

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 SPECIAL REQUIREMENTS DELINEATED WITHIN THIS DOCUMENT ARE APPLICABLE FOR SHIPMENTS IN LOAD DIVIDER CARS OF VARIOUS LENGTHS AND WIDTHS. THE AAR MECHANICAL DESIGNATION CLASS FOR THESE CARS, AS IDENTIFIED IN THE OFFICIAL RAILWAY EQUIPMENT REGISTER, WILL BE RBL, XL, OR XLI. SEE THE "PREFACE" ON PAGE 3 FOR AN EXPLANATION OF THE SPECIAL REQUIREMENTS.
- C. **NOTICE:** ONLY CUSHIONED CARS THAT HAVE SLIDING CENTER SILL TYPE CUSHIONING DEVICES OR END-OF-CAR TYPE DEVICES WHICH HAVE AT LEAST 15 INCHES (15") OF TRAVEL ARE ACCEPTABLE.
- D. IF AN OUTLOADING PROCEDURE DOES NOT SPECIFY NAILING TO A CAR SIDEWALL, 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 BACK 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.
- E. **NOTICE:** 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 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 INTO 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.
- F. **CAUTION:** THE TOTAL WEIGHT OF A LOAD IN A CAR MUST NOT EXCEED THE LOAD LIMIT WHICH IS STENCILED ON THE SIDE OF THE CAR. ALSO, THE LOAD WEIGHT ON ONE TRUCK MUST NOT EXCEED ONE-HALF OF THE STENCILED LOAD LIMIT.
- G. A "STRUT ASSEMBLY" MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF THE LOAD IN EITHER END OF A CAR WEIGHS 50,000 POUNDS OR MORE, UNLESS LADING AND BLOCKING AND BRACING ARE POSITIONED TO COMPLETELY FILL THE SPACE BETWEEN THE INSTALLED BULKHEADS AS SPECIFIED IN GENERAL NOTE "H-4 (a)" BELOW. DETAILS OF STRUT ASSEMBLIES FOR USE BETWEEN 2-PIECE BULKHEADS AND BETWEEN 1-PIECE BULKHEADS ARE SHOWN ON PAGE 12 OF THIS DRAWING. IN THE EVENT THAT A STRUT ASSEMBLY IS OF SUCH A LENGTH THAT THE 4" X 4" STRUTS OF THE ASSEMBLY ARE LONGER THAN 12'-0", A SPECIAL HOLD-DOWN ASSEMBLY MUST BE USED. SEE THE "STRUT ASSEMBLY HOLD-DOWN" DETAILS ON PAGE 13 OF THIS DRAWING FOR GUIDANCE.
- H. THE NORMAL LOADING PATTERN IN CARS EQUIPPED WITH LOAD DIVIDER BULKHEADS IS TO POSITION THE LADING BETWEEN THE CAR END WALL AND A LOAD DIVIDER BULKHEAD IN FULL LAYERS. OBVIOUSLY, A LOAD QUANTITY MUST THEN BE A MULTIPLE OF THE NUMBER OF CONTAINERS WHICH ARE IN ONE LOAD UNIT. A LOAD UNIT IS DEFINED AS A STACK OF CONTAINERS WHICH IS FULL CAR WIDTH BY FULL LOAD HEIGHT BY ONE CONTAINER IN LENGTH. IF THE QUANTITY TO BE SHIPPED CANNOT BE ATTAINED BY ADJUSTING THE NUMBER OF LAYERS IN ONE OR BOTH ENDS OF A CAR, OR BY ADJUSTING THE NUMBER OF LOAD UNITS IN EITHER END OF THE CAR, ONE OF THE FOLLOWING PROCEDURES MUST BE USED IN ORDER TO OBTAIN THE DESIRED QUANTITY.
- FOR LOADS OF SMALL BOXES, SUCH AS ARE SHOWN IN DRAWINGS, 1634, 4045, AND 7051, THE LOCATION AND/OR QUANTITY OF RISER ASSEMBLIES CAN BE CHANGED IN ORDER TO INCREASE OR DECREASE A LOAD QUANTITY. SEE THE DETAIL OF THE RISER AND THE TYPICAL INSTALLATION WITHIN THE APPLICABLE DRAWING.
 - FOR LOADS OF WOODEN, METAL, OR PLASTIC CONTAINERS, SUCH AS SHOWN IN DRAWINGS 4027, 4556, 4557, 4558, 4559, 7013, 7034, 7039, 7043, 7046, 7053 AND 7055, ONE OR MORE FILLER ASSEMBLIES, AS DETAILED WITHIN THE APPLICABLE DRAWING, CAN BE INSTALLED IN ORDER TO ADJUST A LOAD QUANTITY DOWNWARD BY OTHER THAN A MULTIPLE OF A LOAD UNIT.
 - FOR LOADS OF PALLETIZED UNITS OR SKIDDED UNITS, SUCH AS ARE SHOWN IN DRAWINGS 4020-1-2-5-11PA1000, 4040, 4042, 4079, 4092, 4551, AND 4552, THE "GATES AND STRUTS" METHOD OF OMITTING A UNIT, AS SHOWN WITHIN THE APPLICABLE DRAWING, MAY BE USED TO ADJUST A LOAD QUANTITY DOWNWARD BY OTHER THAN A MULTIPLE OF A LOAD UNIT. SEE GENERAL NOTE "J".

(GENERAL NOTES CONTINUED AT 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-105.
ALT: ANNULAR-RING TYPE NAIL OF SAME SIZE.
- STEEL STRAPPING:** TYPE I OR IV, CLASS A OR B. FED SPEC QQ-S-781.
FOR FSN SEE SB-30-100.
- STRAP SEAL** ---- : COMMERCIAL GRADE.
- PLYWOOD** ----- : GROUP B OR C, GRADE* C-D (EXTERIOR).
FED SPEC NN-P-530.

* IF SPECIFIED GRADE IS NOT AVAILABLE, A BETTER EXTERIOR GRADE MAY BE SUBSTITUTED.

PREFACE

LOAD DIVIDER CARS ONCE WERE USED FOR SHIPMENTS OF CANNED GOODS, GROCERY ITEMS, BEER, ETC. NOW, AFTER SUCCESSFULLY PASSING A SERIES OF IMPACT TESTS, AND AFTER THE MONITORING OF SEVERAL TRIAL SHIPMENT PROGRAMS, LOAD DIVIDER CARS HAVE BEEN APPROVED FOR USE IN SHIPMENTS OF CLASSES "A", "B", AND "C" AMMUNITION. THE USE OF THESE CARS WILL ELIMINATE THE NEED FOR CENTER GATES, STRUTS, AND GATE HOLD DOWNS, AND WILL ALSO ACCOUNT FOR A CONSIDERABLE SAVINGS IN LABOR COSTS. THEREFORE, EVERY EFFORT SHOULD BE MADE TO ACQUIRE CUSHIONED CARS EQUIPPED WITH LOAD DIVIDERS FOR SHIPMENT OF AMMUNITION ITEMS.

THE DRAWINGS FOR THOSE MUCOM-MANAGED AMMUNITION ITEMS WHICH CAN FEASIBLY AND ECONOMICALLY BE SHIPPED IN LOAD DIVIDER CARS ARE LISTED BELOW AND ON THE FOLLOWING PAGES. THE DRAWINGS, WITH THEIR TITLES, ARE LISTED IN NUMERICAL ORDER BY THE 19-48 SERIES DRAWING NUMBER FOR EASY REFERENCE. STATED FOR EACH DRAWING ARE THE SPECIAL REQUIREMENTS WHICH ARE NECESSARY TO ADAPT THAT DRAWING FOR SHIPMENT IN A LOAD DIVIDER CAR. THESE SPECIAL REQUIREMENTS INCLUDE REFERENCES TO ONE OF THE GATE DETAILS DEPICTED IN THIS DRAWING, OR TO A GATE DETAIL WITHIN THE APPLICABLE DRAWING WHEN A GATE IS REQUIRED BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD, DOOR PROTECTION INSTRUCTIONS UNLESS OTHERWISE PROVIDED, THE DUNNAGE PIECES IN THE REFERENCED DRAWING WHICH ARE NOT REQUIRED WHEN SHIPPING IN A LOAD DIVIDER CAR, ETC.

AS THE FOLLOWING LISTED DRAWINGS ARE REVISED, PROCEDURES FOR THE USE OF LOAD DIVIDER CARS WILL BE INCLUDED. THE GUIDANCE CONTAINED WITHIN THIS DOCUMENT WILL BE APPLICABLE UNTIL A REVISION IS PUBLISHED.

1634-5A29, REV NO. 4, W/CHANGE ORDER DATED 22 JULY 1968

TYPICAL AUTHORIZED METHODS FOR LOADING & BRACING OF BOXED AMMUNITION IN 8'-6" & 9'-2" WIDE BOX CARS.

1. A PLYWOOD GATE MUST BE POSITIONED BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. SEE THE "GATE E" DETAIL ON PAGE 10 OF THIS DRAWING FOR CONSTRUCTION GUIDANCE.
2. THE METHODS OF FILLING EXCESS SPACE ACROSS CAR SHOWN BY "DETAIL K" AND "DETAIL L" ON PAGE 6 OF REFERENCED DRAWING MUST NOT BE USED ON THE SIDE OF A CAR WHICH IS EQUIPPED WITH ADJUSTABLE SIDE FILLER ASSEMBLIES.
3. IF THE CAR IS EQUIPPED WITH FLUG DOORS AND THE LOAD EXTENDS INTO THE DOORWAY AREA, ONLY THE DOORWAY PROTECTION METHODS SHOWN BY "DETAIL Y" ON PAGE 9 AND/OR "DETAIL Z" ON PAGE 10 OF REFERENCED DRAWING MAY BE USED. IF POSSIBLE, LOADS SHOULD BE DESIGNED SO AS NOT TO EXTEND INTO THE DOORWAY AREA.

4009-5A1000, REV NO. 1, W/CHANGE ORDER DATED 22 JULY 1968

LOADING & BRACING IN BOX CARS OF W/ & PWP LOADED AMMUNITION PACKED IN WOODEN BOXES.

1. A PLYWOOD GATE MUST BE POSITIONED BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. SEE THE "GATE E" DETAIL ON PAGE 10 OF THIS DRAWING FOR CONSTRUCTION GUIDANCE.
2. THE METHODS OF HANDLING EXCESS SPACE ACROSS WIDTH OF CAR SHOWN BY THE "SIDEWALL HORIZONTAL FILLER" DETAIL ON PAGE 3 OF REFERENCED DRAWING MUST NOT BE USED ON THE SIDE OF A CAR WHICH IS EQUIPPED WITH ADJUSTABLE SIDE FILLER ASSEMBLIES.
3. IF THE CAR IS EQUIPPED WITH PLUG DOORS AND THE LOAD EXTENDS INTO THE DOORWAY AREA, ONLY THE STRAP AND ANCHOR PLATE DOORWAY PROTECTION METHOD SHOWN AT THE BOTTOM OF PAGE 9 OF REFERENCED DRAWING MAY BE USED. IF POSSIBLE, LOADS SHOULD BE DESIGNED SO AS NOT TO EXTEND INTO THE DOORWAY AREA.

4012-5PE1000, REV NO. 4, W/CHANGE ORDER DATED 22 JULY 1968

LOADING AND BRACING IN BOX CARS OF SEPARATE LOADING PROJECTILES, PALLETIZED, CRATED, AND UNCRATED.

1. IN REGARDS TO THE LOAD SHOWN ON PAGE 3 OF REFERENCED DRAWING, A LOAD DIVIDER BULKHEAD MAY BE POSITIONED DIRECTLY AGAINST THE PALLETS WHEN ALL THE UNITS ARE LOADED WITH THEIR LONGEST DIMENSION ACROSS THE CAR. WHEN THE SHORT DIMENSION OF ANY OF THE UNITS WOULD BE AGAINST THE BULKHEAD, A PLYWOOD GATE MUST BE POSITIONED BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. SEE THE "GATE E" DETAIL ON PAGE 10 OF THIS DRAWING FOR CONSTRUCTION GUIDANCE. OMIT PIECES MARKED (2) THRU (7). IF THE LOAD EXTENDS INTO THE DOORWAY AREA, THE PALLET UNITS IN THE DOORWAY WILL BE POSITIONED WITH THEIR LONG DIMENSION LENGTHWISE IN THE CAR. EACH LOAD UNIT IN THE DOORWAY WILL BE ENCIRCLED WITH TWO (2) 1-1/4" STEEL STRAPS. IF SPACE PERMITS, DOUBLED 2" X 4" SIDE BLOCKING, POSITIONED LENGTHWISE IN THE CAR AGAINST THE PALLET SKIDS AND NAILED WITH AN APPROPRIATE QUANTITY OF NAILS, SHOULD BE INSTALLED AGAINST ONE OR BOTH SIDES OF THE LOAD UNITS WHICH ARE IN THE DOORWAY AREA OF THE CAR, IN ADDITION TO THE APPLICATION OF THE STRAPPING. IF THE CAR IS EQUIPPED WITH CONVENTIONAL SLIDING DOORS, PIECES MARKED (7) MAY BE USED IN LIEU OF APPLYING STEEL STRAPS AND 2" X 4" SIDE BLOCKING. NOTE THAT THE STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF MORE THAN SIXTY-TWO (62) PALLETS ARE LOADED IN EITHER END OF A CAR. ALSO NOTE THAT ONE LOAD UNIT OF FOUR (4) PALLETS MAY NEED TO BE OMITTED FROM THE LOAD IN THE 9'-2" WIDTH CAR UNLESS THE LOAD DIVIDER BULKHEADS IN THE CAR ARE OPERABLE FROM OUTSIDE THE CAR.
2. IN REGARDS TO THE LOAD SHOWN ON PAGE 4 OF REFERENCED DRAWING, A PLYWOOD GATE MUST BE POSITIONED BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. SEE THE "GATE E" DETAIL ON PAGE 10 OF THIS DRAWING FOR CONSTRUCTION GUIDANCE. OMIT PIECES MARKED (2) THRU (4). IF THE LOAD EXTENDS INTO THE DOORWAY AREA, THE PALLET UNITS IN THE DOORWAY WILL BE POSITIONED WITH THEIR LONG DIMENSION LENGTHWISE IN THE CAR. EACH LOAD UNIT IN THE DOORWAY WILL BE ENCIRCLED WITH TWO (2) 1-1/4" STEEL STRAPS. IF SPACE PERMITS, DOUBLED 2" X 4" SIDE BLOCKING, POSITIONED LENGTHWISE IN THE CAR AGAINST THE PALLET SKIDS AND NAILED WITH AN APPROPRIATE QUANTITY OF NAILS, SHOULD BE INSTALLED AGAINST ONE OR BOTH SIDES OF THE LOAD UNITS WHICH ARE IN THE DOORWAY AREA OF THE

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CAR, IN ADDITION TO THE APPLICATION OF THE STRAPPING. IF THE CAR IS EQUIPPED WITH CONVENTIONAL SLIDING DOORS, PIECES MARKED (6) MAY BE USED IN LIEU OF APPLYING STEEL STRAPS AND 2" X 4" SIDE BLOCKING. NOTE THAT A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF MORE THAN FIFTY-EIGHT (58) PALLETS ARE LOADED IN EITHER END OF A CAR. ALSO NOTE THAT ONE LOAD UNIT OF SEVEN (7) PALLETS MAY NEED TO BE OMITTED FROM THE LOAD IN THE 9'-2" WIDTH CAR UNLESS THE LOAD DIVIDER BULKHEADS IN THE CAR ARE OPERABLE FROM OUTSIDE THE CAR.

3. PROCEDURES ARE NOT SPECIFIED FOR THE LOADS SHOWN ON PAGES 5 AND 6 OF REFERENCED DRAWING. IF 12-PROJECTILE PALLETS ARE TO BE SHIPPED, THE PROCEDURES FOR OTHER PALLET UNITS CAN BE APPLIED.

4. IN REGARDS TO THE LOAD SHOWN ON PAGE 7 OF REFERENCED DRAWING, A PLYWOOD GATE MUST BE POSITIONED BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. SEE THE "GATE E" DETAIL ON PAGE 10 OF THIS DRAWING FOR CONSTRUCTION GUIDANCE. OMIT PIECES MARKED (2) THRU (8). IF THE LOAD EXTENDS INTO THE DOORWAY AREA, THE PALLET UNITS IN THE DOORWAY WILL BE POSITIONED WITH THEIR LONG DIMENSION LENGTHWISE IN THE CAR. EACH LOAD UNIT IN THE DOORWAY WILL BE ENCIRCLED WITH TWO (2) 1-1/4" STEEL STRAPS. IF SPACE PERMITS, DOUBLED 2" X 4" SIDE BLOCKING, POSITIONED LENGTHWISE IN THE CAR AGAINST THE PALLET SKIDS AND NAILED WITH AN APPROPRIATE QUANTITY OF NAILS, SHOULD BE INSTALLED AGAINST ONE OR BOTH SIDES OF THE LOAD UNITS WHICH ARE IN THE DOORWAY AREA OF THE CAR, IN ADDITION TO THE APPLICATION OF THE STRAPPING. IF THE CAR IS EQUIPPED WITH CONVENTIONAL SLIDING DOORS, PIECES MARKED (6) MAY BE USED IN LIEU OF APPLYING STEEL STRAPS AND 2" X 4" SIDE BLOCKING. NOTE THAT A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF MORE THAN SEVENTY-EIGHT (78) PALLETS ARE LOADED IN EITHER END OF A CAR. ALSO NOTE THAT ONE LOAD UNIT OF ELEVEN (11) PALLETS MAY NEED TO BE OMITTED FROM THE LOAD IN THE 9'-2" WIDTH CAR UNLESS THE LOAD DIVIDER BULKHEADS IN THE CAR ARE OPERABLE FROM OUTSIDE THE CAR.

5. IN REGARDS TO THE LOAD SHOWN ON PAGE 8 OF REFERENCED DRAWING, A PLYWOOD GATE MUST BE POSITIONED BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. SEE THE "GATE E" DETAIL ON PAGE 10 OF THIS DRAWING FOR CONSTRUCTION GUIDANCE. OMIT PIECES MARKED (2) THRU (7). IF THE LOAD EXTENDS INTO THE DOORWAY AREA, THE PALLET UNITS IN THE DOORWAY WILL BE POSITIONED WITH THEIR LONG DIMENSION LENGTHWISE IN THE CAR. EACH LOAD UNIT IN THE DOORWAY WILL BE ENCIRCLED WITH TWO (2) 1-1/4" STEEL STRAPS. IF SPACE PERMITS, DOUBLED 2" X 4" SIDE BLOCKING, POSITIONED LENGTHWISE IN THE CAR AGAINST THE PALLET SKIDS AND NAILED WITH AN APPROPRIATE QUANTITY OF NAILS, SHOULD BE INSTALLED AGAINST ONE OR BOTH SIDES OF THE LOAD UNITS WHICH ARE IN THE DOORWAY AREA OF THE CAR, IN ADDITION TO THE APPLICATION OF THE STRAPPING. IF THE CAR IS EQUIPPED WITH CONVENTIONAL SLIDING DOORS, PIECES MARKED (7) MAY BE USED IN LIEU OF APPLYING STEEL STRAPS AND 2" X 4" SIDE BLOCKING. NOTE THAT A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF MORE THAN FORTY (40) PALLETS ARE LOADED IN EITHER END OF A CAR.

6. PROCEDURES ARE NOT SPECIFIED FOR THE LOADS SHOWN ON PAGES 9 THRU 13 OF REFERENCED DRAWING BECAUSE OF THE NON-EXISTENCE OR SMALL POPULATION OF THE SPECIFIED AMMUNITION. IF SUCH ITEMS ARE TO BE SHIPPED, THE PROCEDURES SPECIFIED FOR OTHER ITEMS WITHIN THE DRAWING MAY BE APPLIED.

4020-1-2-5-11PA1000, REV NO. 1

CARLOADING, TRUCKLOADING & STORAGE OF DETAILED PALLETIZED (STRAPPED) UNIT LOADS OF BOXED AMMUNITION AND COMPONENTS.

1. IN REGARDS TO THE LOAD SHOWN ON PAGES 4 AND 5 OF REFERENCED DRAWING, THE CAR MUST BE EQUIPPED WITH NAILABLE SIDEWALLS IF K-BRACE TYPE BRACING IS TO BE USED. OMIT PIECES MARKED (6) THRU (11). NOTE THAT A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF THE LOAD IN EITHER END OF A CAR IS MORE THAN 50,000 POUNDS. SEE GENERAL NOTE "H4" ON PAGE 2 OF THIS DRAWING.
2. IN REGARDS TO THE LOAD SHOWN ON PAGES 6 AND 7 OF REFERENCED DRAWING, THERE ARE NO SPECIAL REQUIREMENTS, UNLESS K-BRACE TYPE BRACING IS TO BE USED, IN WHICH CASE THE CAR MUST BE EQUIPPED WITH NAILABLE SIDEWALLS. OMIT PIECES MARKED (4) THRU (9). NOTE THAT A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF THE LOAD IN EITHER END OF THE CAR IS MORE THAN 50,000 POUNDS. SEE GENERAL NOTE "H4" ON PAGE 2 OF THIS DRAWING.
3. IN REGARDS TO THE LCL LOAD SHOWN ON PAGE 10 OF REFERENCED DRAWING, THERE ARE NO SPECIAL REQUIREMENTS. OMIT TWO (2) LCL BRACES.
4. FOR THE LCL LOAD SHOWN ON PAGE 11 OF REFERENCED DRAWING, IF AN UNEVEN QUANTITY IS TO BE SHIPPED, INSTALL AN "OMITTED-PALLET GATE" AND "STRUTS" SHOWN AS PIECES MARKED (2) AND (3) ON PAGE 4. OMIT PIECES MARKED (2) THRU (5).

4020-1-2-5-11PA1001, REV NO. 2

STORAGE, CARLOADING & TRUCKLOADING OF BOXED AMMUNITION & COMPONENTS IN SKIDDED UNITS (STRAPPED)

1. FOR THE LOAD SHOWN ON PAGES 8 AND 9 OF REFERENCED DRAWING, THE CAR MUST BE EQUIPPED WITH NAILABLE SIDEWALLS IF K-BRACE TYPE BRACING IS TO BE USED. OMIT PIECES MARKED (3), (4), AND (6). SEE GENERAL NOTE "H4" ON PAGE 2 OF THIS DRAWING.
2. NOTE THAT A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF THE LOAD IN EITHER END OF A CAR IS MORE THAN 50,000 POUNDS.

4027-5A1000

LOADING AND BRACING (CL & LCL) IN BOX CARS OF CBU ITEMS PACKED IN SKIDDED WOOD CONTAINERS.

(SPECIAL REQUIREMENTS CONTINUED ON PAGE 4)

(SPECIAL REQUIREMENTS CONTINUED FROM PAGE 3)

1. IN REGARDS TO THE LOAD SHOWN ON PAGES 4 AND 5 OF REFERENCED DRAWING, A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF MORE THAN FIFTY-TWO (52) CONTAINERS ARE LOADED IN EITHER END OF A CAR. OMIT PIECES MARKED ④ AND ⑤. OMIT PIECES MARKED ③ IF THE CAR IS EQUIPPED WITH PLUG DOORS.
2. IN REGARDS TO THE LOAD SHOWN ON PAGES 6 AND 7 OF REFERENCED DRAWING, IT WILL BE NECESSARY TO OMIT THE LOAD UNIT OF FOUR (4) CONTAINERS FROM THE DOORWAY AREA. THERE ARE NO OTHER SPECIAL REQUIREMENTS. OMIT PIECES MARKED ⑤ THRU ⑨. OMIT PIECES MARKED ④ IF THE CAR IS EQUIPPED WITH PLUG DOORS.
3. IN REGARDS TO THE LCL LOAD SHOWN ON PAGE 8 REFERENCED DRAWING, THERE ARE NO SPECIAL REQUIREMENTS. OMIT PIECES MARKED ②.

4031-SPE1005

LOADING & BRACING (CL & LCL) IN BOX CARS OF PALLETIZED MEDIUM CALIBER PROJECTILES (75MM THRU 120MM).

1. IF POSSIBLE, LOADS SHOULD BE DESIGNED SO AS NOT TO EXTEND INTO THE DOORWAY AREA MORE THAN HALF THE PALLET LENGTH, IN WHICH CASE THERE WOULD BE NO SPECIAL REQUIREMENTS. PALLET UNITS WHICH ARE IN THE DOORWAY AREA SHOULD BE POSITIONED WITH THE SKIDS CROSSWISE IN THE CAR. DOORWAY PROTECTION WILL BE PROVIDED AS SHOWN BY PIECES MARKED ①, ②, ③, ⑩, AND ⑪ ON PAGE 6 OF DRAWING 4020-1-2-5-11PA1000, REV NO. 1. OMIT THE CENTER GATES AND PIECES MARKED ② AND ③. NOTE THAT A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF MORE THAN 50,000 POUNDS IS LOADED IN ONE END OF A CAR.

2. NO SPECIAL REQUIREMENTS FOR THE TYPICAL LCL LOAD. OMIT THE HEADER AND THE BACK-UP CLEATS.

4038-5P1000

LOADING & BRACING (CL & LCL) IN BOX CAR OF ROCKET, CHEMICAL, 115MM, M55, PACKED 15 PER SHIPPING AND STORAGE PALLET.

1. USE THE LOAD PATTERN SHOWN ON PAGE 4 OF REFERENCED DRAWING. THERE ARE NO OTHER SPECIAL REQUIREMENTS. OMIT PIECES MARKED ③, ④, AND ⑤. NOTE THAT A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF MORE THAN THIRTY-EIGHT (38) PALLETS ARE LOADED IN EITHER END OF A CAR.

4040-5PF1000

LOADING & BRACING (CL & LCL) IN BOX CARS OF PALLETIZED M23 CHEMICAL MINES, 48/PALLET.

1. FOR THE LOAD SHOWN ON PAGE 5 OF REFERENCED DRAWING, IT MAY BE NECESSARY TO OMIT A LOAD UNIT OF FOUR (4) PALLETS IF THE LOAD DIVIDER BULKHEADS ARE NOT OPERABLE FROM OUTSIDE THE CAR. OMIT PIECES MARKED ③ THRU ⑦. A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF MORE THAN TWENTY-THREE (23) PALLET UNITS ARE LOADED IN EITHER END OF THE CAR.
2. FOR SHIPMENT OF AN ODD-QUANTITY LCL LOAD AS SHOWN ON PAGE 7 OF REFERENCED DRAWING, TWO (2) GATES (1 RIGHT HAND AND 1 LEFT HAND) PIECES MARKED ⑦, AND THE DEPICTED STRUTS, PIECES MARKED ⑩, MUST BE USED TO PROVIDE FOR AN EVEN LOAD. OMIT PIECES MARKED ④ THRU ⑬.

4042-1-2-5-11-14PM1000 REV NO. 1

PALLETIZING, OUTLOADING, AND STORAGE OF PROPELLING CHARGES PACKED IN CYLINDRICAL METAL CONTAINERS.

1. IN REGARDS TO THE LOAD ON PAGE 48 OF REFERENCED DRAWING, THERE ARE NO SPECIAL REQUIREMENTS, EXCEPT THAT IF MORE THAN HALF A LOAD UNIT EXTENDS INTO THE DOORWAY AREA OF A CAR EQUIPPED WITH PLUG DOORS, "DOORWAY PROTECTION METHOD C" SHOWN ON PAGE 46 OF REFERENCED DRAWING MUST BE USED IN LIEU OF PIECES MARKED ⑬. OMIT PIECES MARKED ⑤ THRU ⑫. NOTE THAT A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF MORE THAN THE FOLLOWING LISTED QUANTITIES OF PALLET UNITS ARE LOADED IN EITHER END OF A CAR: TWENTY-THREE (23) EACH OF UNIT NO. 1, TWENTY-EIGHT (28) EACH OF UNIT NO. 2, TWENTY-SEVEN (27) EACH OF UNIT NO. 5, TWENTY-SIX (26) EACH OF UNIT NO. 6 OR TWENTY-FOUR (24) EACH OF UNIT NO. 7.

2. IN REGARDS TO THE LOAD SHOWN ON PAGE 50 OF REFERENCED DRAWING, THERE ARE NO SPECIAL REQUIREMENTS, EXCEPT THAT IF MORE THAN HALF A LOAD UNIT EXTENDS INTO THE DOORWAY AREA OF A CAR EQUIPPED WITH PLUG DOORS, "DOORWAY PROTECTION METHOD C" SHOWN ON PAGE 46 OF REFERENCED DRAWING MUST BE USED IN LIEU OF PIECES MARKED ⑨. OMIT PIECES MARKED ③ THRU ⑧. NOTE THAT A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF MORE THAN THE FOLLOWING LISTED QUANTITIES OF PALLET UNITS ARE LOADED IN EITHER END OF A CAR: TWENTY-THREE (23) EACH OF UNIT NO. 1, TWENTY-EIGHT (28) EACH OF UNIT NO. 2, FORTY-ONE (41) EACH OF UNIT NO. 3, THIRTY-TWO (32) EACH OF UNIT NO. 4, TWENTY-SEVEN (27) EACH OF UNIT NO. 5, OR TWENTY-FOUR (24) EACH OF UNIT NO. 7.

3. IN REGARDS TO THE LOAD SHOWN ON PAGE 52 OF REFERENCED DRAWING DEPICTING THE COMBINATION LOADING PATTERN, TWO (2) GATES AND EIGHT (8) STRUTS, OR ONE (1) GATE AND SOLID FILL, MAY NEED TO BE USED IN EACH END OF THE CAR TO PROVIDE FOR AN EVEN LOAD WHEN THE CAR IS EQUIPPED WITH 1-PIECE LOAD DIVIDER BULKHEADS. SEE THE "GATE A" AND "GATE B" DETAILS ON PAGE 8 OF THIS DRAWING FOR CONSTRUCTION GUIDANCE IN FABRICATING GATES FOR USE AGAINST THE BASE OR BELL ENDS OF THE CONTAINERS AND/OR AGAINST THE LOAD DIVIDER BULKHEAD. SEE THE "GATE C" AND "GATE D" DETAILS ON PAGE 9 OF THIS DRAWING FOR CONSTRUCTION GUIDANCE IN FABRICATING GATES FOR USE AGAINST THE SIDE OF THE CONTAINERS AND/OR AGAINST THE LOAD DIVIDER BULKHEAD. DIMENSIONS SHOWN BY LETTERS ON THE GATE DETAILS ARE SPECIFIED WITHIN THE APPLICABLE CHART ON PAGE 8. NOTE THAT GATES WILL NOT BE REQUIRED WHEN A CAR IS EQUIPPED WITH 2-PIECE LOAD

(SPECIAL REQUIREMENTS CONTINUED)

DIVIDER BULKHEADS; HOWEVER, IF THE WIDTH OF THE UNIT BEING LOADED IS GREATER THAN HALF THE WIDTH OF THE CAR, ROW C MUST BE SHORTER THAN ROW A AND ROW D MUST BE SHORTER THAN ROW B. FOR GUIDANCE AS TO THE NUMBER OF PALLET UNITS WHICH CAN BE PLACED IN EACH OF THE LETTERED ROWS, THE PROPER GATE AND THE APPROXIMATE AMOUNT OF SOLID FILL OR LENGTH OF STRUTS TO BE USED TO PROVIDE FOR AN EVEN LOAD, SEE THE "LOADING GUIDANCE CHART" ON PAGE 9. OMIT PIECES MARKED ④ THRU ⑪. OMIT PIECE MARKED ⑫ IF THE CAR IS EQUIPPED WITH PLUG DOORS. REFER TO PAGE 46 OF REFERENCED DRAWING FOR DOORWAY PROTECTION GUIDANCE. NOTE THAT A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF MORE THAN THE FOLLOWING LISTED QUANTITIES OF PALLET UNITS ARE LOADED IN EITHER END OF A CAR: TWENTY-THREE (23) EACH OF UNIT NO. 1, TWENTY-EIGHT (28) EACH OF UNIT NO. 2, TWENTY-SEVEN (27) EACH OF UNIT NO. 5, TWENTY-SIX (26) EACH OF UNIT NO. 6, OR TWENTY-FOUR (24) EACH OF UNIT NO. 7.

4. FOR THE LCL LOAD SHOWN ON PAGE 60 OF REFERENCED DRAWING, AN LCL "GATE A", PIECE MARKED ③ CONSTRUCTED OPPOSITE HAND, MUST BE USED IN LIEU OF PIECES MARKED ④ AND ⑤. OMIT THE K-BRACE ASSEMBLY.

5. FOR THE LCL LOAD SHOWN ON PAGE 61 OF REFERENCED DRAWING THERE ARE NO SPECIAL REQUIREMENTS.

4045-5M1003

LOADING & BRACING (CL & LCL) IN BOX CARS OF DEMOLITION KIT, PROJECTED CHARGE, M175, PACKED IN RELATED CONTAINERS.

1. SPECIAL REQUIREMENTS HAVE NOT BEEN SPECIFIED FOR THE LOADS SHOWN IN 8'-6" WIDE CARS THROUGHOUT THE REFERENCED DRAWING BECAUSE OF THE SMALL POPULATION OF LOAD DIVIDER CARS OF THAT WIDTH. HOWEVER, IN THE EVENT THAT SUCH A WIDTH CAR IS FURNISHED FOR LOADING OF AN ITEM, THE PRINCIPLES FOR THE LOAD SHOWN FOR THE 9'-2" WIDE CARLOADING OF THAT ITEM MAY BE APPLIED.

2. IN REGARDS TO THE LOAD SHOWN ON PAGE 3 OF REFERENCED DRAWING, THE LOAD SHOULD BE DESIGNED SO AS NOT TO EXTEND INTO THE DOORWAY AREA. A PLYWOOD GATE MUST BE POSITIONED BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. SEE THE "GATE E" DETAIL ON PAGE 10 OF THIS DRAWING FOR CONSTRUCTION GUIDANCE. INSTALL SOLID FILL WITHIN THE LOAD, EITHER PIECES MARKED ③ OR ④ AS APPLICABLE, TO PROVIDE FOR AN EVEN LOAD. A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF THERE ARE ONE THOUSAND SIX HUNDRED AND SIXTY-SEVEN (1,667) OR MORE BOXES IN EITHER END OF A CAR.

3. IN REGARDS TO THE LOAD SHOWN ON PAGE 5 OF REFERENCED DRAWING, IF THE CAR IS EQUIPPED WITH PLUG DOORS, THE LOAD UNIT WHICH EXTENDS INTO THE DOORWAY MUST BE ENCIrcLED WITH 1-1/4" STEEL STRAPPING. OMIT PIECES MARKED ③, ④, AND ⑤. OMIT PIECE MARKED ⑥, IF APPLICABLE.

4. IN REGARDS TO THE LOAD SHOWN ON PAGE 7 OF REFERENCED DRAWING, IT MAY BE NECESSARY TO OMIT A BUNDLE OF EIGHT (8) CONTAINERS TO PROVIDE FOR ROOM TO OPERATE THE BULKHEAD MECHANISM. OMIT PIECES MARKED ①, ②, ③, AND ⑤.

5. NO SPECIAL REQUIREMENTS FOR THE LOAD SHOWN ON PAGE 9 OF REFERENCED DRAWING. OMIT PIECES MARKED ③ THRU ⑥.

6. IN REGARDS TO THE LOAD SHOWN ON PAGE 11 OF REFERENCED DRAWING, IT WILL BE NECESSARY TO OMIT ONE STACK OF THE LENGTHWISE POSITIONED CONTAINERS AND ENOUGH CROSSWISE POSITIONED CONTAINERS TO PROVIDE AS NEARLY AS POSSIBLE FOR AN EVEN LOAD. THE VOID WHICH REMAINS BETWEEN THE CROSSWISE CONTAINERS AND A BULKHEAD SHOULD BE FILLED BY INSTALLING A "GATE F" ASSEMBLY, AS DETAILED ON PAGE 31 OF REFERENCED DRAWING, SO THAT THE VERTICAL PIECES ARE AGAINST THE ENDS OF THE SIDES OF THE CONTAINERS AND THE HORIZONTAL PIECES ARE AGAINST THE BULKHEAD. USE HORIZONTAL PIECES AT THE TOP AND BOTTOM OF THE LOAD AND ON ALTERNATE JOINTS OF LAYERS. APPLY ADDITIONAL PIECES AS NECESSARY TO EVEN OFF THE LOAD. OMIT PIECES MARKED ② THRU ⑤. OMIT PIECE MARKED ⑥ IF THE CAR IS EQUIPPED WITH PLUG DOORS. NOTE THAT A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF THREE HUNDRED AND TWENTY-THREE (323) OR MORE CENTER LOADING SECTIONS ARE LOADED IN EITHER END OF A CAR. NOTE THAT DIMENSIONS OF "GATE F" MUST BE ADJUSTED TO SUIT.

7. IN REGARDS TO THE LOAD SHOWN ON PAGE 13 OF REFERENCED DRAWING, OMIT THE 4 PALLET UNITS WHICH ARE SHOWN IN THE DOORWAY AREA. AS NECESSARY TO PROVIDE FOR AN EVEN LOAD, REMOVE THE STRUT LEDGERS FROM A "GATE H", AS DETAILED ON PAGE 31 OF REFERENCED DRAWING, AND INSTALL IT AGAINST THE SHORT ROW IN SUCH A MANNER THAT THE HORIZONTAL PIECES ARE AGAINST THE BULKHEAD. LAMINATE ADDITIONAL MATERIAL TO THE HORIZONTAL PIECES IF NEEDED. OMIT PIECES MARKED ②, ③, ⑤, ⑥, ⑦, ⑧, AND ⑨. NOTE THAT A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF TWENTY-SIX (26) OR MORE PALLET UNITS OF CENTER LOADING SECTIONS ARE LOADED IN EITHER END OF A CAR.

8. NO SPECIAL REQUIREMENTS FOR THE LOAD SHOWN ON PAGE 15 OF REFERENCED DRAWING. OMIT PIECES MARKED ⑧ THRU ⑬.

9. IN REGARDS TO THE LOAD SHOWN ON PAGE 17 OF REFERENCED DRAWING, THERE ARE NO SPECIAL REQUIREMENTS EXCEPT THAT THE "GATE M" ASSEMBLIES MUST BE USED. OMIT THE STRUT LEDGERS FROM EACH GATE AND APPLY THREE (3) HORIZONTAL CAR-WIDTH 2" X 6" PIECES IN THE APPROXIMATE LOCATION OF THE STRUTS TO BEAR AGAINST THE LOAD DIVIDER BULKHEAD. OMIT PIECES MARKED ⑦, ⑧, AND ⑬. OMIT PIECES MARKED ⑭ IF THE CAR IS EQUIPPED WITH PLUG DOORS.

10. THE LOAD SHOWN ON PAGE 19 OF REFERENCED DRAWING IS NOT ADAPTABLE FOR SHIPMENT IN A LOAD DIVIDER CAR.

11. THE LOAD SHOWN ON PAGE 21 OF REFERENCED DRAWING IS NOT ADAPTABLE FOR SHIPMENT IN A LOAD DIVIDER CAR.

(SPECIAL REQUIREMENTS CONTINUED ON PAGE 5)

(SPECIAL REQUIREMENTS CONTINUED FROM PAGE 4)

12. THE LOAD SHOWN ON PAGE 22 OF REFERENCED DRAWING IS NOT ADAPTABLE FOR SHIPMENT IN A LOAD DIVIDER CAR.

13. NO SPECIAL REQUIREMENTS FOR THE LOAD SHOWN ON PAGE 25 OF REFERENCED DRAWING. OMIT PIECES MARKED ④ THRU ⑬.

14. THE LOAD SHOWN ON PAGE 27 OF REFERENCED DRAWING IS NOT ADAPTABLE FOR SHIPMENT IN A LOAD DIVIDER CAR.

15. THE LOAD SHOWN ON PAGE 29 OF REFERENCED DRAWING IS NOT ADAPTABLE FOR SHIPMENT IN A LOAD DIVIDER CAR.

4079-1-2-5-11-14PM1001

PALLETIZING, OUTLOADING & STORAGE OF COMPLETE ROUNDS PACKED IN CYLINDRICAL METAL CONTAINERS.

1. IN REGARDS TO THE LOAD SHOWN ON PAGES 42 AND 43 OF REFERENCED DRAWING, IF THE CAR IS EQUIPPED WITH PLUG DOORS, THE "ALTERNATIVE DOORWAY PROTECTION" PROCEDURES SHOWN ON PAGE 37 OF REFERENCED DRAWING MUST BE USED IN LIEU OF PIECES MARKED ⑥ IF MORE THAN HALF A LOAD UNIT EXTENDS INTO THE DOORWAY AREA OF THE CAR. A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF MORE THAN TWENTY-TWO (22) PALLET UNITS ARE LOADED IN EITHER END OF A CAR. OMIT PIECES MARKED ② THRU ⑤.

2. IN REGARDS TO THE LOAD SHOWN ON PAGES 44 AND 45 OF REFERENCED DRAWING, IF THE CAR IS EQUIPPED WITH PLUG DOORS, THE "ALTERNATIVE DOORWAY PROTECTION" PROCEDURES SHOWN ON PAGE 37 OF REFERENCED DRAWING MUST BE USED IN LIEU OF PIECES MARKED ⑥ IF MORE THAN HALF A LOAD UNIT EXTENDS INTO THE DOORWAY AREA OF THE CAR. OMIT PIECES MARKED ② THRU ⑤.

3. IN REGARDS TO THE LOAD SHOWN ON PAGES 46 AND 47 OF REFERENCED DRAWING, IF THE CAR IS EQUIPPED WITH PLUG DOORS, THE "ALTERNATIVE DOORWAY PROTECTION" PROCEDURES SHOWN ON PAGE 37 OF REFERENCED DRAWING MUST BE USED IN LIEU OF PIECES MARKED ⑥ IF MORE THAN HALF A LOAD UNIT EXTENDS INTO THE DOORWAY AREA OF THE CAR. A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF MORE THAN TWENTY-TWO (22) PALLET UNITS OF UNIT NO. 3 OR MORE THAN TWENTY-THREE (23) PALLET UNITS OF UNIT NO. 4 ARE LOADED IN EITHER END OF A CAR. OMIT PIECES MARKED ② THRU ⑤.

4. FOR THE SHIPMENT OF AN ODD-QUANTITY LCL LOAD AS SHOWN ON PAGE 48 OF REFERENCED DRAWING, TWO (2) GATES (1 RIGHT HAND AND 1 LEFT HAND) PIECES MARKED ③, AND THE DEPICTED STRUTS, PIECES MARKED ④, MUST BE USED TO PROVIDE FOR AN EVEN LOAD. OMIT PIECES MARKED ④ AND ⑤.

5. FOR THE SHIPMENT OF AN ODD-QUANTITY LCL LOAD AS SHOWN ON PAGE 49 OF REFERENCED DRAWING, TWO (2) GATES (1 RIGHT HAND AND 1 LEFT HAND) PIECES MARKED ③, AND THE DEPICTED STRUTS, PIECES MARKED ⑦, MUST BE USED TO PROVIDE FOR AN EVEN LOAD. OMIT PIECES MARKED ④, ⑤, AND ⑥.

4092-5M100

LOADING AND BRACING (CL & LCL) IN BOX CARS OF SKIDDED UNITS (STRAPPED) OF BOMB FUZES, M914, M166, AND M188 SERIES, PACKED IN METAL DRUM.

1. THERE ARE NO SPECIAL REQUIREMENTS FOR THE LOAD SHOWN ON PAGES 4 AND 5 OF REFERENCED DRAWING EXCEPT THAT IT MAY BE NECESSARY TO OMIT A LOAD UNIT OF SIX (6) SKIDDED UNITS FROM THE DOORWAY AREA UNLESS THE CAR IS EQUIPPED WITH LOAD DIVIDER BULKHEADS WHICH ARE OPERABLE FROM OUTSIDE THE CAR. OMIT PIECES MARKED ⑤, ⑥, AND ⑦.

2. THERE ARE NO SPECIAL REQUIREMENTS FOR THE LCL LOAD SHOWN ON PAGE 8 OF REFERENCED DRAWING. OMIT TWO (2) LCL BRACES.

3. FOR THE LCL LOAD SHOWN ON PAGE 9 OF REFERENCED DRAWING, IF AN UNEVEN QUANTITY IS TO BE SHIPPED, INSTALL AN "OMITTED-UNIT GATE" AND "STRUTS" SHOWN AS PIECES MARKED ② AND ③ ON PAGE 4. OMIT PIECES MARKED ② THRU ⑥.

4551-CB5C1

LOADING & BRACING (CL & LCL) IN BOX CARS OF M23 CHEMICAL MINES PACKED 12 DRUMS (36 MINES) PER CRATE.

1. THERE ARE NO SPECIAL REQUIREMENTS FOR THE LOAD SHOWN ON PAGE 5 OF REFERENCED DRAWING UNLESS THE CAR IS EQUIPPED WITH PLUG DOORS. IN SUCH CASE, FOR EACH LOAD UNIT THAT EXTENDS MORE THAN HALFWAY INTO THE DOORWAY OPENING, OMIT SPACERS MARKED ① AND ② AND THE DOORWAY PROTECTION, PIECE MARKED ⑤. ENCIRCLE THE LOAD UNIT WITH TWO (2) 1-1/4" STEEL STRAPS. OMIT PIECES MARKED ③, ④, ⑥, ⑦, AND ⑧. IF THE LOAD DIVIDER BULKHEADS ARE NOT OPERABLE FROM OUTSIDE THE CAR, IT MAY BE NECESSARY TO OMIT ONE (1) LOAD UNIT OF 4 CONTAINERS. NOTE THAT IF MORE THAN TWENTY-NINE (29) CONTAINERS ARE LOADED IN EITHER END OF A CAR, A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS.

2. IN REGARDS TO THE LOAD SHOWN ON PAGE 6 OF REFERENCED DRAWING, A LOAD DIVIDER BULKHEAD MAY BE POSITIONED DIRECTLY AGAINST THE LONG ROW IN THE END OF A CAR. THE VOID AREA BETWEEN THE END OF THE SHORT ROW AND THE BULKHEAD MUST BE FILLED TO PROVIDE FOR AN EVEN LOAD. IF THE VOID IS 15" OR LONGER, TWO (2) GATES (DETAIL "D" OR DETAIL "E", AS APPLICABLE) AND STRUTS WILL BE INSTALLED. IF THE VOID IS LESS THAN 15", THE APPLICABLE GATE (MINUS THE STRUT LEDGERS) WILL BE INSTALLED AGAINST THE LADING, AND LATERAL 2" X 6" SOLID FILL, ALIGNED WITH THE HORIZONTAL PIECES OF THE GATE, WILL BE NAILED TO THE VERTICAL PIECES AND/OR LAMINATED W/10d NAILS, TO PROVIDE AN EVEN LOAD. IF THE CAR IS EQUIPPED WITH PLUG DOORS, AND IF A CONTAINER STACK EXTENDS INTO THE DOORWAY AREA MORE THAN HALF ITS LENGTH, THAT STACK AND THE LATERALLY ADJACENT STACK SHOULD BE ENCIRCLED WITH ONE PIECE OF 1-1/4" STEEL STRAPPING. OMIT PIECES MARKED ④, ⑥, ⑦, ⑧, ⑨, AND ⑩. OMIT PIECES MARKED ③, ⑤, AND ⑪, AS APPLICABLE.

(SPECIAL REQUIREMENTS CONTINUED AT RIGHT)

(SPECIAL REQUIREMENTS CONTINUED)

3. FOR SHIPMENT OF AN ODD-QUANTITY LCL LOAD AS SHOWN ON PAGE 8 OF REFERENCED DRAWING, TWO (2) GATES (1 RIGHT HAND AND 1 LEFT HAND) PIECES MARKED ⑬, AND THE DEPICTED STRUTS, PIECES MARKED ⑭, MUST BE USED TO PROVIDE FOR AN EVEN LOAD. OMIT PIECES MARKED ① THRU ⑫.

4. NO SPECIAL REQUIREMENTS FOR THE LCL LOAD SHOWN ON PAGE 9 OF REFERENCED DRAWING EXCEPT THAT THE CAR MUST HAVE NAILABLE SIDEWALLS. OMIT PIECES MARKED ① AND ②.

4552-CB5P1

LOADING & BRACING (CL & LCL) IN BOX CARS OF MC-1 CHEMICAL BOMBS, PACKED TWO PER WOODEN PALLET.

1. IN REGARDS TO THE LOAD SHOWN ON PAGE 10 OF REFERENCED DRAWING, A PLYWOOD AND LUMBER GATE MUST BE POSITIONED BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. SEE THE "GATE F" DETAIL ON PAGE 10 OF THIS DRAWING FOR CONSTRUCTION GUIDANCE. OMIT PIECES MARKED ④, ⑤, ⑥, ⑦, AND ⑧. IF THE CAR IS EQUIPPED WITH PLUG DOORS, PIECES MARKED ⑨ WILL NOT BE REQUIRED.

2. IN REGARDS TO THE LOAD SHOWN ON PAGES 12 AND 13 OF REFERENCED DRAWING, A PLYWOOD AND LUMBER GATE MUST BE POSITIONED BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. THE GATE WILL BE SIMILAR TO THAT SHOWN BY THE "GATE F" DETAIL ON PAGE 10 OF THIS DRAWING EXCEPT THAT THE BEARING PIECES ON ONE HALF OF THE WIDTH OF THE GATE MUST BE POSITIONED AT 10", 21-1/2", 32-1/2", AND 44-1/2" HEIGHTS ABOVE THE FLOOR IN ORDER TO ALIGN WITH THE PALLETS WHICH ARE POSITIONED ON A RISER ASSEMBLY. OMIT PIECES MARKED ⑤, ⑥, ⑦, AND ⑧. IF THE CAR IS EQUIPPED WITH PLUG DOORS, PIECES MARKED ⑨ WILL NOT BE REQUIRED. NOTE THAT A "STRUT ASSEMBLY", AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF THIRTY-SIX (36) OR MORE PALLET UNITS ARE LOADED IN EITHER END OF A CAR.

3. IN REGARDS TO THE LOAD SHOWN ON PAGE 14 OF REFERENCED DRAWING, A PLYWOOD AND LUMBER GATE MUST BE POSITIONED BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. SEE THE "GATE F" DETAIL ON PAGE 10 FOR CONSTRUCTION GUIDANCE. OMIT PIECES MARKED ④, ⑤, ⑥, AND ⑦. IF THE CAR IS EQUIPPED WITH PLUG DOORS, PIECES MARKED ⑧ WILL NOT BE REQUIRED. NOTE THAT A "STRUT ASSEMBLY", AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF THIRY-SIX (36) OR MORE PALLET UNITS ARE LOADED IN EITHER END OF A CAR.

4. IN REGARDS TO THE ODD-QUANTITY LCL LOAD SHOWN ON PAGE 16 OF REFERENCED DRAWING, A PLYWOOD AND LUMBER GATE MUST BE USED BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. SEE THE "GATE F" DETAIL ON PAGE 10 FOR CONSTRUCTION GUIDANCE. NOTE THAT THE GATE NEED BE ONLY 18" HIGH IN LIEU OF 48" AND PIECE MARKED ⑧ WILL THEN BE NAILED TO "GATE F" IN LIEU OF TO PIECE MARKED ⑦. OMIT PIECES MARKED ⑤, ⑥, AND ⑦.

4556-5C83

LOADING AND BRACING (CL & LCL) IN BOX CARS OF BLU-27 AND BLU-32 FIRE BOMB SERIES PACKED IN OPEN WOODEN CRATES.

1. IN REGARDS TO THE LOAD SHOWN ON PAGE 4 OF REFERENCED DRAWING, THERE ARE NO SPECIAL REQUIREMENTS. IT MAY BE NECESSARY TO OMIT ONE LOAD UNIT OF TWELVE (12) CONTAINERS UNLESS THE LOAD DIVIDER BULKHEADS ARE EQUIPPED WITH A LOCKING MECHANISM WHICH IS OPERABLE FROM OUTSIDE THE CAR. OMIT PIECES MARKED ⑦ AND ⑧, AND IF THE CAR IS EQUIPPED WITH PLUG DOORS, ALSO OMIT PIECES MARKED ④.

2. IN REGARDS TO THE LOAD SHOWN ON PAGE 6 OF REFERENCED DRAWING, THE CENTER LOAD UNIT SHOULD BE POSITIONED IN CONTACT WITH THE END LOAD UNIT. THERE ARE NO OTHER SPECIAL REQUIREMENTS. OMIT PIECES MARKED ② THRU ⑤ AND PIECES MARKED ⑧, ⑨, AND ⑩.

3. NO SPECIAL REQUIREMENTS FOR THE LCL LOAD SHOWN ON PAGE 8 OF REFERENCED DRAWING EXCEPT THAT IF THE CAR BEING LOADED IS EQUIPPED WITH ADJUSTABLE SIDE FILLERS, PIECES MARKED ⑤ AND ⑥ CANNOT BE USED. IN LIEU THEREOF, THE CONTAINERS SHOULD BE ENCIRCLED WITH TWO (2) 1-1/4" STRAPS TO PROVIDE FOR LATERAL STABILITY. OMIT PIECES MARKED ① AND ②.

4557-CB5P2

LOADING AND BRACING (CL & LCL) IN BOX CARS OF THE M36 SERIES INCENDIARY BOMB (CLUSTER) PACKED TWO PER WOOD PALLET.

1. IN REGARDS TO THE LOAD SHOWN ON PAGES 4 AND 5 OF REFERENCED DRAWING, THE CAR MUST BE EQUIPPED WITH NAILABLE SIDEWALLS. IF POSSIBLE, THE LOAD SHOULD BE PLANNED SO AS NOT TO EXTEND INTO THE DOORWAY AREA. IF THIS CANNOT BE DONE, PIECES MARKED ⑤ MUST BE INSTALLED TO PASS BETWEEN THE EDGE OF THE LOAD DIVIDER BULKHEAD (5) AND A CAR DOOR TO SPAN A DOORWAY OPENING. OMIT PIECES MARKED ⑥ THRU ⑩. NOTE THAT IF MORE THAN TWENTY-SIX (26) CONTAINERS ARE LOADED IN EITHER END OF A CAR, A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS.

2. IN REGARDS TO THE LOAD SHOWN ON PAGES 6 AND 7 OF REFERENCED DRAWING, THE LOAD MUST BE PLANNED SO AS NOT TO EXTEND INTO THE DOORWAY AREA. THE LOAD MAY BE INCREASED TO FOUR (4) LAYERS, IF NECESSARY, TO OBTAIN THE QUANTITY TO BE SHIPPED. SEE SPECIAL NOTE 2 ON PAGE 7 OF REFERENCED DRAWING FOR GUIDANCE. NOTE THAT IF MORE THAN TWENTY-SIX (26) CONTAINERS ARE LOADED IN EITHER END OF A CAR, A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS.

(SPECIAL REQUIREMENTS CONTINUED ON PAGE 6)

(SPECIAL REQUIREMENTS CONTINUED FROM PAGE 5)

3. NO SPECIAL REQUIREMENTS FOR THE LCL LOAD SHOWN ON PAGE 8 OF REFERENCED DRAWING. OMIT PIECES MARKED ③ THRU ⑥.

4558-CB561

LOADING & BRACING (CL & LCL) IN BOX CARS OF THE M43 SERIES CLUSTER BOMB PACKED ONE PER SHIPPING GUARD.

1. IN REGARDS TO THE LOAD SHOWN ON PAGE 4 OF REFERENCED DRAWING, FOUR (4) LOAD UNITS SHOULD BE POSITIONED IN EACH END OF THE CAR SO THAT THE VOID AREA WILL BE IN THE CENTER OF THE DOOR OPENING. APPLY DOORWAY PROTECTION STRAP AROUND THE ENDS OF THE LOAD UNITS IN THE DOORWAY AREA. OMIT PIECES MARKED ②, ③, ④, AND ⑦.

2. THERE ARE NO SPECIAL REQUIREMENTS FOR THE LCL LOAD SHOWN ON PAGE 6 OF REFERENCED DRAWING. OMIT ALL BLOCKING.

3. THERE ARE NO SPECIAL REQUIREMENTS FOR THE LCL LOAD ON PAGE 7 OF REFERENCED DRAWING. OMIT PIECE MARKED ① AND TWO PIECES MARKED ②.

4559-CB5A1

LOADING AND BRACING (CL & LCL) IN BOX CARS OF M44 SERIES CLUSTER GENERATOR PACKED ONE PER WOODEN CONTAINER.

1. NO SPECIAL REQUIREMENTS FOR THE LOAD SHOWN ON PAGE 4 OF REFERENCED DRAWING EXCEPT THAT THE LOAD SHOULD BE PLANNED SO AS NOT TO EXTEND INTO THE DOORWAY. IF THIS CANNOT BE DONE, THEN PIECES MARKED ⑩ WILL BE CUT TO EXTEND TO A LOAD DIVIDER BULKHEAD IN LIEU OF SPANNING THE DOOR OPENING, AS SHOWN. ADJUST THE LENGTH OF PIECES MARKED ④ AND THE QUANTITIES OF PIECES MARKED ⑤ THRU ⑧ AS NECESSARY. OMIT PIECES MARKED ①, ②, AND ③. IF THE LOAD EXTENDS INTO THE DOORWAY, ADDITIONAL PIECES MARKED ⑤ MUST BE APPLIED NEAR THE ENDS OF THE EXTENDING PIECES MARKED ⑩ TO PROVIDE SUPPORT.

2. THERE ARE NO SPECIAL REQUIREMENTS FOR THE LCL LOAD SHOWN ON PAGE 6 OF REFERENCED DRAWING. OMIT TWO PIECES MARKED ①.

7002-SP5C1

LOADING AND BRACING (CL & LCL) IN BOX CARS OF M5 WARHEAD PACKED IN WOODEN CRATE.

1. IN REGARDS TO THE LOAD SHOWN ON PAGE 3 OF REFERENCED DRAWING, IN ORDER TO LOAD TWELVE (12) CONTAINERS, THE CAR MUST BE EQUIPPED WITH 12'-0" WIDE DOOR OPENINGS AND WITH LOAD DIVIDER BULKHEADS WHICH ARE OPERABLE FROM THE OUTSIDE OF THE CAR. IF THE CAR IS EQUIPPED WITH PLUG DOORS, THE END OF THE LOAD UNIT EXTENDING INTO THE DOORWAY MUST BE ENCLICLED WITH 1-1/4" STEEL STRAPPING. A SPACER, CONSISTING OF A 2" X 6" PIECE (THAT IS 12" LONGER THAN THE LATERAL VOID BETWEEN CONTAINERS) NAILED TO A 4" X 4" PIECE THAT IS CUT TO FIT BETWEEN THE CONTAINERS, MUST BE POSITIONED UNDER THE STRAP AT THE TOP OF THE LOAD TO HOLD THE CONTAINERS APART. OMIT PIECES MARKED ⑤ THRU ⑩.

2. IN REGARDS TO THE LOAD SHOWN ON PAGE 4 OF REFERENCED DRAWING, THE CAR MUST BE EQUIPPED WITH DOOR OPENINGS AT LEAST 10'-0" WIDE AND WITH LOAD DIVIDER BULKHEADS WHICH ARE OPERABLE FROM OUTSIDE THE CAR, IN ORDER TO LOAD SIXTEEN (16) CONTAINERS. OMIT PIECES MARKED ⑤, ⑥, AND ⑦.

3. IN REGARDS TO THE LOAD SHOWN ON PAGE 5 OF REFERENCED DRAWING, THERE ARE NO SPECIAL REQUIREMENTS. IF THE CAR IS EQUIPPED WITH PLUG DOORS, INSTALL A SPACER AND STEEL STRAPPING AS SPECIFIED IN NOTE 1 ABOVE. OMIT PIECES MARKED ② THRU ⑤.

4. IN REGARDS TO THE LOAD SHOWN ON PAGE 6 OF REFERENCED DRAWING, THE CAR MUST BE EQUIPPED WITH DOOR OPENINGS AT LEAST 10'-0" WIDE AND WITH LOAD DIVIDER BULKHEADS WHICH ARE OPERABLE FROM OUTSIDE THE CAR. ALSO, THE CAR MUST HAVE NAILABLE SIDEWALLS. CARS WHICH HAVE ADJUSTABLE SIDE FILLERS CANNOT BE USED. OMIT PIECES MARKED ⑤ THRU ⑦.

7013-SP5M1 REV NO. 1

LOADING & BRACING (CL & LCL) IN BOX CARS OF CBU ITEMS, PACKED IN XM468 CONTAINER.

1. IN REGARDS TO THE LCL LOAD SHOWN ON PAGE 3 OF REFERENCED DRAWING, THE PIECE MARKED ④ WHICH IS IN THE DOORWAY MUST BE INSTALLED OVER THE OPPOSITE END OF THE CONTAINER. A GATE MUST BE POSITIONED BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. USE THE GATE FOR A TWO-HIGH LOAD AS SHOWN BY "DETAIL D" ON PAGE 2 OF REFERENCED DRAWING. INSTALL WITH THE HORIZONTAL PIECES AGAINST THE BULKHEAD. NOTE THAT THE CAR MUST HAVE A NAILABLE SIDEWALL. OMIT PIECES MARKED ⑤ THRU ⑩; SIX (6) ADDITIONAL PIECES MARKED ③ WILL BE REQUIRED.

2. IN REGARDS TO THE LCL LOAD SHOWN ON PAGE 4 OF REFERENCED DRAWING, A GATE MUST BE POSITIONED BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. USE THE GATE FOR A TWO-HIGH LOAD AS SHOWN BY "DETAIL D" ON PAGE 2 OF REFERENCED DRAWING. INSTALL WITH THE HORIZONTAL PIECES AGAINST THE BULKHEAD. NOTE THAT THE CAR MUST HAVE A NAILABLE SIDEWALL. OMIT TWO (2) PIECES MARKED ③ AND PIECES MARKED ⑥ AND ⑦.

3. IN REGARDS TO THE LOAD SHOWN ON PAGE 6 OF REFERENCED DRAWING, THE CAR MUST BE EQUIPPED WITH DOOR OPENINGS AT LEAST 9'-0" WIDE. A GATE MUST BE POSITIONED BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. USE THE GATE SHOWN BY "DETAIL D" ON PAGE 2 OF REFERENCED DRAWING. INSTALL WITH THE HORIZONTAL PIECES AGAINST THE BULKHEAD. OMIT PIECES MARKED ⑤ THRU ⑩.

4. IN REGARDS TO THE LOAD SHOWN ON PAGE 8 OF REFERENCED DRAWING, A GATE MUST BE POSITIONED BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. USE THE GATE SHOWN BY "DETAIL D" ON PAGE 2 OF REFERENCED DRAWING. INSTALL WITH THE HORIZONTAL PIECES AGAINST THE BULKHEAD. OMIT PIECES MARKED ⑤ THRU ⑩.

(SPECIAL REQUIREMENTS CONTINUED AT RIGHT)

PAGE 6

(SPECIAL REQUIREMENTS CONTINUED)

7014-SP5M2

LOADING & BRACING (CL & LCL) IN BOX CARS OF LITTLEJOHN T54E1 WARHEAD, PACKED IN CONTAINER, XM477 (XM143).

1. IN REGARDS TO THE LOADS SHOWN ON PAGES 2 AND 4 OF REFERENCED DRAWING, THE CARS MUST BE EQUIPPED WITH NAILABLE SIDEWALLS. A GATE MUST BE INSTALLED BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. SEE THE "GATE G" DETAIL ON PAGE 10 OF THIS DRAWING FOR CONSTRUCTION GUIDANCE. POSITION THE GATE SO THAT THE BEARING PIECES ARE IN CONTACT WITH THE ENDS OF THE SKIDS AND THE PLYWOOD IS AGAINST THE BULKHEAD. OMIT TWO (2) PIECES MARKED ④ (THREE (3) PIECES FOR THE LOAD ON PAGE 4) AND PIECES MARKED ⑤. IF THE CAR TO BE LOADED IS EQUIPPED WITH ADJUSTABLE SIDE FILLERS OR HAS METAL SIDEWALLS, THE DEPICTED PIECES MARKED ⑥ THRU ⑭ CANNOT BE USED. THEREFORE, TO PROVIDE LATERAL/LONGITUDINAL BRACING, A "GATE G", WITH DOUBLED 2" X 6" SIDE BLOCKING PIECES ADDED TO BOTH SIDES AS SHOWN BY THE PHANTOM LINES ON THE GATE DETAIL, MUST BE POSITIONED BETWEEN LOAD UNITS IN PLACE OF PIECE MARKED ④. THE GATE WITH THE DOUBLED SIDE BLOCKING PIECES ONLY ON THE BEARING PIECES WILL BE POSITIONED BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. OMIT PIECES MARKED ④ THRU ⑭. IF THE CAR TO BE LOADED HAS A STEEL END WALL, GATES WITH DOUBLED SIDE BLOCKING PIECES ON THE ONE SIDE MUST BE USED IN LIEU OF PIECES MARKED ①.

2. IN REGARDS TO THE LCL LOAD ON PAGE 3 OF REFERENCED DRAWING, THE CAR MUST BE EQUIPPED WITH NAILABLE SIDEWALLS FOR THE SECUREMENT OF PIECES MARKED ④. PIECES MARKED ③, IN LIEU OF BEING NAILED TO PIECE MARKED ②, WILL BE NAILED TO THE CAR FLOOR. A 2" X 6" BY CAR WIDTH PIECE OF MATERIAL MUST BE POSITIONED ON EDGE BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. OMIT PIECES MARKED ② AND ④.

7034-SP5A1

LOADING & BRACING (CL & LCL) IN BOX CARS OF CBU ITEMS PACKED IN THE CNU-85/E CONTAINER.

1. IN REGARDS TO THE LOAD SHOWN ON PAGE 4 OF REFERENCED DRAWING, THE CAR MUST BE EQUIPPED WITH NAILABLE SIDEWALLS AND END WALLS. A GATE MUST BE INSTALLED BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. SEE THE "GATE H" DETAIL ON PAGE 10 OF THIS DRAWING FOR CONSTRUCTION GUIDANCE. POSITION THE GATE SO THAT THE BEARING PIECES ARE IN CONTACT WITH THE ENDS OF THE SKIDS AND THE PLYWOOD IS AGAINST THE BULKHEAD. IF THE CAR IS NOT EQUIPPED WITH LOAD DIVIDER BULKHEADS WHICH ARE OPERABLE FROM THE OUTSIDE OF THE CAR, IT WILL BE NECESSARY TO OMIT ONE LOAD UNIT OF TEN (10) CONTAINERS FROM THE DEPICTED LOAD. OMIT DUNNAGE PIECES MARKED ④ THRU ⑩. IF THE CAR IS EQUIPPED WITH METAL SIDEWALLS OR WITH ADJUSTABLE SIDEWALL FILLERS, WHICH PRECLUDE NAILING OF PIECES MARKED ⑤, THE INTERMEDIATE GATES, PIECES MARKED ④, MUST BE HELD DOWN BY OTHER MEANS. THIS CAN BE ACCOMPLISHED BY APPLYING DOUBLED 2" X 3" X 12" PIECES TO EACH END OF THE BOTTOM HORIZONTAL PIECE OF A GATE, APPROXIMATELY 8" FROM THE END, IN LIEU OF USING PIECES MARKED ⑤.

2. IN REGARDS TO THE LOAD SHOWN ON PAGE 6 OF REFERENCED DRAWING, THE DEPICTED LOADING PATTERN SHOULD NOT BE USED. A 30-UNIT LOAD WOULD BEST BE ACHIEVED BY LOADING 3 LAYERS HIGH AND POSITIONING 3 LOAD UNITS IN ONE END AND 2 LOAD UNITS IN THE OPPOSITE END OF THE CAR. SEE NOTE 1 ABOVE FOR GUIDANCE PERTAINING TO THE INTERMEDIATE GATE HOLD DOWN, PIECE MARKED ⑤. ADJUST HEIGHTS AND QUANTITIES OF DUNNAGE ASSEMBLIES, AS REQUIRED. NOTE THAT THE CAR MUST HAVE NAILABLE SIDEWALLS AND NAILABLE END WALLS.

3. IN REGARDS TO THE LCL LOAD SHOWN ON PAGE 8 OF REFERENCED DRAWING, THE CAR MUST BE EQUIPPED WITH NAILABLE END WALLS. THE FIVE (5) CONTAINERS SHOULD BE LOADED IN 1 LOAD UNIT IN THE END OF THE CAR. UNITIZE THE 3-HIGH AND 2-HIGH STACKS AS SHOWN ON PAGE 3 OF REFERENCED DRAWING AND INSTALL A SPACER ASSEMBLY, AS DETAILED ON PAGE 12, ON TOP OF THE FIRST LAYER OF CONTAINERS. APPLY ADDITIONAL PIECES MARKED ① TO ALIGN WITH THE CONTAINER SKIDS. INSTALL A GATE BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. SEE THE "GATE H" DETAIL ON PAGE 10 OF THIS DRAWING FOR CONSTRUCTION GUIDANCE. OMIT PIECES MARKED ③ THRU ⑩ AND TWO (2) PIECES MARKED ②.

4. IF MORE THAN FORTY-EIGHT (48) CONTAINERS ARE POSITIONED IN ONE END OF A CAR, A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS.

7039-SP5M5

LOADING & BRACING (CL & LCL) IN BOX CARS OF CBU ITEMS PACKED IN THE CNU-92/E CONTAINER.

1. IN REGARDS TO THE LOAD SHOWN ON PAGE 4 OF REFERENCED DRAWING, IT WILL BE NECESSARY TO OMIT AT LEAST ONE CONTAINER STACK TO PROVIDE ROOM FOR OPERATING THE LOAD DIVIDER BULKHEADS. A GATE MUST BE INSTALLED BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. SEE THE "GATE J" DETAIL ON PAGE 11 OF THIS DRAWING FOR CONSTRUCTION GUIDANCE. A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF THERE ARE MORE THAN FORTY-THREE (43) CONTAINERS IN EITHER END OF A CAR. OMIT PIECES MARKED ④ THRU ⑥.

2. IN REGARDS TO THE LOAD SHOWN ON PAGE 6 OF REFERENCED DRAWING, A CAR EQUIPPED WITH A NAILABLE SIDEWALL IS REQUIRED FOR THE INSTALLATION OF THE DEPICTED K-BRACE BLOCKING. OMIT AT LEAST ONE CONTAINER STACK TO PROVIDE ROOM FOR OPERATING THE LOAD DIVIDER BULKHEADS. A GATE MUST BE INSTALLED BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. SEE THE "GATE J" DETAIL ON PAGE 11 OF THIS DRAWING FOR CONSTRUCTION GUIDANCE. OMIT PIECES MARKED ⑥ THRU ⑩. IN LIEU OF USING A K-BRACE ASSEMBLY AS SHOWN, AND AS REQUIRED IN A CAR HAVING NON-NAILABLE WALLS, A 63-UNIT LOAD CAN BE OBTAINED BY LOADING NINE (9) 4-HIGH STACKS IN ONE END OF THE CAR AND NINE (9) 3-HIGH STACKS IN THE OPPOSITE END. ADJUST THE HEIGHTS AND QUANTITIES OF DUNNAGE ASSEMBLIES, AS NECESSARY. SEE GENERAL NOTE "H4" ON PAGE 2 OF THIS DRAWING.

(SPECIAL REQUIREMENTS CONTINUED ON PAGE 7)

(SPECIAL REQUIREMENTS CONTINUED FROM PAGE 6)

3. IN REGARDS TO THE LCL LOAD SHOWN ON PAGE 8 OF REFERENCED DRAWING, IT WILL BE NECESSARY TO INSTALL A GATE BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. SEE THE "GATE J" DETAIL ON PAGE 11 OF THIS DRAWING FOR CONSTRUCTION GUIDANCE. OMIT PIECES MARKED ⑤ THRU ⑧.

4. IN REGARDS TO THE LCL LOAD SHOWN ON PAGE 9 OF REFERENCED DRAWING, IT WILL BE NECESSARY TO INSTALL A GATE BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. SEE THE "GATE J" DETAIL ON PAGE 11 OF THIS DRAWING FOR CONSTRUCTION GUIDANCE. OMIT PIECES MARKED ②.

7043-SP5J1, REV NO. 1

LOADING & BRACING (CL & LCL) IN BOX CARS OF CBU ITEMS PACKED IN THE CNU-79/E CONTAINER.

1. IN REGARDS TO THE LOAD SHOWN ON PAGE 4 OF REFERENCED DRAWING, IT WILL BE NECESSARY TO OMIT THE LOAD UNIT FROM THE DOORWAY AREA OF THE CAR. A GATE MUST BE POSITIONED BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. SEE THE "GATE K" DETAIL ON PAGE 11 OF THIS DRAWING FOR CONSTRUCTION GUIDANCE. POSITION WITH THE 2" X 6" BEARING PIECES IN CONTACT WITH THE CONTAINER SKIDS. OMIT PIECES MARKED ⑤, ⑥, ⑦, AND ⑧.

2. IN REGARDS TO THE LOAD SHOWN ON PAGE 6 OF REFERENCED DRAWING, IT WILL BE NECESSARY TO POSITION A GATE BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. SEE THE "GATE K" DETAIL ON PAGE 11 OF THIS DRAWING FOR CONSTRUCTION GUIDANCE. IF THE CAR IS EQUIPPED WITH ADJUSTABLE SIDEWALL FILLERS OR METAL SIDEWALLS, AN ASSEMBLY SIMILAR TO THE ANTI-CHAFING ASSEMBLY, PIECE MARKED ③, MUST BE POSITIONED BETWEEN A CONTAINER AND THE CAR SIDEWALL IN LIEU OF USING PIECES MARKED ②. OMIT PIECES MARKED ⑦ THRU ⑭.

3. IN REGARDS TO THE LCL LOAD SHOWN ON PAGE 8 OF REFERENCED DRAWING, A 12-UNIT LOAD CONFIGURATION AS SHOWN IS NOT ADAPTABLE TO SHIPMENT IN A LOAD DIVIDER CAR. TWELVE (12) CONTAINERS SHOULD BE LOADED IN TWO (2) LOAD UNITS OF SIX (6) EACH. INSTALL A GATE, SHOWN AS "DETAIL B" ON PAGE 13 OF REFERENCED DRAWING, BETWEEN THE LOAD UNITS IN LIEU OF PIECE MARKED ⑨. POSITION A GATE BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. SEE THE "GATE K" DETAIL ON PAGE 11 OF THIS DRAWING FOR CONSTRUCTION GUIDANCE. ADJUST THE HEIGHTS AND QUANTITIES OF DUNNAGE ASSEMBLIES, AS NECESSARY. OMIT PIECES MARKED ⑤ THRU ⑫ AND ONE (1) PIECE MARKED ①.

4. IN REGARDS TO THE LCL LOAD SHOWN ON PAGE 9 OF REFERENCED DRAWING, THE CAR MUST BE EQUIPPED WITH NAILABLE SIDEWALLS FOR THE SECUREMENT OF PIECES MARKED ⑩, ⑪, AND ⑫. AN ADDITIONAL PIECE MARKED ① MUST BE POSITIONED ON EDGE BETWEEN THE CONTAINERS AND THE LOAD DIVIDER BULKHEAD. OMIT PIECES MARKED ⑤ AND ④.

7046-SP5K1

LOADING AND BRACING (CL & LCL) IN BOX CARS OF CBU ITEMS PACKED IN THE CNU-104/E CONTAINER.

1. IN REGARDS TO THE LOAD SHOWN ON PAGE 4 OF REFERENCED DRAWING, IT IS NOT NECESSARY THAT THE LOAD UNITS BE SEPARATED; TWO (2) LOAD UNITS CAN BE PLACED IN CONTACT. THE CAR MUST BE EQUIPPED WITH NAILABLE SIDEWALLS FOR THE SECUREMENT OF PIECES MARKED ③, ④, ⑤, AND ⑥. OMIT PIECES MARKED ⑦ THRU ⑰.

2. IN REGARDS TO THE LCL LOAD SHOWN ON PAGE 6 OF REFERENCED DRAWING, THE CAR MUST BE EQUIPPED WITH NAILABLE SIDEWALLS FOR THE SECUREMENT OF PIECES MARKED ③ AND ④. OMIT PIECES MARKED ⑤ THRU ⑨.

3. IN REGARDS TO THE LCL LOAD SHOWN ON PAGE 7 OF REFERENCED DRAWING, THERE ARE NO SPECIAL REQUIREMENTS. OMIT PIECES MARKED ①, ②, AND ③.

7051-SP5B1

LOADING & BRACING (CL & LCL) IN BOX CARS OF CBU ITEMS PACKED IN THE CNU-81/E CONTAINER.

1. IN REGARDS TO THE LOAD SHOWN ON PAGE 4 OF REFERENCED DRAWING, THERE ARE NO SPECIAL REQUIREMENTS EXCEPT THAT THE CAR MUST HAVE A NAILABLE SIDEWALL FOR THE SECUREMENT OF PIECES MARKED ①, AND AT LEAST TWO (2) LOAD UNITS OF TWENTY-FOUR (24) CONTAINERS MUST BE OMITTED FROM THE CENTER AREA OF THE CAR TO PROVIDE FOR ROOM FOR OPERATING THE LOAD DIVIDER BULKHEADS. THESE REMOVED CONTAINERS CAN BE PLACED IN THE ENDS OF THE CAR AND BLOCKED AND BRACED BY THE USE OF FILLER/RISER ASSEMBLIES. OMIT PIECES MARKED ③ THRU ⑥. A STRUT ASSEMBLY, AS DETAIL ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF THERE ARE MORE THAN TWO-HUNDRED AND EIGHTY-FIVE (285) CONTAINERS IN EITHER END OF A CAR.

2. IN REGARDS TO THE LOAD SHOWN ON PAGE 6 OF REFERENCED DRAWING, AT LEAST TWO (2) LOAD UNITS OF TWENTY-FOUR (24) CONTAINERS MUST BE OMITTED FROM THE CENTER AREA OF THE CAR TO PROVIDE FOR ROOM FOR OPERATING THE LOAD DIVIDER BULKHEADS. THESE REMOVED CONTAINERS CAN BE PLACED NEAR THE ENDS OF THE CAR AND BLOCKED AND BRACED BY THE USE OF FILLER/RISER ASSEMBLIES. OMIT PIECES MARKED ③ THRU ⑦. IF THE CAR IS EQUIPPED WITH PLUG DOORS, ALSO OMIT PIECE MARKED ⑥. A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF THERE ARE MORE THAN TWO-HUNDRED AND EIGHTY-FIVE (285) CONTAINERS IN EITHER END OF A CAR.

3. IN REGARDS TO THE LOAD SHOWN ON PAGE 8 OF REFERENCED DRAWING, THERE ARE NO SPECIAL REQUIREMENTS. OMIT PIECE MARKED ③.

4. IN REGARDS TO THE LOAD SHOWN ON PAGE 9 OF REFERENCED DRAWING, THERE ARE NO SPECIAL REQUIREMENTS. OMIT ONE (1) PIECE MARKED ① AND TWO (2) PIECES MARKED ②.

(SPECIAL REQUIREMENTS CONTINUED AT RIGHT)

(SPECIAL REQUIREMENTS CONTINUED)

7053-SP5K2

LOADING & BRACING (CL & LCL) IN BOX CARS OF CBU ITEMS PACKED IN THE CNU-100/E CONTAINER.

1. IN REGARDS TO THE LOAD SHOWN ON PAGES 4 AND 5 OF REFERENCED DRAWING, IT WILL BE NECESSARY TO OMIT ONE (1) CROSSWISE POSITIONED STACK FROM EACH END OF THE CAR. TO PROVIDE FOR AN EVEN LOAD, A GATE MUST BE POSITIONED BETWEEN THE LADING AND THE LOAD DIVIDER BULKHEAD. SEE THE "GATE L" DETAIL ON PAGE 11 OF THIS DRAWING FOR CONSTRUCTION GUIDANCE. OMIT PIECES MARKED ② THRU ⑨. IF THE CAR IS EQUIPPED WITH PLUG DOORS, OMIT PIECES MARKED ① ALSO.

2. IN REGARDS TO THE LOAD SHOWN ON PAGES 6 AND 7 OF REFERENCED DRAWING, THERE ARE NO SPECIAL REQUIREMENTS. OMIT PIECES MARKED ④ THRU ⑧.

3. IN REGARDS TO THE LCL LOAD SHOWN ON PAGE 8 OF REFERENCED DRAWING, THERE ARE NO SPECIAL REQUIREMENTS. OMIT PIECES MARKED ②, ③, AND ④.

4. IN REGARDS TO THE LCL LOAD SHOWN ON PAGE 9 OF REFERENCED DRAWING, THERE ARE NO SPECIAL REQUIREMENTS. OMIT PIECES MARKED ③ THRU ⑦.

5. THE PARTIAL LAYER BRACING, AS SHOWN ON PAGE 10 OF REFERENCED DRAWING IS ONLY APPLICABLE IF THE CAR BEING USED IS EQUIPPED WITH NAILABLE SIDEWALLS. SEE GENERAL NOTE "H4" ON PAGE 2.

7055-SP5A2

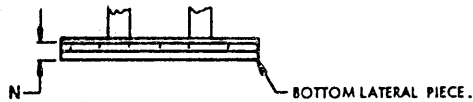
LOADING AND BRACING (CL & LCL) IN BOX CARS OF CBU ITEMS PACKED IN THE CNU-105/E CONTAINER.

1. IN REGARDS TO THE LOAD SHOWN ON PAGES 4 AND 5 OF REFERENCED DRAWING, THERE ARE NO SPECIAL REQUIREMENTS EXCEPT THAT PIECES MARKED ③ AND ⑤ MUST BE SHORTENED SO AS NOT TO INTERFERE WITH THE POSITIONING OF A LOAD DIVIDER BULKHEAD. OMIT PIECES MARKED ⑥ AND ⑦.

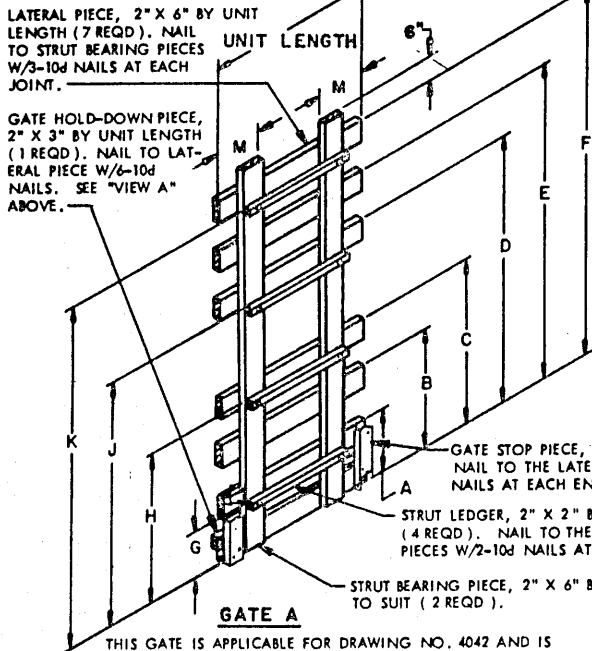
2. IN REGARDS TO THE LOAD SHOWN ON PAGES 6 AND 7 OF REFERENCED DRAWING, THERE ARE NO SPECIAL REQUIREMENTS EXCEPT THAT PIECES MARKED ③ AND ⑤ MUST BE SHORTENED SO AS NOT TO INTERFERE WITH THE POSITIONING OF A LOAD DIVIDER BULKHEAD. OMIT PIECES MARKED ④ AND ⑦. A STRUT ASSEMBLY, AS DETAILED ON PAGE 12 OF THIS DRAWING, MUST BE INSTALLED BETWEEN THE LOAD DIVIDER BULKHEADS IF THERE ARE MORE THAN FORTY-NINE (49) CONTAINERS IN EITHER END OF A CAR.

3. IN REGARDS TO THE LCL LOAD SHOWN ON PAGE 10 OF REFERENCED DRAWING, THERE ARE NO SPECIAL REQUIREMENTS. OMIT PIECES MARKED ②.

4. IN REGARDS TO THE LCL LOAD SHOWN ON PAGE 11 OF REFERENCED DRAWING, THERE ARE NO SPECIAL REQUIREMENTS. OMIT PIECES MARKED ② THRU ⑧.

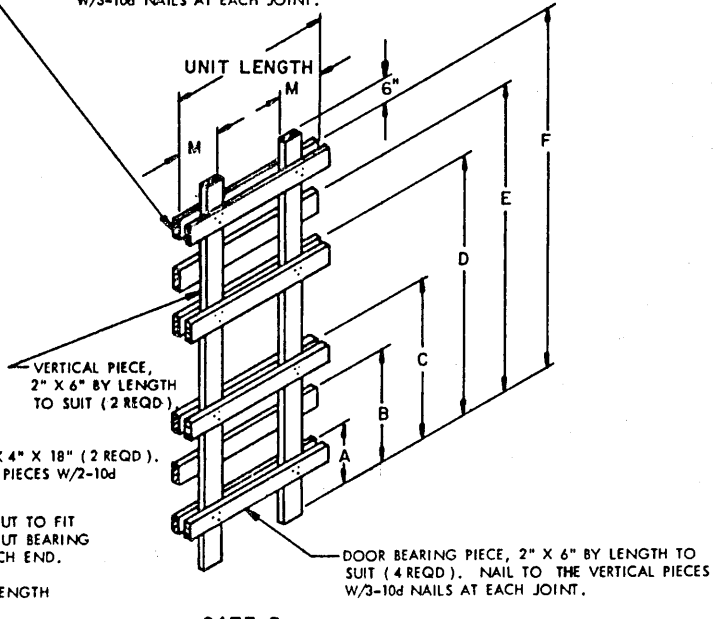


VIEW A
THIS VIEW IS FROM THE LADING-SIDE OF A GATE AND IS SHOWN ONLY TO INDICATE THE HEIGHT (N*) OF THE HOLD DOWN PIECE.



GATE A
THIS GATE IS APPLICABLE FOR DRAWING NO. 4042 AND IS DESIGNED FOR USE AGAINST THE BASE OR BELL END OF THE PROPELLING CHARGE CONTAINERS ON A PALLET UNIT WHEN STRUTS ARE TO BE USED TO PROVIDE FOR AN EVEN LOAD. A GATE WITHOUT THE LATERAL PIECES AT THE "B" AND "E" LEVELS AND WITHOUT THE GATE HOLD DOWN PIECE WILL BE USED AGAINST THE LOAD DIVIDER BULKHEAD. THE STRUTS WILL BE DOUBLED 2" X 6" MATERIAL, LAMINATED W/1-10d NAIL EVERY 6". TOENAIL THE TOP PIECE TO A STRUT BEARING PIECE OF EACH GATE W/2-12d NAILS. SEE THE CHART BELOW FOR DIMENSIONS INDICATED ABOVE BY LETTERS.

LOAD BEARING PIECE, 2" X 6" BY LENGTH TO SUIT (6 REQD). NAIL TO THE VERTICAL PIECES W/3-10d NAILS AT EACH JOINT.



GATE B
THIS GATE IS APPLICABLE FOR DRAWING NO. 4042 AND IS DESIGNED FOR USE AGAINST THE BASE OR BELL END OF THE PROPELLING CHARGE CONTAINERS ON A PALLET UNIT WHEN SOLID FILL IS TO BE USED TO PROVIDE FOR AN EVEN LOAD. ADDITIONAL 6" WIDE MATERIAL OF THE PROPER THICKNESS WILL BE LAMINATED TO THE DOOR BEARING PIECES, AS NECESSARY. LAMINATE EACH ADDED PIECE W/4-10d NAILS. SEE THE CHART BELOW FOR DIMENSIONS INDICATED ABOVE BY LETTERS.

CHART FOR GATES A & B

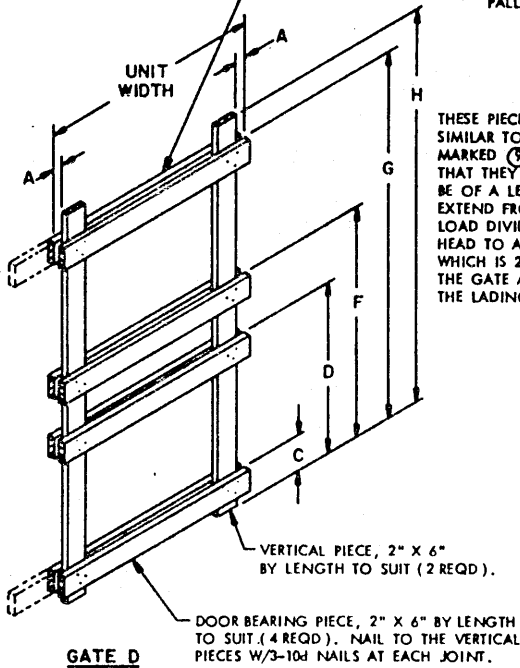
DIMENSION	UNIT NO.				
	1	2	5	6	7
A	20"	17-1/2"	17-3/4"	19-1/4"	18-1/4"
B	30-3/4"	29-1/4"	30-1/2"	29-1/4"	28-3/8"
C	41"	41"	43-3/4"	39-1/2"	38-1/4"
D	69-1/4"	64-1/2"	68-1/4"	66-3/4"	63-5/8"
E	6'-7-1/2"	6'-4"	6'-9"	6'-4-3/4"	6'-1-3/4"
F	7'-6-1/4"	7'-4"	7'-10"	7'-2-3/4"	6'-11-1/2"
G	15-5/8"	13"	13-1/2"	15"	14-1/4"
H	36-3/8"	37"	39-1/2"	35-1/4"	34"
J	65"	60-1/4"	64"	62-1/2"	59-1/4"
K	71-2"	71-0"	71-6"	6'-10-3/4"	6'-7-1/4"
L	35-1/4"	33-1/4"	37"	33"	33-1/2"
M	14"	12-1/4"	12-3/4"	13-3/4"	13-1/2"
N*	5-1/2"	5-1/2"	5-1/2"	5-1/2"	4"

* DIMENSION "N" INDICATES THE HEIGHT OF THE 2" X 3" HOLD DOWN PIECE ON THE BOTTOM LATERAL PIECE OF A GATE WHICH IS TO BE POSITIONED AGAINST THE LADING. OMIT THE HOLD DOWN PIECE FROM A GATE WHICH IS TO BE POSITIONED AGAINST A LOAD DIVIDER BULKHEAD.

CHART FOR GATES C & D

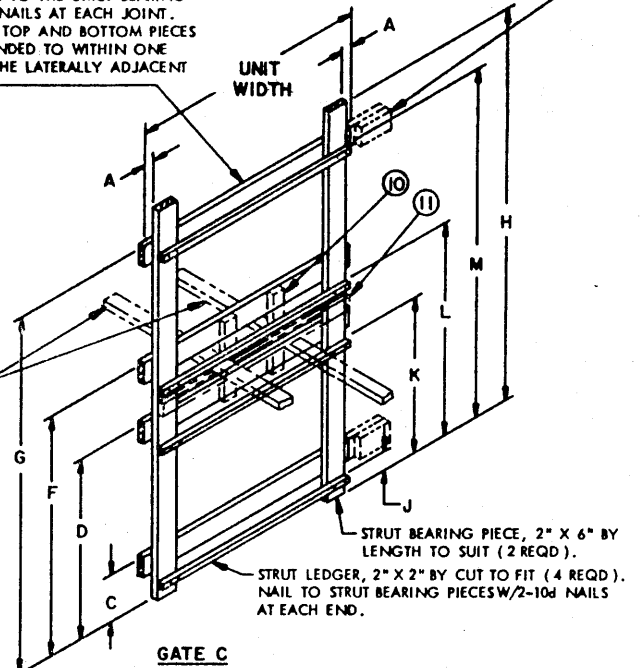
DIMENSION	UNIT NO.				
	1	2	5	6	7
A	4"	2-1/2"	2-1/2"	5"	8-3/4"
C	9-1/2"	8-3/4"	9-1/4"	9-1/2"	13-1/2"
D	40-3/4"	41-1/4"	44"	40"	43"
F	59"	55-1/2"	59-1/2"	57"	58-3/4"
G	7'-6"	7'-4"	7'-10-1/4"	7'-4"	7'-4-1/2"
H	8'-3"	7'-10"	8'-5"	8'-0"	7'-7"
J	5-1/4"	4-1/4"	4-3/4"	5-1/4"	9"
K	37-5/8"	36-1/2"	39-3/4"	35-3/4"	38-3/4"
L	55"	51"	55"	52-3/4"	54-1/4"
M	7'-2"	6'-11-1/4"	7'-6"	6'-11-3/4"	7'-0"

LOAD BEARING PIECE, 2" X 6" BY LENGTH TO SUIT (4 REQD). NAIL TO THE VERTICAL PIECES W/3-10d NAILS AT EACH JOINT. NOTE THAT THE TOP AND BOTTOM PIECES ARE TO BE EXTENDED TO WITHIN ONE INCH (1") OF THE LATERALLY ADJACENT PALLET UNIT.



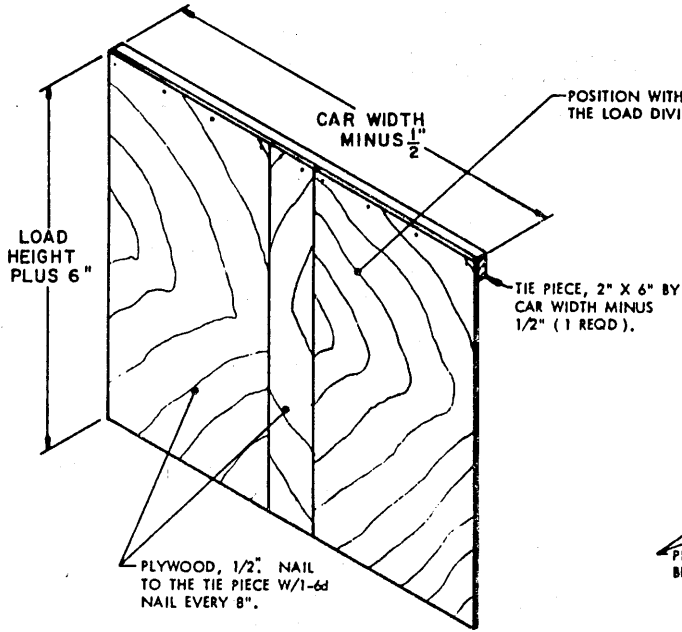
THIS GATE IS APPLICABLE FOR DRAWING NO. 4042 AND IS DESIGNED FOR USE AGAINST THE SIDE OF THE PROPELLING CHARGE CONTAINERS ON A PALLET UNIT WHEN SOLID FILL IS TO BE USED TO PROVIDE FOR AN EVEN LOAD. ADDITIONAL 6" WIDE MATERIAL OF THE PROPER THICKNESS WILL BE LAMINATED TO THE DOOR BEARING PIECES, AS NECESSARY. LAMINATE EACH ADDED PIECE WITH 4-10d NAILS. SEE THE CHART ON PAGE 8 FOR DIMENSIONS INDICATED ABOVE BY LETTERS. NOTE THAT EITHER RIGHT HAND OR LEFT HAND GATES MAY BE REQUIRED.

LATERAL PIECE, 2" X 6" BY UNIT WIDTH (4 REQD). NAIL TO THE STRUT BEARING PIECES W/3-10d NAILS AT EACH JOINT. NOTE THAT THE TOP AND BOTTOM PIECES ARE TO BE EXTENDED TO WITHIN ONE INCH (1") OF THE LATERALLY ADJACENT PALLET UNIT.



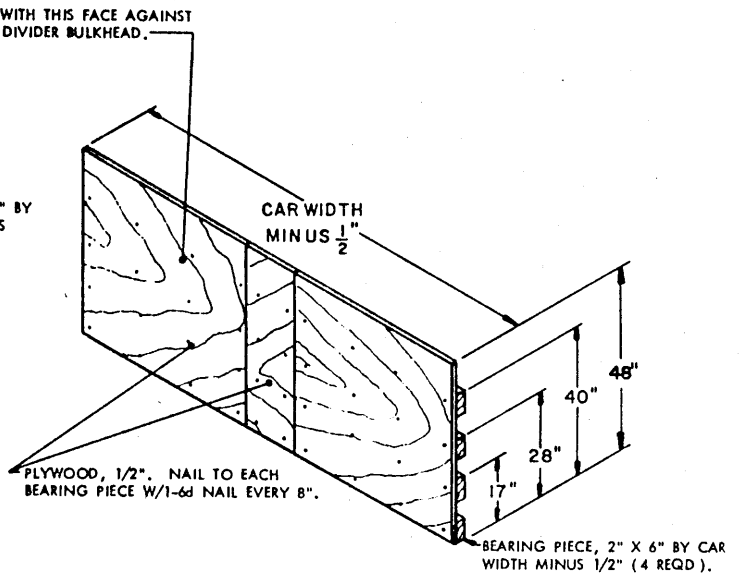
THIS GATE IS APPLICABLE FOR DRAWING NO. 4042 AND IS DESIGNED FOR USE AGAINST THE SIDE OF THE PROPELLING CHARGE CONTAINERS ON A PALLET UNIT WHEN STRUTS ARE TO BE USED TO PROVIDE FOR AN EVEN LOAD. THE STRUTS WILL BE DOUBLED 2" X 6" MATERIAL, LAMINATED W/1-10d NAIL EVERY 6". TOENAIL THE TOP PIECE TO A STRUT BEARING PIECE OF EACH GATE W/2-12d NAILS. SEE THE CHART ON PAGE 8 FOR DIMENSIONS INDICATED ABOVE BY LETTERS. NOTE THAT EITHER RIGHT HAND OR LEFT HAND GATES MAY BE REQUIRED.

LOADING GUIDANCE CHART												
CAR SIZE												
UNIT NO.	40'-6"				50'-6"				60'-8"			
	ROW	UNITS PER ROW	GATE	STRUT LENGTH, OR FILL THICKNESS	ROW	UNITS PER ROW	GATE	STRUT LENGTH, OR FILL THICKNESS	ROW	UNITS PER ROW	GATE	STRUT LENGTH, OR FILL THICKNESS
1	A	4			A	5			A	6	B	4-3/4"
	B	4			B	5			B	6	B	4-3/4"
	C	5	D	3-1/2"	C	6	C	15"	C	8		
	D	5	D	3-1/2"	D	6	C	15"	D	8		
2 OR 7	A	4	A	11-3/4"	A	5	NONE REQD		A	6	A	20-1/4"
	B	4			B	5			B	6		
	C	6			C	7			C	8	C	7-3/4"
	D	5	C	16-1/4"	D	7			D	9		
5	A	4	B	3"	A	5	NONE REQD		A	6	A	26-3/4"
	B	4	B	3"	B	5			B	6		
	C	5			C	6			C	8		
	D	5			D	6			D	7	D	6-1/2"
6	A	4	B	5-1/4"	A	5			A	5	A	26-1/2"
	B	3	A	22"	B	4			B	6		
	C	6			C	7		5-1/4"	C	8		
	D	5			D	6		4"	D	8	C	20-3/4"



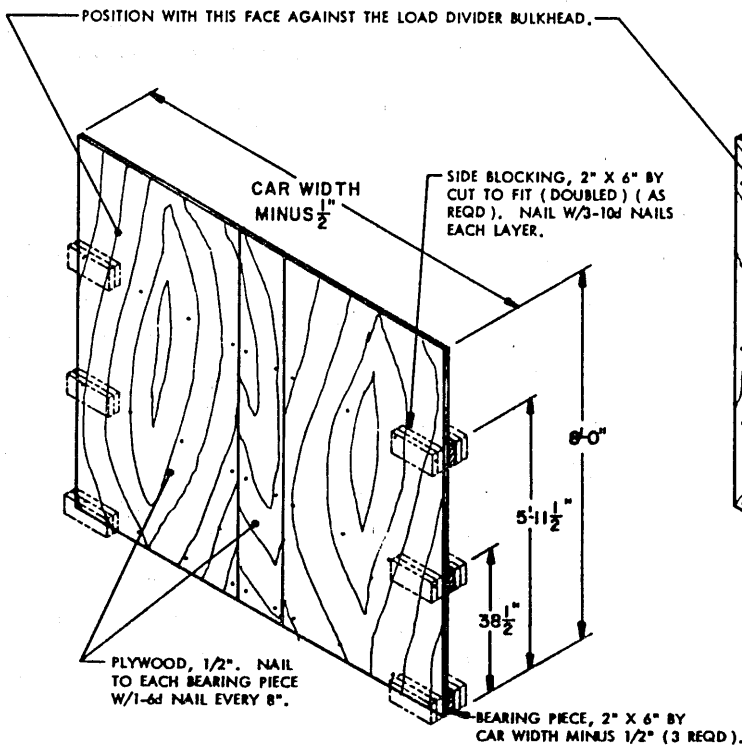
GATE E

THIS GATE IS APPLICABLE FOR DRAWING NOS. 1634, 4009, 4012, AND PAGE 3 OF 4045.



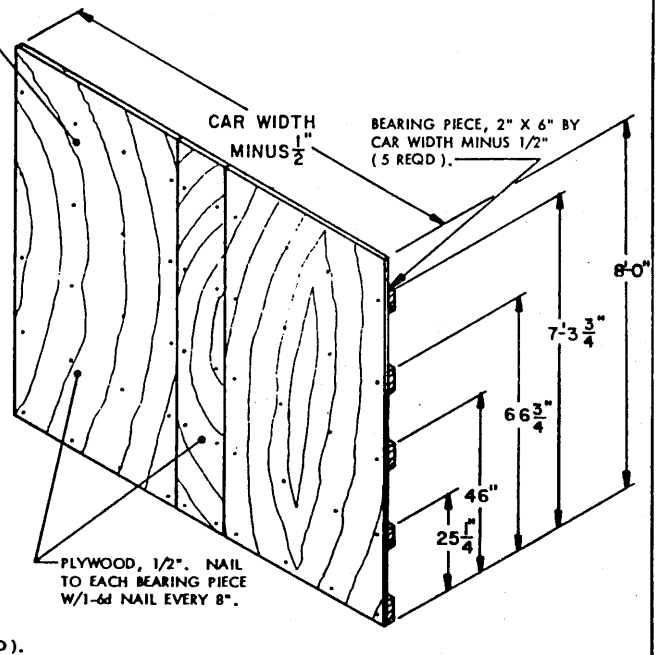
GATE F

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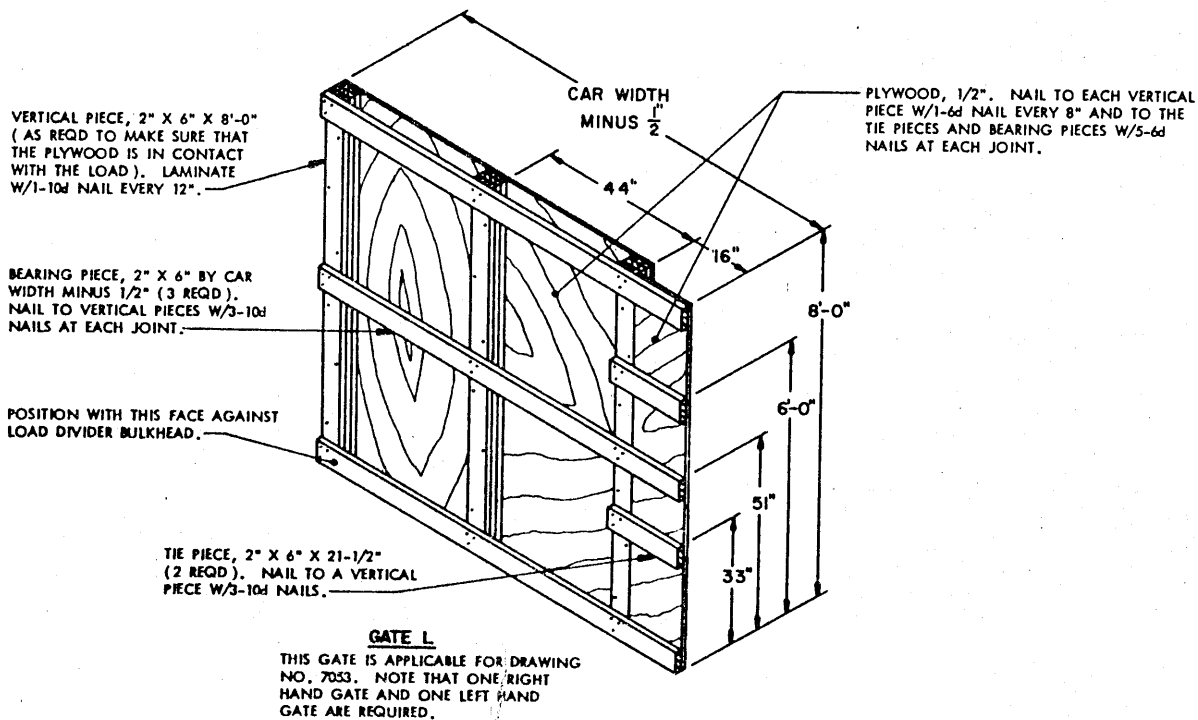
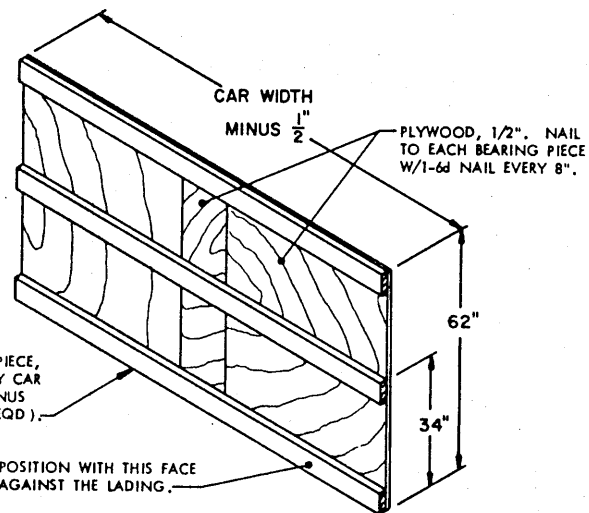
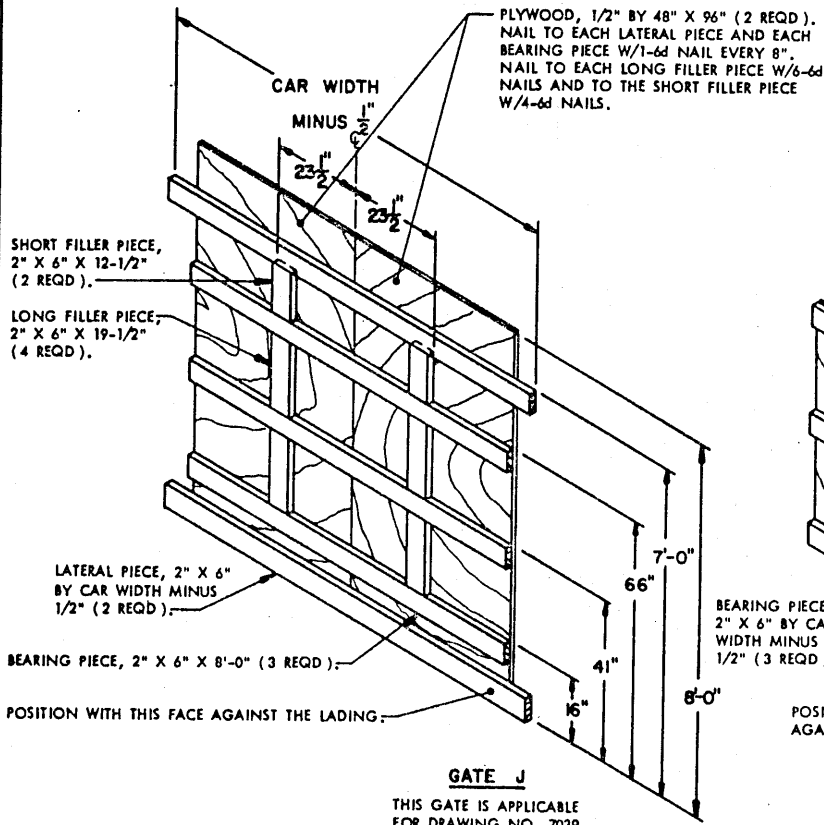
GATE G

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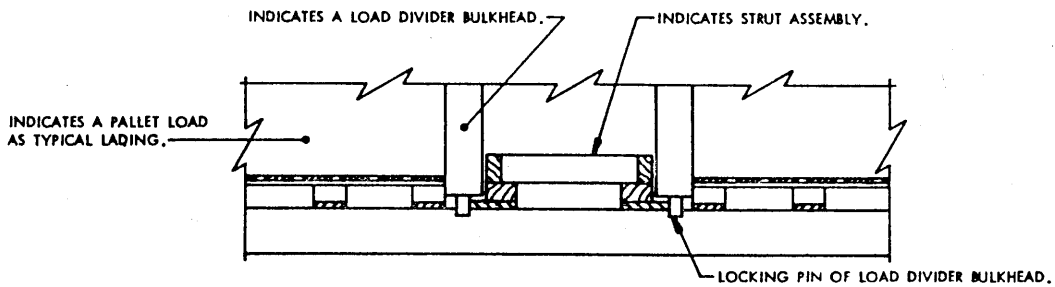


GATE H

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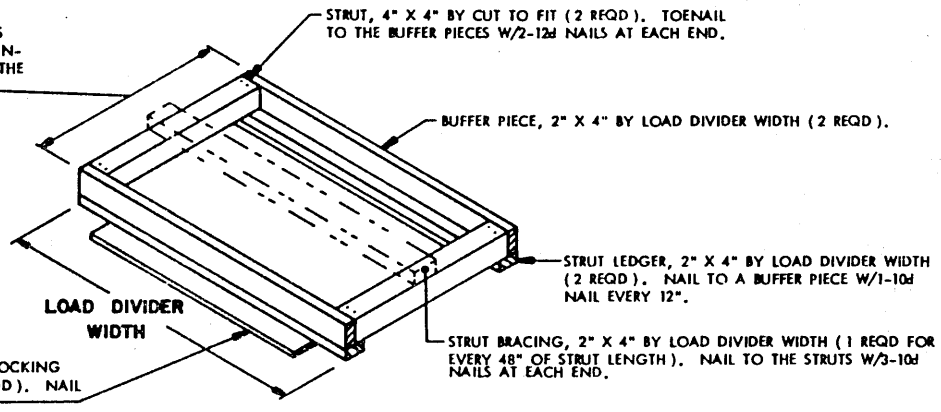
GATE DETAILS



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.

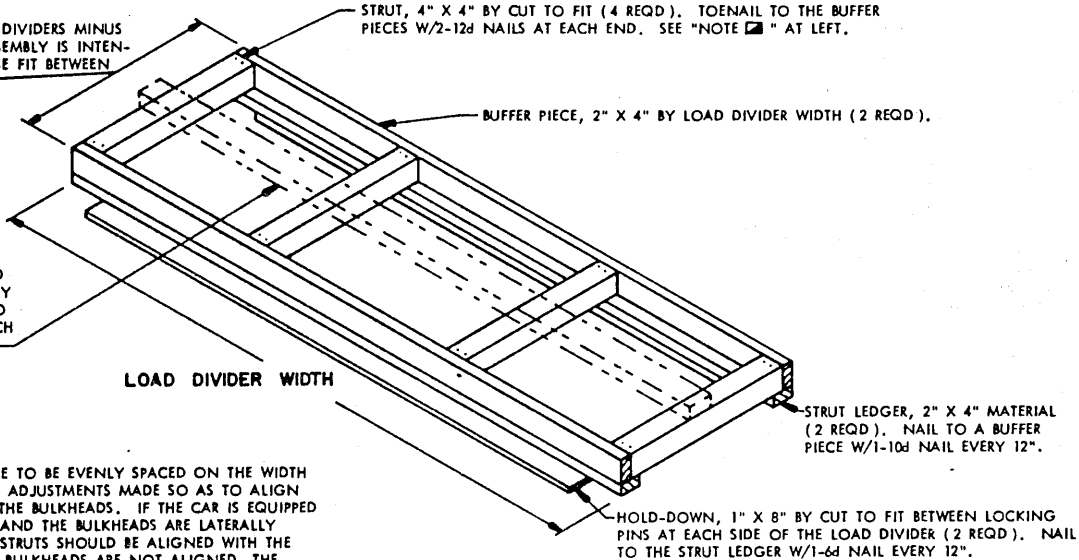


HOLD DOWN, 1" X 8" BY CUT TO FIT BETWEEN LOCKING PINS AT EACH SIDE OF THE LOAD DIVIDER (2 REQD). NAIL TO THE STRUT LEDGER W/1-6d NAIL EVERY 12".

STRUT ASSEMBLY FOR 2-PIECE BULKHEADS

A STRUT ASSEMBLY IS REQUIRED WHEN THE LOAD BEHIND EITHER LOAD DIVIDER BULKHEAD EXCEEDS 50,000 POUNDS. IF A STRUT ASSEMBLY IS LONGER THAN 12'-0", THE ASSEMBLY MUST BE HELD DOWN IN THE CENTER. SEE THE DETAILS ON PAGE 13 FOR GUIDANCE.

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

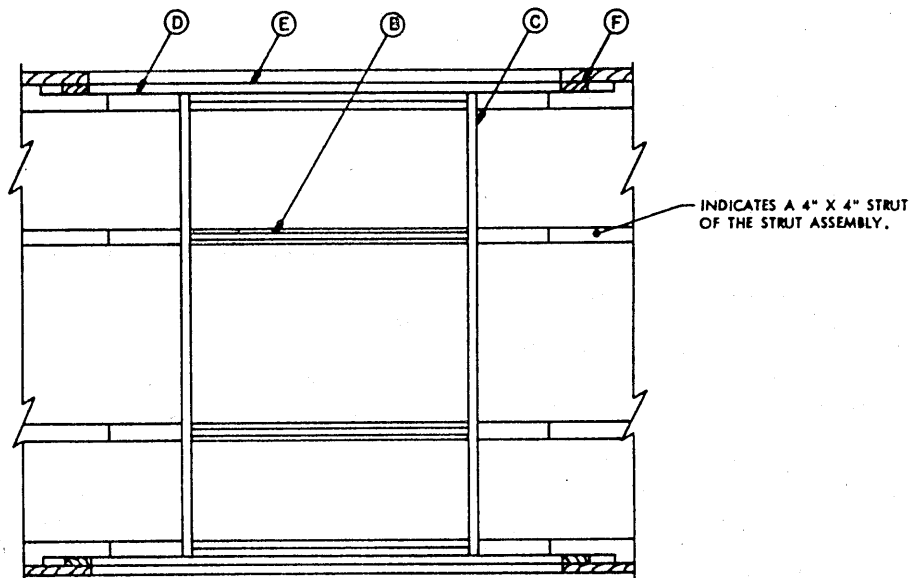


NOTE 1:

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.

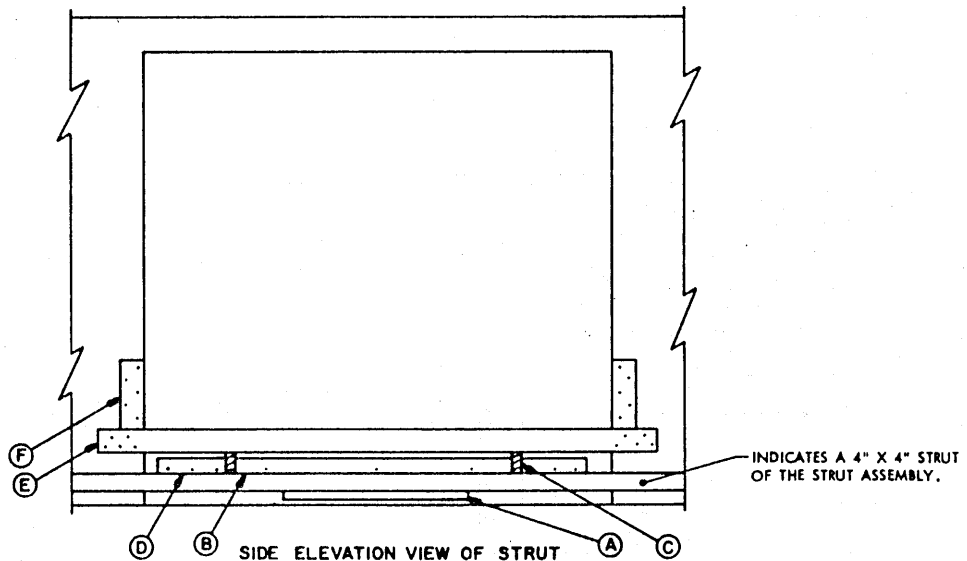
STRUT ASSEMBLY FOR 1-PIECE BULKHEADS

A STRUT ASSEMBLY IS REQUIRED WHEN THE LOAD BEHIND EITHER LOAD DIVIDER BULKHEAD EXCEEDS 50,000 POUNDS. IF A STRUT ASSEMBLY IS LONGER THAN 12'-0", THE ASSEMBLY MUST BE HELD DOWN IN THE CENTER. SEE THE DETAILS ON PAGE 13 FOR GUIDANCE.



**PLAN VIEW OF STRUT
ASSEMBLY HOLD-DOWN**

THIS PLAN VIEW AND THE SIDE ELEVATION VIEW BELOW DEPICT THE HOLD-DOWN BLOCKING WHICH IS REQUIRED WHEN THE STRUTS OF THE "STRUT ASSEMBLY" USED IN A LOAD DIVIDER CAR ARE LONGER THAN 12'-0". NOTE THAT THE SPECIAL STRUT HOLD-DOWN AND THE STRUT ASSEMBLY ARE ONLY REQUIRED IF THE LOAD BEHIND EITHER DOOR IS MORE THAN 50,000 POUNDS.

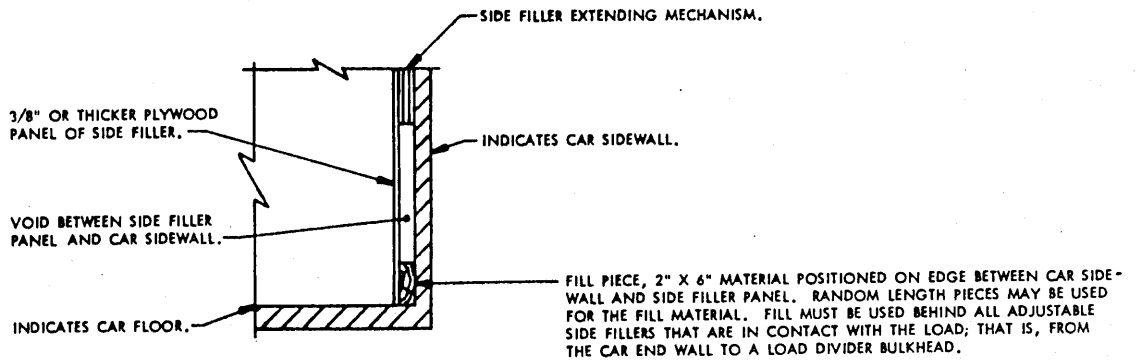


**SIDE ELEVATION VIEW OF STRUT
ASSEMBLY HOLD-DOWN**

KEY LETTERS

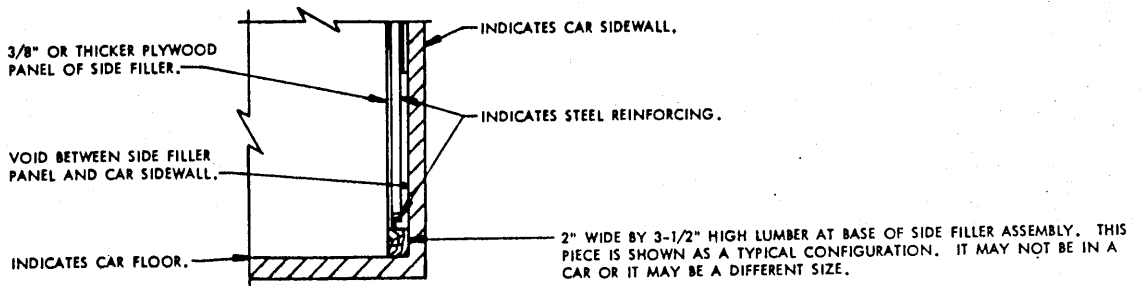
- (A) FILLER PIECE, 2" X 4" X 48" (4 REQD). POSITION SO AS TO BE CENTERED IN THE DOORWAY AREA AND NAIL TO THE BOTTOM SURFACE OF A STRUT W/4-10d NAILS.
- (B) SPACER PIECE, 2" X 4" X 72" (4 REQD). POSITION ON EDGE AND SO AS TO BE CENTERED IN THE DOORWAY AREA AND TOENAIL TO A STRUT W/3-12d NAILS ON EACH SIDE.
- (C) HOLD-DOWN PIECE, 2" X 6" BY CAR WIDTH (CUT TO FIT IF THE CAR HAS PLUG DOORS, OR 2" X 6" BY CAR WIDTH PLUS 4" IF THE CAR HAS CONVENTIONAL SLIDING DOORS) (2 REQD). NAIL TO EACH PIECE MARKED (B) W/2-12d NAILS AND TOENAIL TO THE STRUTS W/2-12d NAILS AT EACH JOINT.
- (D) BRACE PIECE, 4" X 4" X 18" (8 REQD). POSITION AGAINST A PIECE MARKED (C) AND TOENAIL TO A STRUT W/3-12d NAILS ON EACH SIDE.
- (E) DOOR SPANNER PIECE, 2" X 6" BY DOOR OPENING WIDTH PLUS 24" (2 REQD). NAIL TO A CAR DOOR POST/SIDE WALL OR TO A NAILING STRIP W/5-12d NAILS AT EACH END. NOTE: PRIOR TO NAILING THESE PIECES IN PLACE, THE STRUTS OF THE STRUT ASSEMBLY ARE TO BE PRESSED DOWNWARD UNTIL THE PIECES MARKED (A) ARE TOUCHING OR ARE ALMOST TOUCHING THE FLOOR OF THE CAR.
- (F) HOLD-DOWN CLEAT, 2" X 6" X 18" (4 REQD). NAIL TO A CAR DOOR POST/SIDE WALL OR TO A NAILING STRIP W/5-12d NAILS.

STRUT ASSEMBLY HOLD-DOWN



TYPICAL TYPE A

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



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.