

REVISION NO. 2 APPROVED BY
BUREAU OF EXPLOSIVES

J.H. Ashman

DATE 10/27/92

MLRS

LOADING AND BRACING WITH WOODEN DUNNAGE IN CLOSED OR OPEN TOP COMMERCIAL CONTAINERS OF ROCKET POD/CONTAINERS (RP/C) FOR MULTIPLE LAUNCH ROCKET SYSTEM, FOR SHIPMENT BY T/COFC CARRIER

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- LOADING AND BRACING SPECIFICATIONS SET FORTH WITHIN THIS DRAWING ARE APPLICABLE TO LOADS THAT ARE TO BE SHIPPED BY TRAILER/CONTAINER-ON-FLATCAR (T/COFC) RAIL CARRIER SERVICE. THESE SPECIFICATIONS MAY ALSO BE USED FOR LOADS THAT ARE TO BE MOVED BY MOTOR OR WATER CARRIERS. SEE GENERAL NOTE "M" ON PAGE 2.

U.S. ARMY MATERIEL COMMAND DRAWING

APPROVED, U.S. ARMY MISSILE COMMAND

Care w Honan

APPROVED BY ORDER OF COMMANDING GENERAL, U.S.
ARMY MATERIEL COMMAND

William J Ernst

U.S. ARMY DEFENSE AMMUNITION CENTER AND SCHOOL

REVISION NO. 2

MARCH 1993

SEE THE REVISION LISTING ON PAGE 2

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R. HAYNES

VALIDATION
ENGINEERING
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JHK

TECHNICIAN

R. HAYNES

TRANSPORTATION
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W. Truich

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WJ Ernst

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19

48

5968

GM15RS2

DO NOT SCALE

PROJECT GM 721-79

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 HEREIN ARE APPLICABLE TO THE MULTIPLE LAUNCH ROCKET SYSTEM (MLRS) COMPLETE ROUND, WHEN PACKED IN THE ROCKET POD/CONTAINER (RP/C). SUBSEQUENT REFERENCE TO POD HEREIN MEANS THE RP/C WITH ROCKET COMPONENTS.
- C. FOR DETAILS OF THE ROCKET POD/CONTAINER, SEE US ARMY MISSILE COMMAND DRAWING NO. 13027900 AND THE MLRS ROCKET POD/CONTAINER DETAIL ON PAGE 3.
- POD/CONTAINER DIMENSIONS - - 13'-10" LONG BY 41-1/2"
WIDE BY 33" HIGH.
GROSS WEIGHT - - - - - 5,078 POUNDS (APPROX).
- D. THIS ITEM IS A DOT CLASS "A" EXPLOSIVE AND A COAST GUARD CLASS X-C. THE OUTLOADING PROCEDURES SPECIFIED HEREIN CAN ALSO BE USED 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 DRAWING TITLE.
- E. THE LOADS AS SHOWN ARE BASED ON A 4,700 POUND, 20' LONG BY 8' WIDE BY 8'-6" HIGH CLOSED TOP INTERMODAL COMMERCIAL CONTAINER WITH INSIDE DIMENSIONS OF 19'-4" LONG BY 92" WIDE BY 95" HIGH OR A 4,600 POUND, 20' LONG BY 8' WIDE BY 8'-6" HIGH OPEN TOP INTERMODAL COMMERCIAL CONTAINER WITH INSIDE DIMENSIONS OF 18'-10" LONG BY 92" WIDE BY 91" HIGH. ALTHOUGH THE LOADS AS SHOWN ARE BASED ON AN 8'-6" HIGH CONTAINER AN 8'-0" HIGH CONTAINER IS PREFERRED FOR SHIPPING THE DEPICTED LOAD. WHEN AN 8'-0" HIGH CONTAINER IS USED, THE HEIGHT OF SOME DUNNAGE ASSEMBLIES WILL HAVE TO BE ADJUSTED BY REMOVING SOME MATERIAL FROM THE TOP OF SOME OF THE VERTICAL PIECES. THE LOADS ARE DESIGNED FOR TRAILER/CONTAINER ON FLATCAR (T/COFC) SHIPMENT, HOWEVER, THE LOADS AS DESIGNED CAN ALSO BE MOVED BY OTHER SURFACE MODES OF TRANSPORT (MOTOR AND WATER). NOTICE: OTHER CONTAINERS OF THE SAME DESIGN CONFIGURATION CAN BE USED.
- F. WHEN LOADING THE PODS, THEY ARE TO BE POSITIONED SO AS TO ACHIEVE A TIGHT LOAD (TIGHT AGAINST THE FORWARD AND SIDE DUNNAGE ASSEMBLIES). ALTHOUGH A TOTAL OF 1-1/2" OF UNBLOCKED SPACE ACROSS THE WIDTH OF A LOAD BAY IS PERMITTED, LATERAL VOIDS WITHIN THE LOAD ARE TO BE HELD TO A MINIMUM. EXCESSIVE SLACK CAN BE ELIMINATED FROM A LOAD BY LAMINATING ADDITIONAL BEARING PIECES OF APPROPRIATE THICKNESS TO THE SIDE FILL ASSEMBLIES ON ONE OR BOTH SIDES OF THE CONTAINER. NAIL EACH ADDITIONAL PIECE TO THE BEARING PIECES W/1 APPROPRIATELY SIZED NAIL EVERY 12". ADDITIONALLY, THE NUMBER AND THICKNESS OF THE BEARING PIECES AND VERTICAL PIECES MAY BE ADJUSTED AS REQUIRED TO FACILITATE VARIANCE IN THE WIDTH OF THE INTERMODAL COMMERCIAL CONTAINER.
- G. DUNNAGE LUMBER SPECIFIED IS OF NOMINAL SIZE, FOR EXAMPLE, 1" X 6" MATERIAL IS ACTUALLY 3/4" THICK BY 5-1/2" WIDE AND 2" X 6" MATERIAL IS ACTUALLY 1-1/2" THICK BY 5-1/2" WIDE.
- H. A STAGGERED NAILING PATTERN WILL BE USED WHENEVER POSSIBLE WHEN NAILS ARE DRIVEN INTO JOINTS OF DUNNAGE ASSEMBLIES OR WHEN LAMINATING DUNNAGE. ADDITIONALLY, THE NAILING PATTERN FOR AN UPPER PIECE OF LAMINATED DUNNAGE WILL BE ADJUSTED AS REQUIRED SO THAT A NAIL FOR THAT PIECE WILL NOT BE DRIVEN THROUGH ONTO OR RIGHT BESIDE A NAIL IN A LOWER PIECE.
- J. IN SOME CONTAINERS, SUCH AS ALL STEEL CONTAINERS, THERE IS A SLOT AT THE CORNERS OF THE FORWARD WALL. A PIECE OF DUNNAGE MATERIAL MUST BE LAMINATED TO THE BUFFER PIECES ON THE FORWARD STRUT ASSEMBLIES TO PROVIDE A FLAT SURFACE FOR THE 2" X 6" BUFFER PIECES. A PIECE OF 2" X 4", 2" X 3", OR A SPECIAL WIDTH PIECE CUT TO FIT CAN BE USED. THIS FILL PIECE WILL BE NAILED WITH ONE APPROPRIATELY SIZED NAIL EVERY 12". THIS PIECE IS NOT REQUIRED WHEN THE FRONT WALL OF THE CONTAINER IS SMOOTH AND FLAT.
- K. CAUTION: DO NOT NAIL DUNNAGE MATERIALS TO THE CONTAINER WALLS OR FLOOR. ALL NAILING WILL BE WITHIN THE DUNNAGE.
- L. PORTIONS OF THE CONTAINER DEPICTED WITHIN THIS DRAWING, SUCH AS ONE OF THE SIDE WALLS, HAVE NOT BEEN SHOWN IN THE LOAD VIEW FOR CLARITY PURPOSES.
- M. REQUIREMENTS CITED WITHIN THE BUREAU OF EXPLOSIVES PAMPHLET 6C APPLY WHEN THE SHIPMENT MOVES BY TRAILER/CONTAINER ON FLATCAR (T/COFC). SPECIAL T/COFC NOTES FOLLOW:
1. A LOADED CONTAINER MUST BE ON A CHASSIS EQUIPPED WITH TWO BOGIE ASSEMBLIES WHEN BEING MOVED IN T/COFC SERVICE.
 2. THE LOAD LIMIT OF A T/COFC RAIL CAR MUST NOT BE EXCEEDED, NOR WILL A CAR BE LOADED SO THAT THE TRUCK UNDER ONE END OF THE CAR CARRIES MORE THAN ONE HALF OF THE LOAD LIMIT FOR THAT CAR.
- N. DURING INTRASTATE AND/OR INTERSTATE MOVES BY MOTOR CARRIER, A PROPER CHASSIS/MODIFIED FLATBED TRAILER MUST BE USED TO PRECLUDE VIOLATION OF ONE OR MORE "WEIGHT LAWS" APPLICABLE TO THE STATE OR STATES INVOLVED.
- O. DIMENSIONS GIVEN FOR DUNNAGE PIECES OR DUNNAGE ASSEMBLIES WILL BE FIELD CHECKED PRIOR TO THEIR ASSEMBLY AND INSTALLATION IN THE INTERMODAL FREIGHT CONTAINER. DUNNAGE ASSEMBLIES MUST BE CONSTRUCTED SO THAT A SNUG FIT WITH THE RP/C'S IS OBTAINED. ALSO, ADJUSTMENTS MAY BE REQUIRED AS TO THE LOCATION OF CERTAIN PIECES OF DUNNAGE IN AN ASSEMBLY IN ORDER FOR THE DUNNAGE ASSEMBLY TO CONTACT THE RP/C AT ITS STRONGPOINT (I.E., ITS FRAME MEMBERS).
- P. IF THE PODS BEING SHIPPED ARE EQUIPPED WITH FORKLIFT TUNNELS, THE TUNNELS MUST BE REMOVED AND SECURED ON TOP OF OR AT THE REAR OF THE LOAD PRIOR TO SHIPMENT. SECUREMENT CAN BE ACCOMPLISHED BY WIRE TIEING OR STRAPPING THE TUNNELS TO THE RP/C FRAMEWORK IN SUCH A MANNER AS TO PRECLUDE DAMAGE TO THE RP/C DURING SHIPMENT.
- Q. NOTICE: TO FACILITATE UNLOADING IN ACCORDANCE WITH THE METHOD DESCRIBED WITHIN THE NOTE 2.D ON PAGE 3, THE RP/C UNITS MUST BE LOADED INTO AN INTERMODAL FREIGHT CONTAINER WITH THE AFT END OF THE RP/C UNITS ADJACENT TO THE DOORS OF THE FREIGHT CONTAINER.
- R. CONVERSION TO METRIC EQUIVALENTS: DIMENSIONS WITHIN THIS DOCUMENT ARE EXPRESSED IN INCHES AND WEIGHTS ARE EXPRESSED IN POUNDS. WHEN NECESSARY, THE METRIC EQUIVALENTS MAY BE COMPUTED ON THE BASIS OF ONE INCH EQUALS 25.4MM AND ONE POUND EQUALS 0.454KG.
- S. POWER DRIVEN STAPLES MAY BE USED AS ALTERNATIVE FASTENERS FOR NAILS WHEN CONSTRUCTING DUNNAGE ASSEMBLIES WHICH ARE TO BE USED IN THE DELINEATED LOADS SHOWN THROUGHOUT THIS DRAWING. THE STAPLES TO BE USED MUST BE EQUAL IN LENGTH TO THE SPECIFIED NAIL SIZE AND MUST BE SUBSTITUTED ON A ONE STAPLE FOR ONE NAIL BASIS. STAPLES WHICH ARE 2-1/2" OR LESS IN LENGTH SHOULD BE IN ACCORDANCE WITH FEDERAL SPECIFICATION FF-N-105 AS NEARLY AS PRACTICABLE. STAPLES LONGER THAN 2-1/2" WILL BE A COMMERCIAL GRADE, OF A QUALITY EQUIVALENT TO THOSE MANUFACTURED BY SENCO PRODUCTS, INCORPORATED. NOTE: STAPLES WILL NOT BE SUBSTITUTED FOR NAILS IN ANY LOAD RESTRAINING FLOOR DUNNAGE APPLICATIONS.

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MATERIAL SPECIFICATIONS

- LUMBER - - - - - : TM 743-200-1 (DUNNAGE LUMBER) AND FED SPEC MM-L-751.
- NAILS - - - - - : FED SPEC FF-N-105; COMMON.
- WIRE, CARBON STEEL - : ASTM A853; ANNEALED AT FINISH, BLACK OXIDE FINISH, .0800" DIA, GRADE 1006 OR BETTER.
- STEEL, STRUCTURAL - : FED SPEC 00-S-741; SQUARE STRUCTURAL TUBING AND HOT ROLLED STRIP.
- STEEL, HIGH STRENGTH : PLATE, STEEL, HIGH STRENGTH, LOW ALLOY, HOT ROLLED, COR-TEN A, VARIOUS SIZES, PER ASTM A242, F50.

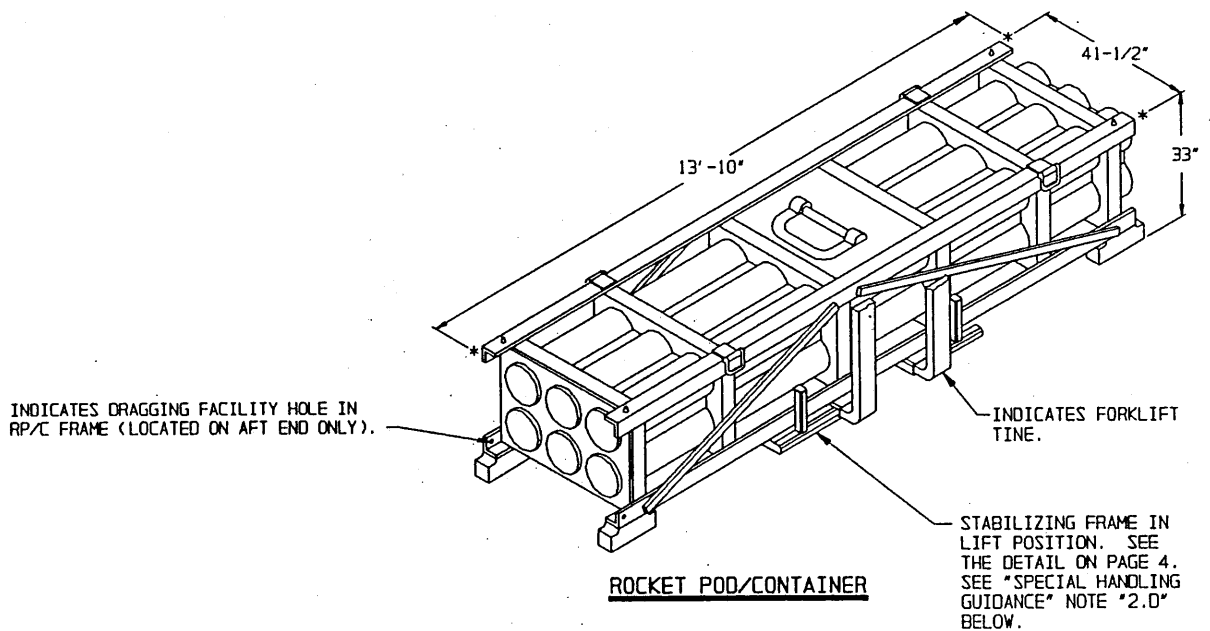
REVISIONS

REVISION NO. 1, DATED OCTOBER 1989, CONSISTS OF:

1. ADDING PROCEDURES FOR LOADING OPEN TOP INTERMODAL FREIGHT CONTAINERS.
2. ADDING UNLOADING PROCEDURES.

REVISION NO. 2, DATED MARCH 1993, CONSISTS OF:

1. ADDING MLRS POD STABILIZER DETAIL AND PROCEDURES.



SPECIAL HANDLING GUIDANCE

1. POD STACKING FOR OUTLOADING PURPOSES.

- A. THE UPPER POD SHOULD BE PLACED AS CLOSELY AS POSSIBLE IN VERTICAL ALIGNMENT WITH THE LOWER POD.
- B. WHEN STACKING THESE PODS, CARE MUST BE EXERCISED TO ENSURE THAT THE INTERLOCKING HOLES IN THE BOTTOM OF THE POD SKIDS ALIGN CORRECTLY WITH THE INTERLOCKING PINS ON THE TOP OF THE POD FRAME. THIS WILL PRECLUDE DAMAGE TO THE SKIDS AND ENSURE PROPER FUNCTIONING OF THE POD INTERLOCKS.

2. POD OR POD STACK HANDLING.

NOTES: (1) MATERIALS HANDLING EQUIPMENT (MHE) IS INTENDED TO MEAN EQUIPMENT SUCH AS FORKLIFT TRUCKS, CRANES, HAND TRUCKS, DOLLIES, ROLLER ASSEMBLIES, SLINGS, SPREADER BARS, AND STABILIZING FRAMES.

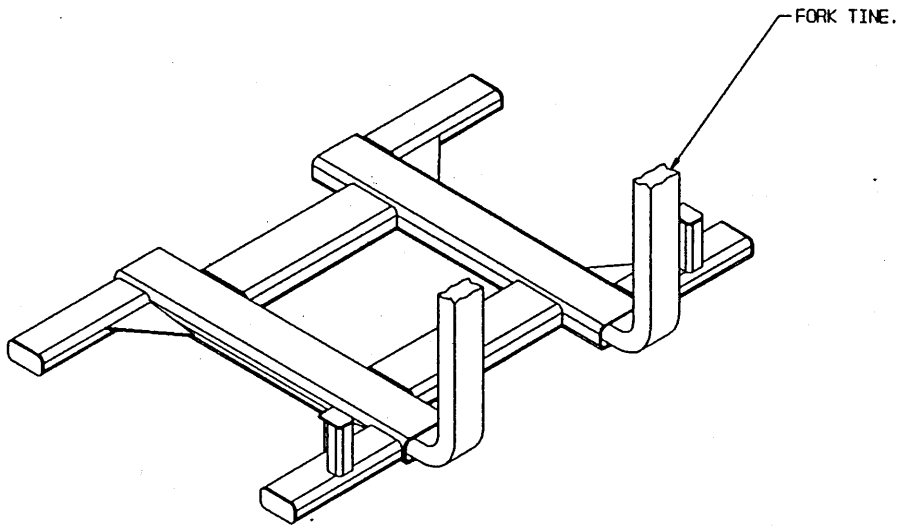
(2) PRECAUTIONARY HANDLING TECHNIQUES NORMALLY EMPLOYED OR AS SPECIFIED FOR THE TYPE OF COMMODITY INVOLVED WILL BE OBSERVED.

- A. ONLY APPROVED AND APPROPRIATELY SIZED MHE WILL BE USED FOR HANDLING THE DEPICTED PODS.
- B. IF HANDLING IS ACCOMPLISHED WITH A FORKLIFT TRUCK, THE TINES OF THE FORKLIFT ARE TO BE INSERTED INTO THE MLRS POD STABILIZING FRAME SHOWN IN THE DETAIL ON PAGE 4. THE FORKLIFT CARRIAGE IS TO BE CENTERED ON THE CENTER OF GRAVITY OF THE MLRS RP/C. NOTE: 1/4" SAFETY CHAINS ARE NOT SHOWN BUT WILL BE WELDED TO THE STABILIZING FRAME FOR SECUREMENT TO THE FORKLIFT CARRIAGE.

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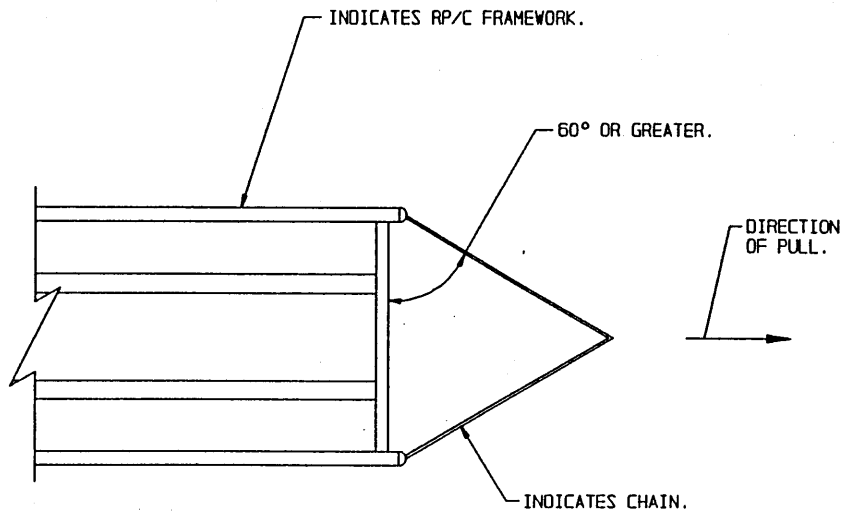
(SPECIAL HANDLING GUIDANCE CONTINUED)

- C. THE DUNNAGE ASSEMBLIES AT THE FRONT AND ALONG THE SIDE-WALLS OF THE INTERMODAL FREIGHT CONTAINER MUST BE PRE-POSITIONED PRIOR TO LOADING THE FIRST STACK OF PODS INTO IT. ONCE THE FIRST STACK OF PODS IS IN POSITION, THE SECOND STACK CAN BE LOADED INTO THE INTERMODAL FREIGHT CONTAINER SUBSEQUENT TO THE INSTALLATION OF THE CENTER FILL ASSEMBLY.
- D. WHEN REMOVING A POD OR POD STACK FROM AN INTERMODAL FREIGHT CONTAINER BY ATTACHING CHAINS TO THE FRAME AND DRAGGING THE POD OR POD STACK PARTIALLY OUT OF THE INTERMODAL FREIGHT CONTAINER, CARE MUST BE TAKEN TO ENSURE THAT THE PULL ANGLE OF EACH OF THE TWO CHAIN LEGS IS 60° OR GREATER. IF THE CHAIN IS ATTACHED SO THAT THE PULL ANGLE IS LESS THAN 60°, STRUCTURAL FAILURE OF THE RP/C FRAME COULD OCCUR. SEE THE "RP/C TOW ANGLE" DETAIL ON PAGE 4. CHAINS WILL BE ATTACHED ONLY TO THE BOTTOM-LAYER RP/C UNITS, AND SHACKLES WILL BE USED TO ATTACH THE DRAG CHAINS TO THE DRAGGING FACILITY HOLES. A FORKLIFT TRUCK IS TO BE USED FOR DRAGGING THE UNITS SO THAT THE TINES OF THE TRUCK CAN BE INSERTED A SHORT DISTANCE UNDER THE AFT END OF THE LOWER RP/C UNIT AND THE AFT END OF THE RP/C UNIT LIFTED ENOUGH TO JUST CLEAR THE CONTAINER FLOOR BEFORE ACTUAL DRAGGING IS BEGUN. CAUTION: FORKLIFT TRUCK TINES MUST NOT BEAR ON THE BOTTOM SURFACE OF A BULKHEAD BRACE ASSEMBLY OF THE LOWER RP/C UNIT DURING A DRAGGING OPERATION. SEE NOTE 3 ON PAGE 5 AND NOTE 2.E BELOW. NOTICE: WIRE ROPE CABLE CAN BE SUBSTITUTED FOR THE CHAIN SPECIFIED HEREIN.
- E. WHEN RP/C UNITS ARE HANDLED WITH A FORKLIFT TRUCK, A 1" X 4" MATERIAL BUFFER BOARD MUST BE PLACED ACROSS THE FORKLIFT TRUCK TINES SUCH THAT THE TINES DO NOT CONTACT THE BOTTOM SURFACE OF THE FRAME MEMBERS.
- F. RP/C UNITS WILL BE PUSHED INTO THE INTERMODAL FREIGHT CONTAINER USING A PUSHER ASSEMBLY OR A 4" X 4" BUFFER BOARD WILL BE POSITIONED BETWEEN THE HEELS OF THE FORKLIFT TRUCK TINES AND THE RP/C FRAME. THE PUSHER ASSEMBLY DEPICTED ON PAGE 26 MAY ALSO BE USED IN PLACE OF A 4" X 4" BUFFER BOARD TO PUSH THE RP/C UNITS INTO THE INTERMODAL FREIGHT CONTAINER.



MLRS POD STABILIZING FRAME

REFER TO U.S. ARMY ARMAMENT MUNITIONS AND CHEMICAL
 COMMAND, DEFENSE AMMUNITION CENTER AND SCHOOL DRAWING
 NUMBER AC200000809 TO MANUFACTURE. THE DRAWING CAN
 BE OBTAINED FROM THE FOLLOWING ADDRESS: U.S. ARMY
 DEFENSE AMMUNITION CENTER AND SCHOOL, ATTN: SMCAC-DES,
 SAVANNA, IL 61074-9639, DSN 585-8928, COMM (815) 273-8928.



RP/C TOW ANGLE
 (PARTIAL PLAN VIEW)

DETAILS

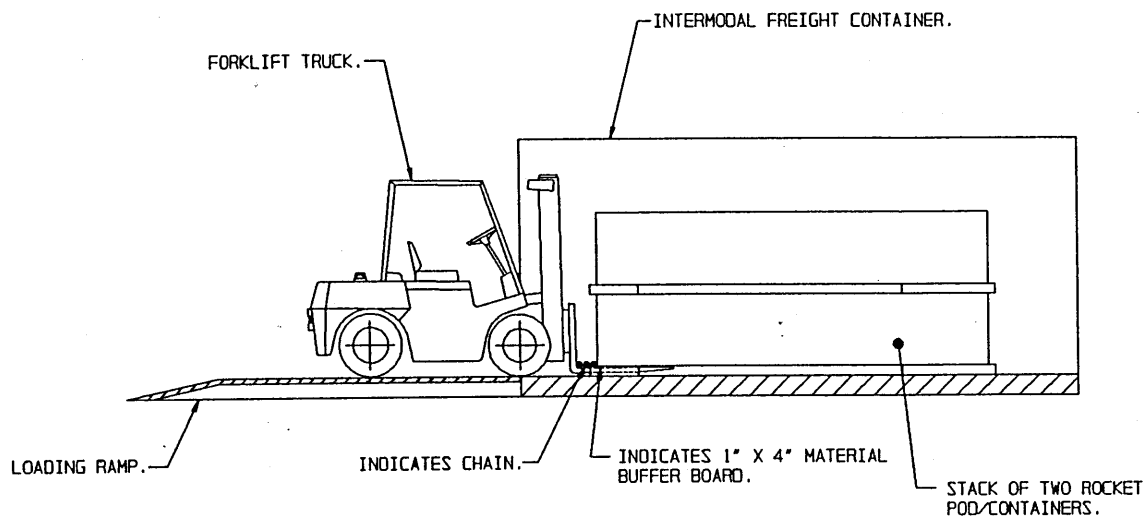


FIGURE 1

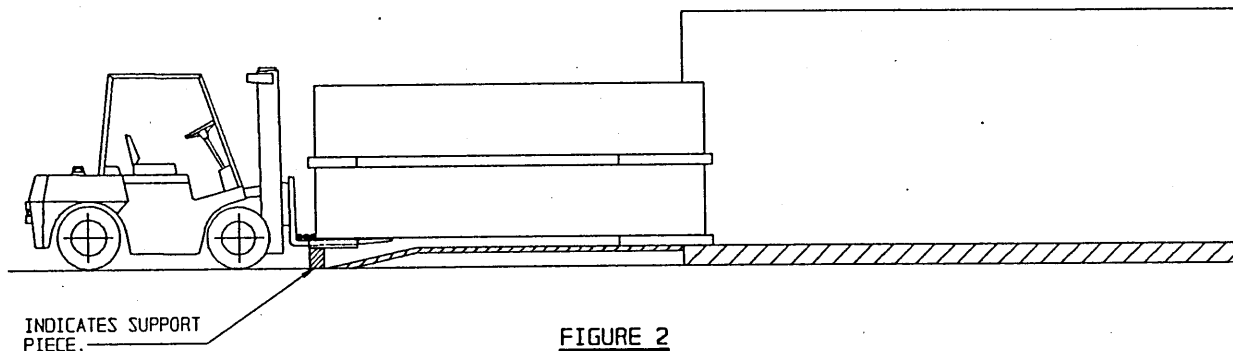
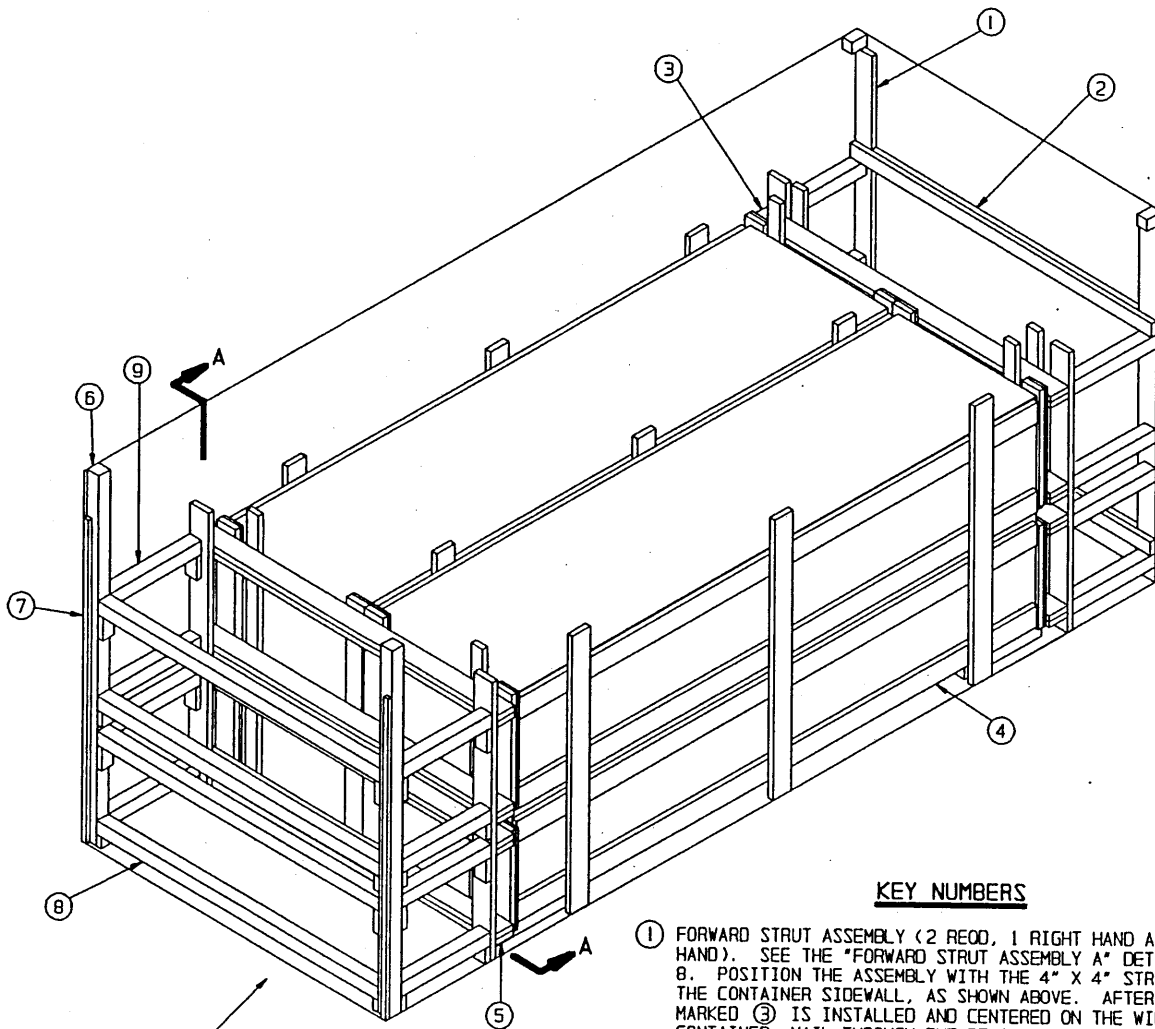


FIGURE 2

INTERMODAL FREIGHT CONTAINER UNLOADING PROCEDURES

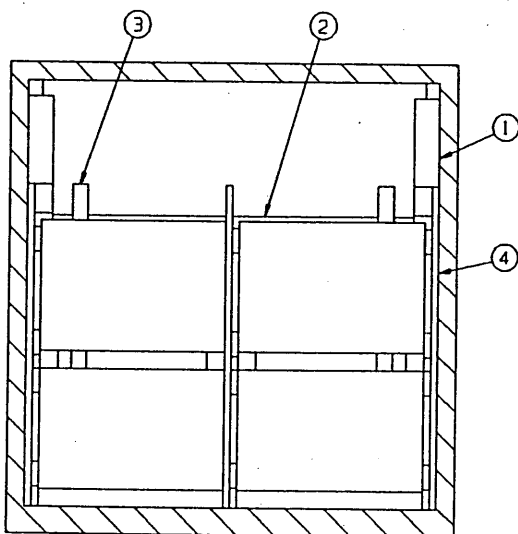
(CONTINUED FROM LEFT)

1. REMOVE ALL REAR BLOCKING FROM THE INTERMODAL FREIGHT CONTAINER.
 2. ATTACH CHAIN FROM DRAGGING FACILITY HOLES ON BOTTOM RP/C TO THE FORKLIFT TRUCK AS SHOWN IN FIGURE 1 ABOVE (SEE NOTE 2.D ON PAGE 3).
 3. INSERT THE FORKLIFT TINES WITH A 1" X 4" MATERIAL BUFFER BOARD PLACED ACROSS THE FORK TINES (TO INSURE THAT THE TINES DO NOT CONTACT THE BOTTOM OF THE LONGITUDINAL FRAME MEMBERS) UNDER THE AFT END OF THE BOTTOM RP/C.
 4. LIFT THE AFT END OF THE RP/C STACK ENOUGH TO JUST CLEAR THE CONTAINER FLOOR BEFORE ACTUAL DRAGGING IS BEGUN.
 5. SLOWLY PULL THE RP/C STACK FROM THE CONTAINER UNTIL THE TWO SKIDS ON THE OPPOSITE (FORE) END ARE ALMOST OUTSIDE OF THE INTERMODAL FREIGHT CONTAINER.
 6. THE RP/C STACK SHOULD THEN BE LOWERED ONTO A SHORT LENGTH OF DUNNAGE SO THAT THE AFT-END SKIDS ARE SUPPORTED BY THE DUNNAGE PIECE AND THE RP/C STACK IS APPROXIMATELY LEVEL. THE RP/C STACK MAY NOW BE HANDLED BY SLINGING, FORKLIFT TRUCK, OR ANY OTHER MEANS; PROVIDING THEY ARE HANDLED IN ACCORDANCE WITH APPROVED PROCEDURES.
 7. REPEAT THE ABOVE PROCEDURES FOR THE REMAINING RP/C STACK.
- (CONTINUED AT RIGHT)
8. IF THE PODS ARE INADVERTENTLY POSITIONED INTO THE INTERMODAL FREIGHT CONTAINER AFT END TOWARD THE FORWARD END OF THE CONTAINER (I.E. THE PODS ARE LOADED WITH THE DRAGGING FACILITY HOLES OPPOSITE THE DOOR END OF THE CONTAINER), THE FOLLOWING GUIDANCE APPLIES DURING UNLOADING.
 - A. TO PREVENT DAMAGING THE BOTTOM SURFACE OF THE POD FRAME, A WOODEN BUFFER PIECE MUST BE PLACED ACROSS THE FORKLIFT TINES SO THAT THE TINES DO NOT CONTACT THE BOTTOM SURFACE OF THE POD FRAME DURING ANY OF THE FOLLOWING OPERATIONS.
 - B. AFTER REMOVING THE END DUNNAGE, RAISE A STACK OF PODS APPROXIMATELY 3" WITH A FORKLIFT AND POSITION WOODEN PIECES UNDER THE END FRAME OF THE LOWER POD. LOWER THE STACK TO REST UPON THE WOOD SUPPORT PIECES AND TEMPORARILY REMOVE FORKLIFT.
 - C. REMOVE KEEPER PINS HOLDING LOWER SHOCK ISOLATOR SKIDS IN PLACE AND REMOVE BOTH SKIDS.
 - D. ATTACH AN APPROPRIATELY SIZED SHACKLE TO EACH SIDE OF THE POD FRAME THRU THE SKID PIN HOLE. THE SHACKLE MUST BE SIZED SO THAT THERE IS SUFFICIENT CLEARANCE BETWEEN ITS CURVED PORTION AND THE END OF THE POD FRAME SO THAT A CHAIN CAN BE ATTACHED TO THE SHACKLE WITHOUT DAMAGING THE POD FRAME.
 - E. REPOSITION THE FORKLIFT AND ATTACH THE CHAINS AS SPECIFIED IN NOTE 2 ON THIS PAGE.
 - F. REMOVE WOODEN SUPPORT PIECES AND REMOVE POD OR POD STACK FROM THE INTERMODAL FREIGHT CONTAINER. NOTE THAT THE SKIDS MUST BE REATTACHED TO THE RP/C FRAME PRIOR TO LOWERING PODS TO THE GROUND.
 - G. REMOVE THE SECOND POD OR POD STACK IN A LIKE MANNER.



REAR OF CONTAINER.

ISOMETRIC VIEW



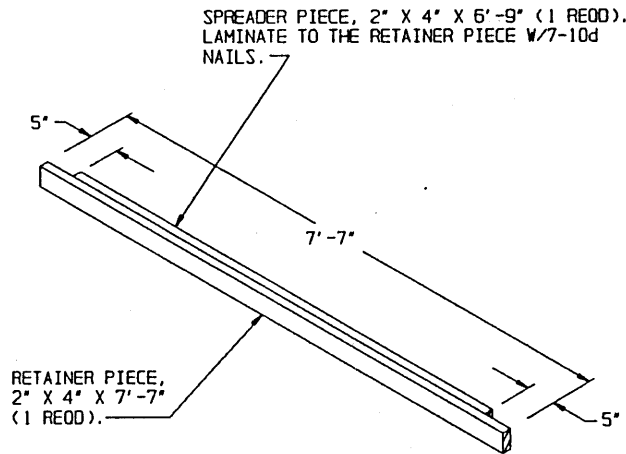
SECTION A-A

KEY NUMBERS

- ① FORWARD STRUT ASSEMBLY (2 REOD, 1 RIGHT HAND AND 1 LEFT HAND). SEE THE "FORWARD STRUT ASSEMBLY A" DETAIL ON PAGE 8. POSITION THE ASSEMBLY WITH THE 4" X 4" STRUTS AGAINST THE CONTAINER SIDEWALL, AS SHOWN ABOVE. AFTER PIECE MARKED ③ IS INSTALLED AND CENTERED ON THE WIDTH OF THE CONTAINER, NAIL THROUGH THE REAR BUFFER PIECE OF EACH FORWARD STRUT ASSEMBLY INTO EACH BEAM ASSEMBLY OF PIECE MARKED ③ W/2-12d NAILS AT EACH JOINT.
- ② SPREADER ASSEMBLY (2 REOD). SEE THE "SPREADER ASSEMBLY" DETAIL ON PAGE 7. POSITION AS SHOWN, IMMEDIATELY ABOVE THE TOP AND BOTTOM STRUTS AND NAIL TO THE FORWARD STRUT ASSEMBLY W/2-10d NAILS AT EACH JOINT.
- ③ FORWARD BLOCKING ASSEMBLY (1 REOD). SEE THE FORWARD/REAR BLOCKING ASSEMBLY A" DETAIL ON PAGE 8 AND GENERAL NOTE "H" ON PAGE 2.
- ④ SIDE/CENTER FILL (3 REOD). SEE THE "SIDE/CENTER FILL A" DETAIL ON PAGE 9, GENERAL NOTE "F" ON PAGE 2, AND SPECIAL NOTE 3 ON PAGE 7.
- ⑤ REAR BLOCKING ASSEMBLY (1 REOD). SEE THE "REAR BLOCKING ASSEMBLY A" DETAIL ON PAGE 9 AND GENERAL NOTE "H" ON PAGE 2.
- ⑥ DOOR POST VERTICAL (2 REOD). SEE THE "DOOR POST VERTICAL A" DETAIL AND "TYPICAL DETAIL A" ON PAGE 23.
- ⑦ DOOR POST VERTICAL RETAINER (2 REOD). SEE THE "DOOR POST VERTICAL RETAINER A" DETAIL ON PAGE 24. NAIL THROUGH THE HOLES INTO THE DOOR POST VERTICAL W/4-10d NAILS. NOTE: IF THE CONTAINER IS FURNISHED WITH PRE-WELDED LOAD RETAINERS, SEE SPECIAL NOTE 4 ON PAGE 7.
- ⑧ DOOR SPANNER, 4" X 4" MATERIAL, CUT TO A LENGTH THAT WILL PROVIDE FOR A DRIVE FIT (REF: 7'-1-3/8") (4 REOD). TOENAIL TO THE DOOR POST VERTICALS W/2-12d NAILS AT EACH END. SEE THE "BEVEL-CUT" DETAIL ON PAGE 23. AFTER INSTALLING THE BOTTOM AND THE TOP DOOR SPANNERS, THE STRUTS, PIECES MARKED ⑨, ARE TO BE INSTALLED.
- ⑨ STRUT, 4" X 4" BY CUT-TO-FIT (8 REOD). TOENAIL TO THE BUFFER PIECE OF THE REAR BLOCKING ASSEMBLY AND THE DOOR POST VERTICAL W/2-12d NAILS AT EACH END. SEE THE "BEVEL-CUT" DETAIL ON PAGE 23.

SPECIAL NOTES:

1. THE LOAD AS SHOWN ON PAGE 6 DELINEATES A FOUR-CONTAINER LOAD IN A CLOSED TOP COMMERCIAL INTERMODAL FREIGHT CONTAINER.
2. PRIOR TO LOADING THE ROCKET CONTAINERS INTO THE INTERMODAL FREIGHT CONTAINER, SEE THE "RP/C STACKING AND HANDLING PROCEDURAL GUIDANCE" ON PAGE 3 FOR HANDLING OF THE CONTAINER STACKS.
3. IF DESIRED, THE FORWARD END OF THE TWO SIDE FILL ASSEMBLIES CAN BE TOENAILED TO THE FORWARD BLOCKING ASSEMBLY TO HOLD THEM UPRIGHT AGAINST THE SIDEWALLS OF THE INTERMODAL FREIGHT CONTAINER DURING LOADING OPERATIONS. ALSO, IF DESIRED, THE CENTER FILL ASSEMBLY CAN BE WIRE TIED TO THE RP/C STACK THAT IS ALREADY LOADED TO HOLD IT UPRIGHT DURING LOADING OF THE SECOND STACK. NOTICE: THE CENTER FILL ASSEMBLY IS TO BE POSITIONED WITH THE VERTICAL PIECES OF THE ASSEMBLY AGAINST THE RP/C UNITS THAT ARE ALREADY LOADED IN THE INTERMODAL FREIGHT CONTAINER. THE LOAD VIEWS SHOW THE ASSEMBLY AS THOUGH THE LEFT SIDE STACK WAS LOADED INTO THE FREIGHT CONTAINER FIRST.
4. IF THE INTERMODAL CONTAINER BEING USED FOR SHIPMENT OF THE DEPICTED LOAD IS EQUIPPED WITH PRE-WELDED LOAD RETAINERS, REFER TO "TYPICAL DETAIL C" ON PAGE 26

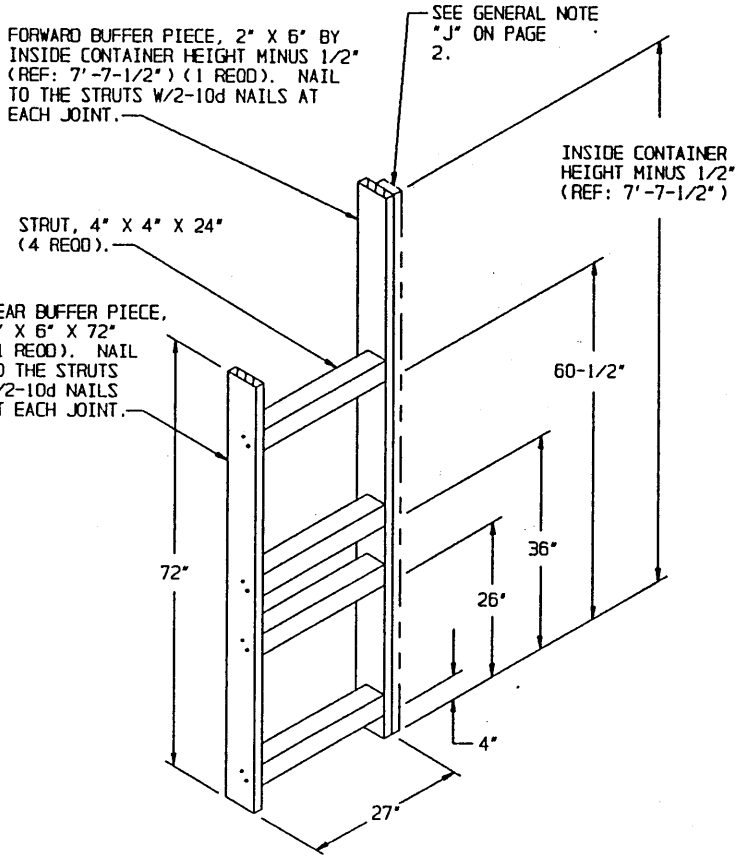


SPREADER ASSEMBLY

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 6"	38	19
2" X 4"	75	50
2" X 6"	409	409
4" X 4"	77	103
NAILS	NO. REOD	POUNDS
10d (3")	402	6-1/4
12d (3-1/4")	64	1-1/4
16d (3-1/2")	96	2-1/4
DOOR POST VERTICAL RETAINER - 2 REOD - - - - 64 LBS		

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
MLRS RP/C	4	20,312 LBS
DUNNAGE		1,172 LBS
CONTAINER		4,700 LBS
TOTAL WEIGHT		26,184 LBS (APPROX)



FORWARD STRUT ASSEMBLY A

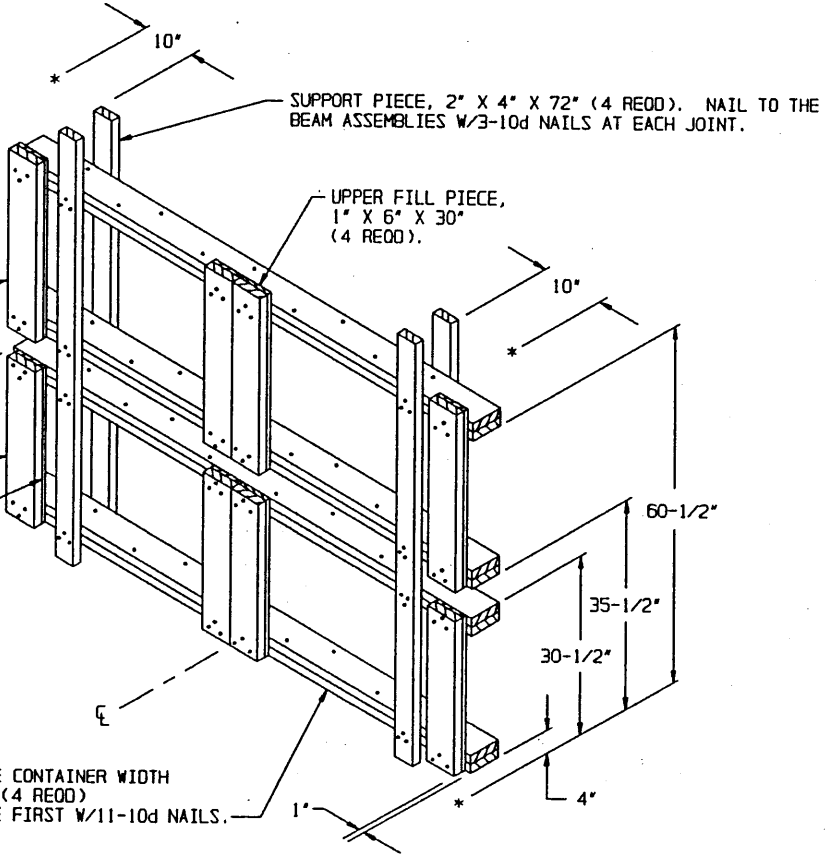
A "RIGHT HAND" FORWARD STRUT ASSEMBLY IS DEPICTED. A "LEFT HAND" ASSEMBLY IS ALSO REQUIRED AND WILL BE THE SAME AS THE ASSEMBLY DEPICTED ABOVE, EXCEPT THE 4" X 4" STRUTS ARE ALIGNED ON THE OPPOSITE SIDE OF THE BUFFER PIECES.

UPPER LOAD BEARING PIECE, 2" X 6" X 30" (4 REOD). NAIL THROUGH UPPER FILL PIECE INTO BEAM ASSEMBLIES W/3-16d NAILS AT EACH JOINT.

LOWER LOAD BEARING PIECE, 2" X 6" X 26-1/2" (4 REOD). NAIL THROUGH LOWER FILL PIECE INTO BEAM ASSEMBLIES W/3-16d NAILS AT EACH JOINT.

LOWER FILL PIECE, 1" X 6" X 26-1/2" (4 REOD).

BEAM ASSEMBLY, 2" X 6" BY INSIDE CONTAINER WIDTH MINUS 1" (REF: 7'-7") (DOUBLED) (4 REOD) LAMINATE THE SECOND PIECE TO THE FIRST W/11-10d NAILS.



FORWARD/REAR BLOCKING ASSEMBLY A

BUFFER PIECE, 2" X 6" X 72"
(2 REOD). NAIL TO THE
BEAM ASSEMBLIES W/3-10d
NAILS AT EACH JOINT.

SUPPORT PIECE, 2" X 4" X 72" (2 REOD). NAIL TO THE
BEAM ASSEMBLIES W/3-10d NAILS AT EACH JOINT.

STRUT LEDGER,
2" X 4" X 6"
(4 REOD). NAIL
TO THE BUFFER
PIECE W/2-10d
NAILS. SEE THE
SPECIAL NOTE
ON PAGE 23.

BEAM ASSEMBLY, 2" X 6" BY INSIDE CONTAINER WIDTH MINUS
1" (REF: 7'-7") (DOUBLED) (4 REOD). LAMINATE THE
SECOND PIECE TO THE FIRST W/11-10d NAILS.

UPPER LOAD BEARING PIECE, 2" X 6" X 30"
(4 REOD). NAIL THROUGH UPPER FILL PIECE
INTO BEAM ASSEMBLIES W/3-16d NAILS AT
EACH END.

60-1/2"

36"

27"

STRUT LEDGER, 2" X 4" X 4"
(4 REOD). NAIL TO THE
BUFFER PIECE W/2-10d
NAILS. SEE THE SPECIAL
NOTE ON PAGE 23.

LOWER FILL PIECE, 1" X 6"
X 26-1/2" (4 REOD).

UPPER FILL PIECE, 1" X
6" X 30" (4 REOD).

60-1/2"

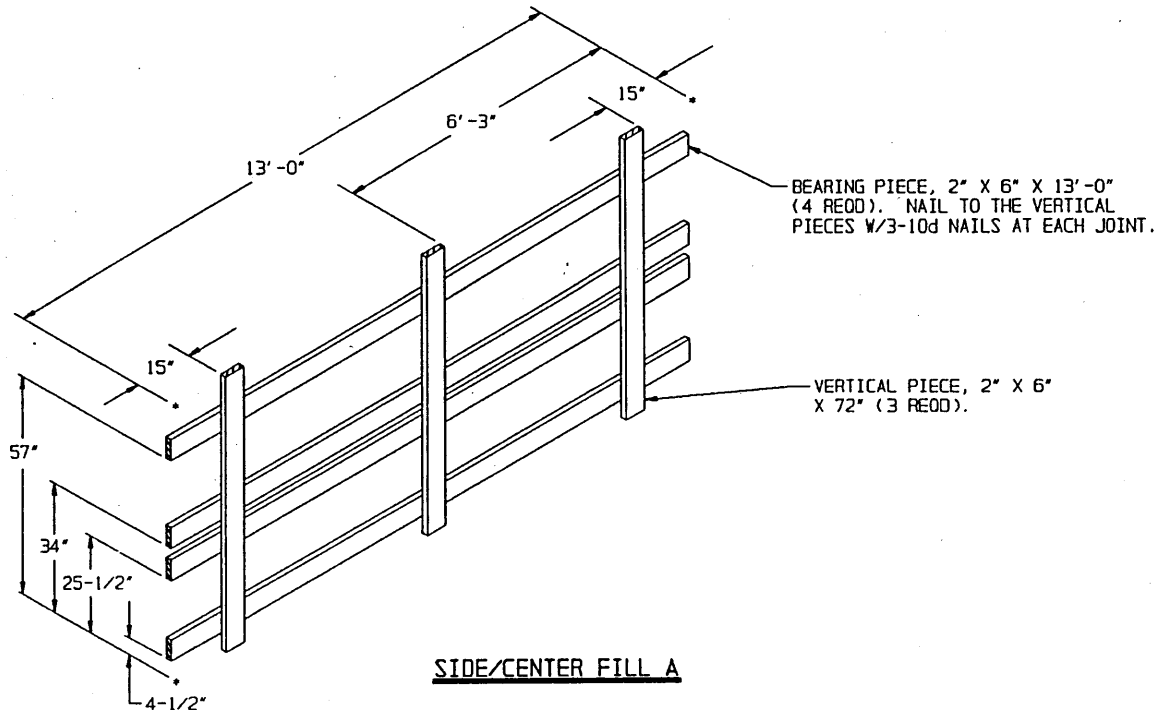
35-1/2"

30-1/2"

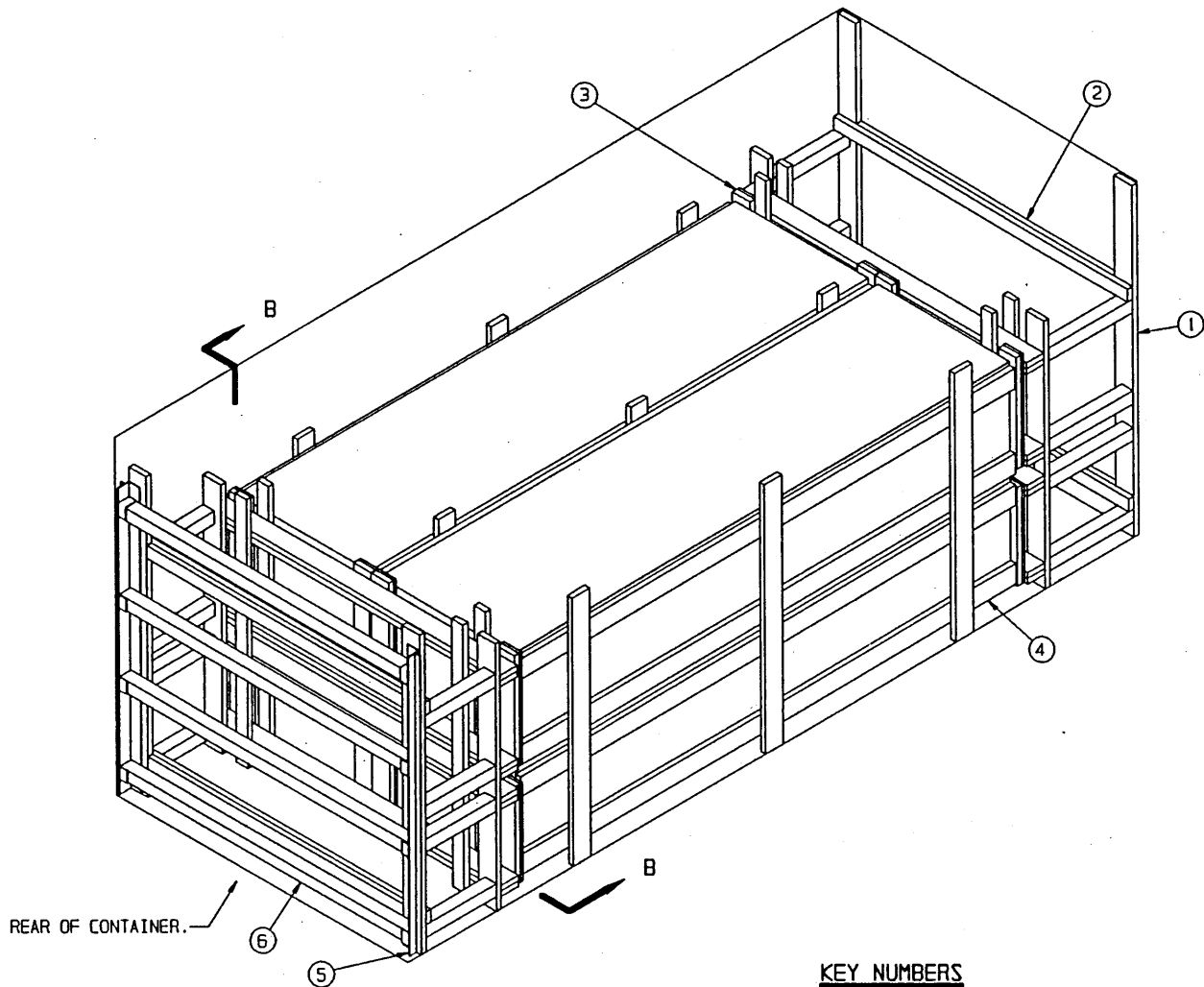
LOWER LOAD BEARING PIECE,
2" X 6" X 26-1/2" (4 REOD).
NAIL THROUGH LOWER FILL
PIECE INTO BEAM ASSEMBLIES
W/3-16d NAILS.

4"

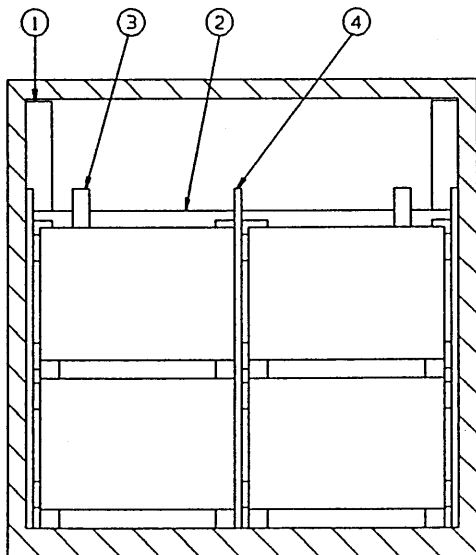
REAR BLOCKING ASSEMBLY A



SIDE/CENTER FILL A



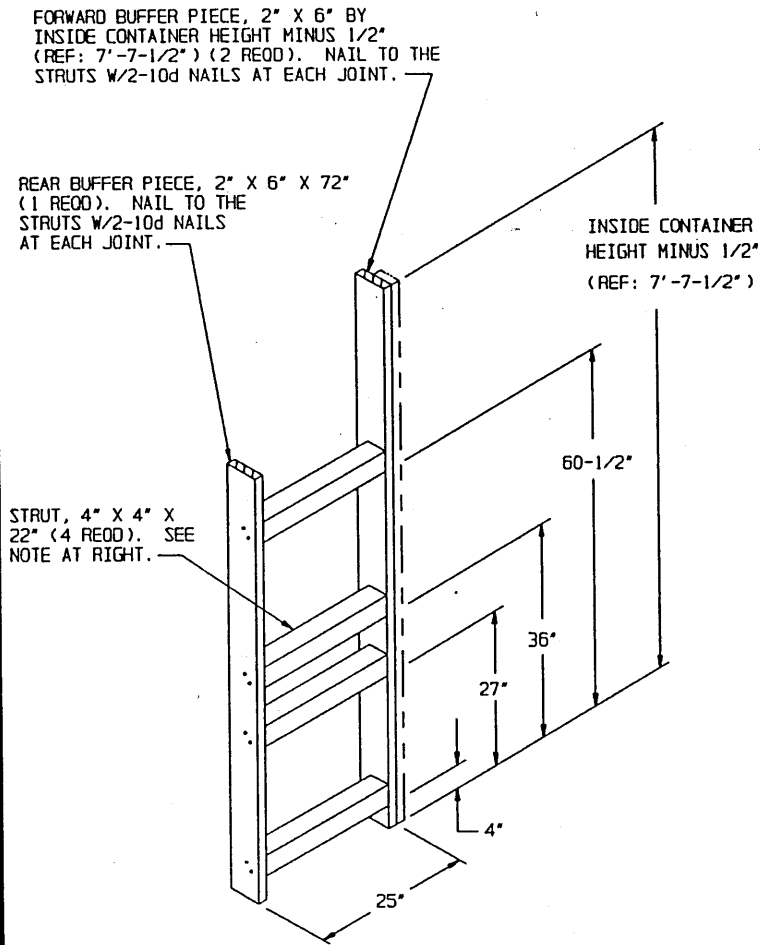
ISOMETRIC VIEW



SECTION B-B

KEY NUMBERS

- ① FORWARD/REAR STRUT ASSEMBLY (4 REOD, 2 LEFT HAND AND 2 RIGHT HAND). SEE THE "FORWARD/REAR STRUT ASSEMBLY A" DETAIL ON PAGE 11. POSITION THE ASSEMBLY WITH THE 4" X 4" STRUTS AGAINST THE CONTAINER SIDEWALL, AS SHOWN ABOVE, AFTER PIECE MARKED ③ IS INSTALLED AND CENTERED ON THE WIDTH OF THE CONTAINER. NAIL THROUGH THE REAR BUFFER PIECE OF EACH FORWARD STRUT ASSEMBLY INTO EACH BEAM ASSEMBLY OF PIECE MARKED ③ W/2-12d NAILS AT EACH JOINT.
- ② SPREADER ASSEMBLY (4 REOD). SEE THE "SPREADER ASSEMBLY" DETAIL ON PAGE 7. POSITION AS SHOWN, IMMEDIATELY ABOVE THE TOP AND BOTTOM STRUTS AND NAIL TO THE FORWARD/REAR STRUT ASSEMBLIES W/2-10d NAILS AT EACH JOINT.
- ③ FORWARD/REAR BLOCKING ASSEMBLY (2 REOD). SEE THE "FORWARD/REAR BLOCKING ASSEMBLY A" DETAIL ON PAGE 8 AND GENERAL NOTE "H" ON PAGE 2.
- ④ SIDE/CENTER FILL ASSEMBLY (3 REOD). SEE THE "SIDE/CENTER FILL ASSEMBLY A" DETAIL ON PAGE 9, GENERAL NOTE "F" ON PAGE 2, AND SPECIAL NOTE 3 ON PAGE 11.
- ⑤ DOOR POST VERTICAL RETAINER (2 REOD). SEE THE "DOOR POST VERTICAL RETAINER B" DETAIL ON PAGE 25. NOTE: IF THE CONTAINER IS FURNISHED WITH PRE-WELDED LOAD RETAINERS, SEE SPECIAL NOTE 5 ON PAGE 11.
- ⑥ DOOR SPANNER, 4" X 4" MATERIAL, CUT TO A LENGTH THAT WILL PROVIDE FOR A DRIVE FIT (REF: 7'-6") (4 REOD). SEE THE "BEVEL-CUT" DETAIL ON PAGE 23.



SPECIAL NOTES:

1. THE LOAD AS SHOWN ON PAGE 10 DELINEATES A FOUR-CONTAINER LOAD IN AN OPEN TOP COMMERCIAL INTERMODAL FREIGHT CONTAINER.
2. PRIOR TO LOADING THE ROCKET POD/CONTAINERS INTO THE INTERMODAL FREIGHT CONTAINER, SEE THE "RP/C STACKING AND HANDLING PROCEDURAL GUIDANCE" ON PAGE 3 FOR HANDLING OF THE CONTAINER STACKS.
3. IF DESIRED, THE FORWARD END OF THE TWO SIDE FILL ASSEMBLIES CAN BE TOENAILOED TO THE FORWARD BLOCKING ASSEMBLY TO HOLD THEM UPRIGHT AGAINST THE SIDE WALLS OF THE INTERMODAL FREIGHT CONTAINER DURING LOADING OPERATIONS. ALSO, IF DESIRED, THE CENTER FILL ASSEMBLY CAN BE WIRE TIED TO THE RP/C STACK THAT IS ALREADY LOADED TO HOLD IT UPRIGHT DURING LOADING OF THE SECOND STACK. NOTICE: THE CENTER FILL ASSEMBLY IS TO BE POSITIONED WITH THE VERTICAL PIECES OF THE ASSEMBLY AGAINST THE RP/C UNITS THAT ARE ALREADY LOADED IN THE INTERMODAL FREIGHT CONTAINER. THE LOAD VIEWS SHOW THE ASSEMBLY AS THOUGH THE LEFT STACK WAS LOADED INTO THE FREIGHT CONTAINER FIRST.
4. IF DESIRED, TWO DOOR SPANNER PIECES (ONE AT THE LOWEST POSITION AND ONE AT THE UPPERMOST POSITION) MAY BE INSTALLED PRIOR TO INSTALLING THE REAR STRUT ASSEMBLIES.
5. IF THE INTERMODAL CONTAINER BEING USED FOR SHIPMENT OF THE DEPICTED LOAD IS EQUIPPED WITH PRE-WELDED LOAD RETAINERS, REFER TO "TYPICAL DETAIL C" ON PAGE 26.

NOTE: THE EIGHT STRUTS AT THE FORWARD END WILL BE 22" LONG AND THE EIGHT STRUTS AT THE REAR OF THE LOAD WILL BE CUT-TO-FIT (APPROX 22").

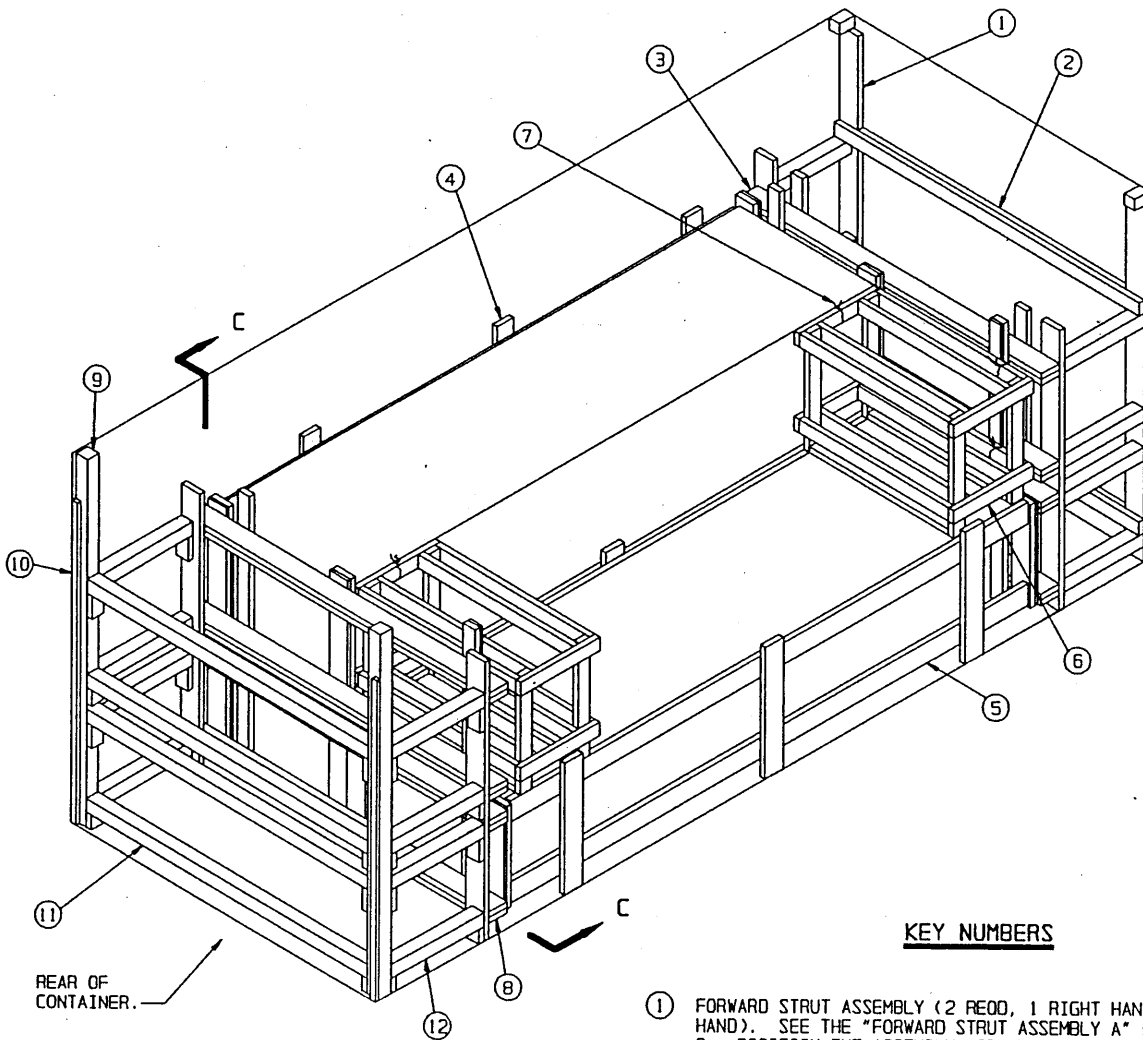
FORWARD/REAR STRUT ASSEMBLY A

A "RIGHT-HAND" FORWARD STRUT ASSEMBLY IS DEPICTED. A "LEFT-HAND" ASSEMBLY IS ALSO REQUIRED AND WILL BE THE SAME AS THE ASSEMBLY DEPICTED ABOVE, EXCEPT THE 4" X 4" STRUTS ARE ALIGNED ON THE OPPOSITE SIDE OF THE BUFFER PIECES.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 6"	38	19
2" X 4"	106	71
2" X 6"	419	419
4" X 4"	60	80
NAILS	NO. REOD	POUNDS
10d (3")	400	6-1/4
12d (3-1/4")	16	1/2
16d (3-1/2")	96	2-1/4
DOOR POST VERTICAL RETAINER - 2 REOD - - - -116 LBS		

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
MLRS RP/C	4	20,312 LBS
DUNNAGE		1,303 LBS
CONTAINER		4,600 LBS
TOTAL WEIGHT		26,215 LBS (APPROX)

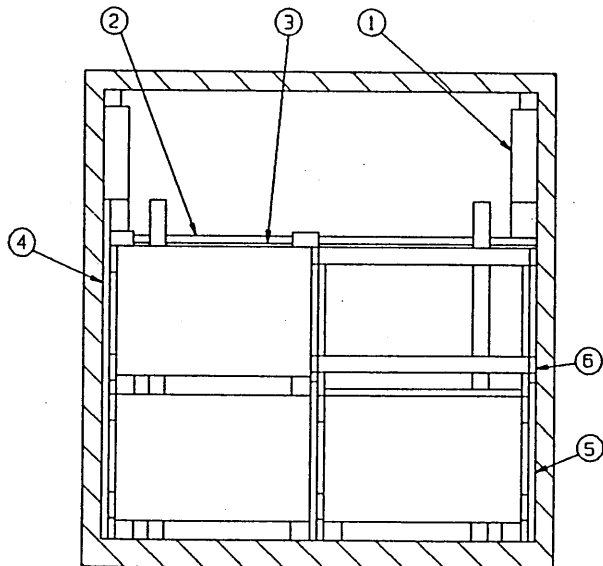


ISOMETRIC VIEW

KEY NUMBERS

- ① FORWARD STRUT ASSEMBLY (2 REOD, 1 RIGHT HAND AND 1 LEFT HAND). SEE THE "FORWARD STRUT ASSEMBLY A" DETAIL ON PAGE 8. POSITION THE ASSEMBLY WITH THE 4" X 4" STRUTS AGAINST THE CONTAINER SIDEWALL, AS SHOWN ABOVE. AFTER PIECE MARKED ③ IS INSTALLED AND CENTERED ON THE WIDTH OF THE CONTAINER, NAIL THROUGH THE REAR BUFFER PIECE OF EACH FORWARD STRUT ASSEMBLY INTO EACH BEAM ASSEMBLY OF PIECE MARKED ③ W/2-12d NAILS AT EACH JOINT.
- ② SPREADER ASSEMBLY (2 REOD). SEE THE "SPREADER ASSEMBLY" DETAIL ON PAGE 7. POSITION AS SHOWN, IMMEDIATELY ABOVE THE TOP AND BOTTOM STRUTS AND NAIL TO THE FORWARD STRUT ASSEMBLY W/2-10d NAILS AT EACH JOINT.
- ③ FORWARD BLOCKING ASSEMBLY (1 REOD). SEE THE "FORWARD/REAR BLOCKING ASSEMBLY B" DETAIL ON PAGE 14 AND GENERAL NOTE "H" ON PAGE 2.
- ④ SIDE/CENTER FILL (1 REOD). SEE THE "SIDE/CENTER FILL A" DETAIL ON PAGE 9, GENERAL NOTE "F" ON PAGE 2, AND SPECIAL NOTE 3 ON PAGE 13.
- ⑤ SIDE/CENTER FILL (2 REOD). SEE THE "SIDE/CENTER FILL B" DETAIL ON PAGE 15.
- ⑥ FILLER ASSEMBLY (2 REOD). SEE THE "FILLER ASSEMBLY A" DETAIL ON PAGE 14 AND GENERAL NOTE "H" ON PAGE 2.
- ⑦ TIE WIRE, NO. 14 GAGE WIRE 24" LONG (6 REOD). INSTALL THE WIRE TO FORM A COMPLETE LOOP AROUND THE BEARING PIECE OF THE FILLER ASSEMBLY, PIECE MARKED ⑥, AND THE FRAME OF THE RP/C AND THE STRUT OF THE FILLER ASSEMBLY AND THE SUPPORT PIECE OF THE FORWARD/REAR BLOCKING ASSEMBLIES, PIECES MARKED ③ AND ⑧, BRING ENDS TOGETHER AND TWIST TAUT.

(CONTINUED ON PAGE 13)



SECTION C-C

(KEY NUMBERS CONTINUED FROM PAGE 12)

- ⑧ REAR BLOCKING ASSEMBLY (1 REOD). SEE THE "REAR BLOCKING ASSEMBLY B" DETAIL ON PAGE 15 AND GENERAL NOTE "H" ON PAGE 2.
- ⑨ DOOR POST VERTICAL (2 REOD). SEE THE "DOOR POST VERTICAL A" DETAIL AND "TYPICAL DETAIL A" ON PAGE 23.
- ⑩ DOOR POST VERTICAL RETAINER (2 REOD). SEE THE "DOOR POST VERTICAL RETAINER A" DETAIL ON PAGE 24. NAIL THROUGH THE HOLES INTO THE DOOR POST VERTICAL W/4-10d NAILS. NOTE: IF THE CONTAINER IS FURNISHED WITH PRE-WELDED LOAD RETAINERS, SEE SPECIAL NOTE 5 AT RIGHT.
- ⑪ DOOR SPANNER, 4" X 4" MATERIAL, CUT TO A LENGTH THAT WILL PROVIDE FOR A DRIVE FIT (REF: 7'-1-3/8") (4 REOD). TOENAIL TO THE DOOR POST VERTICALS W/2-12d NAILS AT EACH END. SEE THE "BEVEL-CUT" DETAIL ON PAGE 23. AFTER INSTALLING THE BOTTOM AND THE TOP DOOR SPANNERS, THE STRUTS, PIECES MARKED ②, ARE TO BE INSTALLED.
- ⑫ STRUT, 4" X 4" BY CUT-TO-FIT (8 REOD). TOENAIL TO THE BUFFER PIECE OF THE REAR BLOCKING ASSEMBLY AND THE DOOR POST VERTICAL W/2-12d NAILS AT EACH END. SEE THE "BEVEL-CUT" DETAIL ON PAGE 23.

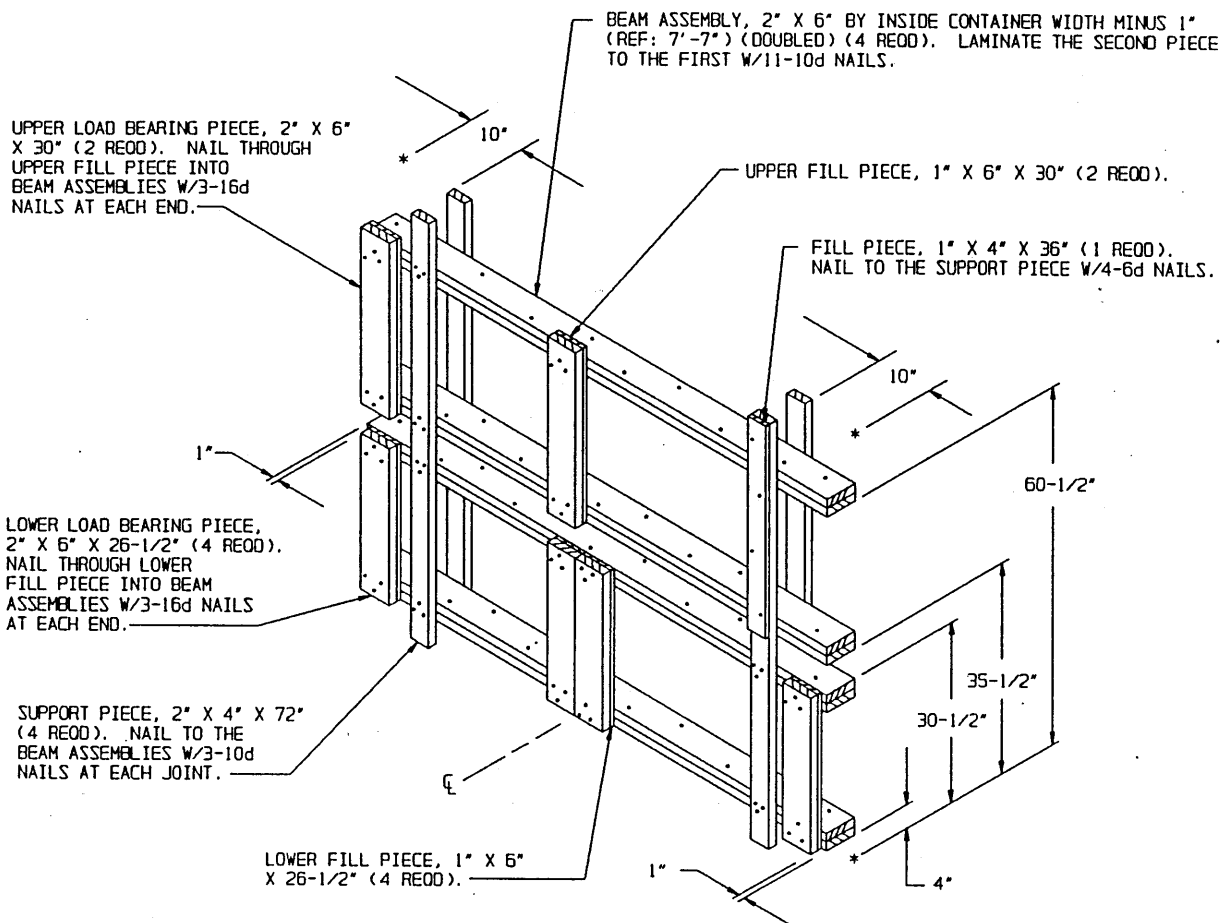
SPECIAL NOTES:

- 1. THE LOAD AS SHOWN ON PAGE 12 DELINEATES A THREE-CONTAINER LOAD IN A CLOSED TOP COMMERCIAL INTERMODAL FREIGHT CONTAINER.
- 2. PRIOR TO LOADING THE ROCKET CONTAINERS INTO THE INTERMODAL FREIGHT CONTAINER, SEE THE "RP/C STACKING AND HANDLING PROCEDURAL GUIDANCE" ON PAGE 3 FOR HANDLING OF THE CONTAINER OR CONTAINER STACKS.
- 3. IF DESIRED, THE FORWARD END OF THE TWO SIDE FILL ASSEMBLIES CAN BE TOENAILED TO THE FORWARD BLOCKING ASSEMBLY TO HOLD THEM UPRIGHT AGAINST THE SIDEWALLS OF THE INTERMODAL FREIGHT CONTAINER DURING LOADING OPERATIONS. ALSO, IF DESIRED, THE CENTER FILL ASSEMBLY CAN BE WIRE TIED TO THE RP/C STACK THAT IS ALREADY LOADED TO HOLD IT UPRIGHT DURING LOADING OF THE SECOND STACK. NOTICE: THE CENTER FILL ASSEMBLY IS TO BE POSITIONED WITH THE VERTICAL PIECES OF THE ASSEMBLY AGAINST THE RP/C UNITS THAT ARE ALREADY LOADED IN THE INTERMODAL FREIGHT CONTAINER. THE LOAD VIEWS SHOW THE ASSEMBLY AS THOUGH THE LEFT SIDE STACK WAS LOADED INTO THE FREIGHT CONTAINER FIRST.
- 4. THE LOADING PROCEDURE DELINEATED IN THE DETAIL ON PAGE 12 MAY BE MODIFIED FOR LOADING A THREE-CONTAINER LOAD IN AN OPEN TOP COMMERCIAL INTERMODAL FREIGHT CONTAINER. SUBSTITUTE FORWARD/REAR STRUT ASSEMBLIES A, AS DETAILED ON PAGE 11, FOR THE FORWARD STRUT ASSEMBLIES, PIECES MARKED ①, AND THE STRUTS, PIECES MARKED ②. SUBSTITUTE A FORWARD/REAR BLOCKING ASSEMBLY B, AS DETAILED ON PAGE 14, FOR THE REAR BLOCKING ASSEMBLY, PIECE MARKED ④. FINALLY, SUBSTITUTE A DOOR POST VERTICAL RETAINER "B", AS DETAILED ON PAGE 25 FOR THE DOOR POST VERTICAL, PIECE MARKED ⑨, AND THE DOOR POST VERTICAL RETAINER, PIECE MARKED ⑩. REFER TO THE LOADING PROCEDURE DELINEATED ON PAGE 10 FOR GUIDANCE IN POSITIONING THE SUBSTITUTED ASSEMBLIES.
- 5. IF THE INTERMODAL CONTAINER BEING USED FOR SHIPMENT OF THE DEPICTED LOAD IS EQUIPPED WITH PRE-WELDED LOAD RETAINERS, REFER TO "TYPICAL DETAIL C" ON PAGE 26.

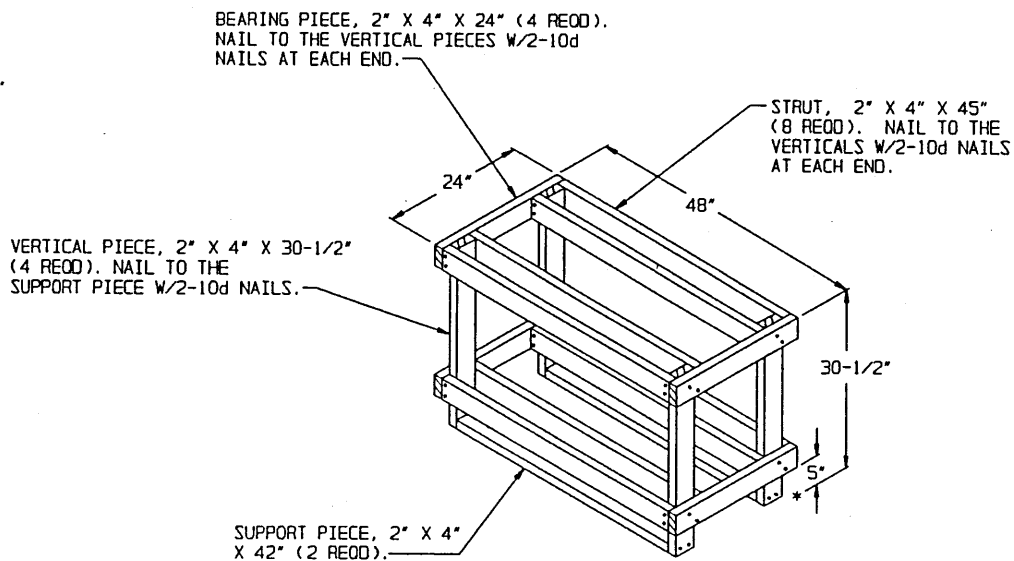
BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	6	2
1" X 6"	28	14
2" X 4"	185	124
2" X 6"	328	328
4" X 4"	77	103
NAILS	NO. REOD	POUNDS
6d (2")	8	1/4
10d (3")	478	7-1/2
12d (3-1/4")	64	1-1/4
16d (3-1/2")	72	1-3/4
WIRE, NO. 14 GAGE - - - - - 12' REOD - - - 1/4 LB		
DOOR POST VERTICAL RETAINER - 2 REOD - - - -116 LBS		

LOAD AS SHOWN

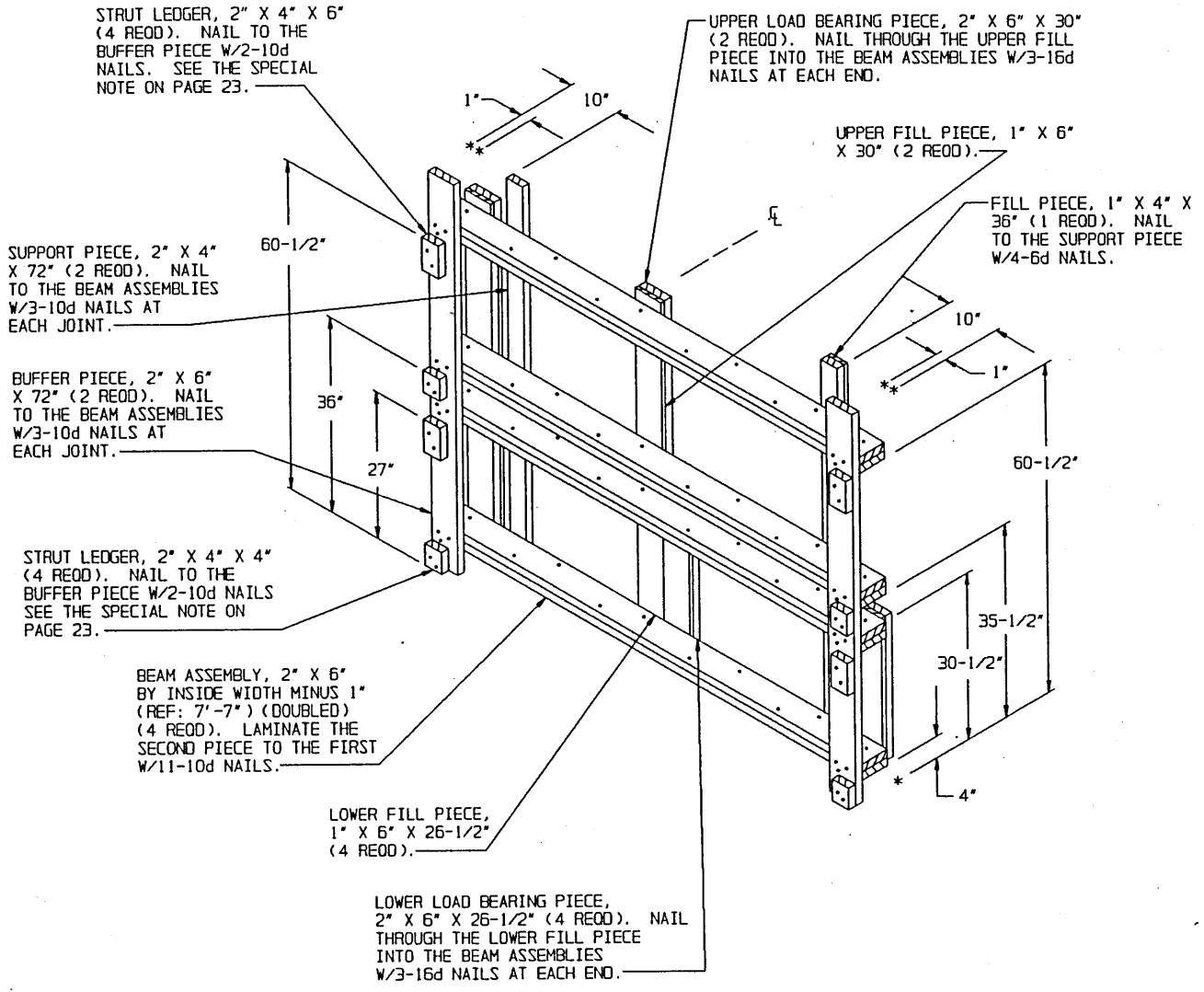
ITEM	QUANTITY	WEIGHT (APPROX)
MLRS RP/C	3	15,234 LBS
DUNNAGE		1,217 LBS
CONTAINER		4,700 LBS
TOTAL WEIGHT		21,241 LBS (APPROX)



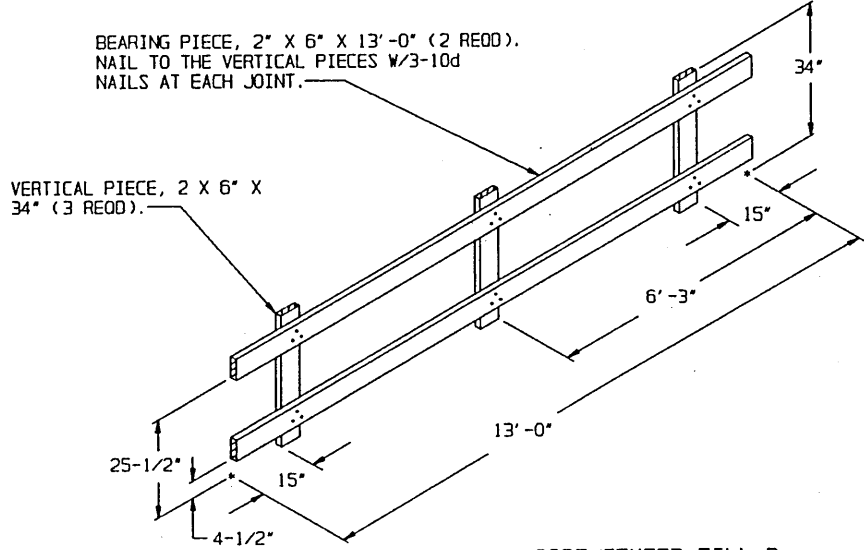
FORWARD/REAR BLOCKING ASSEMBLY B



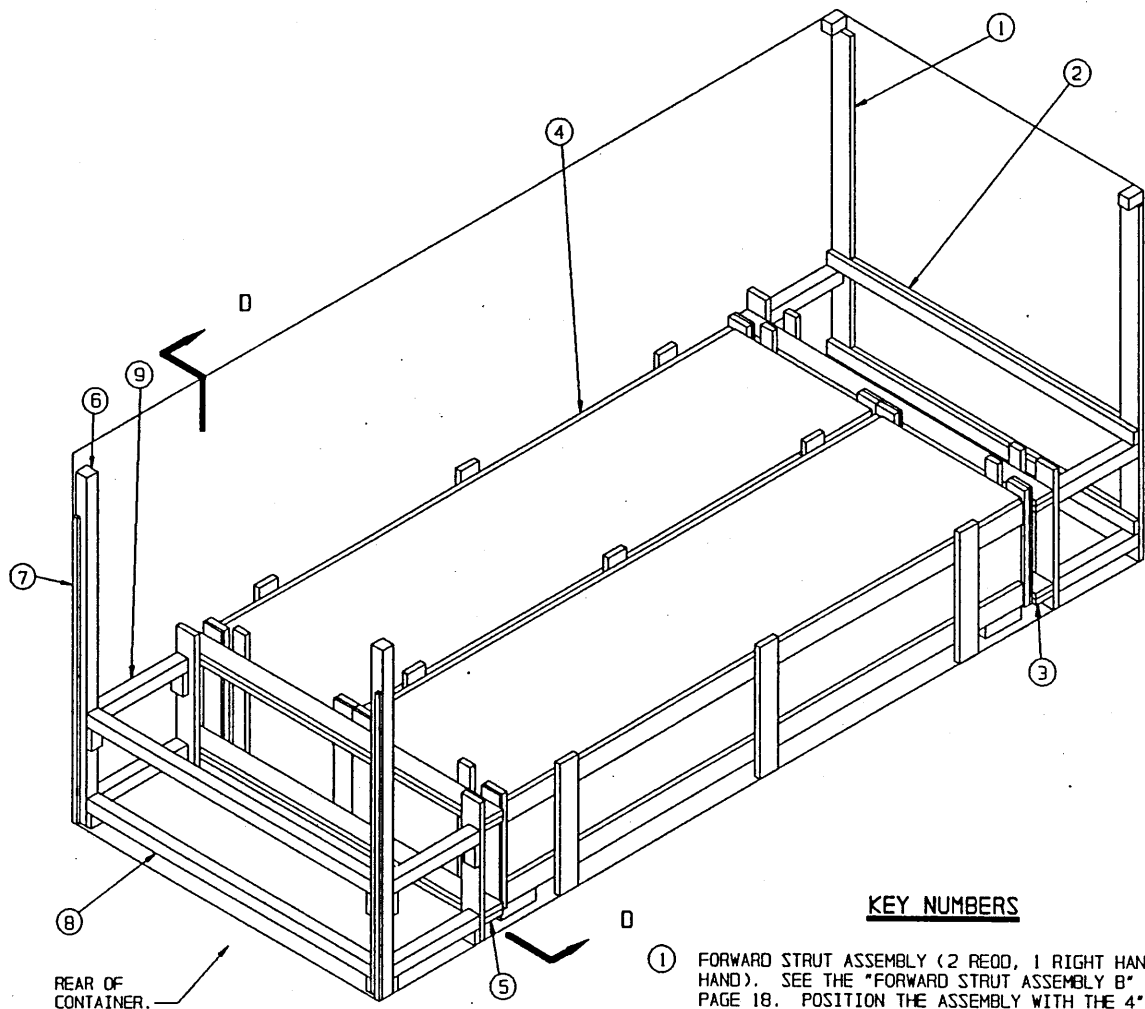
FILLER ASSEMBLY A



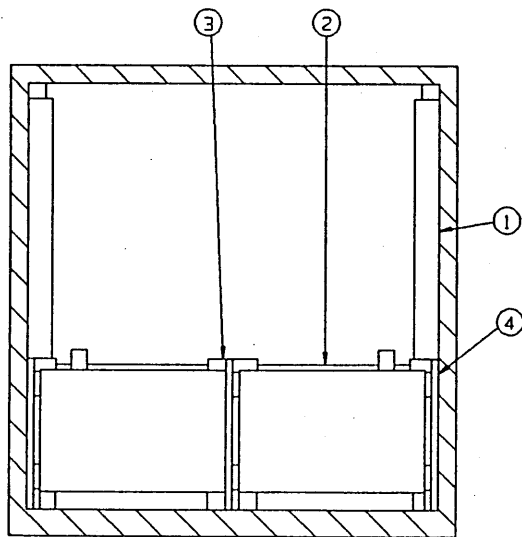
REAR BLOCKING ASSEMBLY B



SIDE/CENTER FILL B



ISOMETRIC VIEW



SECTION D-D

KEY NUMBERS

- ① FORWARD STRUT ASSEMBLY (2 REQD, 1 RIGHT HAND AND 1 LEFT HAND). SEE THE "FORWARD STRUT ASSEMBLY B" DETAIL ON PAGE 18. POSITION THE ASSEMBLY WITH THE 4" X 4" STRUTS AGAINST THE CONTAINER SIDEWALL, AS SHOWN ABOVE. AFTER PIECE MARKED ③ IS INSTALLED AND CENTERED ON THE WIDTH OF THE CONTAINER, NAIL THROUGH THE REAR BUFFER PIECE OF EACH FORWARD STRUT ASSEMBLY INTO EACH BEAM ASSEMBLY OF PIECE MARKED ③ W/2-12d NAILS AT EACH JOINT.
- ② SPREADER ASSEMBLY (2 REQD). SEE THE "SPREADER ASSEMBLY" DETAIL ON PAGE 7. POSITION AS SHOWN, IMMEDIATELY ABOVE THE TOP AND BOTTOM STRUTS AND NAIL TO THE FORWARD STRUT ASSEMBLY W/2-10d NAILS AT EACH JOINT.
- ③ FORWARD BLOCKING ASSEMBLY (1 REQD). SEE THE "FORWARD/REAR BLOCKING ASSEMBLY C" DETAIL ON PAGE 18 AND GENERAL NOTE "H" ON PAGE 2.
- ④ SIDE/CENTER FILL (3 REQD). SEE THE "SIDE/CENTER FILL B" DETAIL ON PAGE 15 AND SPECIAL NOTE 3 ON PAGE 17.
- ⑤ REAR BLOCKING ASSEMBLY (1 REQD). SEE THE "REAR BLOCKING ASSEMBLY C" DETAIL ON PAGE 19 AND GENERAL NOTE "H" ON PAGE 2.
- ⑥ DOOR POST VERTICAL (2 REQD). SEE THE "DOOR POST VERTICAL B" DETAIL AND "TYPICAL DETAIL A" ON PAGE 23.
- ⑦ DOOR POST VERTICAL RETAINER (2 REQD). SEE THE "DOOR POST VERTICAL RETAINER A" DETAIL ON PAGE 24. NOTE: IF THE CONTAINER IS FURNISHED WITH PRE-WELDED LOAD RETAINERS, SEE SPECIAL NOTE 5 ON PAGE 17.
- ⑧ DOOR SPANNER, 4" X 4" MATERIAL, CUT TO A LENGTH THAT WILL PROVIDE FOR A DRIVE FIT (REF: 7'-1-3/8") (2 REQD). TOENAIL TO THE DOOR POST VERTICALS W/2-12d NAILS AT EACH END. SEE THE "BEVEL-CUT" DETAIL ON PAGE 23. AFTER INSTALLING THE DOOR SPANNERS, THE STRUTS, PIECES MARKED ⑨, ARE TO BE INSTALLED.
- ⑨ STRUT, 4" X 4" BY CUT-TO-FIT (4 REQD). TOENAIL TO THE BUFFER PIECE OF THE REAR BLOCKING ASSEMBLY AND THE DOOR POST VERTICAL W/2-12d NAILS AT EACH END. SEE THE "BEVEL-CUT" DETAIL ON PAGE 23.

SPECIAL NOTES:

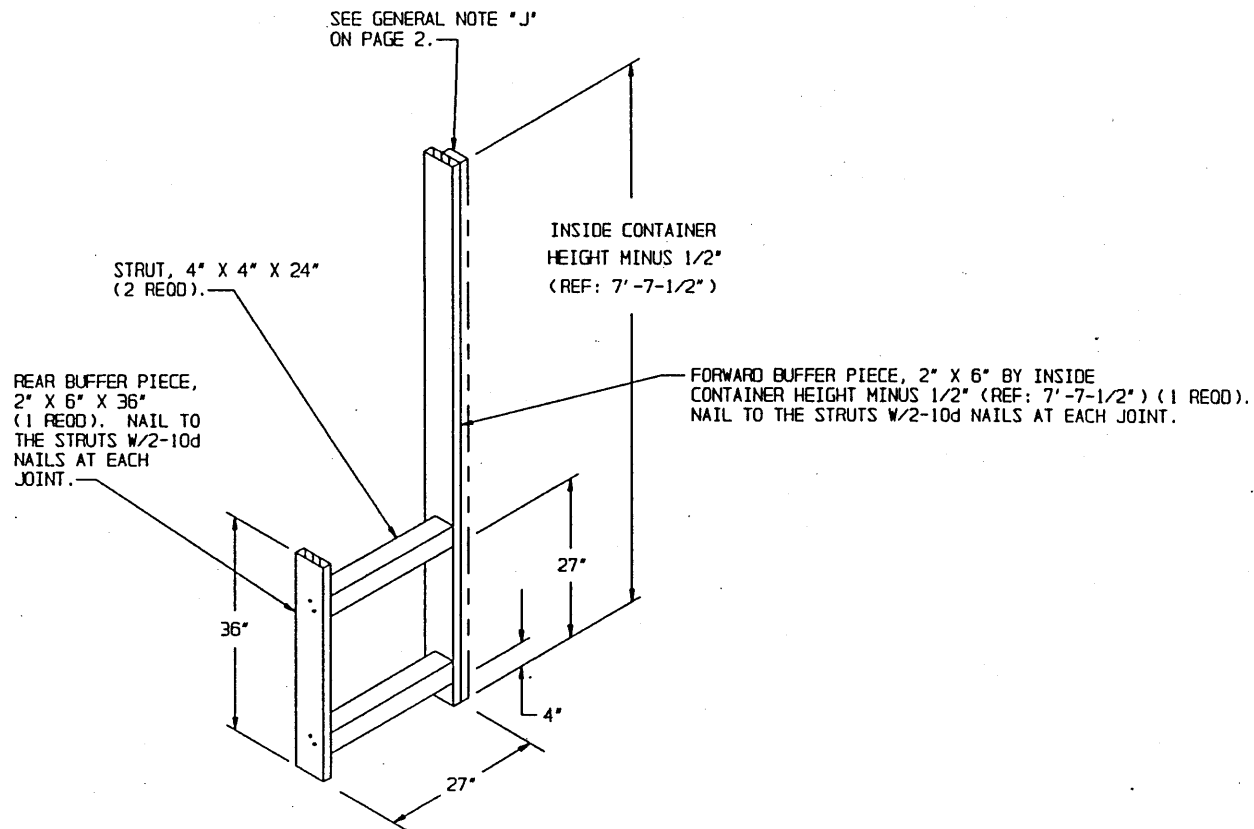
1. THE LOAD AS SHOWN ON PAGE 16 DELINEATES A TWO-CONTAINER LOAD IN A CLOSED TOP COMMERCIAL INTERMODAL FREIGHT CONTAINER.
2. PRIOR TO LOADING THE ROCKET CONTAINERS INTO THE INTERMODAL FREIGHT CONTAINER, SEE THE "RP/C STACKING AND HANDLING PROCEDURAL GUIDANCE" ON PAGE 3 FOR HANDLING OF THE CONTAINER.
3. IF DESIRED, THE FORWARD END OF THE TWO SIDE FILL ASSEMBLIES CAN BE TOENAILED TO THE FORWARD BLOCKING ASSEMBLY TO HOLD THEM UPRIGHT AGAINST THE SIDEWALLS OF THE INTERMODAL FREIGHT CONTAINER DURING LOADING OPERATIONS. ALSO, IF DESIRED, THE CENTER FILL ASSEMBLY CAN BE WIRE TIED TO THE RP/C STACK THAT IS ALREADY LOADED TO HOLD IT UPRIGHT DURING LOADING OF THE SECOND STACK. NOTICE: THE CENTER FILL ASSEMBLY IS TO BE POSITIONED WITH THE VERTICAL PIECES OF THE ASSEMBLY AGAINST THE RP/C UNITS THAT ARE ALREADY LOADED IN THE INTERMODAL FREIGHT CONTAINER. THE LOAD VIEWS SHOW THE ASSEMBLY AS THOUGH THE LEFT SIDE STACK WAS LOADED INTO THE FREIGHT CONTAINER FIRST.
4. THE LOADING PROCEDURE DELINEATED IN THE DETAIL ON PAGE 16 MAY BE MODIFIED FOR LOADING A TWO CONTAINER LOAD IN AN OPEN TOP COMMERCIAL INTERMODAL FREIGHT CONTAINER. SUBSTITUTE FORWARD/REAR STRUT ASSEMBLIES, PIECES MARKED ① AND THE STRUTS, PIECES MARKED ②. SUBSTITUTE A FORWARD/REAR BLOCKING ASSEMBLY C, AS DETAILED ON PAGE 18, FOR THE REAR BLOCKING ASSEMBLY, PIECE MARKED ⑤. FINALLY, SUBSTITUTE A DOOR POST VERTICAL RETAINER B, AS DETAILED ON PAGE 25, FOR THE DOOR POST VERTICAL, PIECE MARKED ⑥, AND THE DOOR POST VERTICAL RETAINER, PIECE MARKED ⑦. REFER TO THE LOADING PROCEDURE DELINEATED ON PAGE 10 FOR GUIDANCE IN POSITIONING THE SUBSTITUTED ASSEMBLIES.
5. IF THE INTERMODAL CONTAINER BEING USED FOR SHIPMENT OF THE DEPICTED LOAD IS EQUIPPED WITH PRE-WELDED LOAD RETAINERS, REFER TO "TYPICAL DETAIL C" ON PAGE 26.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 6"	20	10
2" X 4"	64	43
2" X 6"	212	212
4" X 4"	47	63
NAILS	NO. REQD	POUNDS
10d (3")	216	3-1/2
12d (3-1/4")	32	3/4
16d (3-1/2")	48	1-1/4
DOOR POST VERTICAL RETAINER - 2 REQD - - - - 64 LBS		

LOAD AS SHOWN

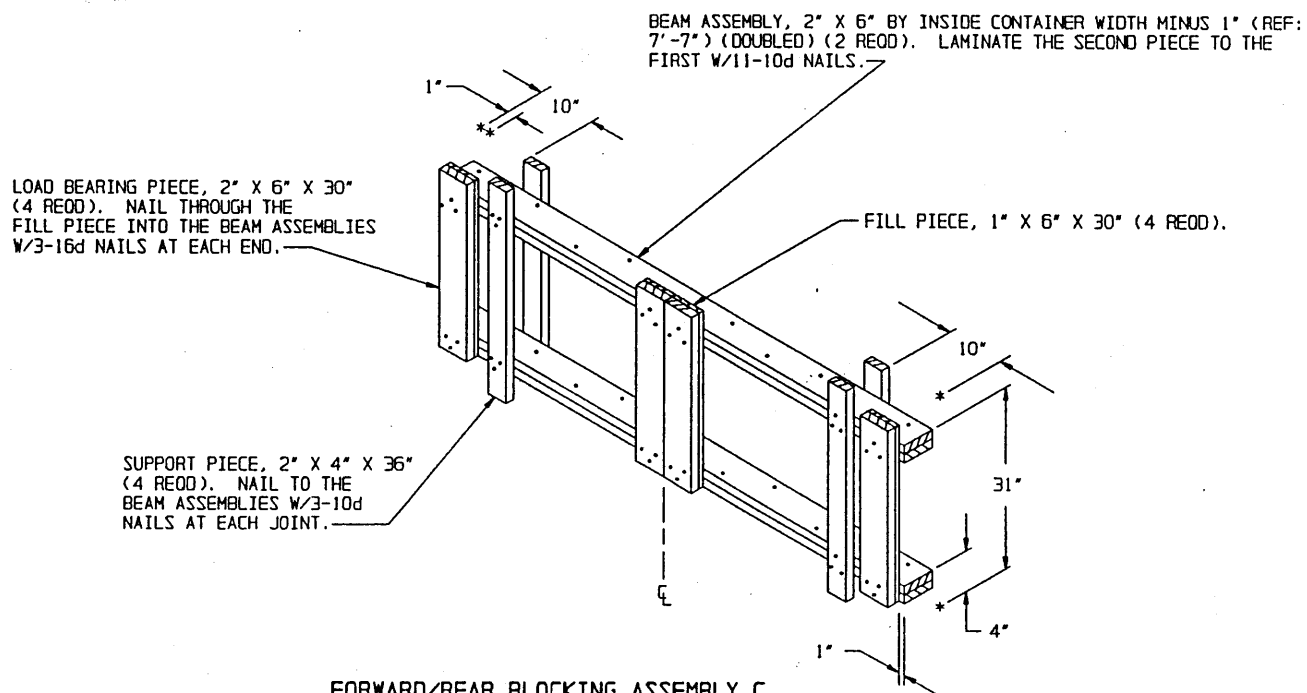
ITEM	QUANTITY	WEIGHT (APPROX)
MLRS RP/C	2	10,156 LBS
DUNNAGE		726 LBS
CONTAINER		4,700 LBS

TOTAL WEIGHT - - - - - 15,582 LBS (APPROX)

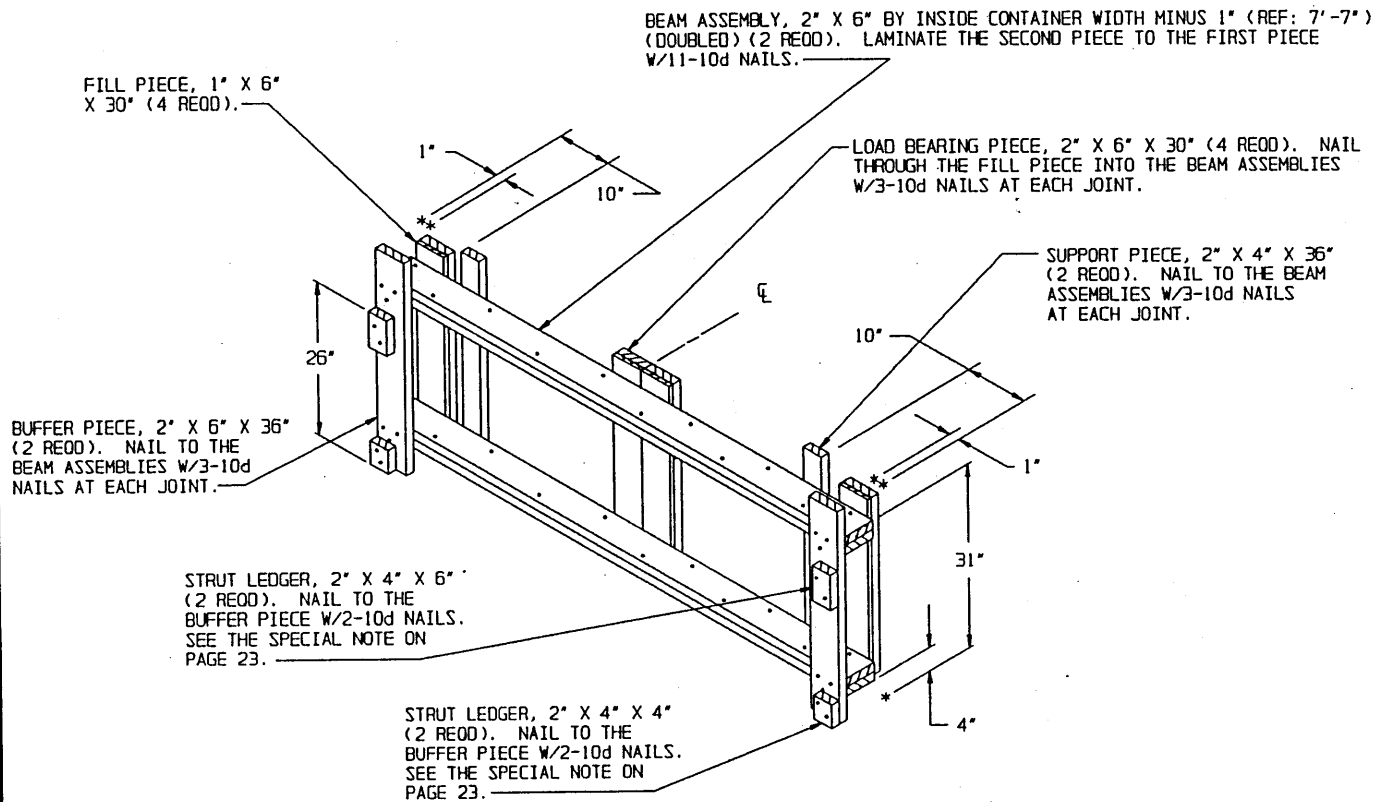


FORWARD STRUT ASSEMBLY B

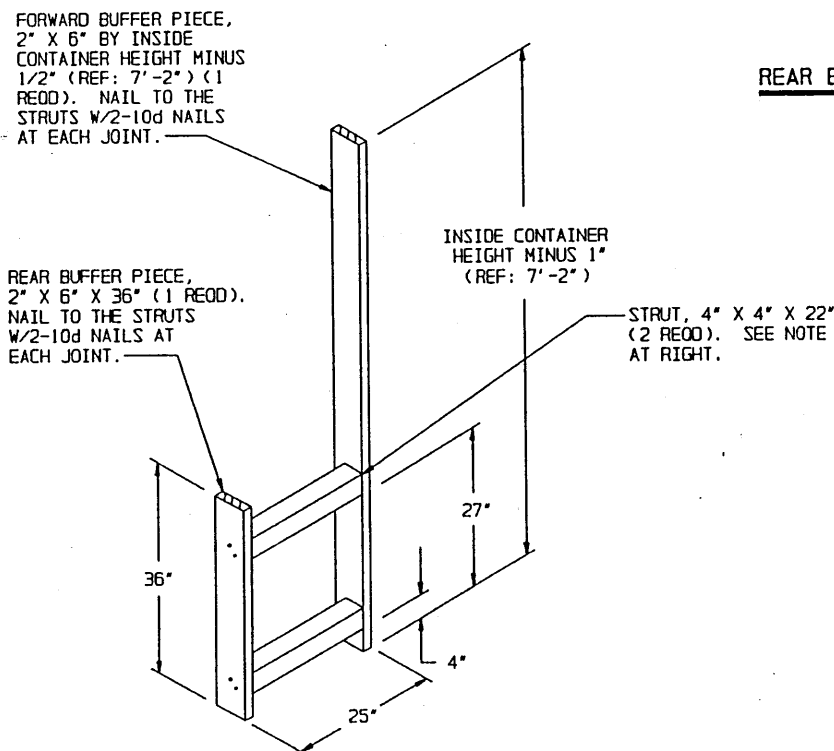
A "RIGHT-HAND" FORWARD STRUT ASSEMBLY IS DEPICTED. A "LEFT-HAND" ASSEMBLY IS ALSO REQUIRED AND WILL BE THE SAME AS THE ASSEMBLY DEPICTED ABOVE, EXCEPT THE 4" X 4" STRUTS ARE ALIGNED ON THE OPPOSITE SIDE OF THE BUFFER PIECES.



FORWARD/REAR BLOCKING ASSEMBLY C



REAR BLOCKING ASSEMBLY C

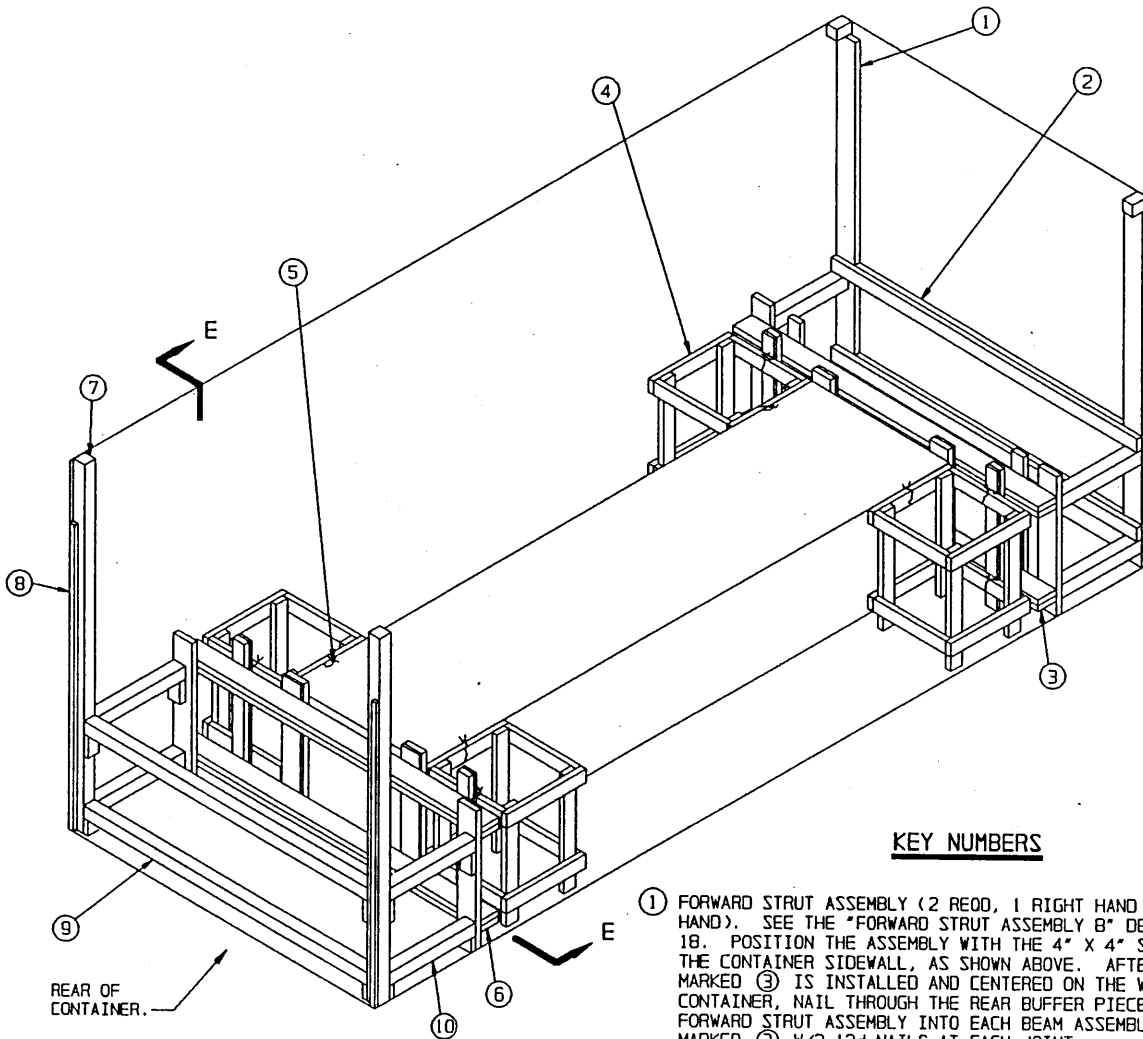


NOTE: THE FOUR STRUTS AT THE FORWARD END WILL BE 22" LONG AND THE FOUR STRUTS AT THE REAR OF THE LOAD WILL BE CUT-TO-FIT (APPROX 22").

FORWARD/REAR STRUT ASSEMBLY B

A "RIGHT-HAND" FORWARD STRUT ASSEMBLY IS DEPICTED. A "LEFT-HAND" ASSEMBLY IS ALSO REQUIRED AND WILL BE THE SAME AS THE ASSEMBLY DEPICTED ABOVE, EXCEPT THE 4" X 4" STRUTS ARE ALIGNED ON THE OPPOSITE SIDE OF THE BUFFER PIECES.

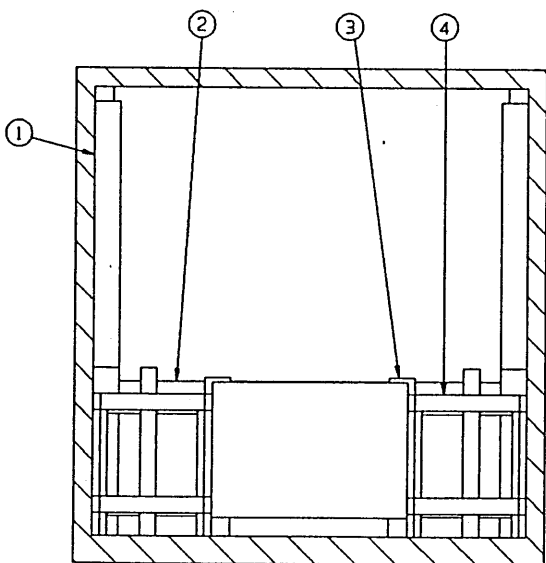
DETAILS



ISOMETRIC VIEW

KEY NUMBERS

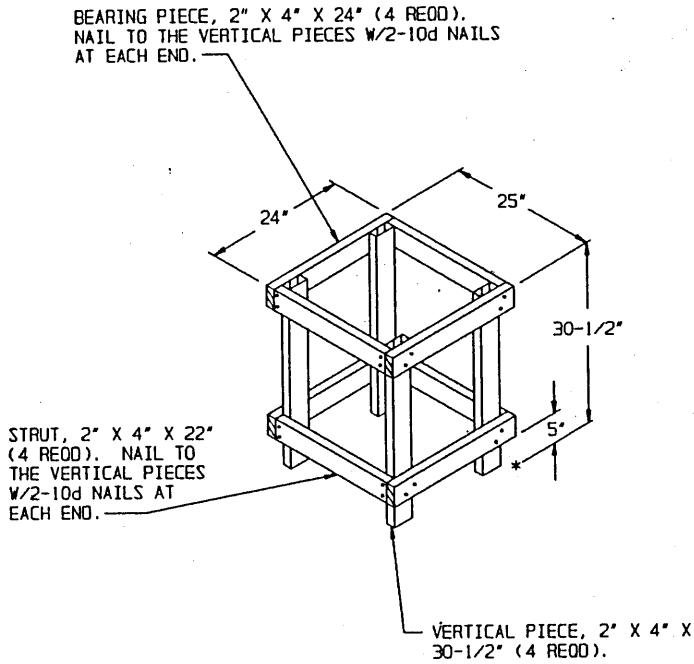
- ① FORWARD STRUT ASSEMBLY (2 REOD, 1 RIGHT HAND AND 1 LEFT HAND). SEE THE "FORWARD STRUT ASSEMBLY B" DETAIL ON PAGE 18. POSITION THE ASSEMBLY WITH THE 4" X 4" STRUTS AGAINST THE CONTAINER SIDEWALL, AS SHOWN ABOVE. AFTER PIECE MARKED ③ IS INSTALLED AND CENTERED ON THE WIDTH OF THE CONTAINER, NAIL THROUGH THE REAR BUFFER PIECE OF EACH FORWARD STRUT ASSEMBLY INTO EACH BEAM ASSEMBLY OF PIECE MARKED ③ W/2-12d NAILS AT EACH JOINT.
- ② SPREADER ASSEMBLY (2 REOD). SEE THE "SPREADER ASSEMBLY" DETAIL ON PAGE 7. POSITION AS SHOWN, IMMEDIATELY ABOVE THE TOP AND BOTTOM STRUTS AND NAIL TO THE FORWARD STRUT ASSEMBLY W/2-10d NAILS AT EACH JOINT.
- ③ FORWARD BLOCKING ASSEMBLY (1 REOD). SEE THE "FORWARD/REAR BLOCKING ASSEMBLY D" DETAIL ON PAGE 22 AND GENERAL NOTE "H" ON PAGE 2.
- ④ FILLER ASSEMBLY (4 REOD). SEE THE "FILLER ASSEMBLY B" DETAIL ON PAGE 21.
- ⑤ TIE WIRE, NO. 14 GAGE WIRE 24" LONG (12 REOD). INSTALL THE WIRE TO FORM A COMPLETE LOOP AROUND THE FILLER AND PIECES MARKED ③ AND ⑥.
- ⑥ REAR BLOCKING ASSEMBLY (1 REOD). SEE THE "REAR BLOCKING ASSEMBLY D" DETAIL ON PAGE 22 AND GENERAL NOTE "H" ON PAGE 2.
- ⑦ DOOR POST VERTICAL (2 REOD). SEE THE "DOOR POST VERTICAL B" DETAIL AND "TYPICAL DETAIL A" ON PAGE 23.
- ⑧ DOOR POST VERTICAL RETAINER (2 REOD). SEE THE "DOOR POST VERTICAL RETAINER A" DETAIL ON PAGE 24. NAIL THROUGH THE HOLES INTO THE DOOR POST VERTICAL W/4-10d NAILS. NOTE: IF THE CONTAINER IS FURNISHED WITH PRE-WELDED LOAD RETAINERS, SEE SPECIAL NOTE 4 ON PAGE 21.
- ⑨ DOOR SPANNER, 4" X 4" MATERIAL, CUT TO A LENGTH THAT WILL PROVIDE FOR A DRIVE FIT (REF: 7'-1-3/8") (2 REOD). TOENAIL TO THE DOOR POST VERTICALS W/2-12d NAILS AT EACH END. SEE THE "BEVEL-CUT" DETAIL ON PAGE 19. AFTER INSTALLING THE DOOR SPANNERS, THE STRUTS, PIECES MARKED ⑩, ARE TO BE INSTALLED.
- ⑩ STRUT, 4" X 4" BY CUT-TO-FIT (4 REOD). TOENAIL TO THE BUFFER PIECE OF THE REAR BLOCKING ASSEMBLY AND THE DOOR POST VERTICAL W/2-12d NAILS AT EACH END. SEE THE "BEVEL-CUT" DETAIL ON PAGE 23.



SECTION E-E

SPECIAL NOTES:

1. THE LOAD AS SHOWN ON PAGE 20 DELINEATES A ONE-CONTAINER LOAD IN A CLOSED TOP COMMERCIAL INTERMODAL FREIGHT CONTAINER.
2. PRIOR TO LOADING THE ROCKET POD/CONTAINER INTO THE INTERMODAL FREIGHT CONTAINER, SEE THE "RP/C STACKING AND HANDLING PROCEDURAL GUIDANCE" ON PAGE 3 FOR HANDLING OF THE CONTAINER.
3. THE LOADING PROCEDURE DELINEATED IN THE DETAIL ON PAGE 20 MAY BE MODIFIED FOR LOADING A ONE-CONTAINER LOAD IN AN OPEN TOP COMMERCIAL INTERMODAL FREIGHT CONTAINER. SUBSTITUTE FORWARD/REAR STRUT ASSEMBLIES B, AS DETAILED ON PAGE 19, FOR THE FORWARD STRUT ASSEMBLIES, PIECES MARKED ①, AND THE STRUTS, PIECES MARKED ②. SUBSTITUTE A FORWARD/REAR BLOCKING ASSEMBLY D, AS DETAILED ON PAGE 22, FOR THE REAR BLOCKING ASSEMBLY, PIECE MARKED ③. FINALLY SUBSTITUTE A DOOR POST VERTICAL RETAINER B, AS DETAILED ON PAGE 25, FOR THE DOOR POST VERTICAL, PIECE MARKED ⑦, AND THE DOOR POST VERTICAL RETAINER, PIECE MARKED ⑧. REFER TO THE LOADING PROCEDURE DELINEATED ON PAGE 10 FOR GUIDANCE IN POSITIONING THE SUBSTITUTED ASSEMBLIES.
4. IF THE INTERMODAL CONTAINER BEING USED FOR SHIPMENT OF THE DEPICTED LOAD IS EQUIPPED WITH PRE-WELDED LOAD RETAINERS, REFER TO "TYPICAL DETAIL C" ON PAGE 26.

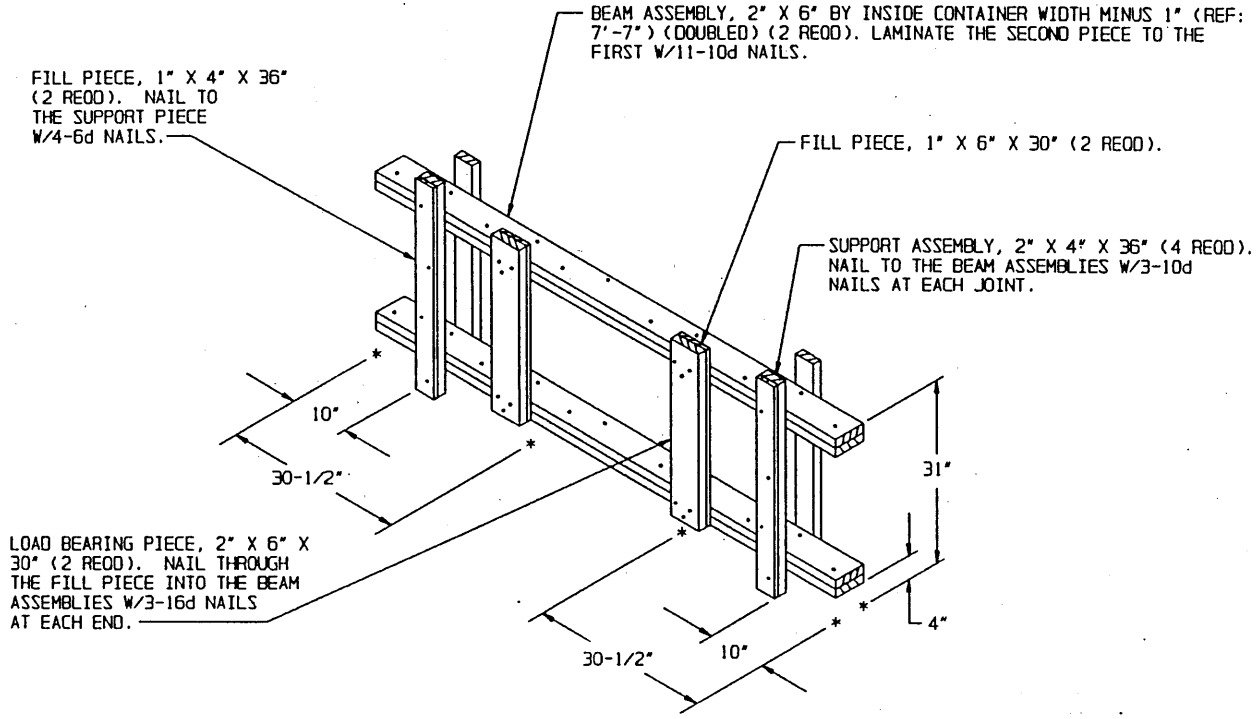


FILLER ASSEMBLY B

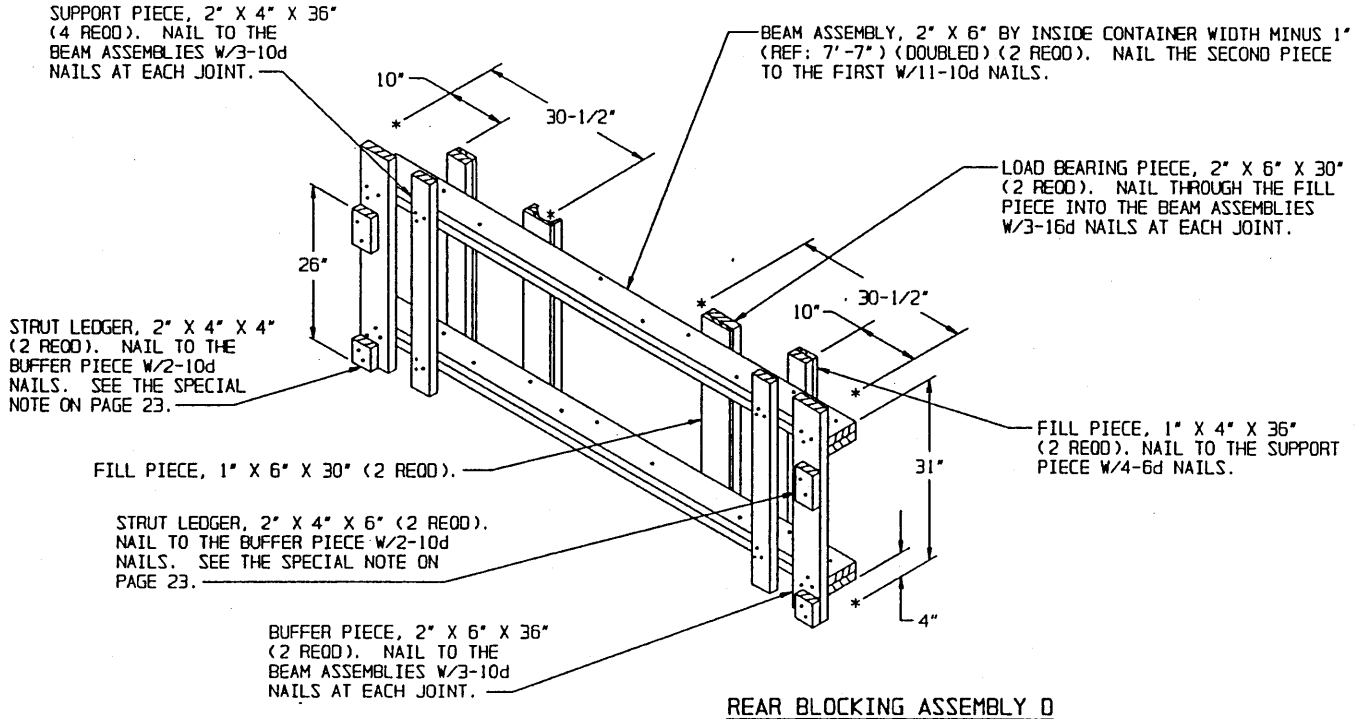
BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	12	4
1" X 6"	10	5
2" X 4"	160	187
2" X 6"	98	98
4" X 4"	47	63
NAILS	NO. REOD	POUNDS
6d (2")	16	1/4
10d (3")	302	4-3/4
12d (3-1/4")	32	3/4
16d (3-1/2")	24	3/4
DOOR POST VERTICAL RETAINER	- 2 REOD	- 64 LBS
WIRE, NO. 14 GAGE	- 24' REOD	- 1/2 LB

LOAD AS SHOWN

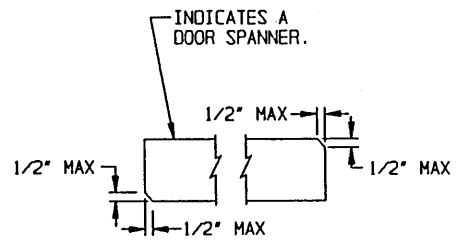
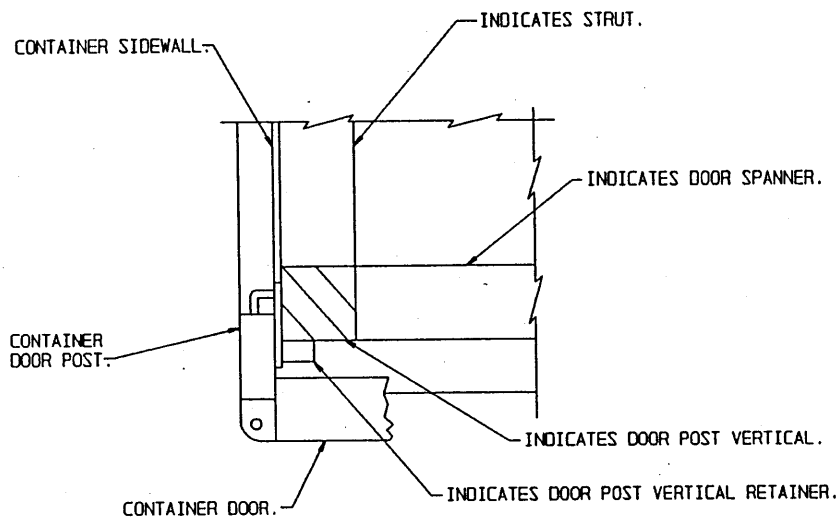
ITEM	QUANTITY	WEIGHT (APPROX)
MLRS RP/C	1	5,078 LBS
DUNNAGE		625 LBS
CONTAINER		4,700 LBS
TOTAL WEIGHT		10,403 LBS (APPROX)



FORWARD/REAR BLOCKING ASSEMBLY D



REAR BLOCKING ASSEMBLY D



BEVEL-CUT

IF DESIRED, EACH END OF A DOOR SPANNER PIECE OR A STRUT MAY BE BEVEL-CUT AS SHOWN ABOVE TO FACILITATE THE ACHIEVEMENT OF A TIGHT DOOR-POST-TO-DOOR-POST FIT OR A TIGHT REAR-OF-LOAD FIT.

TYPICAL DETAIL A

A PARTIAL PLAN VIEW OF THE LEFT REAR PORTION OF THE CONTAINER IS SHOWN DEPICTING THE PROPER POSITION OF THE DOOR POST VERTICAL AND ADJACENT DUNNAGE PIECES.

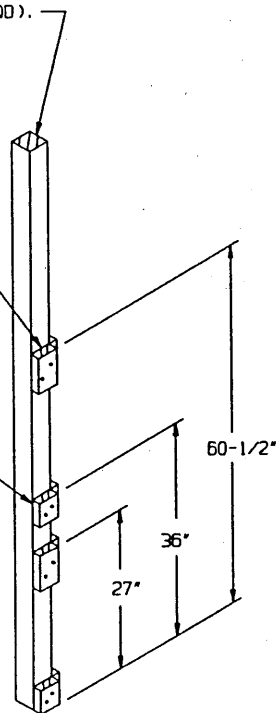
SPECIAL NOTE:

THE STRUT LEDGERS CAN ONLY BE PRE-NAILED TO THE DOOR POST VERTICAL ON ONE SIDE OF THE CONTAINER FOR THE DOOR SPANNER PIECES. ALSO, THE STRUT LEDGERS FOR THE STRUTS CAN ONLY BE PRE-NAILED TO THE REAR BLOCKING ASSEMBLY OR THE DOOR POST VERTICAL AT THE LOWEST POSITION.

VERTICAL PIECE, 4" X 4" BY INSIDE CONTAINER HEIGHT MINUS 1/2" (REF: 7'-10-1/2") (1 REQD).

STRUT LEDGER, 2" X 4" X 6" (4 REQD). NAIL TO THE VERTICAL PIECE W/2-10d NAILS. SEE THE SPECIAL NOTE ABOVE.

STRUT LEDGER, 2" X 4" X 4" (4 REQD). NAIL TO THE VERTICAL PIECE W/2-10d NAILS. SEE THE SPECIAL NOTE ABOVE.

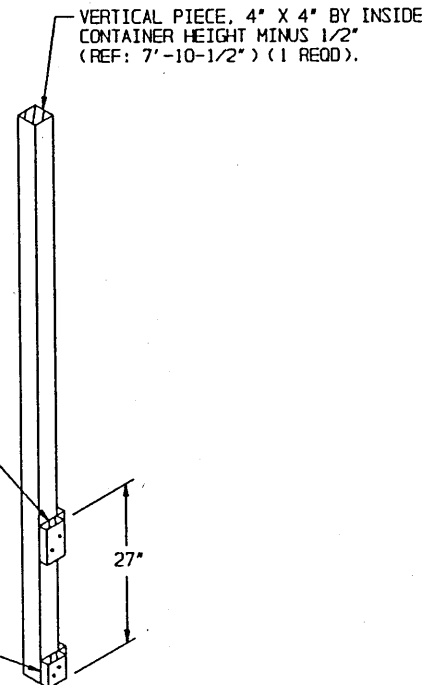


DOOR POST VERTICAL A

VERTICAL PIECE, 4" X 4" BY INSIDE CONTAINER HEIGHT MINUS 1/2" (REF: 7'-10-1/2") (1 REQD).

STRUT LEDGER, 2" X 4" X 6" (2 REQD). NAIL TO THE VERTICAL PIECE W/2-10d NAILS. SEE THE SPECIAL NOTE ABOVE.

STRUT LEDGER, 2" X 4" X 4" (2 REQD). NAIL TO THE VERTICAL PIECE W/2-10d NAILS. SEE THE SPECIAL NOTE ABOVE.

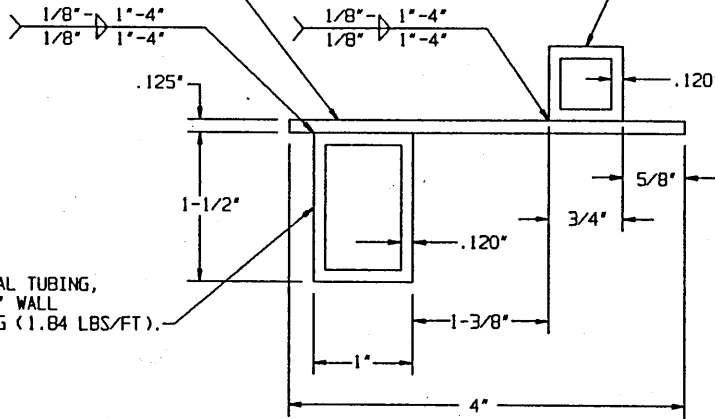


DOOR POST VERTICAL B

DETAILS

STEEL STRIP, 1/8" THICK BY 4" WIDE
BY 83" LONG (1.70 LBS/FT).

SQUARE STRUCTURAL TUBING, 3/4" SQUARE
BY .120" WALL THICKNESS BY 83" LONG
(1.03 LBS/FT).



RECTANGULAR STRUCTURAL TUBING,
1-1/2" BY 1" BY .120" WALL
THICKNESS BY 83" LONG (1.84 LBS/FT).

VIEW A

SQUARE STRUCTURAL TUBING,
3/4" SQUARE BY .120" WALL
THICKNESS BY 83" LONG
(1.03 LBS/FT).



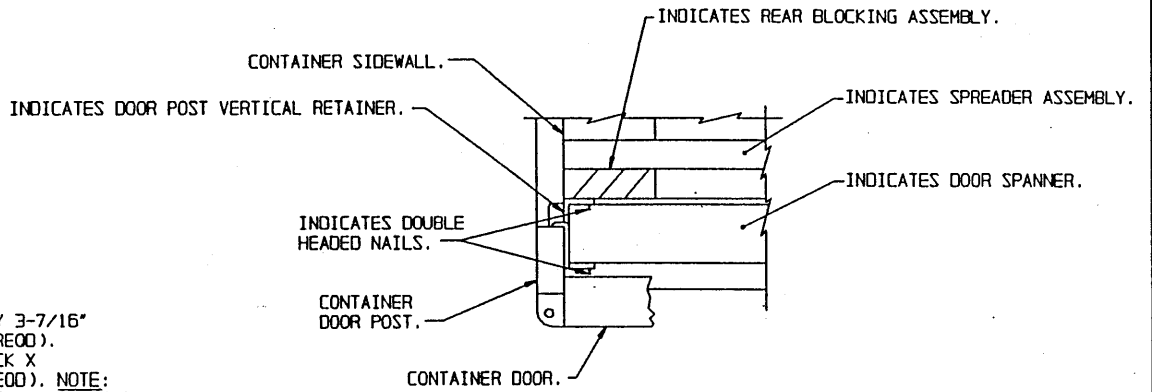
RECTANGULAR STRUCTURAL TUBING,
1-1/2" BY 1" BY .120" WALL THICKNESS
BY 83" LONG (1.84 LBS/FT).

DRILL 5/32", 4 HOLES.

STEEL STRIP, 1/8" THICK BY 4" WIDE
BY 83" LONG (1.70 LBS/FT).

DOOR POST VERTICAL RETAINER A

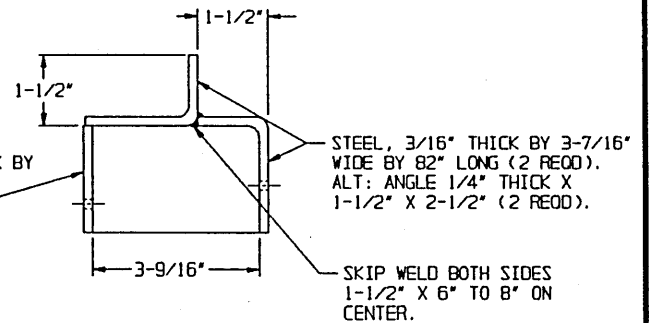
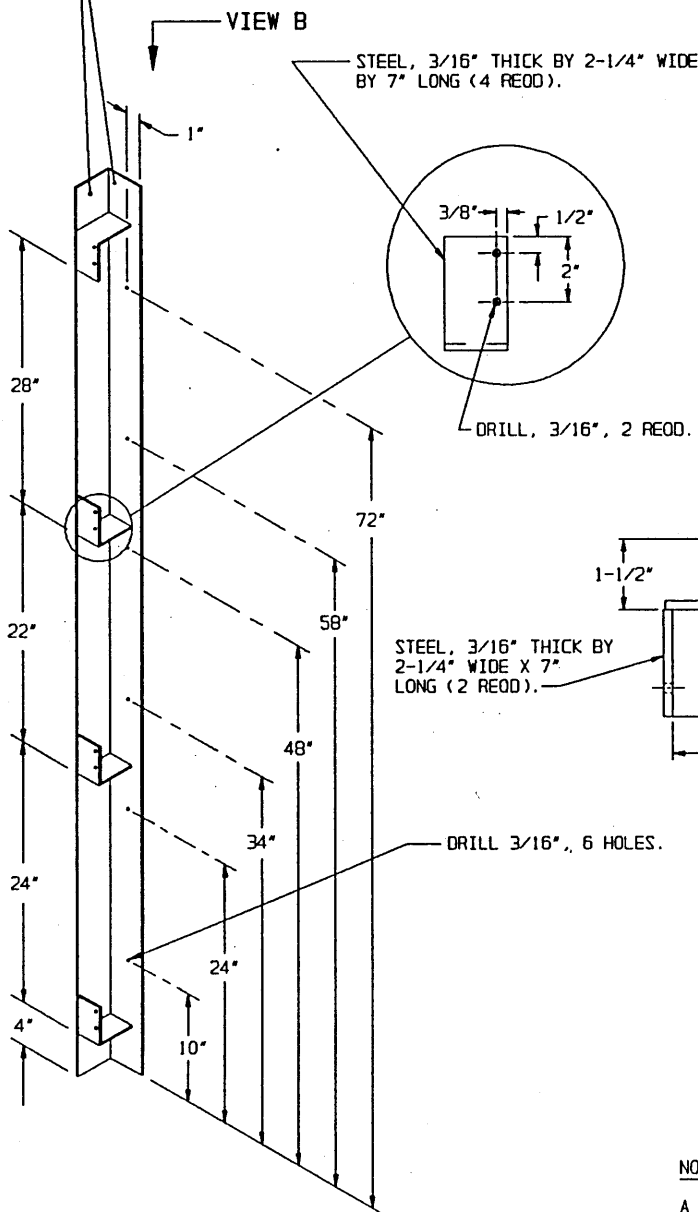
NOTE: THE ABOVE ASSEMBLY HAS BEEN SHOWN ROTATED 90° FROM THE ORIENTATION IN WHICH IT IS INSTALLED IN THE LEFT REAR CORNER OF THE CONTAINER. THE ASSEMBLY HAS BEEN ROTATED FOR HOLE LOCATION CLARITY.



TYPICAL DETAIL B

A PARTIAL PLAN VIEW OF THE LEFT REAR PORTION OF THE CONTAINER IS SHOWN DEPICTING THE PROPER POSITION OF THE DOOR POST VERTICAL AND ADJACENT DUNNAGE PIECES.

STEEL, 3/16" THICK BY 3-7/16" WIDE BY 82" LONG (2 REOD).
 ALT: ANGLE, 1/4" THICK X 1-1/2" X 2-1/2" (2 REOD). NOTE: STEEL TO BE ASTM A242, A440, A441, A558 OR EQUIVALENT W/YIELD STRENGTH OF 50 KSI.

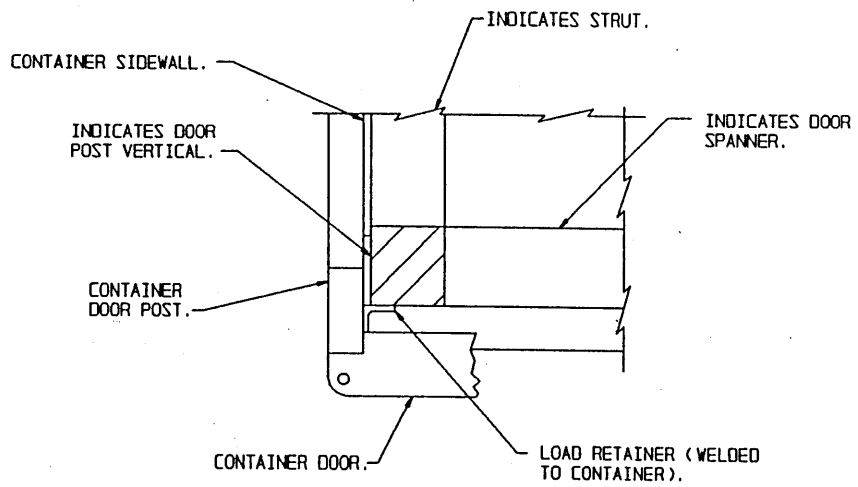


VIEW B

DOOR POST VERTICAL RETAINER B

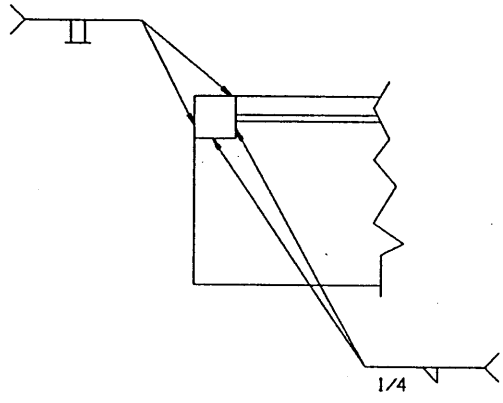
NOTE:

A "LEFT-HAND" DOOR POST VERTICAL RETAINER IS DEPICTED. A "RIGHT HAND" ASSEMBLY IS ALSO REQUIRED.



TYPICAL DETAIL C

A PARTIAL PLAN VIEW OF THE LEFT REAR PORTION OF THE CONTAINER IS SHOWN DEPICTING THE PROPER POSITION OF THE STRUTS AND THE ADJACENT DUNNAGE PIECES.

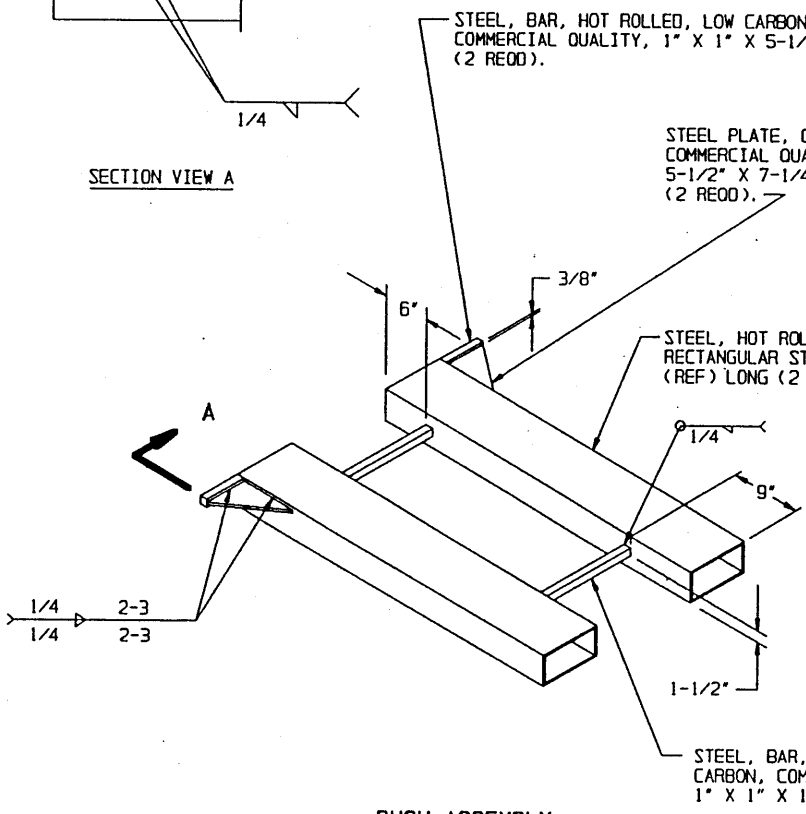


STEEL, BAR, HOT ROLLED, LOW CARBON, COMMERCIAL QUALITY, 1" X 1" X 5-1/2" (2 REOD).

STEEL PLATE, COLD FORMED, LOW CARBON, COMMERCIAL QUALITY, TRIANGULAR (90°) 5-1/2" X 7-1/4" LEG LENGTH X 1/4" THICK (2 REOD).

STEEL, HOT ROLLED, LOW CARBON, COMMERCIAL QUALITY RECTANGULAR STRUCTURAL TUBING, 8" X 4" X 1/4" X 46" (REF) LONG (2 REOD). SEE NOTE BELOW.

STEEL, BAR, HOT ROLLED, LOW CARBON, COMMERCIAL QUALITY, 1" X 1" X 14" LONG (2 REOD).



NOTE: THE FORK TINES MUST EXTEND AN ADDITIONAL 13" BEYOND THE END OF THE PUSH ASSEMBLY. THE LENGTH OF THE 8" X 4" RECTANGULAR TUBING MAY BE VARIED AS NECESSARY TO ACCOMMODATE VARIOUS LENGTH FORK TINES.