAY MOVEMENT; NOT FOR CONTAINER/TRAILER-ON-FLAT-CAR MOVEMENTS.

DO NOT SCALE

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GENERAL NOTES

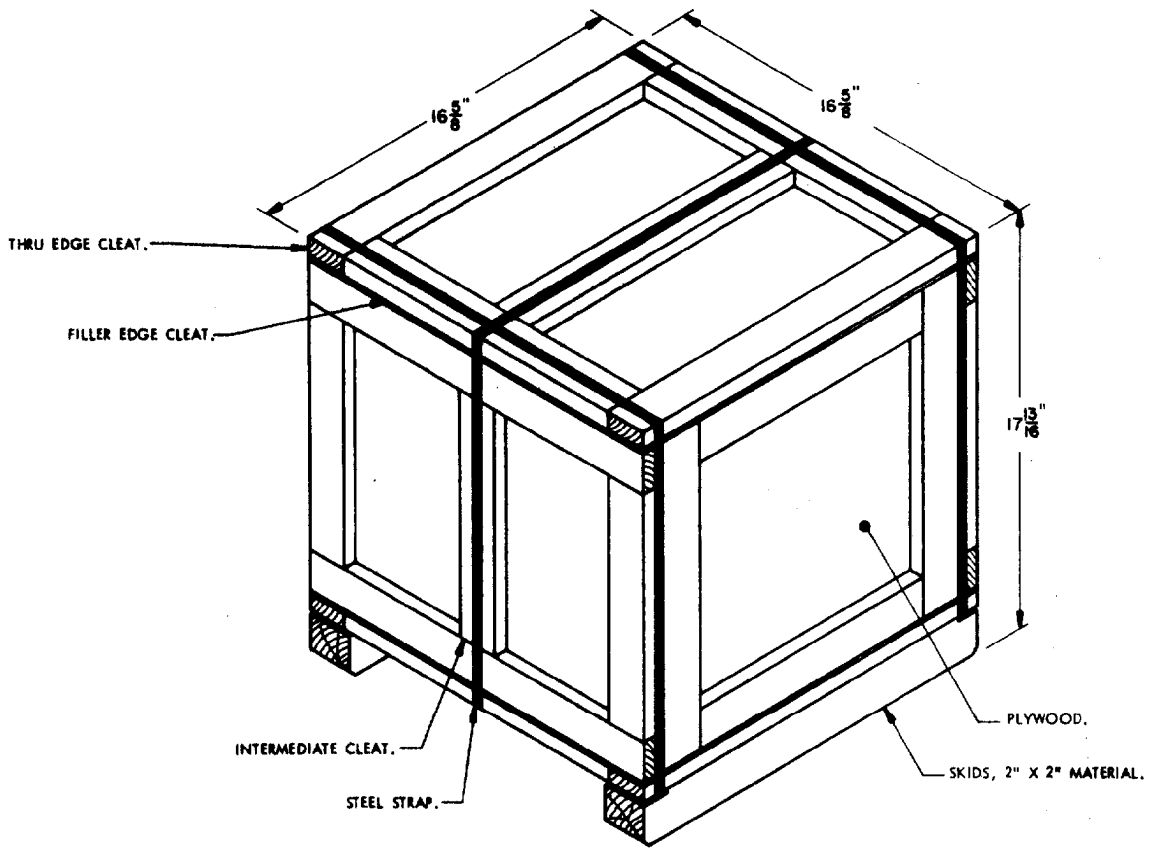
(GENERAL NOTES CONTINUED)

- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AMCR 740-13, AND AUGMENTS TM 743-200-1 (CHAPTER 5).
- B. THE OUTLOADING PROCEDURES SPECIFIED HEREIN ARE APPLICABLE TO CBU ITEMS WHEN THEY ARE PACKED IN THE OMU-01/E CONTAINER. SUBSEQUENT REFERENCE TO CONTAINER HEREIN MEANS CONTAINER WITH CONTENTS.
- C. FOR DETAILS OF THE CONTAINER, SEE DRAWING NO. 8887968.
CONTAINER DIMENSIONS ----- 16-5/8" LONG X 16-5/8" WIDE X 17-13/16" HIGH.
GROSS WEIGHT ----- 175 POUNDS (APPROX).
- D. THE LOADS AS SHOWN HEREIN ARE FOR CLOSED OR OPEN TOP VAN TRAILERS WHICH ARE 90" TO 93" WIDE (INSIDE DIMENSION) AND OF VARIOUS LENGTHS, AND THEY ARE LIMITED TO HIGHWAY MOVEMENTS ONLY. THE DEPICTED LOADS ARE BASED ON TRAILERS OF CONVENTIONAL TYPE OR ARE BASED ON TRAILERS WHICH ARE EQUIPPED WITH SELF-CONTAINED MECHANICAL BRACING DEVICES (CROSS MEMBERS AND WALL MEMBERS) AND APPLY TO TRAILERS HAVING WOOD, WOOD AND METAL, OR METAL FLOORS.
- E. THE OUTLOADING PROCEDURES SPECIFIED ON PAGES 4 THROUGH 10 ARE FOR CONVENTIONAL TYPE VAN TRAILERS.
- F. THE OUTLOADING PROCEDURES SPECIFIED ON PAGES 12 THROUGH 14 ARE FOR TRAILERS EQUIPPED WITH VARIOUS TYPES OF SELF-CONTAINED MECHANICAL BRACING DEVICES. HOWEVER, CROSS MEMBER ATTACHMENT FACILITIES WITHIN THESE TRAILERS MUST PROVIDE FOR THE INSTALLATION OF LOAD BLOCKING CROSS MEMBERS AT THE HEIGHTS SPECIFIED HEREIN. **CAUTION:** TRAILERS EQUIPPED WITH FACILITIES WHICH DO NOT MEET THE LOCATION REQUIREMENTS MUST NOT BE USED. THE HEIGHT REQUIREMENTS SPECIFIED WITHIN THIS DRAWING FOR INSTALLATION OF CROSS MEMBERS ARE IDENTICAL WITH THOSE RECOMMENDED BY THE BUREAU OF EXPLOSIVES PAMPHLET 6C, AND APPENDICES THERETO.
1. VOIDS LENGTHWISE WITHIN A 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 TRAILER).
 2. CROSS MEMBERS IN EMPTY TRAILERS AND THOSE NOT USED IN LOADED TRAILERS MUST BE SECURED FOR SHIPMENT. COMPONENTS ASSIGNED TO EACH TRAILER MUST REMAIN THEREWITH EVEN THOUGH UNUSED DURING SOME SHIPMENTS.
 3. A CROSS MEMBER WILL NOT BE RELIED UPON TO RETAIN MORE CONTAINERS THAN SHOWN IN THE LOAD VIEWS.
- G. THE OUTLOADING PROCEDURES SPECIFIED HEREIN CAN ALSO BE UTILIZED FOR THE SHIPMENT OF THE DEPICTED CONTAINERS WHEN THEY ARE LOADED WITH EMPTY ITEMS OR WITH AN ITEM WHICH IS IDENTIFIED DIFFERENTLY BY NOMENCLATURE THAN THE ITEM DESIGNATED WITHIN THE DRAWING TITLE.
- H. GROSS WEIGHT AND AXLE DISTRIBUTION OF WEIGHT FOR A LOAD WILL BE THE RESPONSIBILITY OF THE CARRIER. THE CARRIER WILL ADVISE THE SHIPPER OF THE APPLICABLE LOADING REQUIREMENTS AND THE SHIPPER WILL LOAD ACCORDINGLY.
- J. **NOTICE:** A SHIPMENT WILL BE POSITIONED IN THE TRAILER CONSISTENT WITH STATE WEIGHT LAWS. THE NUMBER OF UNITS MAY BE ADJUSTED TO FIT THE SIZE OF THE TRAILER TO BE LOADED OR THE QUANTITY TO BE SHIPPED; HOWEVER, THE APPROVED METHODS CONTAINED HEREIN MUST BE FOLLOWED AS CLOSELY AS POSSIBLE FOR BLOCKING, BRACING, AND STAYING OF THE DESIGNATED ITEM.
- K. OTHER TYPES OF LADING ITEMS MAY BE LOADED INTO TRAILERS WHICH ARE PARTIALLY LOADED WITH THE DESIGNATED ITEM, PROVIDING THE TOTAL LOAD IS COMPATIBLE, EXISTING DIRECTIVES ARE NOT VIOLATED, AND THE OTHER LADING ITEMS ARE BLOCKED AND BRACED TO EQUAL THE BLOCKING AND BRACING CRITERIA SPECIFIED HEREIN.
- L. FOR CONVENTIONAL TYPE TRAILERS NOT EQUIPPED WITH REAR CORNER POSTS, REAR BLOCKING MUST BE EXTENDED TO CONTACT THE REAR DOORS OF THE TRAILER WHEN THEY ARE CLOSED.
- M. DUNNAGE LUMBER SPECIFIED THROUGHOUT THIS PROCEDURAL DRAWING IS OF NOMINAL SIZE. FOR EXAMPLE, 2" X 4" MATERIAL IS ACTUALLY 1-5/8" THICK BY 3-5/8" WIDE AND 4" X 4" MATERIAL IS ACTUALLY 3-5/8" THICK BY 3-5/8" WIDE.
- N. **NOTICE:** A STAGGERED NAILING PATTERN WILL BE USED WHEN DUNNAGE IS NAILED TO THE FLOOR OF THE TRANSPORTING VEHICLE, 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.
- O. THROUGHOUT THIS PROCEDURAL DRAWING, PORTIONS OF THE TRAILER BODY DEPICTED WITHIN THIS PROCEDURAL DRAWING, SUCH AS ONE OF THE SIDE WALLS, HAVE NOT BEEN SHOWN IN THE LOAD VIEWS FOR CLARITY PURPOSES.
- P. FOR ADDITIONAL GUIDANCE, ATTENTION IS DIRECTED TO THE "SPECIAL NOTES" SECTION WHICH IS IMMEDIATELY ADJACENT TO A DEPICTED OUTLOADING METHOD.

(GENERAL NOTES CONTINUED AT THE RIGHT)

MATERIAL SPECIFICATIONS

- LUMBER** ----- : SEE TM 743-200-1, DUNNAGE LUMBER; FED SPEC MM-L-751.
- NAILS** ----- : COMMON, CEMENT COATED OR CHEMICALLY ETCHED,
FED SPEC FF-N-103.
ALT: ANNULAR-RING TYPE NAIL OF SAME SIZE.
- WIRE** ----- : FED SPEC QQ-W-461.



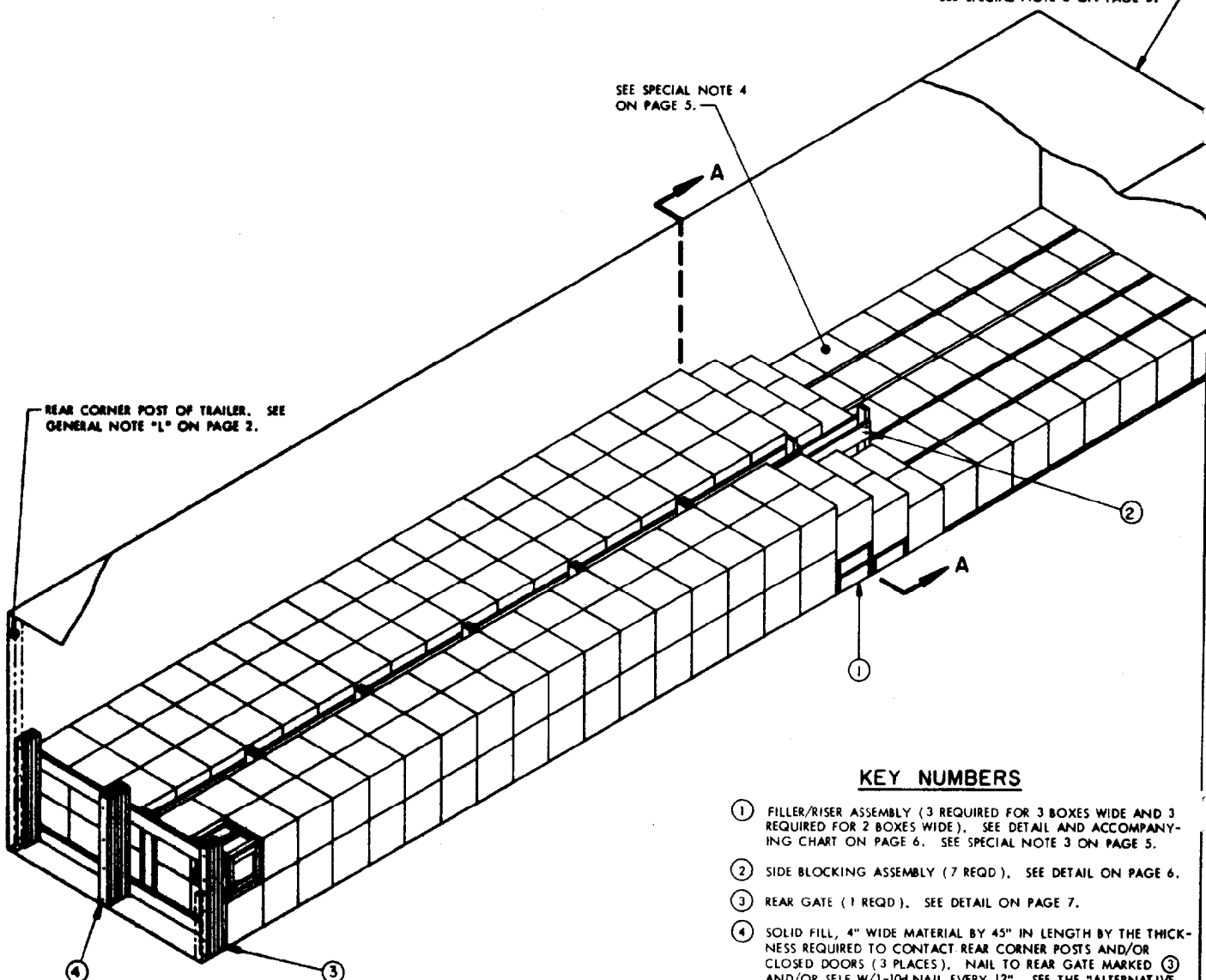
UNIT DETAIL

GROSS WEIGHT --- 175 POUNDS (APPROX).
 CUBE ----- 2.85 CUBIC FEET.

SEE SPECIAL NOTE 2 ON PAGE 5.

SEE SPECIAL NOTE 4 ON PAGE 5.

REAR CORNER POST OF TRAILER. SEE GENERAL NOTE "L" ON PAGE 2.

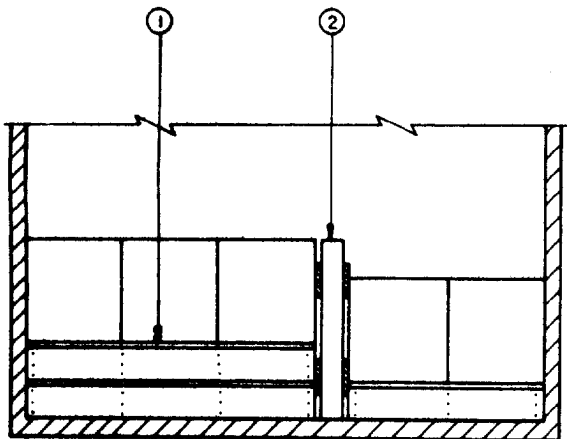


ISOMETRIC VIEW

SEE THE "SPECIAL NOTES" ON PAGE 5.

KEY NUMBERS

- ① FILLER/RISER ASSEMBLY (3 REQUIRED FOR 3 BOXES WIDE AND 3 REQUIRED FOR 2 BOXES WIDE). SEE DETAIL AND ACCOMPANYING CHART ON PAGE 6. SEE SPECIAL NOTE 3 ON PAGE 5.
- ② SIDE BLOCKING ASSEMBLY (7 REQD). SEE DETAIL ON PAGE 6.
- ③ REAR GATE (1 REQD). SEE DETAIL ON PAGE 7.
- ④ SOLID FILL, 4" WIDE MATERIAL BY 45" IN LENGTH BY THE THICKNESS REQUIRED TO CONTACT REAR CORNER POSTS AND/OR CLOSED DOORS (3 PLACES). NAIL TO REAR GATE MARKED ③ AND/OR SELF W/1-10d NAIL EVERY 12". SEE THE "ALTERNATIVE REAR BLOCKING" DETAIL ON PAGE 7. THE ALTERNATIVE REAR BLOCKING IS REQUIRED IN LIEU OF THE SOLID FILL MATERIAL WHEN THE SPACE BETWEEN THE REAR GATE AND THE REAR DOORS OF THE TRAILER WHEN THEY ARE CLOSED IS 12" OR MORE.



SECTION A-A

SPECIAL NOTES:

1. A 228-UNIT LOAD IS SHOWN IN A 40'-0" LONG TRAILER. HOWEVER, A SHORTER TRAILER MAY BE USED FOR THE SHIPMENT OF THE SAME NUMBER OF CONTAINERS BY INCREASING THE LENGTH OF THE TWO HIGH PORTION OF THE LOAD. A 33'-0" LONG TRAILER LOADED WITH TWO COMPLETE LAYERS AND USING "FORWARD BLOCKING - METHOD B" WILL CONSTITUTE A 228-UNIT LOAD. TO OBTAIN A CAPACITY LOAD IN A TRAILER SHORTER THAN 33'-0", IT WILL BE NECESSARY TO PROVIDE A PARTIAL THIRD LAYER. THIS CAN BE DONE BY EMPLOYING "FILLER/RISER" ASSEMBLIES AS SHOWN WITHIN THE BASIC LOAD. NOTE: THE LOAD MUST BE PLANNED SO THAT A THREE-HIGH STACK IS NOT ADJACENT TO EITHER THE FORWARD GATE OR THE REAR GATE.
2. IF THE TRAILER BEING LOADED HAS A ROUND-FRONT OR HAS ROUNDED CORNERS AT THE FORWARD END, REFER TO PAGE 8 FOR "FORWARD BLOCKING" SPECIFICATIONS WHICH MUST BE USED. THE METHOD WHICH BEST SUITS EXISTING CONDITIONS SHOULD BE SELECTED.
3. THE "FILLER/RISER ASSEMBLIES" SPECIFIED FOR THE DEPICTED LOAD SHOWS TYPICAL APPLICATION. TO ADJUST A LOAD QUANTITY, THE LENGTH OF THE "FILLER/RISER ASSEMBLIES" MAY BE ADJUSTED, AND/OR THE ASSEMBLIES MAY BE RELOCATED AS THE TRAILER LENGTH AND/OR THE NUMBER OF CONTAINERS TO BE SHIPPED VARIES.
4. SIDE BLOCKING DUNNAGE ASSEMBLIES WILL NOT BE REQUIRED BETWEEN CONTAINERS IN THE ONE-HIGH PORTION OF THE LOAD, EXCEPT FOR THOSE CONTAINERS LOCATED ON THE "FILLER/RISER ASSEMBLIES".

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 6"	133	77
2" X 4"	96	63
2" X 6"	80	80
NAILS	NO. REQD	POUNDS
6d (2")	268	1-3/4
10d (3")	188	3

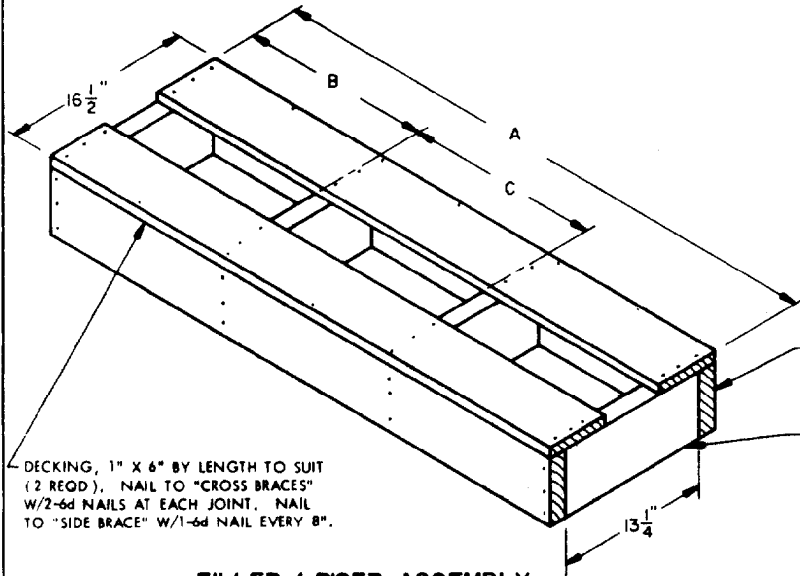
LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER	228	39,900 LBS
(W/CBU ITEM)		
DUNNAGE		555 LBS
TOTAL WEIGHT		40,455 LBS

228-UNIT LOAD IN A 40'-0" LONG TRAILER

PAGE 5

	DIM. "A"	DIM. "B"	DIM. "C"	QUANTITY OF CROSS BRACES
3-BOX WIDE FILLER/RISER	50"	16-3/4"	16-3/4"	4
2-BOX WIDE FILLER/RISER	33-1/4"	16-3/4"	-----	3
1-BOX WIDE FILLER/RISER	16-1/2"	-----	-----	2



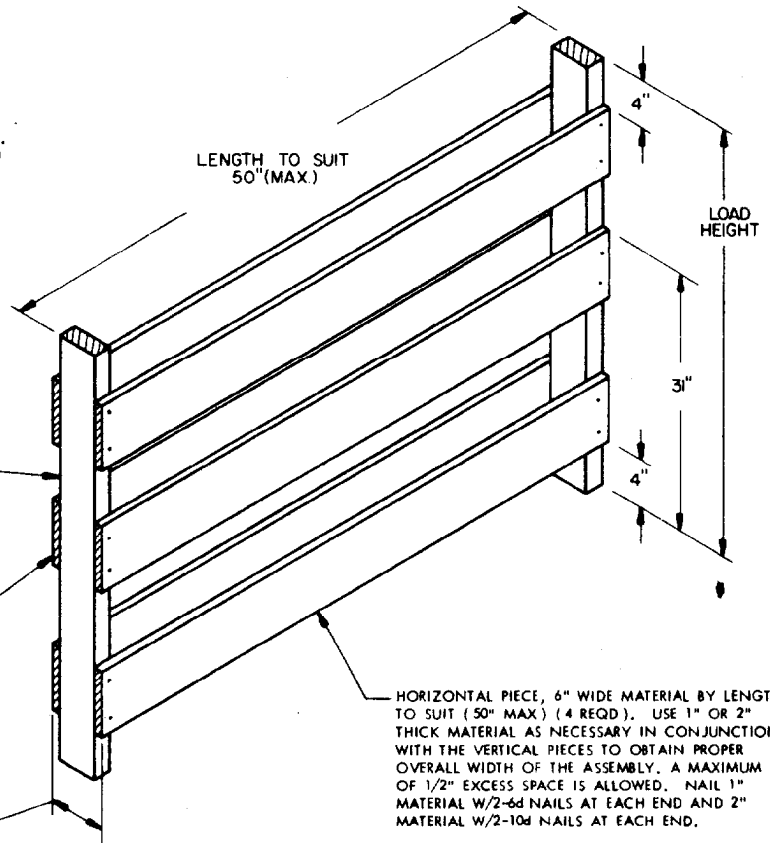
DECKING, 1" X 6" BY LENGTH TO SUIT (2 REQD). NAIL TO "CROSS BRACES" W/2-6d NAILS AT EACH JOINT. NAIL TO "SIDE BRACE" W/1-6d NAIL EVERY 8".

SIDE BRACE, 2" X 6" BY LENGTH TO SUIT (2 REQD). NAIL TO "CROSS BRACE" W/3-10d NAILS AT EACH JOINT.

CROSS BRACE, 2" X 6" X 13-1/4" (AS REQD, SEE CHART).

FILLER / RISER ASSEMBLY

NOTE: WHEN USED AS A FILLER ASSEMBLY, THE ASSEMBLIES MUST BE STACKED TWO (2) HIGH AT EACH INSTALLATION LOCATION. WHEN USED AS A RISER ASSEMBLY, THREE (3) ASSEMBLIES MUST BE USED TO FORM STEP-DOWN CONFIGURATION, TWO (2) ASSEMBLIES STACKED TWO (2) HIGH AND ONE (1) ASSEMBLY PLACED ADJACENT THERETO, FOR USE AS A RISER ASSEMBLY, SEE METHODS USED ON PAGES 4 AND 9. FOR USE AS A FILLER ASSEMBLY, SEE METHOD USED ON PAGE 10.

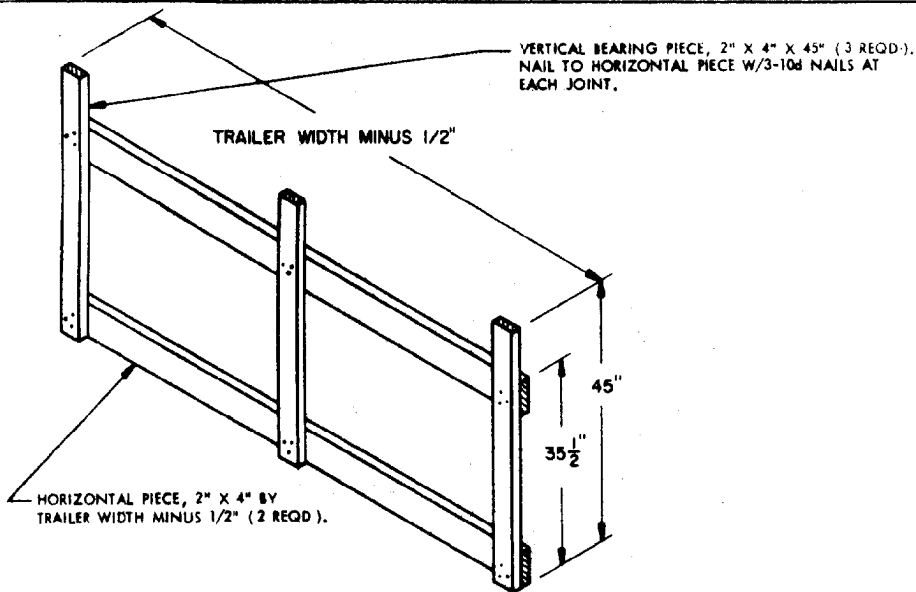


VERTICAL PIECE, 2" THICK BY REQUIRED WIDTH BY LOAD HEIGHT (2 REQD).

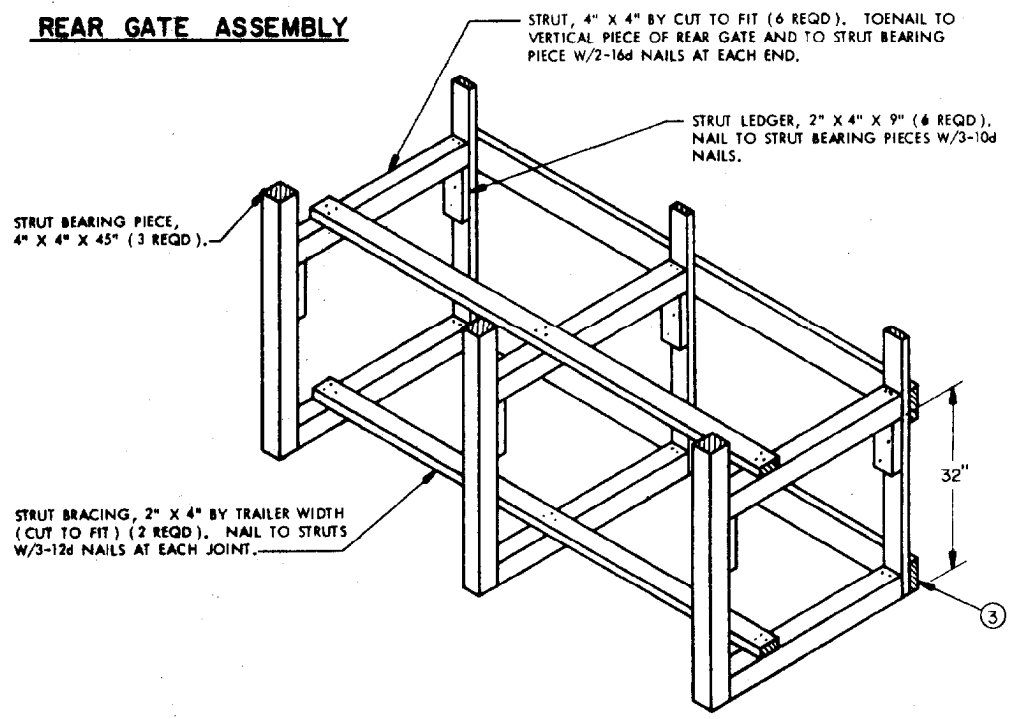
THE HORIZONTAL PIECES AT THIS LEVEL ARE ONLY REQUIRED IF A SIDE BLOCKING ASSEMBLY IS TO BE USED WITHIN A 3-HIGH LOAD.

WIDTH REQUIRED TO FILL EXCESS LATERAL SPACE IN TRAILER.

SIDE BLOCKING ASSEMBLY

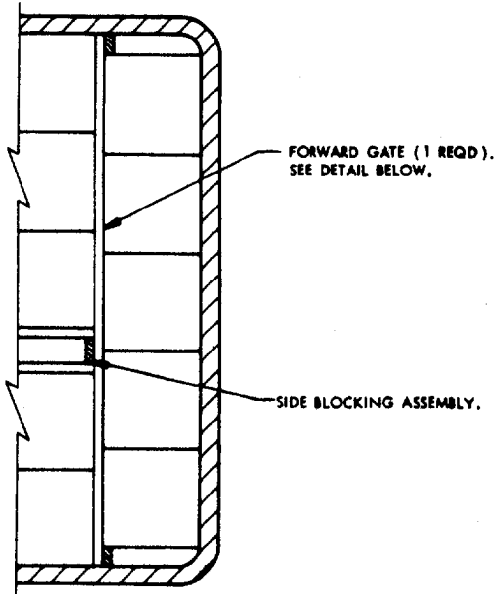


REAR GATE ASSEMBLY



ALTERNATIVE REAR BLOCKING

THIS BLOCKING IS DESIGNED FOR USE AT THE REAR OF A 2-HIGH LOAD WHEN THE EXCESS SPACE BETWEEN THE REAR GATE AND THE REAR CORNER POSTS AND/OR CLOSED DOOR IS GREATER THAN 12".

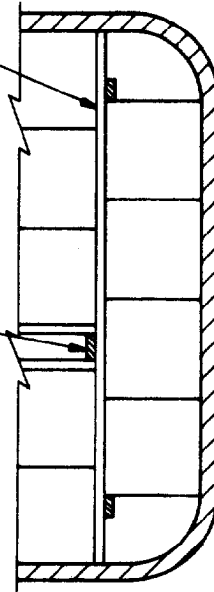


FORWARD BLOCKING-METHOD A

THIS LOADING AND BRACING IS APPLICABLE FOR A 1-HIGH OR 2-HIGH LOAD AT THE FRONT END OF A VAN TRAILER WHICH IS AT LEAST NINETY-ONE INCHES (91") IN WIDTH AND WHICH HAS ROUNDED FRONT CORNERS WITH A MAXIMUM INSIDE RADIUS OF FOUR INCHES (4"), (4-1/2" FOR A 92" WIDE OR 5" FOR A 93" WIDE TRAILER).

FORWARD GATE (1 REQD).
SEE DETAIL BELOW.

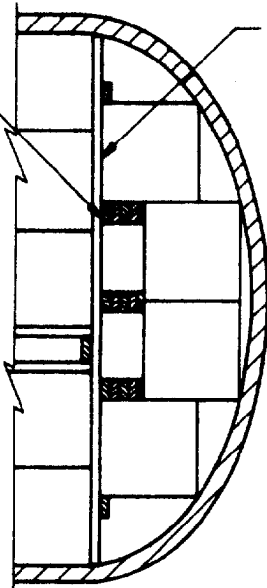
SIDE BLOCKING
ASSEMBLY.



FORWARD BLOCKING-METHOD B

THIS LOADING AND BRACING IS APPLICABLE FOR A 1-HIGH OR 2-HIGH LOAD AT THE FRONT END OF A TRAILER OF ANY WIDTH AND WITH A INSIDE RADIUS NOT GREATER THAN 12" FOR A 90" WIDE TRAILER, 12-1/2" FOR A 91", 13" FOR A 92", OR 13-1/2" FOR A 93" INSIDE WIDTH.

SOLID FILL AT THREE PLACES, 4" WIDE MATERIAL BY A LENGTH TO SUIT AND BY THE THICKNESS REQUIRED. NAIL FIRST PIECE TO FORWARD GATE W/3-10d NAILS AT EACH END. NAIL EACH ADDITIONAL PIECE W/4-10d NAILS.

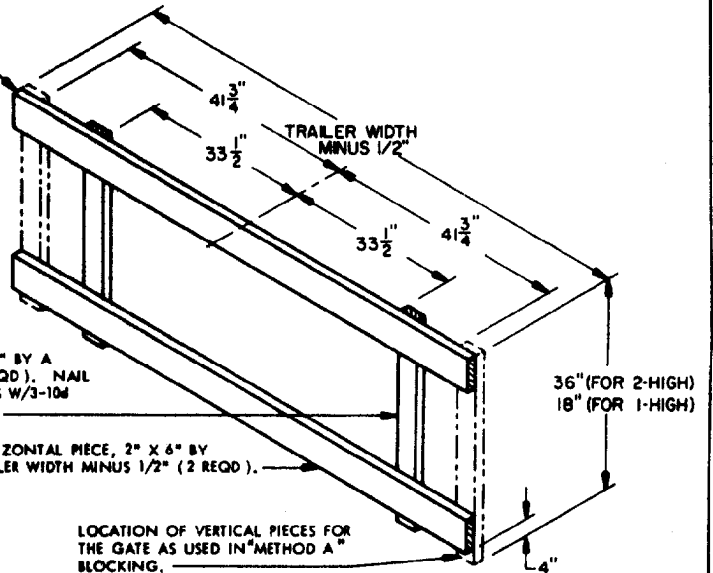


FORWARD GATE (1 REQD).
SEE GATE DETAIL.

VERTICAL PIECE, 2" X 4" BY A LENGTH TO SUIT (2 REQD). NAIL TO HORIZONTAL PIECES W/3-10d NAILS AT EACH JOINT.

HORIZONTAL PIECE, 2" X 6" BY TRAILER WIDTH MINUS 1/2" (2 REQD).

LOCATION OF VERTICAL PIECES FOR THE GATE AS USED IN "METHOD A" BLOCKING.



FORWARD BLOCKING-METHOD C

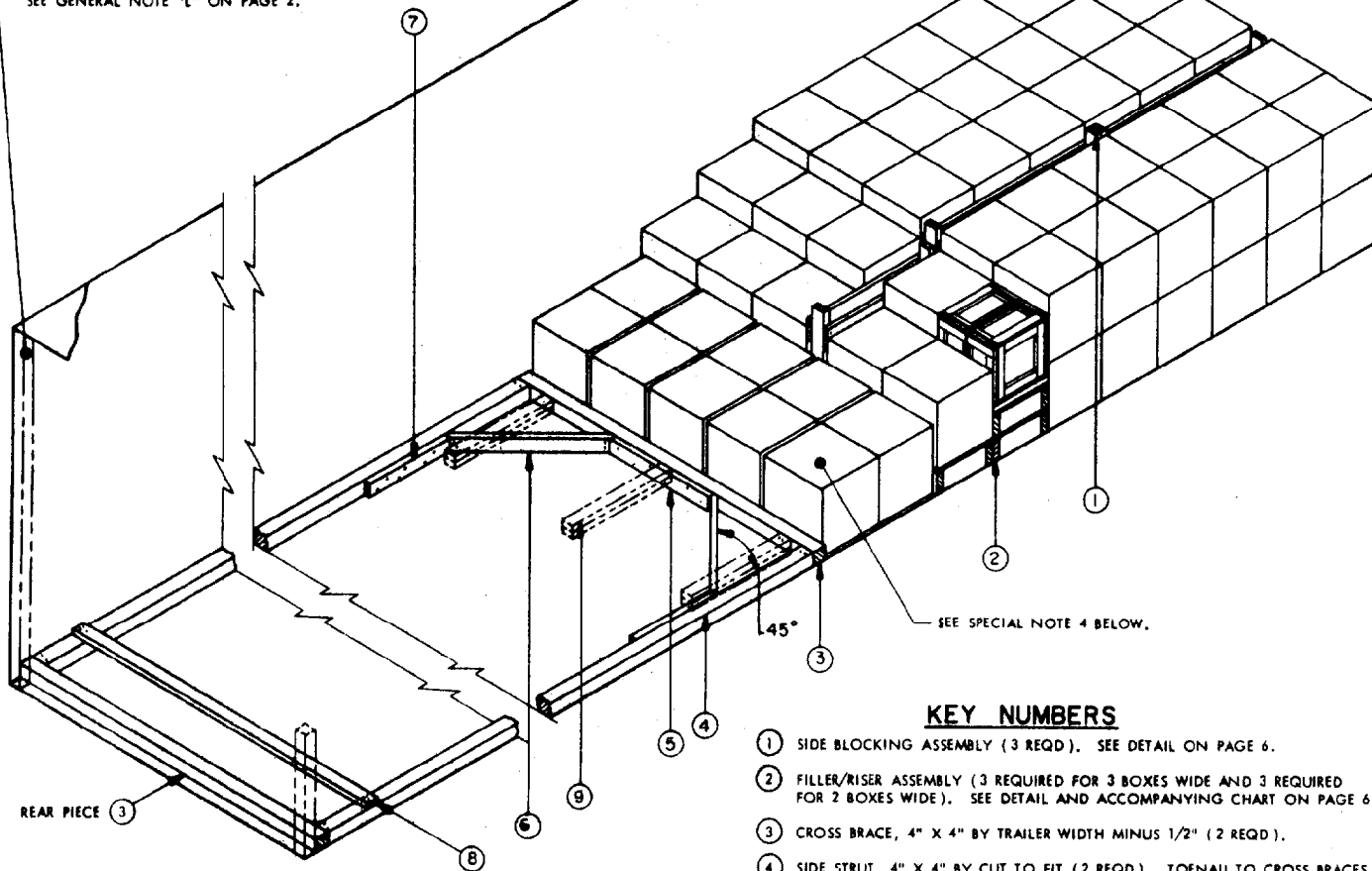
THIS LOADING AND BRACING IS APPLICABLE FOR A 1-HIGH OR 2-HIGH LOAD AT THE FORWARD END OF A TRAILER OF ANY WIDTH WHICH HAS A ROUND FRONT. THE CONTOUR OF THE TRAILER FRONT AND THE SOLID FILL AS SHOWN ARE ONLY TYPICAL. THE AMOUNT OF SOLID FILL WILL VARY ACCORDING TO THE RADIUS OF THE TRAILER FRONT.

FORWARD GATE

THIS FORWARD GATE IS REQUIRED WHEN A LOAD BEING SHIPPED IS TWO LAYERS HIGH AT THE FORWARD END AND THE TRAILER BEING USED IS EQUIPPED WITH ROUNDED CORNERS OR HAS A ROUND-FRONT.

SEE SPECIAL NOTES ON PAGE 5.

REAR CORNER POST OF TRAILER.
SEE GENERAL NOTE "L" ON PAGE 2.



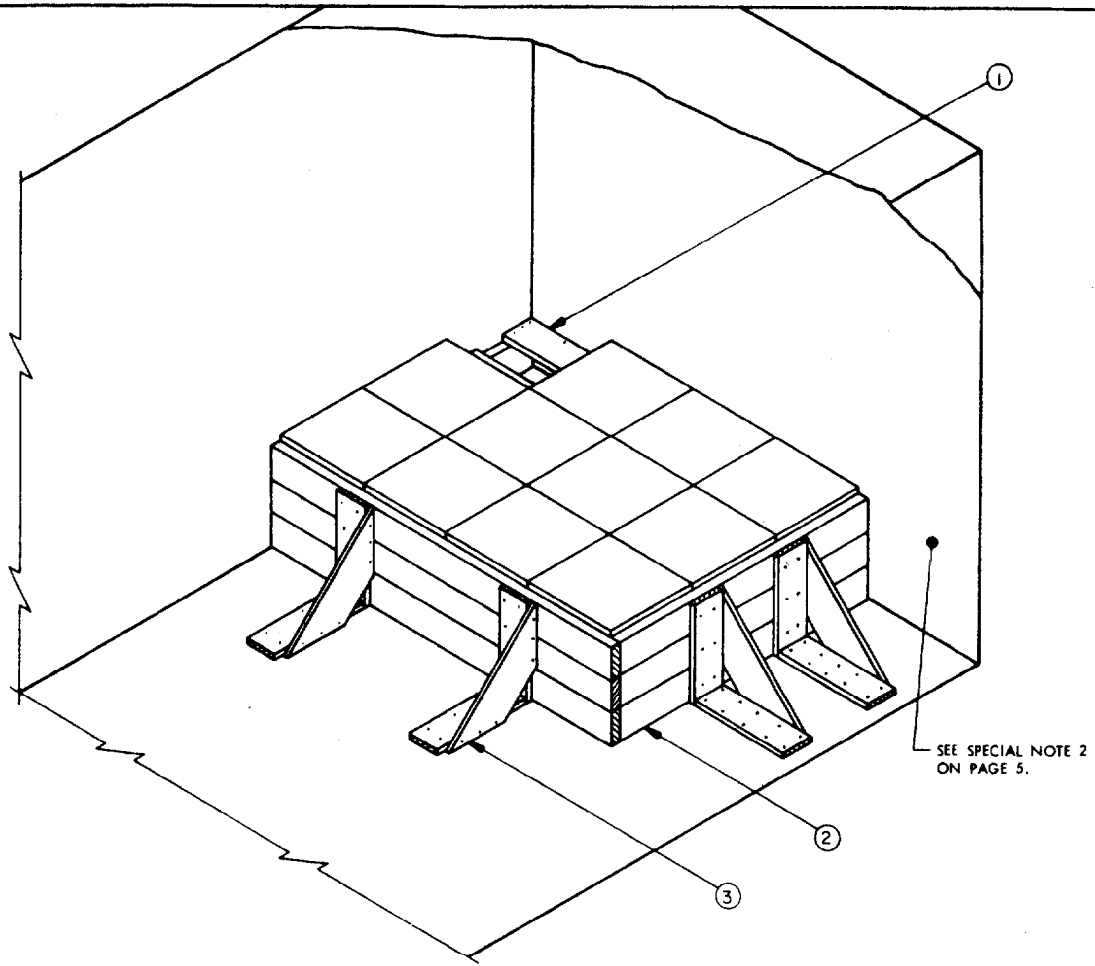
ISOMETRIC VIEW

KEY NUMBERS

- ① SIDE BLOCKING ASSEMBLY (3 REQD). SEE DETAIL ON PAGE 6.
- ② FILLER/RISER ASSEMBLY (3 REQUIRED FOR 3 BOXES WIDE AND 3 REQUIRED FOR 2 BOXES WIDE). SEE DETAIL AND ACCOMPANYING CHART ON PAGE 6.
- ③ CROSS BRACE, 4" X 4" BY TRAILER WIDTH MINUS 1/2" (2 REQD).
- ④ SIDE STRUT, 4" X 4" BY CUT TO FIT (2 REQD). TOENAIL TO CROSS BRACES MARKED ③ W/2-16d NAILS AT EACH END.
- ⑤ CENTER CLEAT, 2" X 4" X 30" (1 REQD). NAIL TO CROSS BRACE MARKED ③ W/6-12d NAILS.
- ⑥ DIAGONAL BRACE, 2" X 4" BY CUT TO FIT (2 REQD). DOUBLE BEVEL EACH END WITH 45° CUTS. INSTALL AT 45° ANGLE AS SHOWN AND NAIL TO ADJACENT CROSS BRACE MARKED ③ AND SIDE STRUT MARKED ④ W/2-16d NAILS AT EACH END.
- ⑦ SIDE CLEAT, 2" X 4" X 24" (2 REQD). NAIL TO SIDE STRUT MARKED ④ W/6-12d NAILS.
- ⑧ STRUT BRACING, 2" X 4" BY TRAILER WIDTH (CUT TO FIT) (MINIMUM OF 1 REQD). INSTALL ONE (1) NEAR REAR END OF STRUTS MARKED ④ AS SHOWN. ONE (1) ADDITIONAL PIECE IS REQUIRED FOR EVERY 7'-0" OF STRUT LENGTH. NAIL TO STRUTS MARKED ④ W/3-12d NAILS AT EACH END.
- ⑨ BACK-UP CLEAT, 2" X 4" X 30" (DOUBLED) (3 REQD). NAIL FIRST PIECE TO TRAILER FLOOR W/7-12d NAILS. NAIL SECOND PIECE TO FIRST IN A LIKE MANNER. SEE SPECIAL NOTE 3.

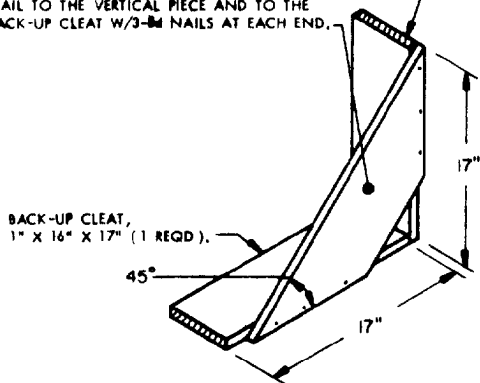
SPECIAL NOTES:

1. THESE LTL OUTLOADING PROCEDURES ARE SHOWN DEPICTING THE USE OF "K-BRACE" AND "NAILED FLOOR LINE" BLOCKING IN A 7'-6" WIDE TRAILER. WIDER OR NARROWER TRAILERS CAN ALSO BE USED.
2. THE "K-BRACE" BLOCKING, SHOWN AS PIECES MARKED ③ THROUGH ⑧, IS ADEQUATE FOR RETAINING A MAXIMUM LTL LOAD OF 24,000 POUNDS.
3. PIECES MARKED ⑨ ARE FOR USE IN A TRAILER WHICH HAS A NAILABLE FLOOR AND MAY BE USED IN LIEU OF REAR PIECE MARKED ③ AND PIECES MARKED ④ THROUGH ⑧ WHICH APPLY TO TRAILERS HAVING NON-NAILABLE FLOORS. THREE (3) BACK-UP CLEATS, SHOWN AS PIECES MARKED ⑨, ARE ADEQUATE FOR RETAINING A MAXIMUM SIZE LTL LOAD OF 15,000 POUNDS.
4. SIDE BLOCKING DUNNAGE ASSEMBLIES WILL NOT BE REQUIRED BETWEEN CONTAINERS IN THE ONE-HIGH PORTION OF THE LOAD, EXCEPT FOR THOSE CONTAINERS LOCATED ON THE "FILLER/RISER ASSEMBLIES". ALSO, CONTAINERS ADJACENT TO THE "CROSS BRACE", PIECE MARKED ③, ARE LIMITED TO ONE-CONTAINER HIGH.



VERTICAL PIECE, 1" X 6" X 17"
(1 REQD). NAIL TO THE BACK-
UP CLEAT W/4-8d NAILS.

ANGLE BRACE, 1" X 6" BY CUT TO FIT (1 REQD).
NAIL TO THE VERTICAL PIECE AND TO THE
BACK-UP CLEAT W/3-8d NAILS AT EACH END.



LTL BRACE

NOTE:

EACH BRACE IS APPLIED FOR LONGITUDINAL OR LATERAL BRACING
WILL SUPPORT 2,000 POUNDS OF LOADING. A MINIMUM OF TWO
(2) BRACES MUST BE USED IN THEIR RESPECTIVE DIRECTION. ALSO,
NOT MORE THAN FOUR (4) CONTAINERS IN LENGTH SHALL BE
RETAINED WITH TWO (2) BRACES.

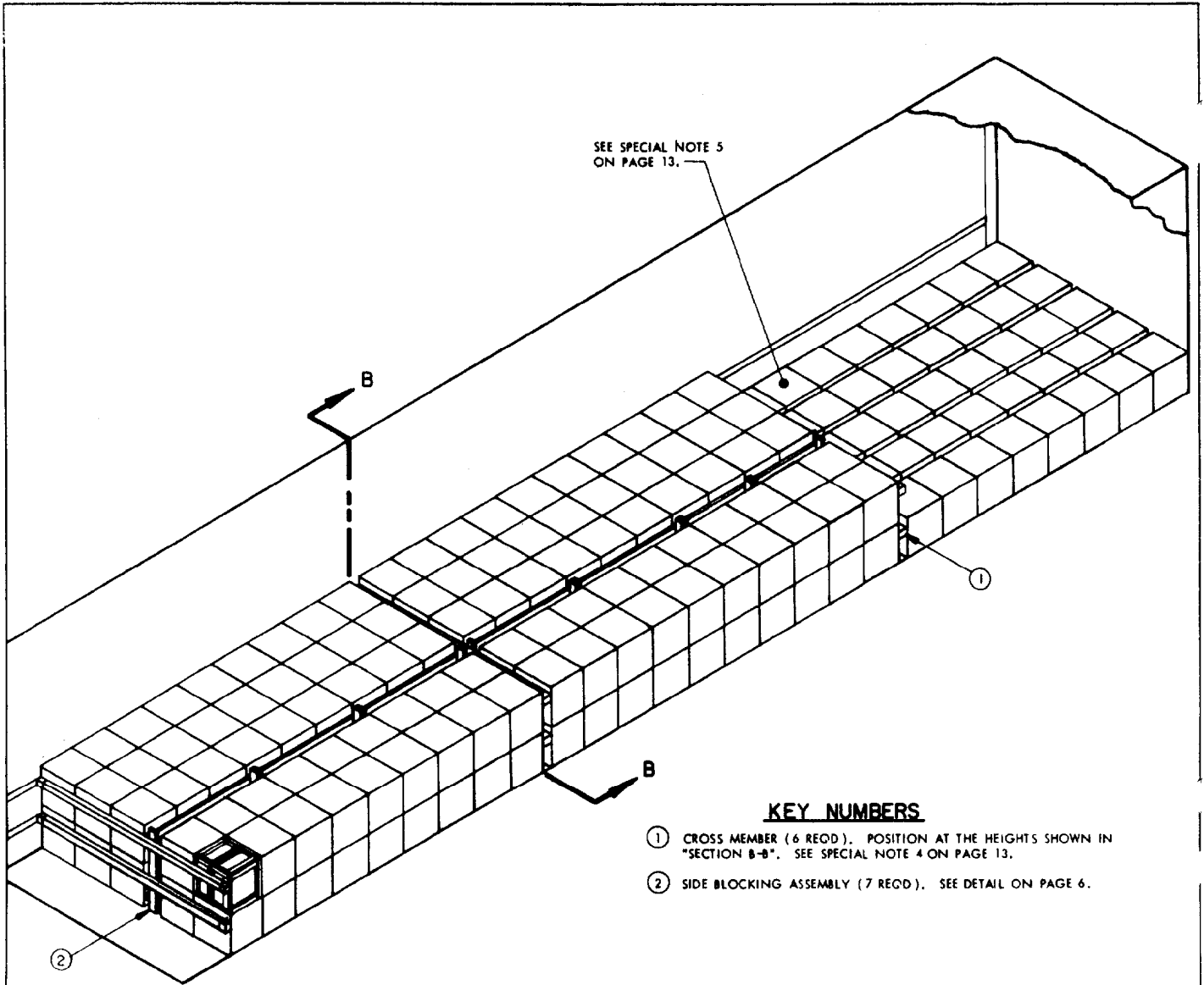
ISOMETRIC VIEW

WOOD OR WOOD AND
METAL FLOOR TRAILER ONLY.

KEY NUMBERS

- ① FILLER/RISER ASSEMBLY (2 REQD). SEE "FILLER/RISER ASSEMBLY"
ON PAGE 6.
- ② LOAD BEARING HORIZONTAL, 2" THICK MATERIAL BY LENGTH TO
SUIT (AS REQD).
- ③ LTL BRACE (4 REQD). SEE DETAIL ON THIS PAGE. NAIL TO 2"
THICK MATERIAL MARKED ② W/2-6d NAILS AT EACH JOINT.
NAIL TO TRAILER FLOOR W/10-6d NAILS.

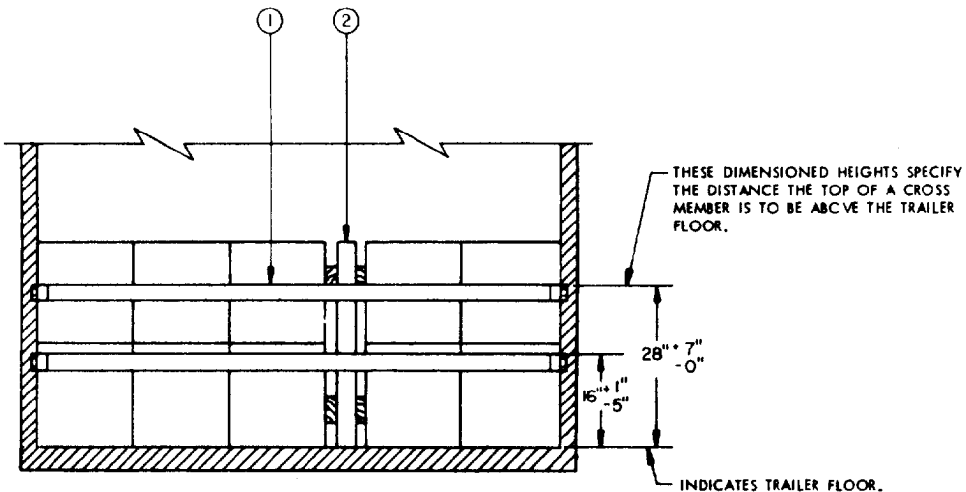
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KEY NUMBERS

- ① CROSS MEMBER (6 REOD). POSITION AT THE HEIGHTS SHOWN IN "SECTION B-B". SEE SPECIAL NOTE 4 ON PAGE 13.
- ② SIDE BLOCKING ASSEMBLY (7 REOD). SEE DETAIL ON PAGE 6.

ISOMETRIC VIEW



SECTION B-B

SPECIAL NOTES:

1. DO NOT EXCEED ELEVEN (11) UNITS IN LENGTH BETWEEN MECHANICAL CROSS MEMBERS. SEE SPECIAL NOTE 4 BELOW.
2. A 230-UNIT LOAD IS SHOWN IN A 40'-0" LONG TRAILER. A SHORTER TRAILER MAY BE USED FOR THE SHIPMENT OF THE SAME NUMBER OF CONTAINERS BY INCREASING THE LENGTH OF THE TWO HIGH PORTION OF THE LOAD AND USING A THREE-HIGH STACK AS REQUIRED TO ASSURE MAXIMUM LOAD WEIGHT, CONSISTENT WITH VARIOUS STATE WEIGHT LOAD LAWS. IF CONTAINERS ARE STACKED THREE (3) HIGH, ADDITIONAL CROSS MEMBERS WILL BE POSITIONED AT THE 48" LOCATION FOR LONGITUDINAL BLOCKING.
3. A SQUARE-FRONT TRAILER IS SHOWN IN THE LOAD VIEW. IF THE TRAILER HAS ROUNDED-CORNERS AT THE FORWARD END, ONE (1) ADDITIONAL CROSS MEMBER WILL BE POSITIONED AT THE FRONT OF THE TRAILER AT THE 16" LOCATION AS SPECIFIED IN "SECTION B-8" ON PAGE 12. **NOTE:** A ROUNDED-CORNER TRAILER MUST HAVE A MECHANICAL LOAD BLOCKING SYSTEM WHICH IS AT LEAST 38'-6" LONG AS MEASURED FROM THE FRONT OF THE SYSTEM TO THE REAR END OF THE SYSTEM, IF THE LOAD IS TO BE BUILT AS SHOWN. IF A TRAILER WITH A MECHANICAL LOAD BLOCKING SYSTEM WHICH IS LESS THAN 38'-4" LONG IS USED, SOME CONTAINERS OF THE ONE CONTAINER HIGH PORTION OF THE LOAD MAY BE STACKED TWO CONTAINERS HIGH. ADDITIONAL CROSS MEMBERS WILL BE REQUIRED. ALSO, ADDITIONAL SIDE BLOCKING ASSEMBLIES WILL BE REQUIRED.
4. A CROSS MEMBER WHEN USED FOR THE LOAD AS DEPICTED ON PAGE 12 WILL BE USED IN SUCH A MANNER THAT IT WILL NOT BE RELIED ON TO RETAIN MORE THAN 10,000 POUNDS OF LADING ON EITHER SIDE.
5. SIDE BLOCKING DUNNAGE ASSEMBLIES WILL NOT BE REQUIRED BETWEEN CONTAINERS IN THE ONE-HIGH PORTION OF THE LOAD.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 6"	56	28
2" X 4"	42	28
2" X 6"	50	50
NAILS	NO. REQD	POUNDS
6d (2")	48	1/2
10d (3")	48	3/4

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER	230	40,250 LBS
(W/CBU ITEM)		
DUNNAGE		265 LBS
TOTAL WEIGHT		40,515 LBS

230-UNIT LOAD IN A 40'-0" LONG TRAILER

THESE DIMENSIONED HEIGHTS SPECIFY THE DISTANCE THE TOP OF A CROSS MEMBER IS TO BE ABOVE THE TRAILER FLOOR.

28" ± 7" - 6"

16" ± 1" - 5"

INDICATES TRAILER FLOOR.

②

④

③

ISOMETRIC VIEW

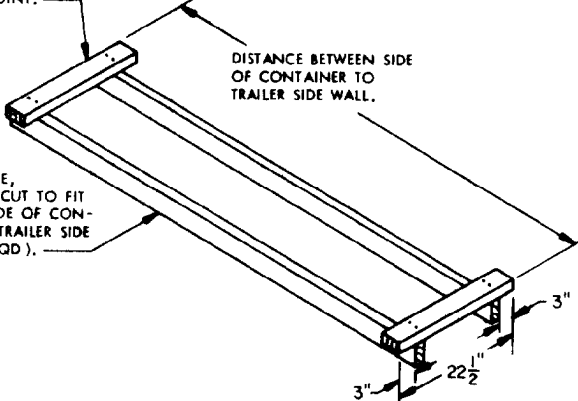
KEY NUMBERS

- ① SIDE BLOCKING ASSEMBLY (1 REQD). SEE DETAIL ON PAGE 6.
- ② CROSS MEMBER (3 REQD). POSITION AT HEIGHTS SHOWN. SEE SPECIAL NOTE 4 BELOW.
- ③ FILLER ASSEMBLY (1 REQD). SEE DETAIL TO THE LEFT ON THIS PAGE.
- ④ TIE WIRE, NO. 8 GAGE BLACK ANNEALED WIRE 30" LONG (4 REQD). INSTALL TO FORM A COMPLETE LOOP AROUND THE CROSS BRACE AND TIE PIECE OF THE FILLER ASSEMBLY, AND THE ADJACENT CROSS MEMBER MARKED ②. BRING THE ENDS TOGETHER AND TWIST TAUT. SEE SPECIAL NOTE 3 BELOW.

TIE PIECE, 2" X 4" X 22-1/2" (2 REQD). NAIL TO CROSS BRACE W/2-10d NAILS AT EACH JOINT.

DISTANCE BETWEEN SIDE OF CONTAINER TO TRAILER SIDE WALL.

CROSS BRACE, 2" X 4" BY CUT TO FIT BETWEEN SIDE OF CONTAINER TO TRAILER SIDE WALL (2 REQD).



FILLER ASSEMBLY

SPECIAL NOTES:

- 1. A 33-UNIT LOAD IS SHOWN IN A TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES.
- 2. THE FILLER ASSEMBLY MAY BE USED FOR A 31, 32 OR 34-UNIT LOAD BY ADJUSTING THE LENGTH OF THE CROSS BRACE.
- 3. FOUR (4) PIECES OF NO. 14 GAGE WIRE MAY BE USED IN LIEU OF THE NO. 8 GAGE WIRE. WHEN USING NO. 14 GAGE WIRE, INSTALL TWO (2) COMPLETE LOOPS AROUND THE CROSS MEMBER AND THE FILLER ASSEMBLY AT EACH LOCATION.
- 4. A CROSS MEMBER WHEN USED FOR THE LOAD AS DEPICTED ABOVE WILL BE USED IN SUCH A MANNER THAT IT WILL NOT BE RELIED ON TO RETAIN MORE THAN 10,000 POUNDS OF LADING ON EITHER SIDE.