

APPROVED BY
 BUREAU OF EXPLOSIVES
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 DATE *8/17/82*

LOADING AND BRACING (CL & LCL) IN BOX CARS OF 105MM AMMUNITION IN PA 84 FIBER CONTAINER PACKED 39 PER WIREBOUND PALLET TYPE BOX

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U. S. ARMY DARCOM DRAWING					
DECEMBER 1982					
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DO NOT SCALE

GENERAL NOTES

(GENERAL NOTES CONTINUED)

- 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 PROCEDURES SPECIFIED IN THIS DRAWING ARE APPLICABLE TO 105MM AMMUNITION IN PA 84 FIBER CONTAINER PACKED 39 PER WIREBOUND PALLET TYPE BOX. SUBSEQUENT REFERENCE TO CONTAINER MEANS THE PALLET TYPE BOX WITH CONTENTS.
- C. FOR DETAILS OF THE WIREBOUND PALLET TYPE BOX, SEE US ARMY ARMAMENT RESEARCH AND DEVELOPMENT COMMAND DRAWING 9328578 AND THE "UNIT DETAIL" ON PAGE 3.

CONTAINER DIMENSIONS --- 46-5/16" LONG BY 35-9/16" WIDE BY 49-1/8" HIGH.

GROSS WEIGHT ----- 2,432 POUNDS (APPROX).

- D. THE SELECTION OF RAIL CARS FOR THE TRANSPORT OF THE DESIGNATED ITEM IS THE RESPONSIBILITY OF THE ORIGINATING CARRIER AND THE SHIPPER. ONLY CARS WHICH HAVE "SOUND" FLOORS AND ARE IN OTHERWISE PROPER CONDITION, IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE REGULATORY DOCUMENTS, WILL BE SELECTED.
- E. WHEN SELECTING RAIL CARS, EVERY EFFORT SHOULD BE MADE TO OBTAIN BOX CARS THAT DO NOT HAVE BOWED END WALLS. CARS WITH BOWED ENDS CAN BE USED, HOWEVER, IF AN END WALL IS BOWED OUTWARD MORE THAN TWO INCHES (2"), EITHER FROM SIDE TO SIDE OR FROM FLOOR TO ROOF, AN END-OF-CAR BULKHEAD MUST BE INSTALLED TO PROVIDE A "SQUARED OFF" SURFACE FOR THE LOAD AT THE END OF THE CAR. REFER TO PAGE 12 FOR GUIDANCE.
- F. THE LOADS AS SHOWN ARE BASED ON CARS WHICH HAVE DOORS OF THE CONVENTIONAL SLIDING TYPE, HOWEVER, THE DEPICTED OUTLOADING PROCEDURES ARE ALSO APPLICABLE TO CARS WHICH ARE EQUIPPED WITH PLUG DOORS. CAUTION: DUNNAGE MATERIAL MUST NOT BE NAILED TO ANY PLUG DOOR, WHETHER AUXILIARY OR MAIN, EXCEPT TO A NAILING STRIP IF A DOOR IS SO EQUIPPED. ALSO, AFTER THE PLUG DOORS ON A CAR ARE CLOSED AND READY FOR THE INSTALLATION OF "CAR SEALS", A PIECE OF WIRE OF SUITABLE SIZE WILL BE USED IN ADDITION TO, AND IN CONJUNCTION WITH, EACH CAR SEAL TO "SEAL" THE CAR. THE WIRE WILL BE THREADED THROUGH THE HOLES IN THE DOOR LATCH ASSEMBLY ONE OR MORE TIMES, AND THE WIRE ENDS WILL BE TWISTED TOGETHER.
- G. DOORWAY PROTECTION REQUIREMENTS WITHIN THE "DOORWAY AREA" OF A CAR ARE INCLUDED IN THE PROCEDURES AND ARE APPLICABLE TO CARS HAVING EITHER CONVENTIONAL SLIDING AND/OR PLUG TYPE DOORS. THE "DOORWAY AREA" WITHIN A CAR IS DEFINED AS THE CARGO SPACE THAT IS ADJACENT TO A CONVENTIONAL TYPE AND/OR PLUG TYPE DOOR. THE LENGTH OF A "DOORWAY AREA" CAN BE AS MUCH AS 24 FEET IN SOME CARS THAT ARE EQUIPPED WITH STAGGERED DOORS.
- H. THE NUMBER OF LADING UNITS MAY BE ADJUSTED TO FIT THE SIZE OF THE BOXCAR BEING LOADED OR THE QUANTITY TO BE SHIPPED. HOWEVER, THE APPROVED METHODS SPECIFIED HEREIN MUST BE FOLLOWED AS CLOSELY AS POSSIBLE FOR BLOCKING, BRACING, AND STAYING OF THE DESIGNATED ITEM. NOTICE: A SHIPMENT WILL BE POSITIONED IN THE RAIL CAR IN COMPLIANCE WITH THE WEIGHT DISTRIBUTION REQUIREMENTS OF THE AAR. SEE GENERAL NOTE "K".
- J. FOR EASE OF LOADING AND UNLOADING IN THE DOORWAY AREA OF A CAR, AN OFFSET LOADING PATTERN (TWO MORE LOAD UNITS IN ONE END THAN IN THE OPPOSITE END) IS DEPICTED WITHIN THE LOADS HEREIN. OFFSET LOADING IS NOT MANDATORY, HOWEVER, AND LOADS MAY BE BUILT WITH AN EQUAL OR NEARLY EQUAL NUMBER OF LOAD UNITS IN EACH END OF THE CAR IF THE SIZE OF THE DOORWAY OPENINGS PERMITS.
- K. THE LOAD LIMIT OF A CAR MUST NOT BE EXCEEDED. LIKEWISE, THE LOAD IN ONE END OF A CAR MUST NOT EXCEED ONE-HALF OF THE LOAD LIMIT WHICH IS STENCILED ON THE OUTSIDE OF THE CAR. THE CENTER OF GRAVITY (CG) OF A LOAD HAVING AN EQUAL NUMBER OF UNITS IN EACH END OF THE CAR WILL BE AT THE LONGITUDINAL CENTER OF THE CAR AND THEREFORE THE TOTAL WEIGHT OF THE LADING AND DUNNAGE MAY EQUAL BUT MUST NOT EXCEED THE STENCILED LOAD LIMIT. HOWEVER, FOR A LOAD CONSTRUCTED IN AN OFFSET LOADING PATTERN, THE CG WILL BE LOCATED TOWARD THE LONG-LOAD END FROM THE LONGITUDINAL CENTER OF THE CAR SO NATURALLY THE LONG-LOAD END WILL BE THE HEAVIEST. THE TOTAL WEIGHT OF THE LADING AND DUNNAGE MUST THEN BE SOMETHING LESS THAN THE STENCILED LOAD LIMIT.

(CONTINUED AT RIGHT)

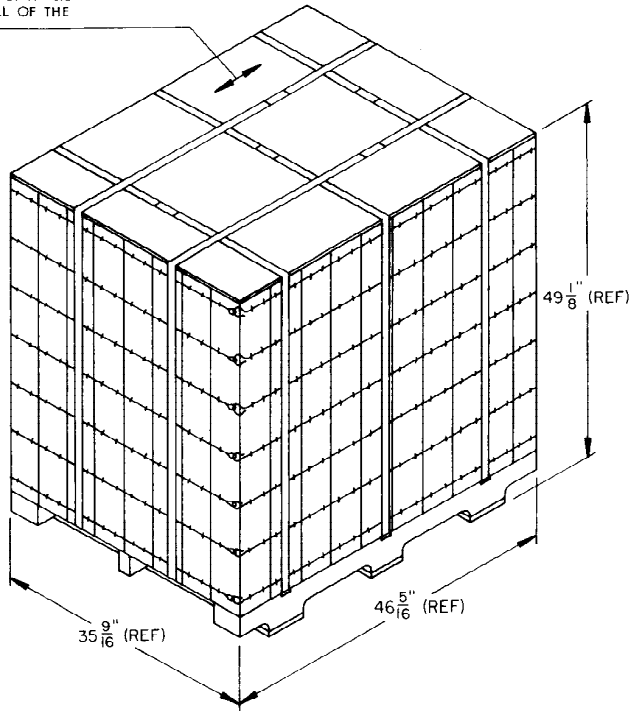
MATERIAL SPECIFICATIONS

- LUMBER** -----: SEE TM 743-200-1, DUNNAGE LUMBER; FED SPEC MM-L-751.
- NAILS** -----: COMMON, FED SPEC FF-N-105.
- STRAPPING, STEEL** ----: CLASS I, TYPE I OR IV, HEAVY DUTY, FINISH A OR B (GRADE 2), OR C; FED SPEC QQ-S-781.
- SEAL, STRAP** -----: TYPE D, STYLE I, II, OR IV, CLASS II; FED SPEC QQ-S-781.
- WIRE** -----: FED SPEC QQ-W-461.

- L. TO ACHIEVE A TIGHTLY BLOCKED LOAD, A STRUT WILL BE CUT SLIGHTLY LONGER THAN THE MEASURED DISTANCE BETWEEN THE STRUT BEARING AREAS ON THE TWO CENTER GATES. ONE END OF THE STRUT WILL BE POSITIONED AT ITS BEARING AREA JUST ABOVE THE STRUT LEDGER ON ONE GATE, THEN THE OTHER END, WHICH CAN BE BEVELLED ON THE LOWER CORNER IF DESIRED, WILL BE DRIVEN DOWNWARD UNTIL IT CONTACTS THE STRUT LEDGER ON THE OTHER GATE. EACH END OF THE STRUT WILL BE TOENAILED TO THE ADJACENT CENTER GATE, AS SPECIFIED WITHIN THE KEY NUMBERS FOR A LOAD, IN SUCH A MANNER THAT AS NEARLY AS PRACTICAL EQUAL LENGTHS OF A NAIL ARE EMBEDDED IN THE STRUT AND IN THE VERTICAL PIECE OF THE CENTER GATE. SEE THE "BEVEL CUT" DETAIL ON PAGE 9 FOR BEVELING INSTRUCTIONS AND "STRUT INSTALLATION" DETAIL ON THAT PAGE FOR A PICTORIAL VIEW SHOWING THE PROPER POSITIONING OF A REVELED STRUT FOR INSTALLATION. NOTE THAT THE UPPER CORNER NEEDS TO BE BEVELED ONLY IF THE STRUTS ARE VERY SHORT. IF ONLY ONE END IS BEVEL CUT, THE BEVELLED EDGE WILL BE PLACED IN THE DOWNWARD POSITION SO THAT IT WILL ALLOW THE STRUT END TO SLIDE MORE FREELY DOWN THE FACE OF THE VERTICAL PIECE ON THE ADJACENT CENTER GATE AS THE STRUT IS DRIVEN DOWN INTO ITS FINAL BLOCKING POSITION.
- M. OTHER TYPES OF LADING ITEMS MAY BE LOADED IN BOX CARS 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.
- N. THE OUTLOADING PROCEDURES SPECIFIED HEREIN CAN ALSO BE UTILIZED FOR SHIPMENT OF THE DEPICTED CONTAINERS WHEN THEY ARE LOADED WITH AN ITEM WHICH IS IDENTIFIED DIFFERENTLY BY NOMENCLATURE THAN THE ITEM DESIGNATED WITHIN THE TITLE OF THIS DOCUMENT.
- O. WHEN STEEL STRAPPING IS SEALED AT AN END-OVER-END LAP JOINT AS SHOWN, A MINIMUM OF TWO (2) SEALS, BUTTED TOGETHER, WITH TWO (2) PAIR OF CRIMPS PER SEAL MUST BE USED TO SEAL THE JOINT.
- P. DUNNAGE LUMBER SPECIFIED THROUGHOUT THIS PROCEDURAL DRAWING IS OF NOMINAL SIZE. FOR EXAMPLE, 2" X 4" MATERIAL IS ACTUALLY 1-1/2" THICK BY 3-1/2" WIDE AND 2" X 6" MATERIAL IS ACTUALLY 1-1/2" THICK BY 5-1/2" WIDE.
- Q. NOTICE: A STAGGERED NAILING PATTERN WILL BE USED WHEREVER POSSIBLE WHEN NAILS ARE DRIVEN INTO JOINTS OF DUNNAGE ASSEMBLIES. ALSO, A STAGGERED NAILING PATTERN WILL BE USED WHEN DUNNAGE IS NAILED TO THE FLOOR OF THE TRANSPORTING VEHICLE, OR WHEN LAMINATING DUNNAGE. THE NAILING PATTERN WILL BE ADJUSTED AS REQUIRED SO THAT A NAIL DOES NOT PENETRATE INTO OR NEAR A CRACK BETWEEN FLOOR BOARDS. 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.
- R. IF THE CAR BEING USED IS EQUIPPED WITH A NAILABLE METAL FLOOR AND A NAIL SIZE FOR FLOOR NAILING IS MARKED ON THE SIDE WALL OF THE CAR, THAT GUIDANCE SHOULD BE APPLIED FOR THE NAILING OF THE APPLICABLE DUNNAGE PIECES. IF A NAIL SIZE IS NOT SPECIFIED, 30d NAILS SHOULD BE USED.
- S. THROUGHOUT THIS PROCEDURAL DRAWING, PORTIONS OF THE DEPICTED CARS, SUCH AS A CAR SIDEWALL, HAVE BEEN OMITTED FROM THE LOAD VIEWS FOR CLARITY PURPOSES.
- T. THE OUTLOADING PROCEDURES SPECIFIED IN THIS DRAWING ARE FOR FULL LOADS AND NEARLY FULL LOADS IN CONVENTIONAL TYPE BOX CARS. LESS-THAN-CAR-LOAD PROCEDURES FOR SHIPMENT OF SMALLER QUANTITIES ARE DEPICTED IN US ARMY MATERIEL COMMAND DRAWING 19-48-4115-5 PAT1002 AS WELL AS PROCEDURES FOR OUTLOADING IN CARS EQUIPPED WITH MECHANICAL BRACING DEVICES. FOR PROCEDURES APPLICABLE TO SHIPMENTS IN CUSHIONED BOX CARS EQUIPPED WITH LOAD DIVIDERS, REFER TO US ARMY MATERIEL COMMAND DRAWING 19-48-4101-SQ1000.
- U. ALTHOUGH THE LOADING AND BRACING SPECIFICATIONS DELINEATED WITHIN THIS DOCUMENT ARE BASED ON THE USE OF 50-FOOT CARS, THE SPECIFICATIONS ARE ALSO APPLICABLE TO 40-FOOT AND 60-FOOT CARS. SPECIFIC LOAD ARRANGEMENTS FOR THE 40-FOOT AND 60-FOOT CARS ARE DESCRIBED WITHIN THE "SPECIAL NOTES" SECTION ADJACENT TO EACH DEPICTED LOAD, AS APPLICABLE.
- V. THE LOADS AS SHOWN ON PAGES 4 THROUGH 7 MAY ALSO BE USED IN CUSHIONED BOX CARS WHICH ARE EQUIPPED WITH LOAD DIVIDER BULKHEADS AND WITH OR WITHOUT ADJUSTABLE SIDE FILLERS. CAUTION: ONLY CARS EQUIPPED WITH LOAD DIVIDERS MANUFACTURED BY EVANS, EQUIPCO OR PRECO MAY BE USED. LOAD DIVIDERS MANUFACTURED BY TRANSCO ARE NOT ACCEPTABLE, WHETHER OF ALUMINUM OR STEEL CONSTRUCTION. ALSO, ONLY CUSHIONED CARS THAT HAVE SLIDING CENTER SILL TYPE CUSHIONING DEVICES OR END-OF-CAR TYPE DEVICES WHICH HAVE AT LEAST 15" OF TRAVEL ARE ACCEPTABLE.

- 1. BOX CARS EQUIPPED WITH ADJUSTABLE SIDE FILLERS THAT HAVE 3/8" OR THICKER PANELS MAY BE USED. HOWEVER, THESE SIDE FILLERS MUST NOT BE USED FOR LATERAL BLOCKING; THEY MUST BE RETRACTED AND LOCKED AGAINST THE CAR SIDEWALL. A "FILL PIECE" MUST BE INSTALLED IN THE VOID BETWEEN THE CAR SIDEWALL AND THE SIDE-FILLER PANEL. SEE THE "TYPICAL TYPE A" VIEW ON PAGE 14 FOR GUIDANCE. IF THE BACKS OF THE SIDE FILLER PANELS ARE REINFORCED WITH VERTICAL AND HORIZONTAL STEEL MEMBERS AS SHOWN IN THE "TYPICAL TYPE B" VIEW ON PAGE 14, THE "FILL PIECE" MATERIAL IS NOT REQUIRED. NOTE: DUNNAGE MATERIALS MUST NOT BE NAILED TO THE SIDE FILLERS.
- 2. AFTER THE LOAD DIVIDER BULKHEADS ARE POSITIONED AGAINST THE LADING, AND THE LOCKING PINS ARE ENGAGED IN THE HOLES OF THE RAILS, THE LOWER LOCKING PINS MUST BE INSPECTED TO ENSURE

UNITS WILL BE POSITIONED IN A CAR
SO THAT THE SKIDS OF THE UNIT ARE
PARALLEL WITH THE SIDEWALL OF THE
CAR.



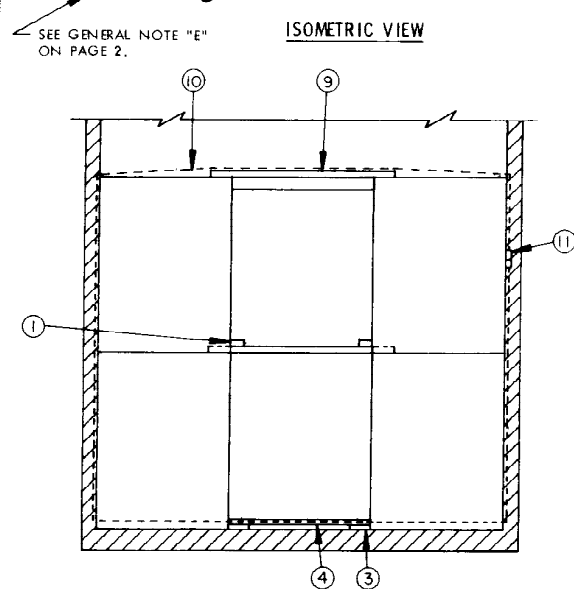
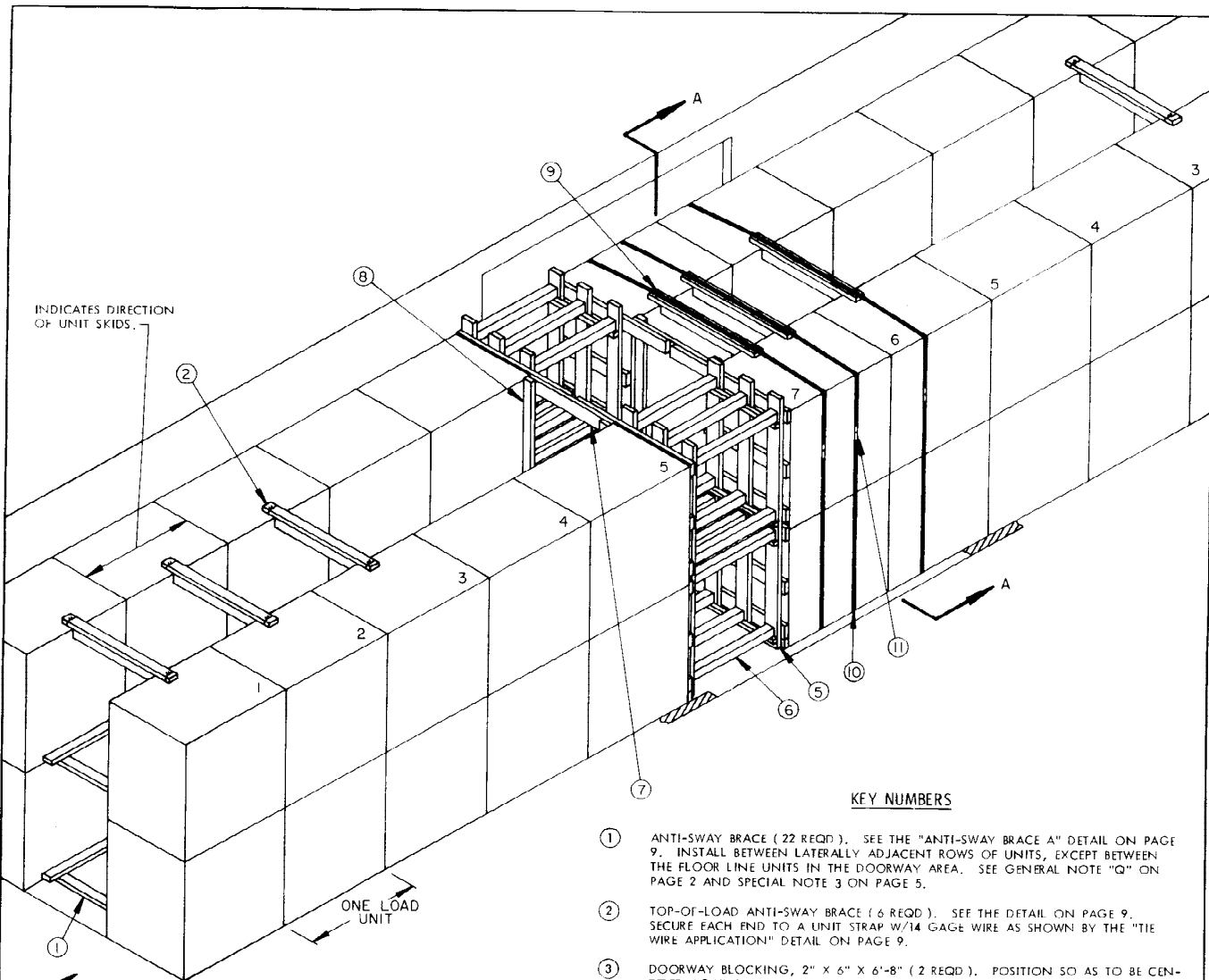
WIREBOUND PALLET TYPE BOX

UNIT WEIGHT ----- 2,432 LBS (APPROX)
CUBE ----- 46.9 CU FT (APPROX)

(GENERAL NOTES CONTINUED FROM PAGE 3)

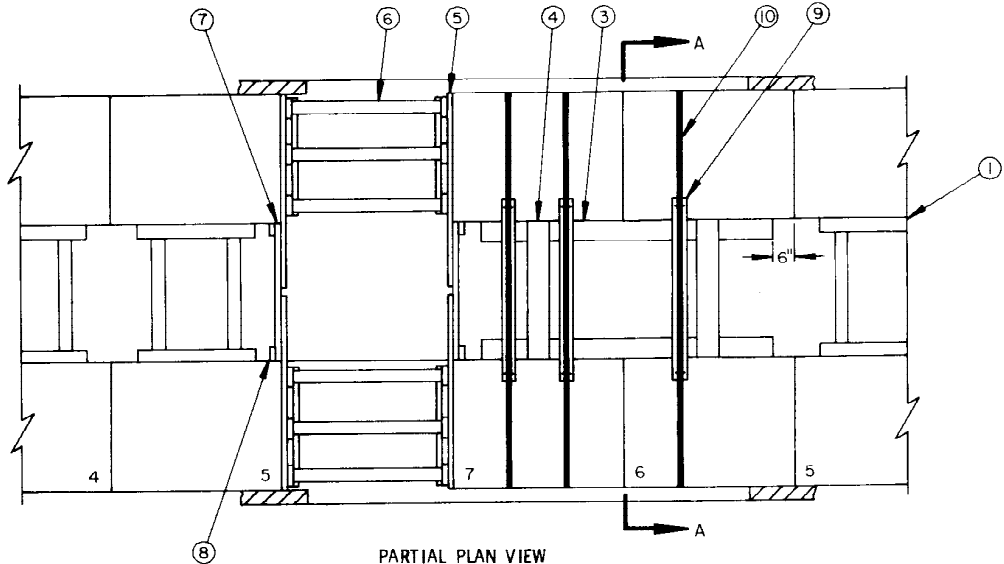
THAT THE PINS ARE FULLY ENGAGED IN THE LOCKING HOLES. IF THE PINS ARE NOT FULLY SEATED IN THE LOCKING HOLES, THE LINKAGE MECHANISM WILL BE ADJUSTED AS REQUIRED SO THAT THE PINS WILL BE FULLY SEATED IN THE LOCKING HOLES OF THE LOWER RAILS. IF PRESENT, DEBRIS MUST BE REMOVED FROM BENEATH THE LOCKING HOLES WHICH HAVE BEEN SELECTED FOR SECURING A LOAD DIVIDER BULKHEAD.

3. CAUTION: THE WEIGHT OF THE LOAD TO BE RETAINED BY ONE LOAD DIVIDER BULKHEAD MUST NOT EXCEED ONE-HALF OF THE LOAD LIMIT WHICH IS STENCILED ON THE SIDE OF THE CAR.



KEY NUMBERS

- ① ANTI-SWAY BRACE (22 REQD.). SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 9. INSTALL BETWEEN LATERALLY ADJACENT ROWS OF UNITS, EXCEPT BETWEEN THE FLOOR LINE UNITS IN THE DOORWAY AREA. SEE GENERAL NOTE "Q" ON PAGE 2 AND SPECIAL NOTE 3 ON PAGE 5.
- ② TOP-OF-LOAD ANTI-SWAY BRACE (6 REQD.). SEE THE DETAIL ON PAGE 9. SECURE EACH END TO A UNIT STRAP W/14 GAGE WIRE AS SHOWN BY THE "TIE WIRE APPLICATION" DETAIL ON PAGE 9.
- ③ DOORWAY BLOCKING, 2" X 6" X 6'-8" (2 REQD.). POSITION SO AS TO BE CENTERED AGAINST THE UNITS WHICH ARE COMPLETELY AND/OR PARTIALLY IN THE DOORWAY (LOAD UNITS NO. 6 AND 7 IN THE LOAD SHOWN). SEE THE "PARTIAL PLAN VIEW" ON PAGE 5 FOR GUIDANCE. NAIL TO THE CAR FLOOR W/1-16d NAIL EVERY 8". SEE SPECIAL NOTE 2 ON PAGE 5 AND GENERAL NOTE "R" ON PAGE 2.
- ④ DOORWAY BLOCKING, 2" X 6" BY CUT TO FIT BETWEEN UNITS (2 REQD.). POSITION SO AS TO BE ALIGNED WITH THE CENTERS OF LATERALLY ADJACENT UNITS AND NAIL TO PIECES MARKED ③ W/4-16d NAILS AT EACH END. SEE THE "PARTIAL PLAN VIEW" ON PAGE 5.
- ⑤ CENTER GATE (4 REQD., 2 RIGHT HAND AND 2 LEFT HAND). SEE THE "CENTER GATE A" DETAIL ON PAGE 10.
- ⑥ STRUT, 4" X 4" BY CUT TO FIT (24 REQD.). TOENAIL TO THE CENTER GATES W/2-16d NAILS AT EACH END. SEE GENERAL NOTE "L" ON PAGE 2.
- ⑦ CENTER GATE TIE PIECE, 2" X 6" BY CUT TO FIT BETWEEN LATERALLY ADJACENT UNITS (6 REQD.). NAIL TO CENTER GATES, PIECE MARKED ⑤, W/4-10d NAILS AT EACH JOINT.
- ⑧ GATE LATERAL BLOCKING CLEAT, 2" X 4" X 8'-0" (4 REQD.). POSITION SO BOTTOM END IS FLUSH WITH THE LOWER EDGE OF THE BOTTOM TIE PIECE AND NAIL TO PIECES MARKED ⑦ W/3-10d NAILS AT EACH JOINT.
- ⑨ SPACER (3 REQD.). CONSTRUCT SAME AS THE TOP-OF-LOAD ANTI-SWAY BRACE, AS DETAILED ON PAGE 9.
- ⑩ DOORWAY PROTECTION STRAP, 1-1/4" X .035" OR .031" X 37'-0" LONG STEEL STRAPPING (3 REQD.). INSTALL TO ENCIRCLE THE LOAD UNITS WHICH EXTEND INTO THE DOORWAY AREA. SECURE TO PIECES MARKED ⑨ W/2 STAPLES. SEE SPECIAL NOTE 2 ON PAGE 5.
- ⑪ SEAL FOR 1-1/4" STRAPPING (6 REQD., 2 PER STRAP). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "O" ON PAGE 2.



PARTIAL PLAN VIEW

THE ANTI-SWAY BRACES BETWEEN THE SECOND-LAYER PALLETS IN LOAD UNITS NO. 6 AND 7 HAVE BEEN OMITTED FOR CLARITY.

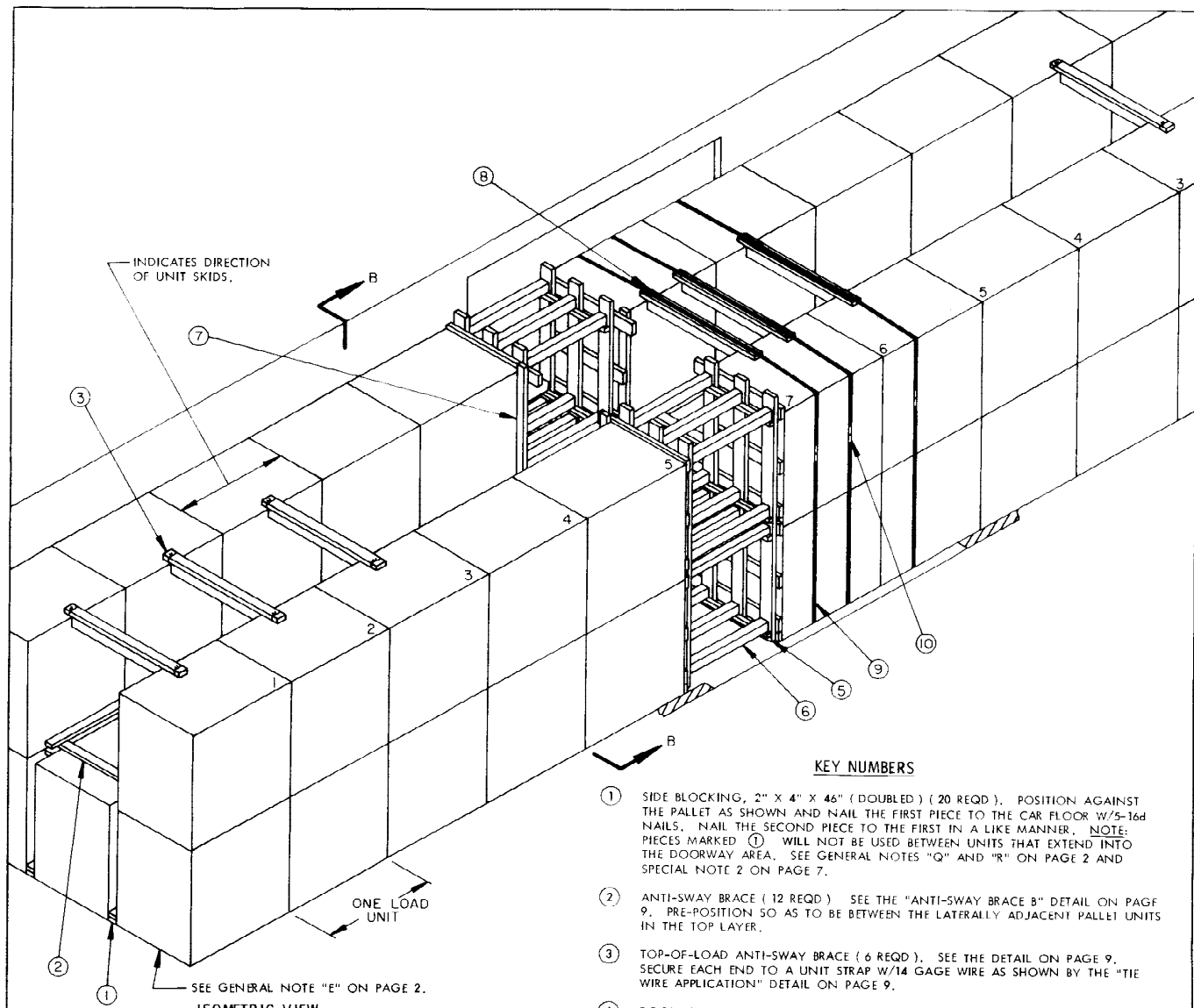
SPECIAL NOTES:

1. A 50'-6" LONG BY 9'-2" WIDE CONVENTIONAL TYPE BOX CAR EQUIPPED WITH 10'-0" WIDE DOOR OPENINGS IS SHOWN. CARS OF OTHER DIMENSIONS AND CARS HAVING OTHER WIDTH THRU OR STAGGERED DOOR OPENINGS MAY ALSO BE USED.
2. DOORWAY PROTECTION IS REQUIRED FOR ALL LOAD UNITS WHICH ARE COMPLETELY WITHIN THE DOORWAY AREA OR WHICH EXTEND INTO THE DOORWAY AREA BY ONE-HALF OR MORE OF THE UNIT LENGTH. THE DOORWAY PROTECTION SHOWN CONSISTS OF PIECES MARKED (3), (4), (9), (10) AND (11). IF DESIRED IN CARS EQUIPPED WITH CONVENTIONAL SLIDING DOORS, DOORWAY PROTECTION GATES AS DETAILED ON PAGE 12 MAY BE USED INSTEAD. TWO (2) ADDITIONAL ANTI-SWAY BRACES, PIECES MARKED (2), WILL BE REQUIRED.
3. THE SPECIFIED QUANTITY OF ANTI-SWAY BRACES, PIECES MARKED (1), WILL VARY IF THE CAR IS EQUIPPED WITH STAGGERED DOORS. ALSO, THE DOORWAY BLOCKING, PIECES MARKED (3), ON EITHER SIDE OF THE CENTER BLOCKING MUST BE OF SUCH A LENGTH AS TO CONTACT ALL BUT TWELVE INCHES (12") OF THE UNITS WHICH ARE COMPLETELY OR MORE THAN HALFWAY INTO THE DOOR OPENING ON EITHER SIDE OF THE CAR. APPLY ONE (1) PIECE MARKED (4) FOR EACH APPLICABLE UNIT.
4. IF IT IS DESIRED TO SHIP A LOAD CONTAINING TWO LESS UNITS THAN SHOWN, REFER TO THE PROCEDURES ON PAGE 8 FOR LOADING GUIDANCE.
5. THIRTY-SIX (36) PALLET BOXES CAN BE LOADED IN A 40'-6" LONG CAR FOR AN APPROXIMATE LADING WEIGHT OF 87,552 POUNDS. THE PREFERRED LOADING WOULD BE WITH FIVE (5) LOAD UNITS IN ONE END OF THE CAR AND FOUR (4) LOAD UNITS IN THE OPPOSITE END. SIXTY (60) PALLET BOXES CAN BE LOADED IN A 60'-8" LONG CAR FOR AN APPROXIMATE LADING WEIGHT OF 145,920 POUNDS. PREFERRED LOADING WOULD BE WITH EIGHT (8) LOAD UNITS IN ONE END OF THE CAR AND SEVEN (7) LOAD UNITS IN THE OPPOSITE END.
6. THE LOAD DEPICTED ON PAGE 4 MAY ALSO BE TRANSPORTED IN BOX CARS EQUIPPED WITH LOAD DIVIDER BULKHEADS. WHEN USING LOAD DIVIDER EQUIPPED CARS, PIECES MARKED (5) THROUGH (8) WILL BE OMITTED AND REPLACED WITH THE LOAD DIVIDER BULKHEADS AND A STRUT ASSEMBLY AS DETAILED ON PAGE 13.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 2"	48	16
2" X 3"	6	3
2" X 4"	387	258
2" X 6"	235	235
4" X 4"	118	158
NAILS	NO. REQD	POUNDS
10d (3")	720	11-1/4
12d (3-1/4")	45	3/4
16d (3-1/2")	126	2-3/4
STEEL STRAPPING, 1-1/4" X .035" OR .031" --	111' REQD --	16 LBS
SEAL FOR 1-1/4" STRAPPING -----	6 REQD --	NIL
STAPLES FOR 1-1/4" STRAPPING -----	6 REQD --	NIL
14 GAGE WIRE -----	36' REQD --	1/2 LB

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER -----	48 -----	116,736 LBS
DUNNAGE -----	-----	1,372 LBS
TOTAL WEIGHT -----		118,108 LBS



INDICATES DIRECTION OF UNIT SKIDS.

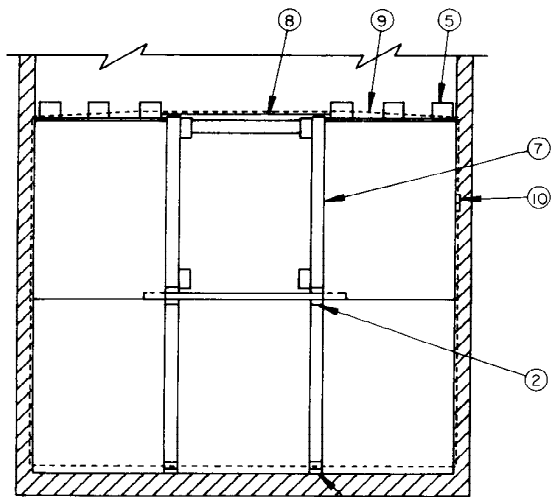
SEE GENERAL NOTE "E" ON PAGE 2.

ISOMETRIC VIEW

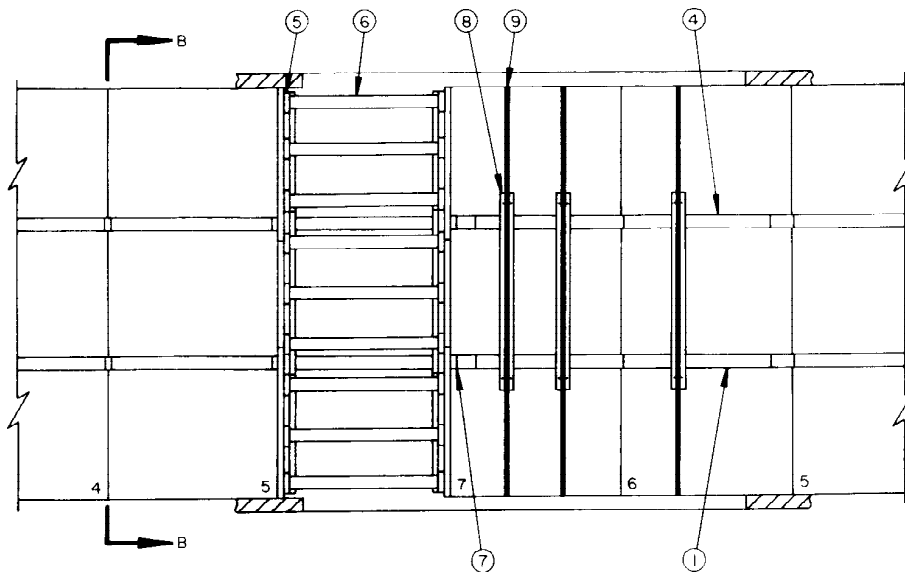
ONE LOAD UNIT

KEY NUMBERS

- ① SIDE BLOCKING, 2" X 4" X 46" (DOUBLED) (20 REQD). POSITION AGAINST THE PALLET AS SHOWN AND NAIL THE FIRST PIECE TO THE CAR FLOOR W/5-16d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER. **NOTE:** PIECES MARKED ① WILL NOT BE USED BETWEEN UNITS THAT EXTEND INTO THE DOORWAY AREA. SEE GENERAL NOTES "Q" AND "R" ON PAGE 2 AND SPECIAL NOTE 2 ON PAGE 7.
- ② ANTI-SWAY BRACE (12 REQD) SEE THE "ANTI-SWAY BRACE B" DETAIL ON PAGE 9. PRE-POSITION SO AS TO BE BETWEEN THE Laterally ADJACENT PALLET UNITS IN THE TOP LAYER.
- ③ TOP-OF-LOAD ANTI-SWAY BRACE (6 REQD). SEE THE DETAIL ON PAGE 9. SECURE EACH END TO A UNIT STRAP W/14 GAGE WIRE AS SHOWN BY THE "TIE WIRE APPLICATION" DETAIL ON PAGE 9.
- ④ DOORWAY BLOCKING, 2" X 4" X 6'-8" (2 REQD). POSITION SO AS TO BE CENTERED AGAINST THE UNITS WHICH ARE COMPLETELY AND/OR PARTIALLY IN THE DOORWAY AREA. SEE THE "PARTIAL PLAN VIEW" ON PAGE 7 FOR GUIDANCE. NAIL TO THE CAR FLOOR W/1-16d NAIL EVERY 8". SEE SPECIAL NOTE 4 ON PAGE 7.
- ⑤ CENTER GATE (2 REQD). SEE "CENTER GATE B" DETAIL ON PAGE 10.
- ⑥ STRUT, 4" X 4" BY CUT TO FIT (30 REQD). TOENAIL TO THE CENTER GATES W/2-16d NAILS AT EACH END. SEE GENERAL NOTE "L" ON PAGE 2.
- ⑦ GATE LATERAL BLOCKING CLEAT, 2" X 4" X 48" (4 REQD). POSITION SO BOTTOM END IS FLUSH WITH THE LOWER EDGE OF THE 57-1/2" HORIZONTAL PIECE OF A CENTER GATE AND NAIL TO PIECES MARKED ⑤ W/3-10d NAILS AT EACH JOINT.
- ⑧ SPACER (3 REQD). CONSTRUCT SAME AS THE TOP-OF-LOAD ANTI-SWAY BRACE, AS DETAILED ON PAGE 9. SEE SPECIAL NOTE 3 ON PAGE 7.
- ⑨ DOORWAY PROTECTION STRAP, 1-1/4" X .035" OR .031" X 38'-0" LONG STEEL STRAPPING (3 REQD). INSTALL TO ENIRCLE THE LOAD UNITS WHICH EXTEND INTO THE DOORWAY AREA. SECURE TO PIECES MARKED ⑧ W/2 STAPLES. SEE SPECIAL NOTE 4 ON PAGE 7.
- ⑩ SEAL FOR 1-1/4" STRAPPING (6 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "O" ON PAGE 2.



SECTION B-B



PARTIAL PLAN VIEW

(SPECIAL NOTES CONTINUED)

6. THE LOAD DEPICTED ON PAGE 6 MAY ALSO BE TRANSPORTED IN BOX CARS EQUIPPED WITH LOAD DIVIDER BULKHEADS. WHEN USING LOAD DIVIDER EQUIPPED CARS, PIECES MARKED ⑤ THROUGH ⑦ WILL BE OMITTED AND REPLACED WITH THE LOAD DIVIDER BULKHEADS AND A STRUT ASSEMBLY AS DETAILED ON PAGE 13.

SPECIAL NOTES:

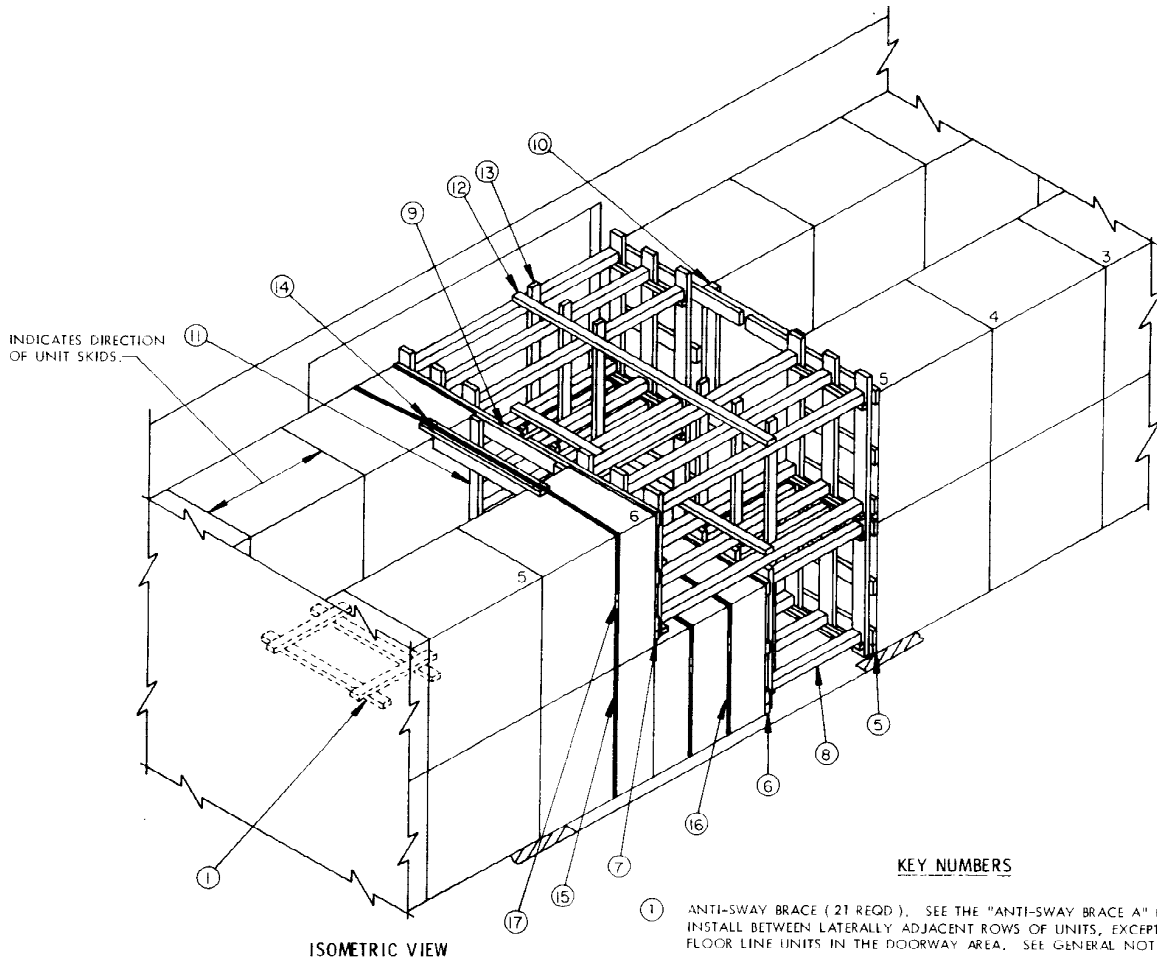
1. A 50'-6" LONG BY 9'-6" WIDE CONVENTIONAL TYPE BOX CAR WITH 10'-0" WIDE DOOR OPENINGS IS SHOWN. CARS OF OTHER DIMENSIONS AND CARS HAVING OTHER WIDTH THRU OR STAGGERED DOOR OPENINGS MAY ALSO BE USED.
2. SIDE BLOCKING, PIECE MARKED ①, IS SPECIFIED AS DOUBLED 2" X 4" MATERIAL FOR THE LOAD SHOWN ON PAGE 6. HOWEVER, IF A 9'-2" WIDE BOX CAR IS USED, THE PIECES MARKED ① WILL BE OMITTED. THE ANTI-SWAY BRACE SHOWN AS PIECE MARKED ① ON PAGE 4 WILL BE SUBSTITUTED FOR THE TWELVE (12) ANTI-SWAY BRACES SHOWN AS PIECES MARKED ② ON PAGE 6. IF A 9'-4" WIDE BOX CAR IS USED, ONE (1) LENGTH OF DOUBLED 2" X 6" MATERIAL WILL BE SUBSTITUTED FOR EACH PAIR OF INSTALLATIONS OF DOUBLED 2" X 4" MATERIAL SHOWN. THE ANTI-SWAY BRACE, SHOWN AS PIECE MARKED ②, WILL BE MODIFIED BY OMITTING ONE OF THE LOWER BLOCKING PIECES AND SUBSTITUTING A 2" X 6" X 32" PIECE FOR THE OTHER LOWER BLOCKING PIECE. ALSO, THE 48" LONG VERTICAL PIECES OF THE CENTER GATE MUST BE RELOCATED USING THE SAME SPACING BETWEEN PIECES BUT WITH THE FIRST PIECE POSITIONED SO THERE IS A TWO AND ONE-HALF INCH (2-1/2") SPACE BETWEEN IT AND THE ADJACENT 8'-8" LONG VERTICAL PIECE. ONE RIGHT HAND AND ONE LEFT HAND CENTER GATE WILL THEN BE REQUIRED.
3. IF A 3-PALLET UNIT WIDE LOAD IS SHIPPED IN A 9'-2" WIDE BOX CAR, EQUIPPED WITH SLIDING DOORS, THE SPACERS, DOORWAY PROTECTION STRAP, AND SEALS, PIECES MARKED ⑧, ⑨ AND ⑩ WILL BE OMITTED AND A DOORWAY PROTECTION GATE AS DETAILED ON PAGE 12 USED IN LIEU THEREOF.
4. DOORWAY PROTECTION IS REQUIRED FOR ALL LOAD UNITS WHICH ARE COMPLETELY WITHIN THE DOORWAY AREA OR WHICH EXTEND INTO THE DOORWAY AREA BY ONE-HALF OR MORE OF THE UNIT LENGTH. THE DOORWAY PROTECTION SHOWN CONSISTS OF PIECES MARKED ④, ⑤, ⑥, ⑦ AND ⑩. IF DESIRED IN CARS EQUIPPED WITH CONVENTIONAL SLIDING DOORS, DOORWAY PROTECTION GATES AS DETAILED ON PAGE 12, MAY BE USED INSTEAD OF PIECES MARKED ⑧, ⑨ AND ⑩. PIECES MARKED ④ ARE STILL REQUIRED.
5. FORTY-FIVE (45) PALLET BOXES CAN BE LOADED IN A 40'-6" LONG CAR FOR A LADING WEIGHT OF APPROXIMATELY 109,440 POUNDS. THE PREFERRED LOADING PATTERN WOULD BE WITH FIVE (5) LOAD UNITS IN ONE END OF THE CAR AND WITH FOUR (4) LOAD UNITS IN THE OPPOSITE END. SIXTY FOOT (60') CARS ARE NOT RECOMMENDED FOR USE WITH THIS LOADING PATTERN.

(CONTINUED AT LEFT)

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 2"	60	20
2" X 3"	6	3
2" X 4"	473	316
2" X 6"	226	226
4" X 4"	142	190
NAILS	NO. REQD	POUNDS
10d (3")	780	12
12d (3-1/4")	45	3/4
16d (3-1/2")	340	7-1/2
STEEL STRAPPING, 1-1/4" X .035" OR .031" -- 114' REQD --		17 LBS
SEAL FOR 1-1/4" STRAPPING ----- 6 REQD --		NIL
STAPLES FOR 1-1/4" STRAPPING ----- 6 REQD --		NIL
14 GAGE WIRE ----- 36' REQD --		1/2 LB

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER -----	60 -----	145,920 LBS
DUNNAGE -----	-----	1,548 LBS
TOTAL WEIGHT -----		147,468 LBS



ISOMETRIC VIEW

SPECIAL NOTES:

1. THE CENTER PORTION OF A 50'-6" LONG BY 9'-2" WIDE CONVENTIONAL TYPE BOX CAR EQUIPPED WITH 10'-0" WIDE DOOR OPENINGS IS SHOWN. CARS OF OTHER DIMENSIONS AND CARS HAVING OTHER WIDTH THRU OR STAGGERED DOOR OPENINGS MAY ALSO BE USED.
2. ONLY THE BLOCKING AND BRACING PIECES WHICH ARE NECESSARY TO PERMIT THE OMISSION OF THE UNITS FROM THE TOP TIER ARE SHOWN. THE TOP-OF-LOAD ANTI-SWAY BRACING, AS REQUIRED, AND THE DOORWAY PROTECTION BLOCKING ARE NOT DEPICTED. REFER TO PAGE 4 FOR THE SPECIFICATIONS FOR THOSE ITEMS.
3. THE LENGTH OF THE LOWER LEVEL OF STRUTS AND/OR LENGTH OF THE OMITTED UNITS MAY REQUIRE THAT MORE THAN ONE SET OF VERTICAL STRUT BRACING BE INSTALLED. TO PROTECT THE LADING FROM BEING PUNCTURED WHEN A SET OF VERTICAL STRUT BRACING IS INSTALLED ABOVE THE LOWER TIER OF A LOAD, A SUITABLE LENGTH PAD OF 2" X 4" OR 2" X 6" MATERIAL MUST BE POSITIONED UNDER AND SECURED TO EACH APPLICABLE VERTICAL STRUT BRACING PIECE.

(KEY NUMBERS CONTINUED)

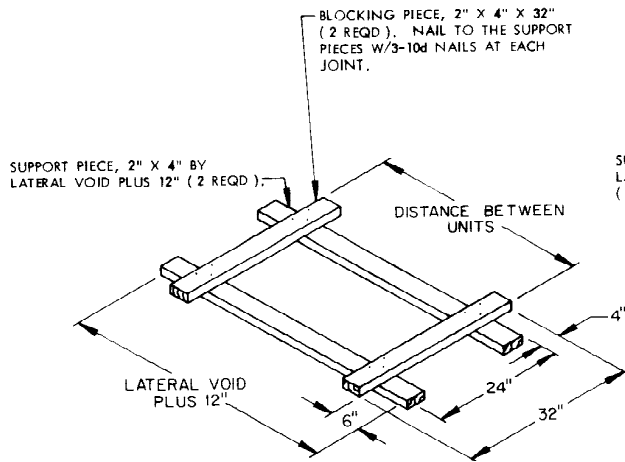
DOORWAY AREA. SECURE TO PIECE MARKED ⑭ W/2 STAPLES. SEE SPECIAL NOTE 2 ON PAGE 5.

- ⑮ DOORWAY PROTECTION STRAP, 1-1/4" X .035" OR .031" X 29'-0" LONG STEEL STRAPPING (2 REQD). INSTALL TO ENCIRCLE THE LOAD UNIT THAT IS ENTIRELY IN THE DOORWAY AREA.
- ⑯ SEAL FOR 1-1/4" STRAPPING (6 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "O" ON PAGE 2.

KEY NUMBERS

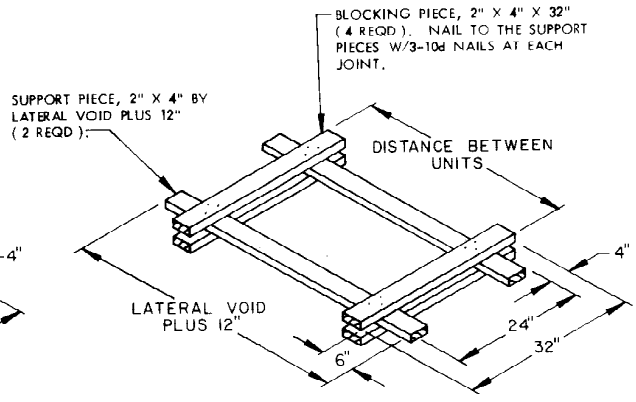
- ① ANTI-SWAY BRACE (21 REQD). SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 9. INSTALL BETWEEN LATERALLY ADJACENT ROWS OF UNITS, EXCEPT BETWEEN THE FLOOR LINE UNITS IN THE DOORWAY AREA. SEE GENERAL NOTE "Q" ON PAGE 2.
- ② TOP-OF-LOAD ANTI-SWAY BRACE (NOT SHOWN). SEE PAGE 4.
- ③ DOORWAY BLOCKING (NOT SHOWN). SEE PAGE 4.
- ④ DOORWAY BLOCKING (NOT SHOWN). SEE PAGE 4.
- ⑤ CENTER GATE (2 REQD, 1 RIGHT HAND AND 1 LEFT HAND). SEE THE "CENTER GATE A" DETAIL ON PAGE 10.
- ⑥ CENTER GATE (2 REQD, 1 RIGHT HAND AND 1 LEFT HAND). SEE THE "CENTER GATE C" DETAIL ON PAGE 11.
- ⑦ CENTER GATE (2 REQD, 1 RIGHT HAND AND 1 LEFT HAND). SEE THE "CENTER GATE D" DETAIL ON PAGE 11.
- ⑧ STRUT, 4" X 4" BY CUT TO FIT (24 REQD). TOENAIL TO THE CENTER GATES, PIECES MARKED ⑤, ⑥ AND/OR ⑦, W/2-10d NAILS AT EACH END.
- ⑨ CENTER GATE TIE PIECE, 2" X 6" BY CUT TO FIT BETWEEN LATERALLY ADJACENT UNITS (7 REQD). NAIL TO THE CENTER GATES, PIECES MARKED ⑤, ⑥ AND/OR ⑦, W/4-10d NAILS AT EACH JOINT.
- ⑩ GATE LATERAL BLOCKING CLEAT, 2" X 4" X 8'-0" (2 REQD). POSITION SO BOTTOM END IS FLUSH WITH THE LOWER EDGE OF THE BOTTOM TIE PIECE OF CENTER GATE MARKED ⑤ AND NAIL TO PIECES MARKED ⑥ W/3-10d NAILS AT EACH JOINT.
- ⑪ GATE LATERAL BLOCKING CLEAT, 2" X 4" X 48" (4 REQD). POSITION SO BOTTOM END IS FLUSH WITH THE LOWER EDGE OF THE BOTTOM TIE PIECE OF CENTER GATE MARKED ⑥ AND/OR ⑦ AND NAIL TO PIECES MARKED ⑤ W/3-10d NAILS AT EACH JOINT.
- ⑫ HORIZONTAL STRUT BRACING, 2" X 4" BY CAR WIDTH MINUS 1/2" (2 REQD). NAIL TO THE STRUTS W/3-10d NAILS AT EACH JOINT.
- ⑬ VERTICAL STRUT BRACING, 2" X 4" X 8'-6" (6 REQD). NAIL TO THE STRUTS W/3-10d NAILS AT EACH JOINT. SEE SPECIAL NOTE 3 AT LEFT.
- ⑭ SPACER (3 REQD). CONSTRUCT SAME AS THE TOP-OF-LOAD ANTI-SWAY BRACE, AS DETAILED ON PAGE 9.
- ⑮ DOORWAY PROTECTION STRAP, 1-1/4" X .035" OR .031" X 37'-0" LONG STEEL STRAPPING (1 REQD). INSTALL TO ENCIRCLE THE LOAD UNIT THAT EXTENDS INTO THE

(CONTINUED AT LEFT)



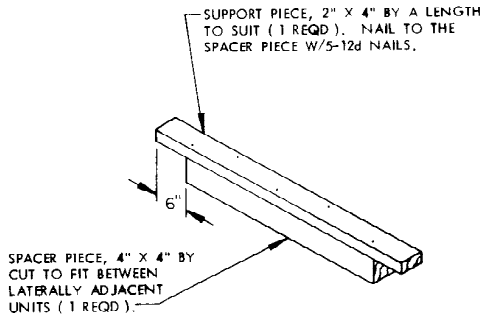
ANTI-SWAY BRACE A

ANTI-SWAY BRACES SHOULD BE ASSEMBLED IN PLACE IN ORDER TO OBTAIN A SNUG FIT BETWEEN THE LADING AND THE BLOCKING PIECES OF THE BRACE.



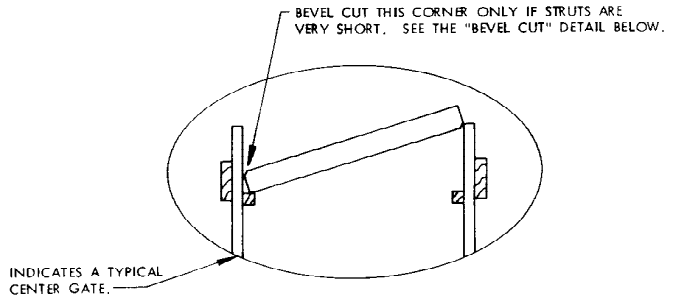
ANTI-SWAY BRACE B

THIS ANTI-SWAY BRACE MUST BE PRE-ASSEMBLED AND POSITIONED ON THE CENTER UNIT OF THE BOTTOM LAYER PRIOR TO PLACEMENT OF THE SECOND-LAYER UNITS.



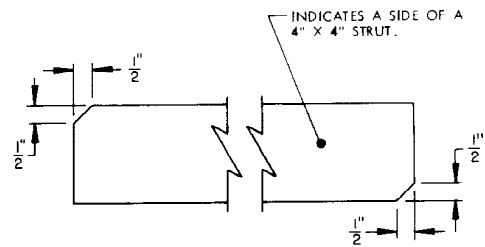
TOP-OF-LOAD ANTI-SWAY BRACE

THIS ASSEMBLY IS ALSO FOR USE AS A CENTER UNDER DOORWAY PROTECTION STRAPS.



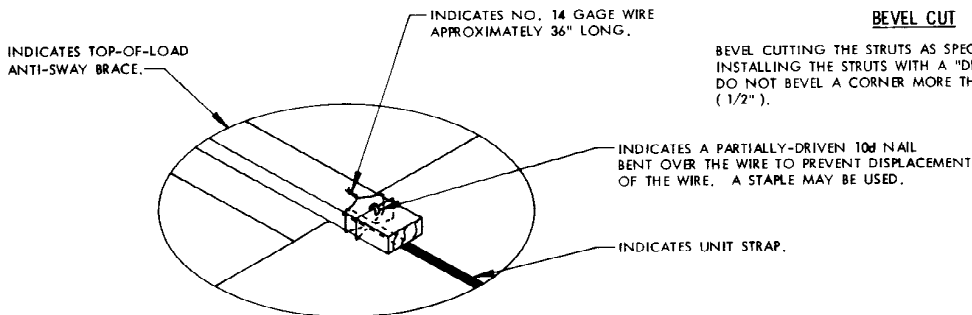
STRUT INSTALLATION

SEE GENERAL NOTE "L" ON PAGE 2 FOR ADDITIONAL STRUT INSTALLATION GUIDANCE.



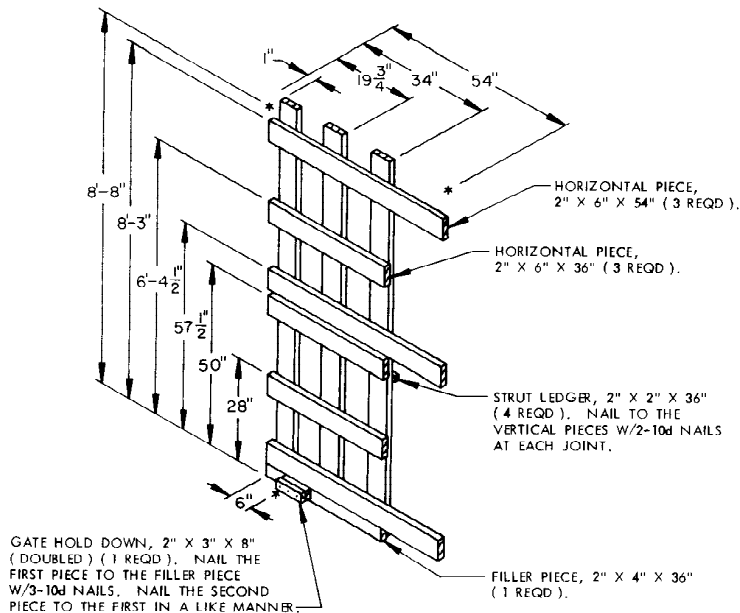
BEVEL CUT

BEVEL CUTTING THE STRUTS AS SPECIFIED WILL FACILITATE INSTALLING THE STRUTS WITH A "DRIVE FIT". CAUTION: DO NOT BEVEL A CORNER MORE THAN ONE-HALF INCH (1/2").



TIE WIRE APPLICATION

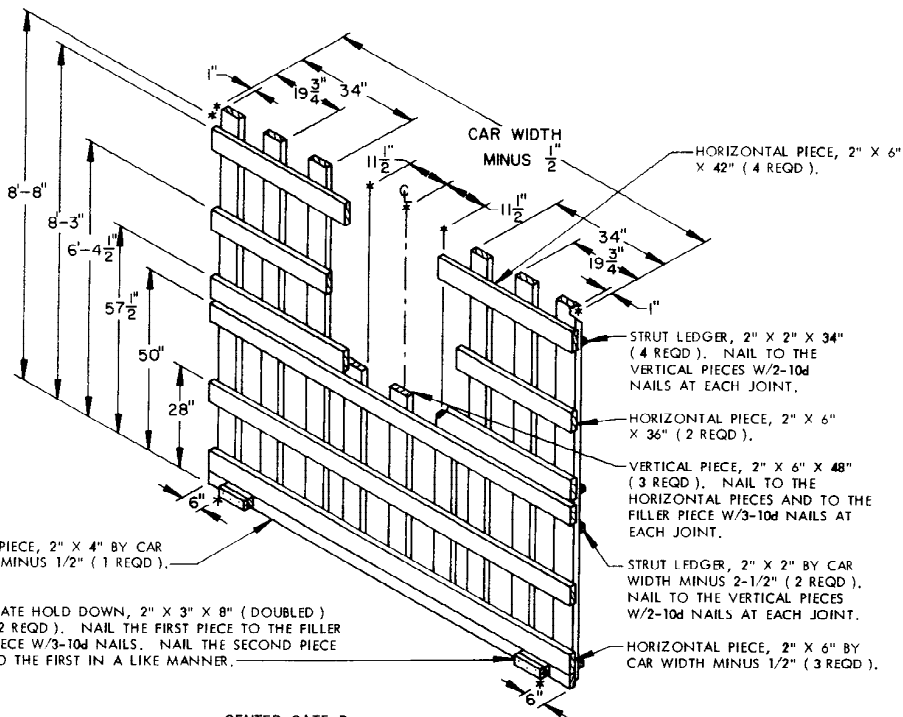
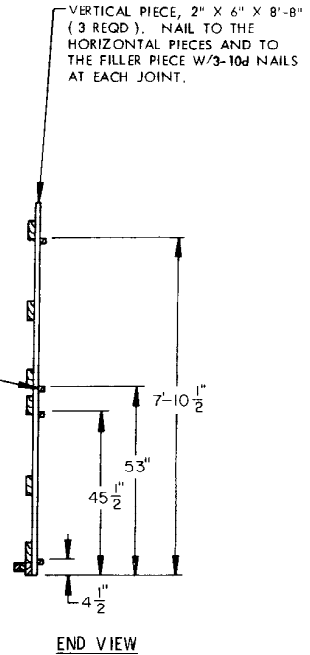
THIS VIEW DEPICTS THE SECUREMENT OF ONE END OF A TOP-OF-LOAD ANTI-SWAY BRACE TO A UNIT STRAP. BOTH ENDS WILL BE SECURED.



CENTER GATE A

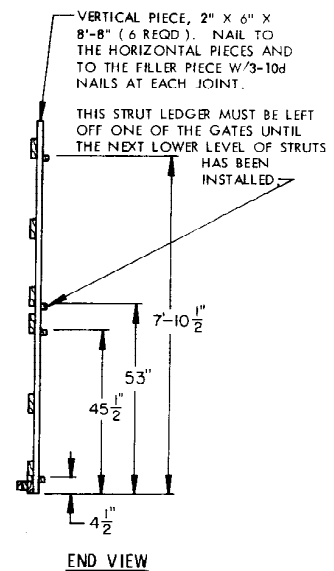
NOTE THAT TWO (2) RIGHT HAND GATES AS SHOWN AND TWO (2) LEFT HAND GATES ARE REQUIRED TO FORM A 2-GATE BLOCKING ARRANGEMENT.

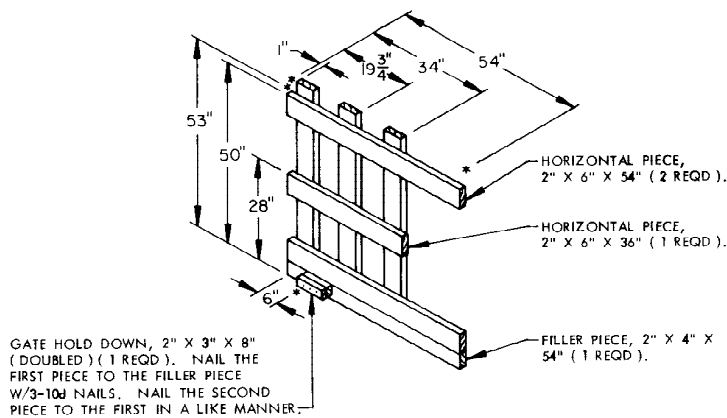
THIS STRUT LEDGER MUST BE LEFT OFF OF ONE PAIR OF GATES UNTIL THE NEXT LOWER LEVEL OF STRUTS HAS BEEN INSTALLED.



CENTER GATE B

DETAILS

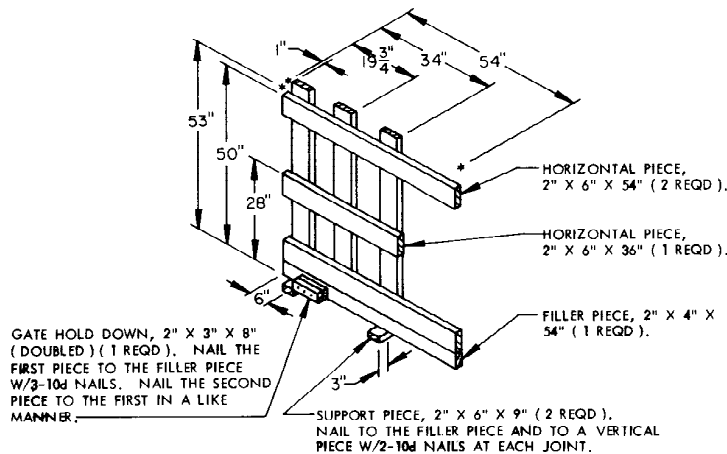
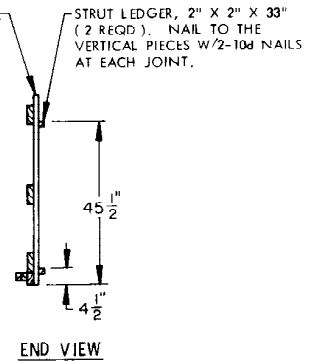




CENTER GATE C

THIS GATE IS DESIGNED FOR USE AGAINST THE 1-HIGH BOTTOM LAYER OF THE 2-LAYER LOAD SHOWN ON PAGE 8 AND IS IDENTIFIED AS KEY NUMBER ④. A RIGHT HAND GATE AS SHOWN AND A LEFT HAND GATE ARE REQUIRED TO FORM A 2-GATE BLOCKING ARRANGEMENT IN THE BOTTOM LAYER.

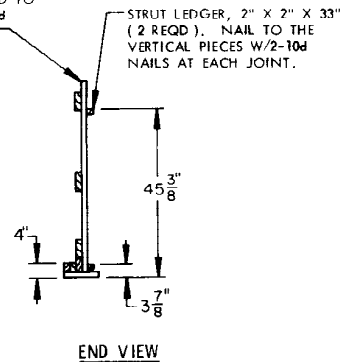
VERTICAL PIECE, 2" X 6" X 53" (3 REQD). NAIL TO THE HORIZONTAL PIECES AND TO THE FILLER PIECE W/3-10d NAILS AT EACH JOINT.

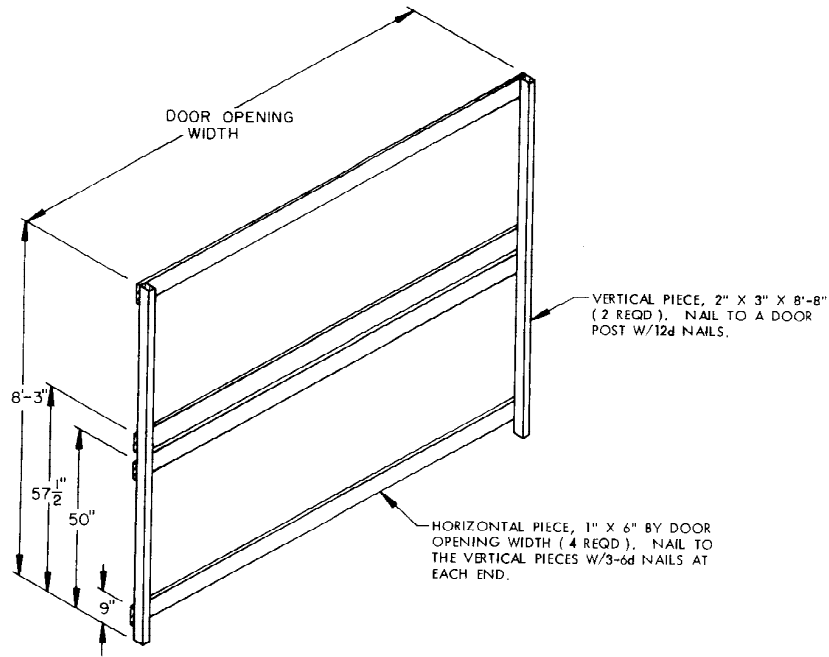


CENTER GATE D

THIS GATE IS DESIGNED FOR USE AGAINST THE 1-HIGH TOP LAYER OF THE 2-LAYER LOAD SHOWN ON PAGE 8 AND IS IDENTIFIED AS KEY NUMBER ⑦. A RIGHT HAND GATE AS SHOWN AND A LEFT HAND GATE ARE REQUIRED TO FORM A 2-GATE BLOCKING ARRANGEMENT IN THE TOP LAYER.

VERTICAL PIECE, 2" X 6" X 53" (3 REQD). NAIL TO THE HORIZONTAL PIECES AND TO THE FILLER PIECE W/3-10d NAILS AT EACH JOINT.





DOORWAY PROTECTION GATE

SEE SPECIAL NOTE 3 ON PAGE 7.

FILLER PIECE, 2" X 6" BY CAR WIDTH MINUS 1/2" IN LENGTH (6 REQD.). ALIGN WITH THE HORIZONTAL PIECES OF THE CENTER GATE. NAIL TO THE VERTICAL PIECES W/3-10d NAILS AT EACH JOINT.

SHIM MATERIAL, 6" WIDE PLYWOOD OR DIMENSIONAL LUMBER OF A THICKNESS AND A LENGTH AS REQUIRED TO FILL THE VOID BETWEEN THE CAR END WALL AND THE BULKHEAD. NAIL TO A FILLER PIECE AND/OR LAMINATE W/1-APPLICABLY SIZED NAIL EVERY 6".

PLACE THIS SIDE OF THE BULKHEAD AGAINST THE CAR END WALL.

THE PHANTOM LINE 48" VERTICAL PIECES ARE NOT REQUIRED FOR A 2-PALLET WIDE LOAD. HOWEVER, THEY ARE REQUIRED FOR A 3-PALLET WIDE LOAD AS SHOWN ON PAGE 6.

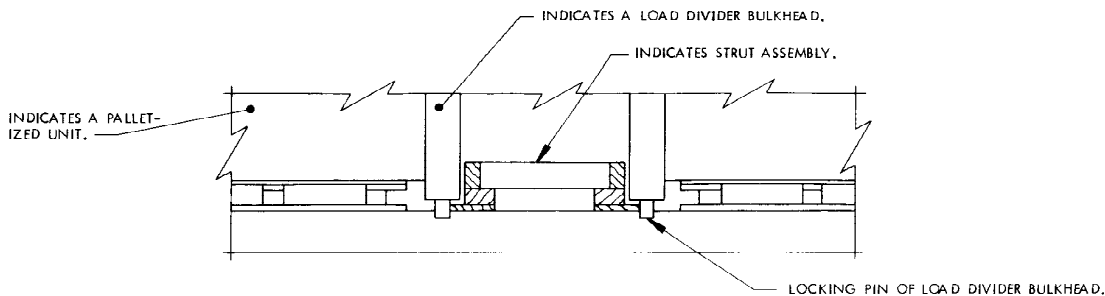
A MODIFIED CENTER GATE B AS DETAILED ON PAGE 10 IS SHOWN AS TYPICAL.

LOAD-SIDE OF BULKHEAD.

NOTE:
IF A BOX CAR TO BE LOADED HAS BOWED END WALLS WHICH ARE BOWED OUTWARD MORE THAN TWO INCHES (2"), EITHER FROM SIDE TO SIDE OR FROM FLOOR TO ROOF, AN END-OF-CAR BULKHEAD MUST BE INSTALLED TO PROVIDE A "SQUARED OFF" SURFACE FOR THE LOAD AT THE END OF THE CAR.

BULKHEAD

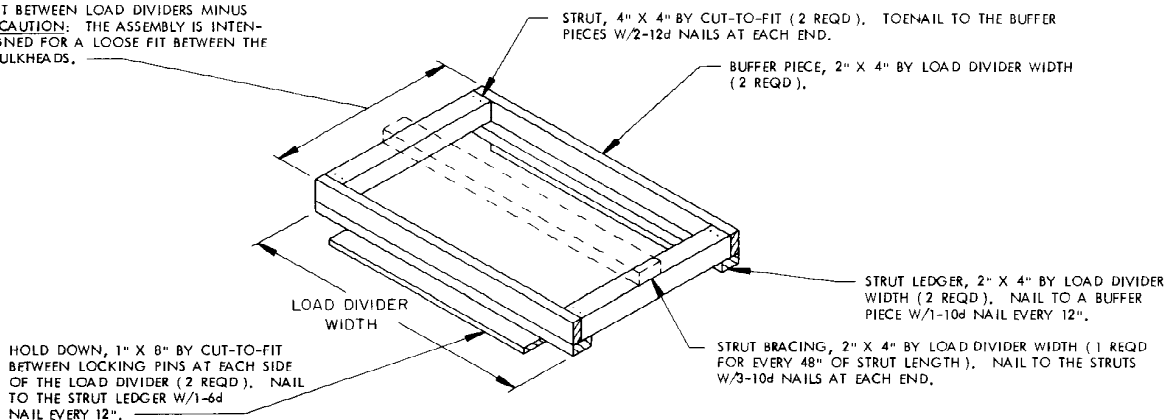
DETAILS



INSTALLATION OF STRUT ASSEMBLY

THIS VIEW SHOWS THE STRUT ASSEMBLY INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS. NOTE THE 1/2" TO 3/4" (TOTAL) SPACE INTENTIONALLY PROVIDED BETWEEN THE ASSEMBLY AND THE BULKHEADS.

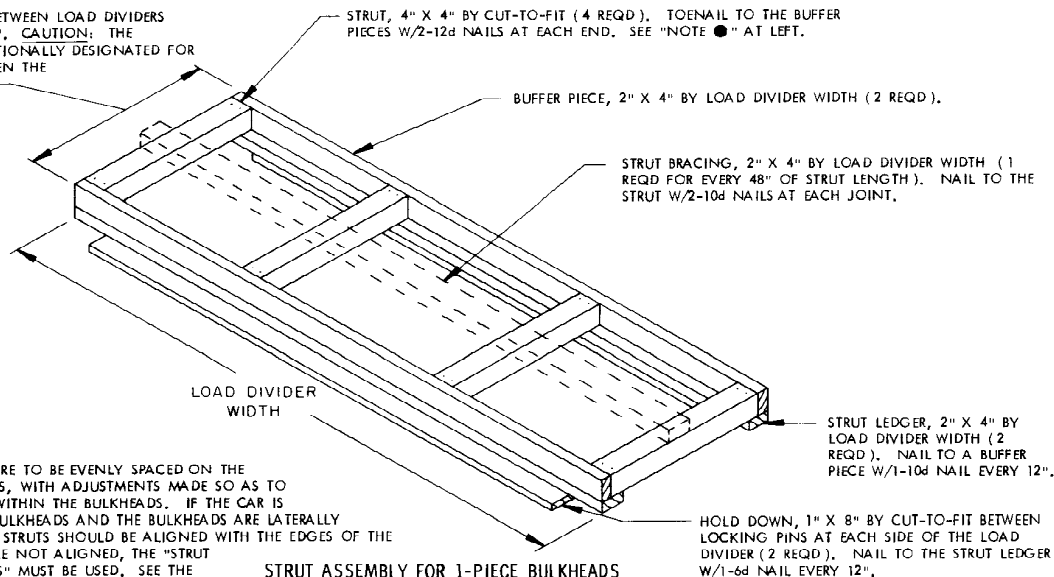
FABRICATE TO FIT BETWEEN LOAD DIVIDERS MINUS 1/2" TO 3/4". CAUTION: THE ASSEMBLY IS INTENTIONALLY DESIGNED FOR A LOOSE FIT BETWEEN THE LOAD DIVIDER BULKHEADS.



STRUT ASSEMBLY FOR 2-PIECE BULKHEADS

A STRUT ASSEMBLY IS REQUIRED WHEN THE LOAD BEHIND EITHER LOAD DIVIDER BULKHEAD EXCEEDS 50,000 POUNDS OF CLASS A OR CLASS B EXPLOSIVES. A STRUT ASSEMBLY IS NOT REQUIRED FOR LOADS OF CLASS C EXPLOSIVES, REGARDLESS OF THE WEIGHT OF THE LOAD. NOTE: TWO ASSEMBLIES AS SHOWN ARE REQUIRED FOR A 2-PIECE BULKHEAD IF NOT Laterally ALIGNED.

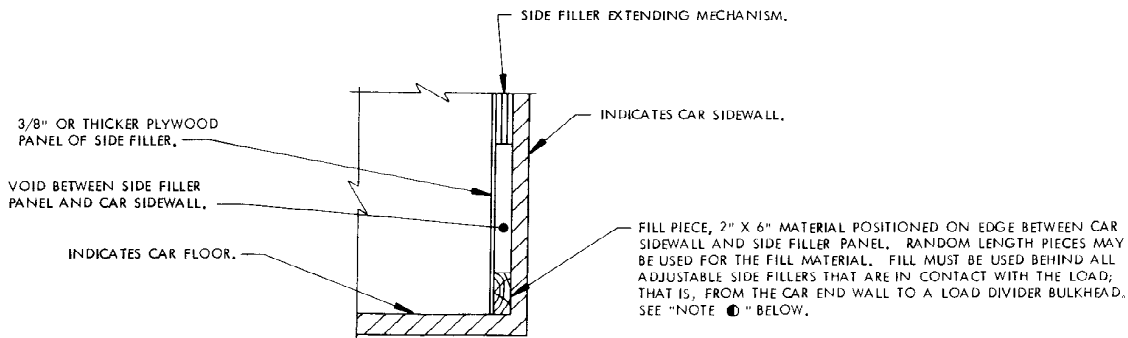
FABRICATE TO FIT BETWEEN LOAD DIVIDERS MINUS 1/2" TO 3/4". CAUTION: THE ASSEMBLY IS INTENTIONALLY DESIGNATED FOR A LOOSE FIT BETWEEN THE LOAD DIVIDERS.



NOTE ●:
THE TWO INTERMEDIATE STRUTS ARE TO BE EVENLY SPACED ON THE WIDTH OF THE DIVIDER BULKHEADS, WITH ADJUSTMENTS MADE SO AS TO ALIGN WITH VERTICAL FRAMING WITHIN THE BULKHEADS. IF THE CAR IS EQUIPPED WITH 2-PIECE DIVIDER BULKHEADS AND THE BULKHEADS ARE Laterally ALIGNED WITH EACH OTHER, THE STRUTS SHOULD BE ALIGNED WITH THE EDGES OF THE BULKHEADS; IF THE BULKHEADS ARE NOT ALIGNED, THE "STRUT ASSEMBLY FOR 2-PIECE BULKHEADS" MUST BE USED. SEE THE DETAIL ABOVE.

STRUT ASSEMBLY FOR 1-PIECE BULKHEADS

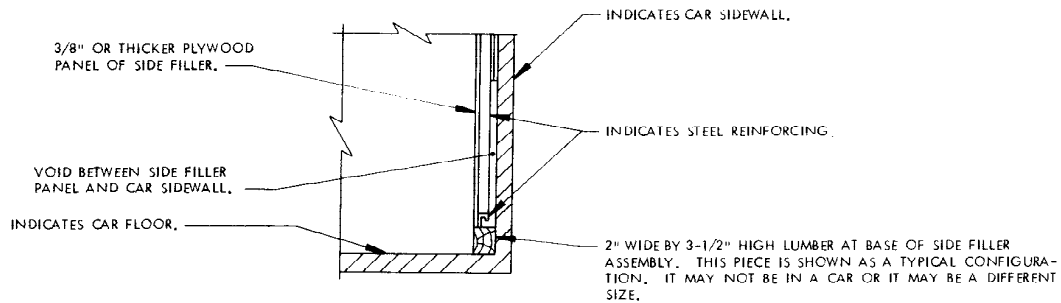
A STRUT ASSEMBLY IS REQUIRED WHEN THE LOAD BEHIND EITHER LOAD DIVIDER BULKHEAD EXCEEDS 50,000 POUNDS OF CLASS A OR CLASS B EXPLOSIVES. A STRUT ASSEMBLY IS NOT REQUIRED FOR LOADS OF CLASS C EXPLOSIVES, REGARDLESS OF THE WEIGHT OF THE LOAD.



TYPICAL TYPE A

THIS VIEW SHOWS THE INSTALLATION OF A "FILL PIECE" IN A CAR EQUIPPED WITH A STANDARD ADJUSTABLE SIDE FILLER.

NOTE ①: NAILING OF "FILL PIECES" IS NOT REQUIRED EXCEPT THAT EACH "FILL PIECE" LOCATED NEAREST THE DOOR OPENINGS OF THE CAR WILL BE SECURED AGAINST LONGITUDINAL MOVEMENT W/1-6d NAIL DRIVEN THROUGH THE SIDE FILLER PANEL AND INTO THE "FILL PIECE".



TYPICAL TYPE B

THIS VIEW SHOWS A TYPICAL SECTION OF A CAR EQUIPPED WITH HEAVY DUTY, STEEL REINFORCED, ADJUSTABLE SIDE FILLERS. A "FILL PIECE", AS SHOWN IN THE "TYPICAL TYPE A" DETAIL ABOVE, IS NOT REQUIRED IN CARS SO EQUIPPED.