

APPROVED BY

BUREAU OF EXPLOSIVES

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DATE 8/19/70

# CHAPARRAL

## LOADING AND BRACING IN A VEHICLE EQUIPPED WITH A MECHANICAL BRACING SYSTEM OF COMPLETE ROUND IN THE M570 SHIPPING AND STORAGE CONTAINER FOR CONTAINER/TRAILER-ON-FLAT-CAR (C/TOFC) SHIPMENT

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DRAFTSMAN <i>SH/CBE</i>	PROJ. ENG. <i>CE/low</i>	<i>WJH</i>	SUBMITTED
CHECKER <i>TAS</i>	ANC. AMMO. CTR. <i>JDS</i>	<i>WJH/MEY</i>	<i>C. X. Hill, Col. And C.</i>
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			19 48 5918 GM15K2

DO NOT SCALE

**GENERAL NOTES**

- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AMCR 740-13, AND AUGMENTS TM 743-200-1 ( CHAPTER 5 ).
- B. THE OUTLOADING PROCEDURES SPECIFIED HEREIN ARE APPLICABLE TO THE CHAPARRAL MISSILE WHEN IT IS PACKED IN THE M570 SHIPPING AND STORAGE CONTAINER. SUBSEQUENT REFERENCE TO CONTAINER HEREIN MEANS THE M570 SHIPPING AND STORAGE CONTAINER WITH CONTENTS.
- C. FOR DETAIL OF THE M570 SHIPPING AND STORAGE CONTAINER SEE DRAWING NO. 11074804 AND "CONTAINER DETAIL" ON PAGE 3.  
CONTAINER DIMENSIONS ----- 125" LONG BY 18" WIDE BY 19" HIGH.  
GROSS WEIGHT ----- 280 POUNDS ( APPROX ).  
TARE WEIGHT ----- 95 POUNDS ( APPROX ).  
CUBE ----- 24.74 CUBIC FEET.
- D. THIS ITEM IS A DOT CLASS "A" EXPLOSIVE. THE OUTLOADING PROCEDURES SPECIFIED HEREIN CAN ALSO BE UTILIZED FOR THE SHIPMENT OF THE DEPICTED CONTAINERS WHEN THEY ARE EMPTY OR LOADED WITH AN ITEM WHICH IS IDENTIFIED DIFFERENTLY BY NOMENCLATURE THAN THE ITEM DESIGNATED WITHIN THE DRAWING TITLE.
- E. THIS PROCEDURAL DRAWING IS APPLICABLE TO A TRAILER OR CONTAINER WHICH IS EQUIPPED WITH A MECHANICAL LOAD BRACING SYSTEM AS SPECIFIED WITHIN THE BUREAU OF EXPLOSIVES PAMPHLET NO. 6C AND APPENDICES THERETO. SUBSEQUENT REFERENCE TO A TRAILER THROUGHOUT THIS DOCUMENT MEANS A TRAILER OR CONTAINER. FOR TOFC AND/OR COFC SHIPMENTS, ONLY RAILCARS WHICH ARE SPECIFIED BY THE BUREAU OF EXPLOSIVES PAMPHLET NO. 6C, OR THE AFOREMENTIONED APPENDICES, WILL BE USED.
- F. THE LOADS AS SHOWN ARE BASED ON A TRAILER WHICH IS 40'-0" LONG BY 7'-6" WIDE ( INSIDE DIMENSION ) WITH A WOOD OR A WOOD AND METAL, OR A METAL FLOOR. THE DELINEATED OUTLOADING PROCEDURES ARE ALSO APPLICABLE TO TRAILERS WHICH ARE FROM NINETY INCHES ( 90" ) THROUGH NINETY-THREE INCHES ( 93" ) IN WIDTH.
- G. THE HEIGHT LOCATIONS SPECIFIED WITHIN THIS DRAWING FOR THE INSTALLATION OF CROSS MEMBERS ARE IDENTICAL WITH THOSE RECOMMENDED WITHIN THE BUREAU OF EXPLOSIVES PAMPHLET NO. 6C AND APPENDICES THERETO. CAUTION: TRAILERS EQUIPPED WITH FACILITIES WHICH DO NOT MEET THE LOCATION REQUIREMENT SPECIFIED HEREIN MUST NOT BE USED.
  1. VOIDS WITHIN THE LENGTH OF A LOAD MUST BE HELD TO A MINIMUM, CROSS MEMBERS MUST BE PLACED AGAINST THE LADING AS TIGHTLY AS THE HOLE SPACING IN THE CROSS MEMBER ATTACHMENT FACILITY PERMITS. ALSO, EACH CROSS MEMBER WILL BE INSTALLED WITH THE ENDS ATTACHED AS NEARLY AS POSSIBLE IN "MATED" POSITIONS ( AT EQUAL HEIGHTS AND AT EQUAL DISTANCES FROM THE END OF THE TRAILER ).
  2. CROSS MEMBERS IN EMPTY TRAILERS AND THOSE NOT USED IN LOADED TRAILERS MUST BE SECURED FOR SHIPMENT. COMPONENTS ASSIGNED TO EACH TRAILER MUST REMAIN THEREWITH EVEN THOUGH UNUSED DURING SOME SHIPMENTS.
  3. A CROSS MEMBER WILL NOT BE RELIED UPON TO RETAIN MORE LADING ON EITHER SIDE THAN AS SHOWN WITHIN THE LOAD.
- H. SELECTION OF A VEHICLE TO BE USED TO TRANSPORT THE DESIGNATED ITEM MUST COMPLY WITH AR 55-355, CHAPTER 213, FOR EXPLOSIVES AND OTHER DANGEROUS ARTICLES, IN FULL.
- J. THE GROSS WEIGHT AND AXLE DISTRIBUTION OF WEIGHT FOR A LOAD WILL BE THE RESPONSIBILITY OF THE CARRIER. THE CARRIER WILL ADVISE THE SHIPPER OF THE APPLICABLE LOADING REQUIREMENTS, AND THE SHIPPER WILL LOAD ACCORDINGLY. NOTICE: A SHIPMENT WILL BE POSITIONED IN A TRAILER CONSISTENT WITH THE WEIGHT LAWS OF THE STATES THROUGH WHICH THE TRAILER WILL BE TRANSPORTED BY HIGHWAY ( MOTOR CARRIER ).
- K. THE APPROVED BLOCKING, BRACING, AND STAYING METHODS FOR THE LOADS SPECIFIED HEREIN MUST BE FOLLOWED. THE NUMBER OF UNITS MAY BE ADJUSTED TO FIT THE SIZE OF VEHICLE TO BE LOADED OR THE QUANTITY TO BE SHIPPED. FOR A LOAD QUANTITY OTHER THAN SPECIFIED, THE APPROVED METHODS MUST BE FOLLOWED AS CLOSELY AS POSSIBLE.
- L. OTHER TYPES OF LADING ITEMS MAY BE LOADED INTO TRAILERS WHICH ARE PARTIALLY LOADED WITH THE DEPICTED ITEM, PROVIDING THE TOTAL LOAD IS COMPATIBLE, EXISTING DIRECTIVES ARE NOT VIOLATED, AND THE OTHER LADING ITEMS ARE BLOCKED AND BRACED TO EQUAL THE BLOCKING AND BRACING CRITERIA SPECIFIED HEREIN.
- M. DUNNAGE LUMBER SPECIFIED THROUGHOUT THIS PROCEDURAL DRAWING IS OF NOMINAL SIZE. FOR EXAMPLE, 2" X 4" MATERIAL IS ACTUALLY 1-5/8" THICK BY 3-5/8" WIDE AND 1" X 4" MATERIAL IS ACTUALLY 3/4" THICK BY 3-5/8" WIDE.
- N. DO NOT NAIL BLOCKING SHOWN HEREIN TO THE TRAILER WALLS OR FLOOR. ALL NAILING WILL BE WITHIN THE DUNNAGE.
- O. PORTIONS OF THE TRAILER BODY DEPICTED WITHIN THIS PROCEDURAL DRAWING, SUCH AS ONE OF THE SIDE WALLS, HAVE NOT BEEN SHOWN IN THE LOAD VIEWS FOR CLARITY PURPOSES.
- P. FOR ADDITIONAL GUIDANCE, ATTENTION IS DIRECTED TO THE "CONTAINER DETAIL, AND HANDLING INSTRUCTIONS" ON PAGE 3 AND TO THE "SPECIAL NOTES" SECTION WHICH IS IMMEDIATELY ADJACENT TO THE DEPICTED OUTLOADING METHOD.
- Q. IT IS THE RESPONSIBILITY OF A SHIPPER TO PROVIDE THE "CONTAINER PROTECTOR" ASSEMBLY AS DETAILED ON PAGE 3. CAUTION: OUTLOADING MUST NOT BE ATTEMPTED WITHOUT USING A CONTAINER PROTECTOR BOARD.
- R. NOTICE: A STAGGERED NAILING PATTERN WILL BE USED WHEREVER POSSIBLE WHEN NAILS ARE DRIVEN INTO JOINTS OF DUNNAGE ASSEMBLIES.

( CONTINUED AT THE RIGHT )

**MATERIAL SPECIFICATIONS**

**LUMBER** -- SEE TM 743-200-1, DUNNAGE LUMBER; FED SPEC MM-L-751.

**PLYWOOD**: GROUP B OR C, GRADE \* C-D ( EXTERIOR ); FED SPEC NN-P-530.

**NAILS** -- : COMMON, CEMENT COATED OR CHEMICALLY ETCHED;  
FED SPEC FF-N-105.  
ALT: ANNULAR-RING TYPE NAIL OF SAME SIZE.

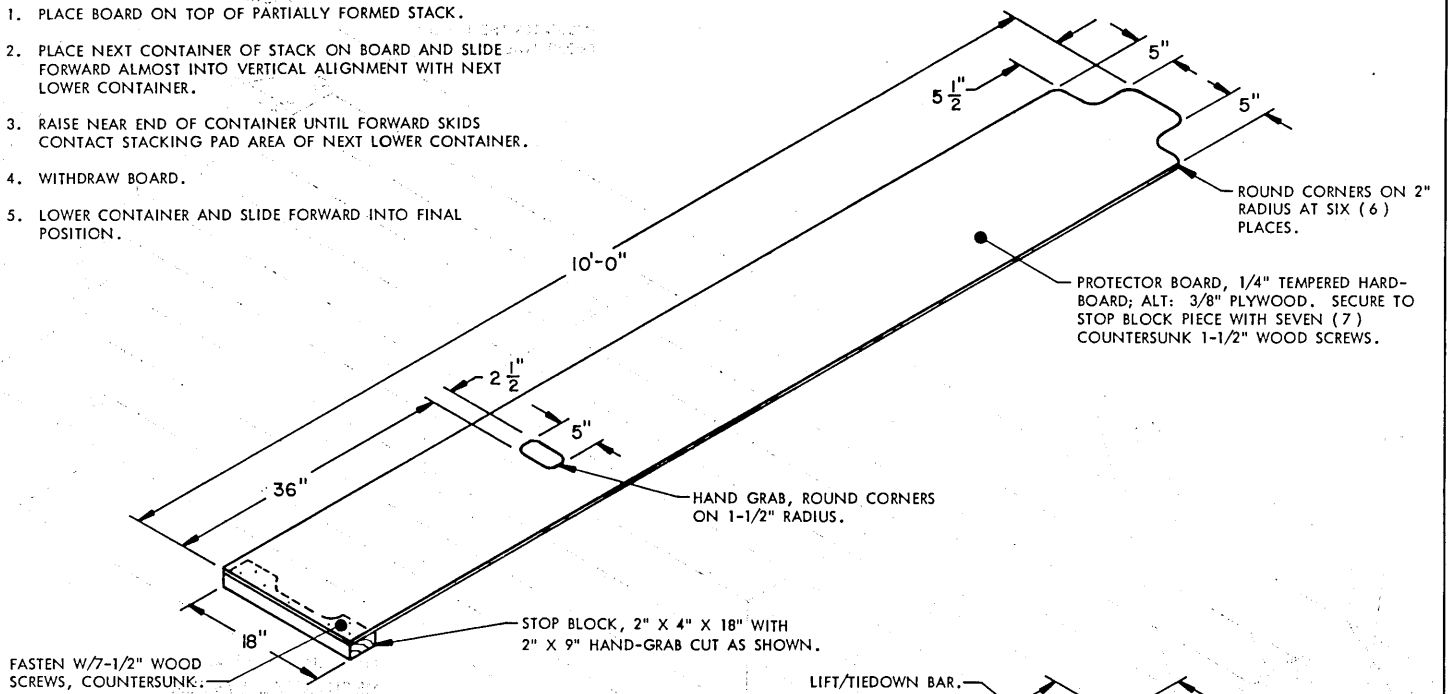
**WIRE** ---- : ANNEALED, BLACK, FED SPEC QQ-W-461.

**HARDBOARD**: FED SPEC LLL-H-35.

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

**OPERATING INSTRUCTIONS**

1. PLACE BOARD ON TOP OF PARTIALLY FORMED STACK.
2. PLACE NEXT CONTAINER OF STACK ON BOARD AND SLIDE FORWARD ALMOST INTO VERTICAL ALIGNMENT WITH NEXT LOWER CONTAINER.
3. RAISE NEAR END OF CONTAINER UNTIL FORWARD SKIDS CONTACT STACKING PAD AREA OF NEXT LOWER CONTAINER.
4. WITHDRAW BOARD.
5. LOWER CONTAINER AND SLIDE FORWARD INTO FINAL POSITION.

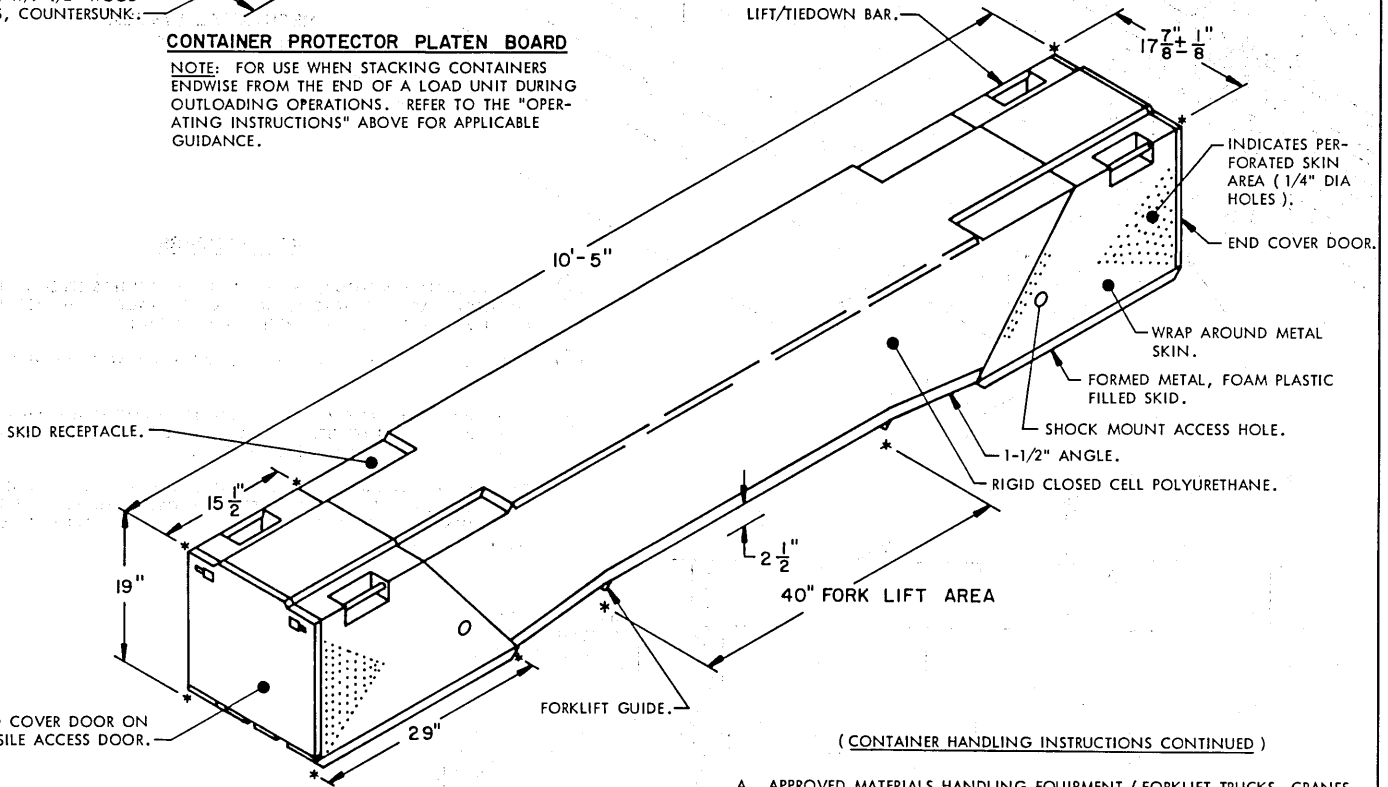


**CONTAINER PROTECTOR PLATEN BOARD**

NOTE: FOR USE WHEN STACKING CONTAINERS ENDWISE FROM THE END OF A LOAD UNIT DURING OUTLOADING OPERATIONS. REFER TO THE "OPERATING INSTRUCTIONS" ABOVE FOR APPLICABLE GUIDANCE.

FASTEN W/7-1/2" WOOD SCREWS, COUNTERSUNK.

LIFT/TIEDOWN BAR.



**CONTAINER DETAIL**

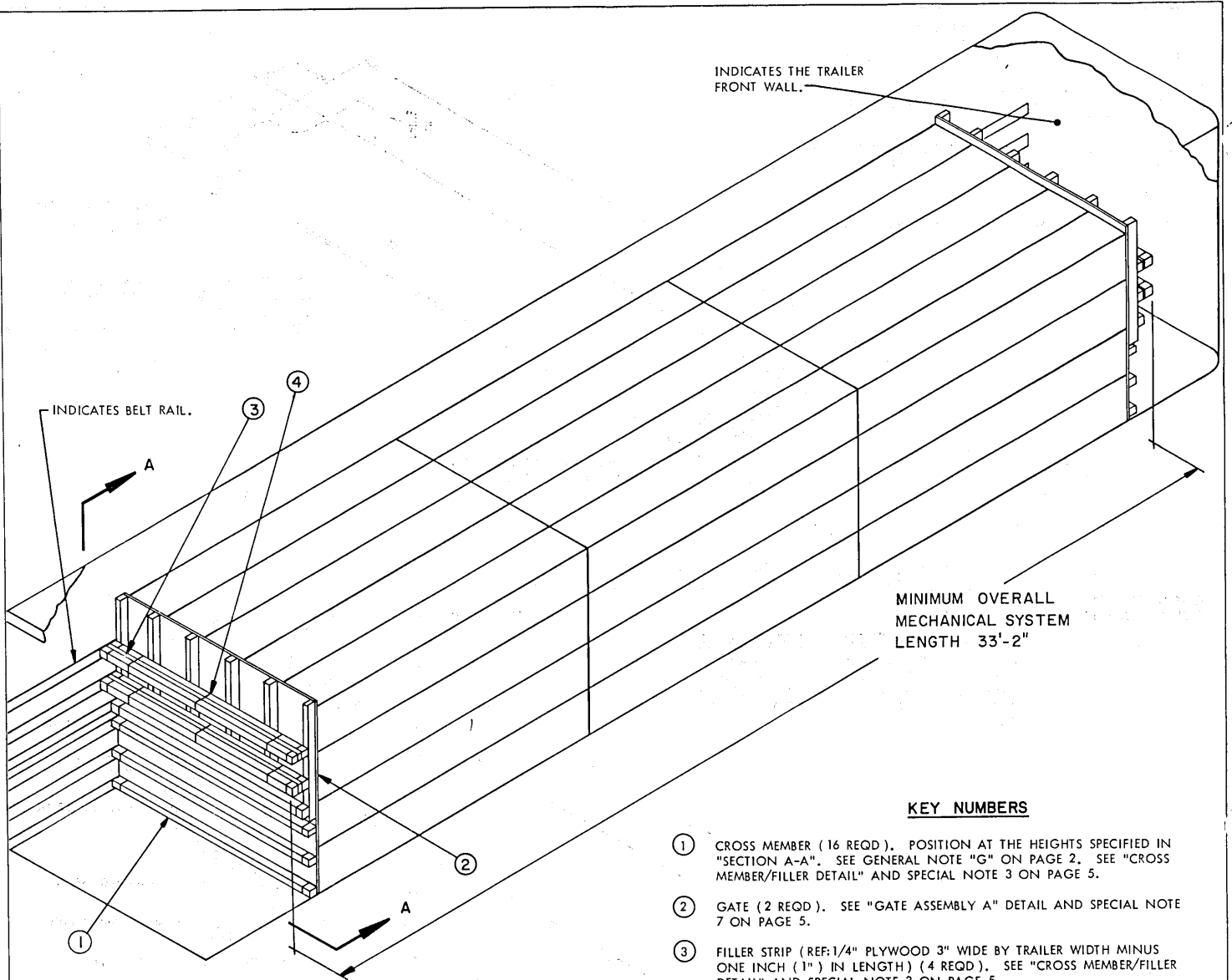
**CONTAINER HANDLING INSTRUCTIONS**

1. **CAUTION:** EXTREME CARE MUST BE EXERCISED DURING OUTLOADING OPERATIONS TO PREVENT DAMAGE TO THE EXPOSED PLASTIC AREAS OF THE CONTAINER. PLASTIC AREAS WILL NOT BE STEPPED ON, WALKED ON, PRIED AGAINST, STRUCK OR GOUGED WITH HAND TOOLS OR MATERIALS HANDLING EQUIPMENT, OR BUMPED AGAINST PROTRUSIONS.
2. IT IS RECOMMENDED THAT THE CONTAINERS BE MANUALLY STACKED WITHIN THE TRANSPORTING TRAILER. TO FACILITATE COMPLIANCE WITH THIS RECOMMENDATION, THE "CONTAINER PROTECTOR" BOARD AS SHOWN ABOVE MUST BE USED WHEN PLACING THE UPPER CONTAINERS OF A STACK AND WHEN FORMING THE LAST STACK BUILT WITHIN A LOAD UNIT.
3. ONLY APPROVED AND APPROPRIATELY SIZED MATERIALS HANDLING EQUIPMENT WILL BE USED FOR HANDLING THE DEPICTED CONTAINER.

( CONTINUED AT THE RIGHT )

( CONTAINER HANDLING INSTRUCTIONS CONTINUED )

- A. APPROVED MATERIALS HANDLING EQUIPMENT ( FORKLIFT TRUCKS, CRANES, HAND TRUCKS, DOLLIES, ROLLER ASSEMBLIES, SPREADER BARS, ETC. ) IS SPECIFIED ELSEWHERE.
- B. PRECAUTIONARY HANDLING TECHNIQUES NORMALLY EMPLOYED FOR THE TYPE OF COMMODITY INVOLVED OR AS SPECIFIED ELSEWHERE OR HEREIN WILL BE OBSERVED.
- C. IF HANDLING IS ACCOMPLISHED WITH A FORKLIFT TRUCK, CONTAINERS SHOULD BE HANDLED FROM A SIDE POSITION. CAUTION: THE USUALLY APPLIED END-HANDLING IS NOT PERMITTED; HOWEVER, FORK TINES MAY BE PLACED UNDER THE SKIDS FROM AN END DIRECTION. CARE MUST BE EXERCISED WHEN INSERTING FORKS UNDER OR WITHDRAWING FORKS FROM UNDER A CONTAINER, TO PREVENT DAMAGE TO THE CONTAINERS BY THE FORK TINES OR THE FORKLIFT PACKAGE GUARD.
- D. IF A SINGLE CONTAINER IS HANDLED BY SLINGING, THE SLING MAY BE ATTACHED TO THE LIFTING POINTS ON THE CONTAINER. HOWEVER, IF A STACK OF TWO OR MORE CONTAINERS IS HANDLED BY SLINGING, THE SLING USED MUST BE OF SUCH A DESIGN THAT LIFTING IS DONE ON THE BOTTOM OF THE LOWEST CONTAINER, AND, ADDITIONALLY, CONTAIN BOTH LENGTHWISE AND CROSSWISE SPREADER BARS WHICH ARE RIGGED SO AS TO PREVENT DAMAGE TO A CONTAINER BY THE SLING LEGS.

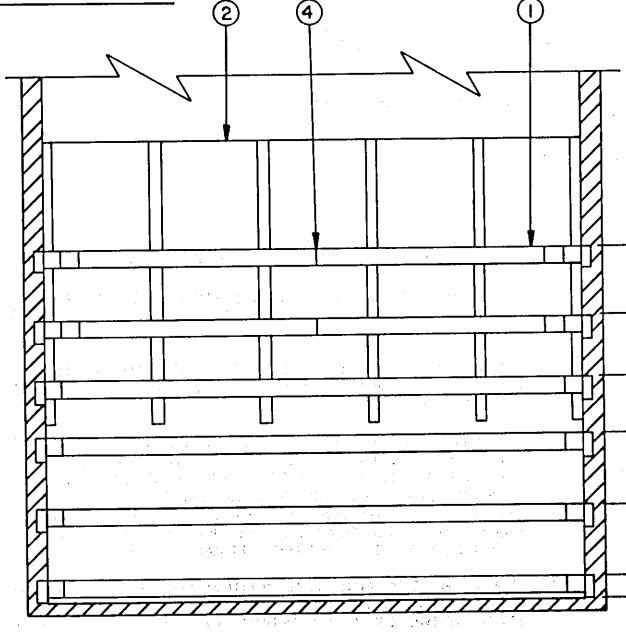


MINIMUM OVERALL  
MECHANICAL SYSTEM  
LENGTH 33'-2"

**KEY NUMBERS**

- ① CROSS MEMBER (16 REQD). POSITION AT THE HEIGHTS SPECIFIED IN "SECTION A-A". SEE GENERAL NOTE "G" ON PAGE 2. SEE "CROSS MEMBER/FILLER DETAIL" AND SPECIAL NOTE 3 ON PAGE 5.
- ② GATE (2 REQD). SEE "GATE ASSEMBLY A" DETAIL AND SPECIAL NOTE 7 ON PAGE 5.
- ③ FILLER STRIP (REF: 1/4" PLYWOOD 3" WIDE BY TRAILER WIDTH MINUS ONE INCH (1") IN LENGTH) (4 REQD). SEE "CROSS MEMBER/FILLER DETAIL" AND SPECIAL NOTE 3 ON PAGE 5.
- ④ TIE WIRE, NO. 14 GAGE BLACK ANNEALED WIRE 60" LONG (12 REQD, THREE PER FILLER STRIP). USE TO SECURE PLYWOOD FILLER STRIPS TO CROSS MEMBERS. SEE "CROSS MEMBER/FILLER DETAIL" AND SPECIAL NOTE 4 ON PAGE 5.

**ISOMETRIC VIEW**

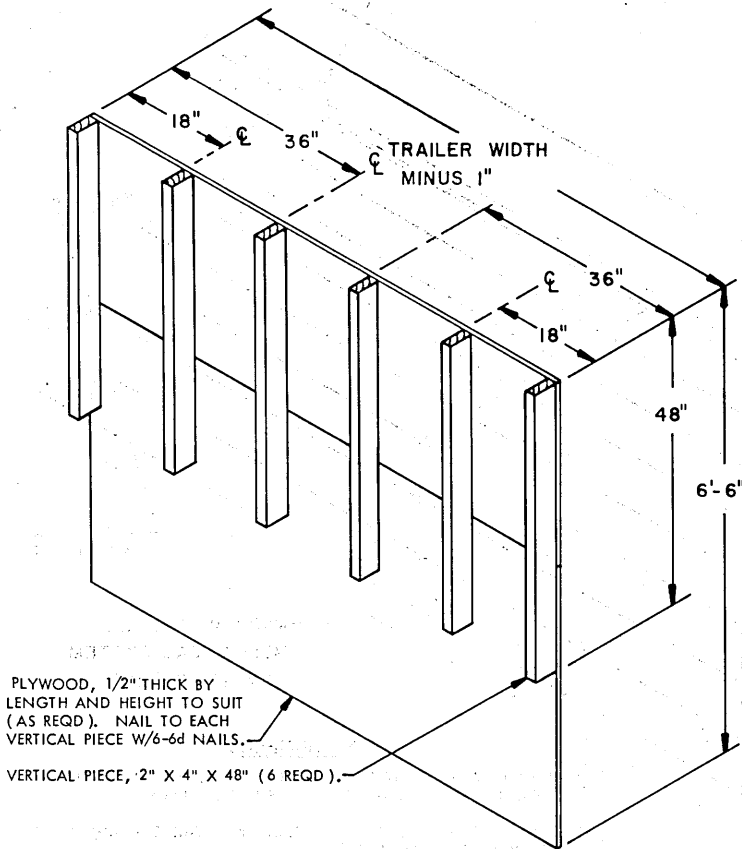


**SECTION A-A**

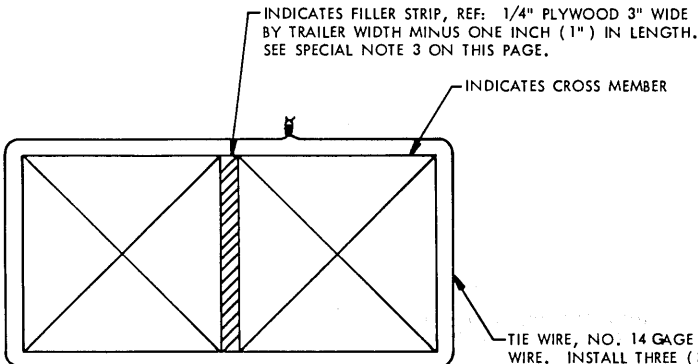
60-UNIT LOAD IN A 40'-0" LONG TRAILER

**SPECIAL NOTES:**

1. A 60-UNIT LOAD IS SHOWN IN A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) TRAILER WHICH IS EQUIPPED WITH A MECHANICAL LOAD BLOCKING SYSTEM. SEE SPECIAL NOTE 9 BELOW.
2. IF THE BELT RAIL IS NOT FLUSH WITH THE SIDE WALL, PLYWOOD SIDE FILL MUST BE POSITIONED BETWEEN THE CONTAINERS AND BELT RAILS TO PREVENT DAMAGE TO THE CONTAINERS DURING SHIPMENT. SEE THE "SIDE FILL" DETAIL ON PAGE 8.
3. A ONE-QUARTER (1/4") PLYWOOD FILLER STRIP HAS BEEN SPECIFIED FOR THE DEPICTED LOAD. HOWEVER, IF THE VOID BETWEEN A PAIR OF LONGITUDINALLY ADJACENT CROSS MEMBERS IS GREATER THAN 1/4", FILLER MATERIAL OF A THICKNESS WHICH WILL COMPLETELY FILL THE VOID MUST BE USED. SEE "CROSS MEMBER/FILLER DETAIL" BELOW.
4. NO. 8 GAGE BLACK ANNEALED WIRE MAY BE USED IN LIEU OF NO. 14 GAGE.
5. FOR A TRAILER WITH AN INSIDE WIDTH OF LESS THAN 7'-6" REDUCE THE CONTAINER STACKS TO FOUR CONTAINERS WIDE AND USE A "SPACER ASSEMBLY" SIMILAR TO THE ONE SHOWN IN THE "SECTION VIEW" OF TRAILER SHOWING A FOUR WIDE LOAD ON PAGE 7.
6. A FILLER ASSEMBLY MAY BE USED TO FILL A VOID WHEN A CONTAINER IS OMITTED. THE FILLER ASSEMBLY WILL BE USED IN THE TOP LAYER ONLY AND THE STACKS MUST BE BAYED OFF. SEE "FILLER ASSEMBLY" DETAIL AND "PARTIAL PLAN VIEW" DETAIL SHOWING APPLICATION OF FILLER ASSEMBLY ON PAGE 9.
7. IF THE TRAILER BEING LOADED HAS PROVISIONS FOR THE INSTALLATION OF A CROSS MEMBER AT A HEIGHT OF 67" THRU 73", USE "GATE ASSEMBLY B", SHOWN ON PAGE 8, IN LIEU OF "GATE ASSEMBLY A", AND USE ONE CROSS MEMBER AT EACH OF THE SEVEN BELT RAIL HEIGHTS AT EACH BLOCKING STATION. FOR THE DEPICTED LOAD, 14 CROSS MEMBERS WILL BE REQUIRED. THE DOUBLED (BACK-TO-BACK) CROSS MEMBER METHOD OF INSTALLING CROSS MEMBERS, AS SHOWN ON PAGE 4, WILL NOT BE REQUIRED.
8. IF ONE LAYER OF CONTAINERS IS OMITTED FROM A STACK, THE STACK MUST BE BAYED OFF. FOR THIS TYPE OF LOAD, A COMBINATION OF THE LOAD BLOCKING PROCEDURES SPECIFIED FOR THE LOAD SHOWN ON PAGES 6 AND 7 AND THE PROCEDURES SPECIFIED FOR THE DEPICTED LOAD SHOULD BE USED. ATTENTION IS DIRECTED TO THE "PARTIAL ELEVATION VIEW" DETAIL ON PAGE 10 FOR GENERAL GUIDANCE.
9. A SHORTER TRAILER THAN SHOWN CAN BE USED TO SHIP THE DEPICTED LOAD, IF THE MECHANICAL LOAD BLOCKING SYSTEM WITHIN THAT TRAILER IS AT LEAST 33'-2" LONG. A TRAILER THAT HAS A SYSTEM LENGTH OF AT LEAST 32'-6" IS REQUIRED FOR THE TYPE OF BLOCKING SPECIFIED WITHIN SPECIAL NOTE 7 ABOVE. IF A "FILLER ASSEMBLY" IS USED AS PERMITTED BY SPECIAL NOTE 6 ABOVE, THE SYSTEM MUST BE AT LEAST 34'-5" LONG IF THE LOAD REQUIRES USE OF DOUBLED CROSS MEMBERS AS SHOWN WITHIN THE LOAD ON PAGE 4, OR BE AT LEAST 32'-10" LONG IF PROVISIONS OF SPECIAL NOTE 7 ABOVE ARE EMPLOYED (AN EXTRA SET OF BELT RAILS IN THE TRAILER AT A HEIGHT OF 67" THRU 73").



**GATE ASSEMBLY A**



**CROSS MEMBER/FILLER DETAIL**

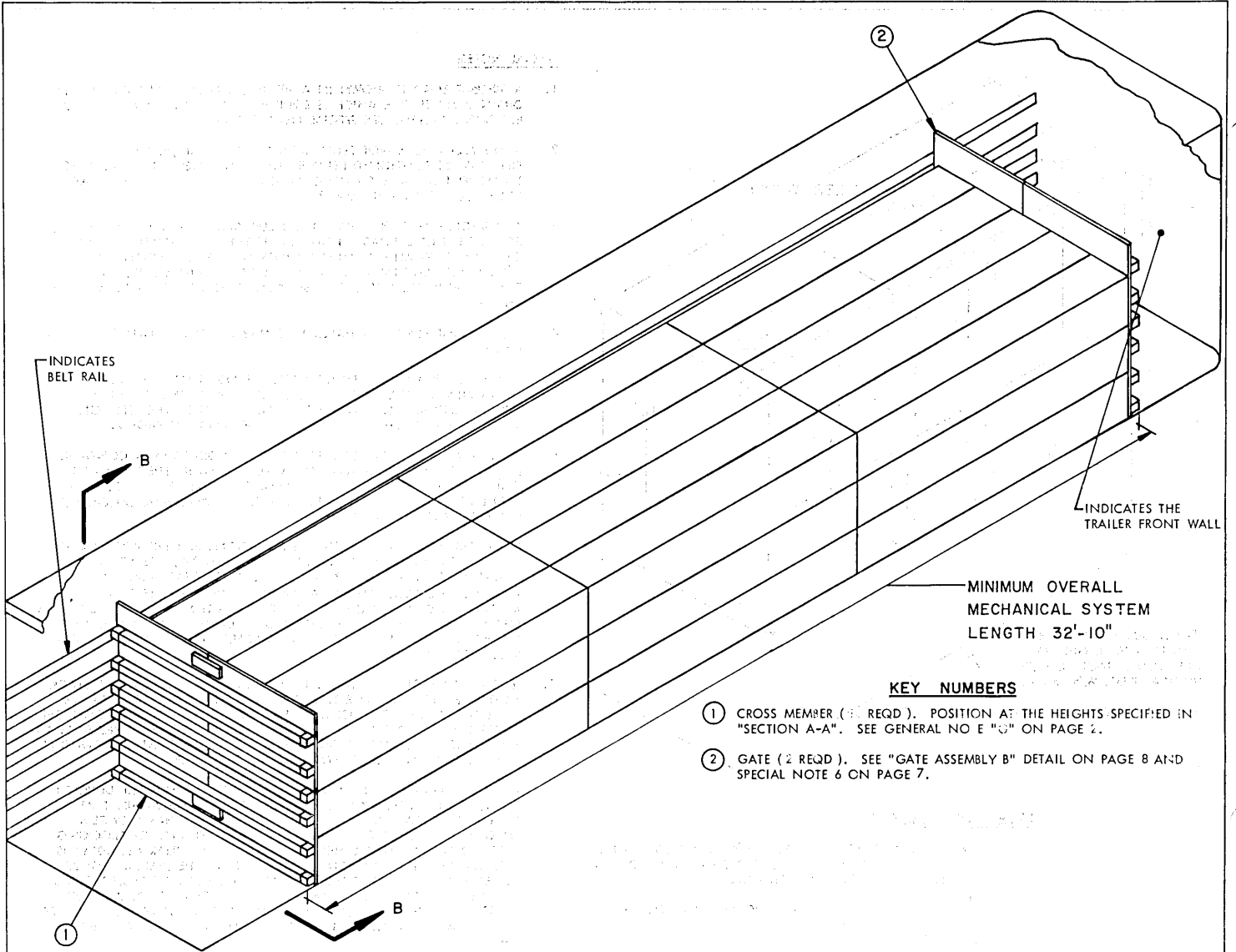
TIE WIRE, NO. 14 GAGE BLACK ANNEALED WIRE. INSTALL THREE (3) COMPLETE WRAPS AROUND THE CROSS MEMBERS AND A FILLER STRIP. BRING ENDS TOGETHER AND TWIST TAUT. SEE SPECIAL NOTE 4 ON THIS PAGE.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	48	32
NAILS	NO. REQD	POUNDS
6d (2")	72	1/2
PLYWOOD, 1/2"	98 SQ FT REQD	141 LBS
PLYWOOD, 1/4"	8 SQ FT REQD	NIL
WIRE, NO. 14 GAGE	60' REQD	NIL

**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER WITH MISSILE	60	16,800 LBS
DUNNAGE		222 LBS
<b>TOTAL WEIGHT</b>		<b>17,022 LBS</b>

**60-UNIT LOAD IN A 40'-0" LONG TRAILER**

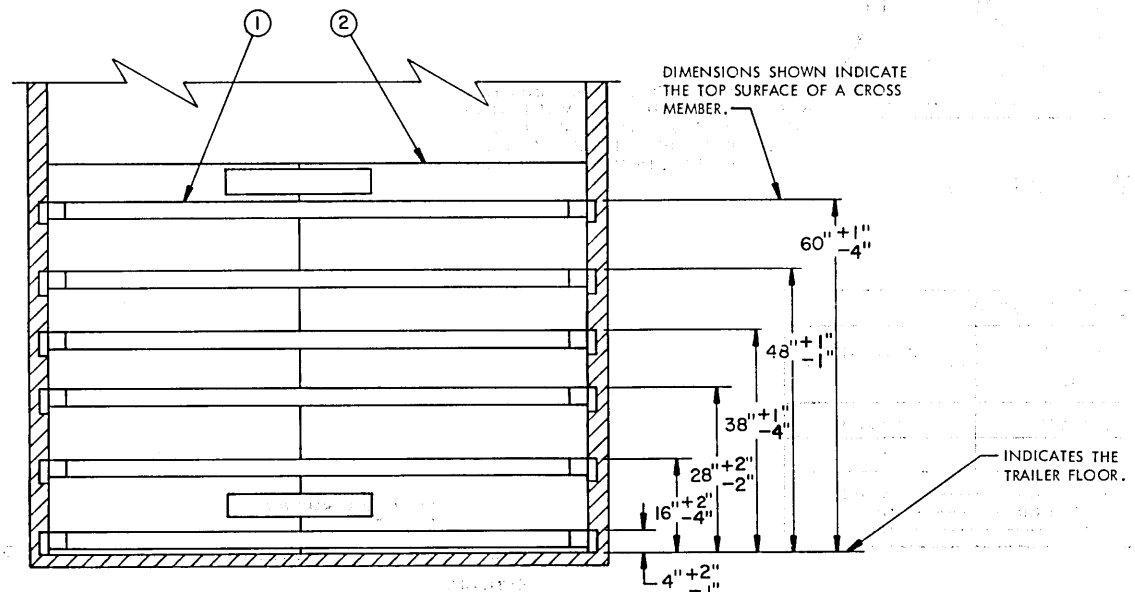


MINIMUM OVERALL  
MECHANICAL SYSTEM  
LENGTH 32'-10"

**KEY NUMBERS**

- ① CROSS MEMBER (1 REQD). POSITION AT THE HEIGHTS SPECIFIED IN "SECTION A-A". SEE GENERAL NOTE "G" ON PAGE 2.
- ② GATE (2 REQD). SEE "GATE ASSEMBLY B" DETAIL ON PAGE 8 AND SPECIAL NOTE 6 ON PAGE 7.

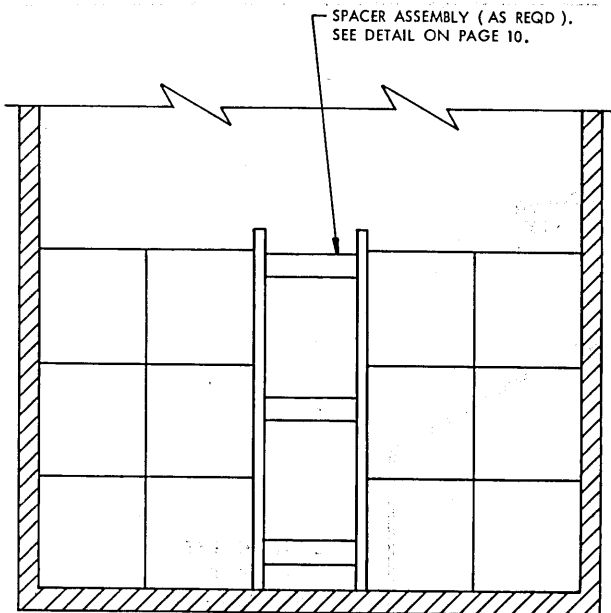
**ISOMETRIC VIEW**



DIMENSIONS SHOWN INDICATE  
THE TOP SURFACE OF A CROSS  
MEMBER.

INDICATES THE  
TRAILER FLOOR.

**SECTION B-B**



**SECTION VIEW**

THE "SECTION VIEW" SHOWN ABOVE DEPICTS THE USE OF A "SPACER ASSEMBLY" TO BE USED WHEN THE INSIDE WIDTH OF THE VAN IS LESS THAN 7'-6". TWO (2) REQUIRED PER EACH STACK. SEE SPECIAL NOTE 3 ON THIS PAGE AND "SPACER ASSEMBLY" DETAIL ON PAGE 10.

**SPECIAL NOTES:**

1. A 45-UNIT LOAD IS SHOWN IN A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) TRAILER WHICH IS EQUIPPED WITH A MECHANICAL LOAD BLOCKING SYSTEM. SEE SPECIAL NOTE 7 BELOW.
2. IF THE BELT RAIL IS NOT FLUSH WITH THE SIDE WALL, PLYWOOD SIDE FILL MUST BE POSITIONED BETWEEN THE CONTAINERS AND BELT RAILS TO PREVENT DAMAGE TO THE CONTAINERS DURING SHIPMENT. SEE THE "SIDE FILL" DETAIL ON PAGE 8.
3. FOR A TRAILER WITH AN INSIDE WIDTH OF LESS THAN 7'-6" REDUCE THE CONTAINER STACKS TO FOUR CONTAINERS WIDE AND USE A "SPACER ASSEMBLY" AS SHOWN IN THE "SECTION VIEW" ON THIS PAGE.
4. A FILLER ASSEMBLY MAY BE USED TO FILL A VOID WHEN A CONTAINER IS OMITTED. THE FILLER ASSEMBLY WILL BE USED IN THE TOP LAYER ONLY AND THE STACKS MUST BE BAYED OFF. SEE "FILLER ASSEMBLY" DETAIL AND "PARTIAL PLAN VIEW" DETAIL SHOWING APPLICATION OF FILLER ASSEMBLY ON PAGE 9.
5. IF ONE LAYER OF CONTAINERS IS OMITTED FROM A STACK, THE STACK MUST BE BAYED OFF. SEE "PARTIAL ELEVATION VIEW" DETAIL ON PAGE 10 WHICH SHOWS ONE LAYER OF CONTAINERS OMITTED FROM A STACK.
6. GATES ARE REQUIRED AT EACH END OF THE LOAD AND/OR BAY TO EQUALLY DISTRIBUTE THE LOAD WEIGHT AGAINST THE CROSS MEMBERS.
7. A SHORTER TRAILER THAN SHOWN CAN BE USED TO SHIP THE DEPICTED LOAD, IF THE MECHANICAL LOAD BLOCKING SYSTEM WITHIN THAT TRAILER IS AT LEAST 32'-10" LONG. IF A "FILLER ASSEMBLY" IS USED AS PERMITTED BY SPECIAL NOTE 4 ABOVE OR IF ONE LAYER IS OMITTED FROM ONE STACK AS PERMITTED BY SPECIAL NOTE 5 ABOVE, THE SYSTEM MUST BE AT LEAST 33'-2" LONG.

**BILL OF MATERIAL**

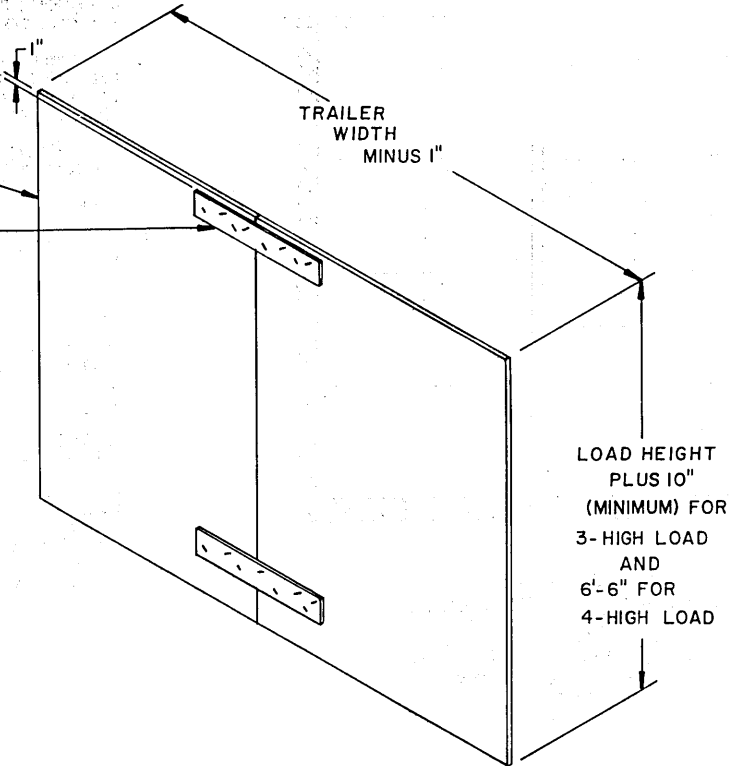
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	8	3
NAILS	NO. REQD	POUNDS
6d (2")	32	1/4
PLYWOOD, 1/2" ----- 81 SQ. FT. -----		117 LBS

**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER		
WITH MISSILE -----	45 -----	12,600 LBS
DUNNAGE -----		125 LBS
<b>TOTAL WEIGHT -----</b>		<b>12,725 LBS</b>

PLYWOOD, 1/2" THICK BY LENGTH AND WIDTH TO SUIT (AS REQD.). NAIL TO THE CLEAT W/4-6d NAILS AND CLINCH. SEE "NOTE ●" BELOW.

CLEAT, 1" X 4" X 24" (2 REQD.). SEE "NOTE ●" BELOW.



LOAD HEIGHT PLUS 10" (MINIMUM) FOR 3-HIGH LOAD AND 6'-6" FOR 4-HIGH LOAD

**NOTE ●:**

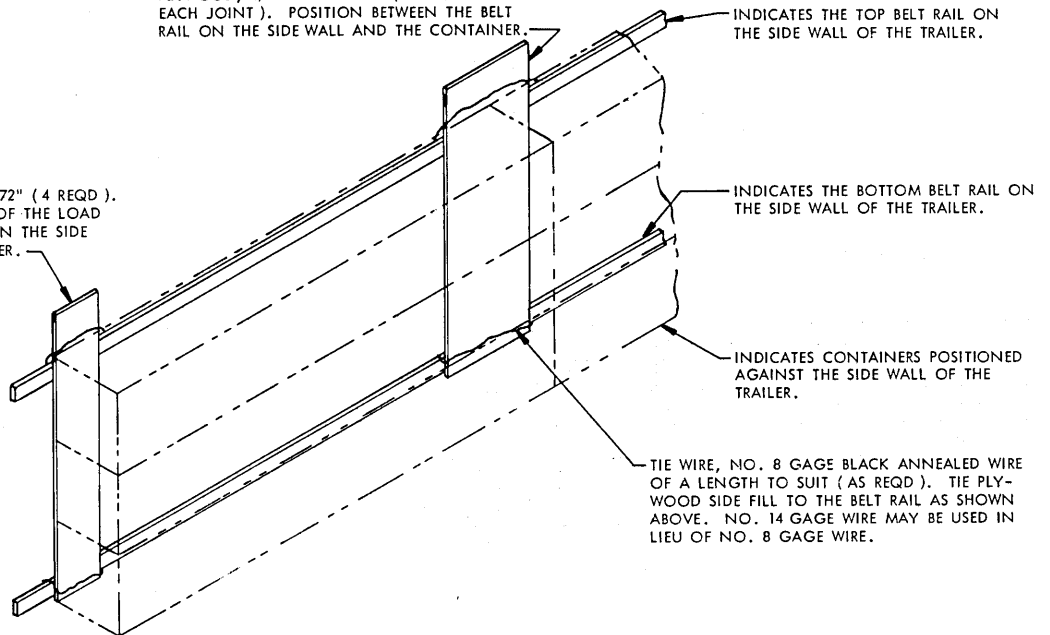
IT IS PREFERRED THAT THE GATE ASSEMBLY BE FORMED FROM ONE PIECE OF PLYWOOD. HOWEVER, IF THIS IS NOT POSSIBLE USE TWO PIECES AS SHOWN ABOVE AND TIE TOGETHER WITH CLEATS. POSITION THE BOTTOM CLEAT AS SHOWN IN "SECTION B-B" VIEW ON PAGE 6.

**GATE ASSEMBLY B**

SEE SPECIAL NOTE 6 ON PAGE 7.

PLYWOOD, 1/4" X 24" X 72" (1 REQUIRED AT EACH JOINT). POSITION BETWEEN THE BELT RAIL ON THE SIDE WALL AND THE CONTAINER.

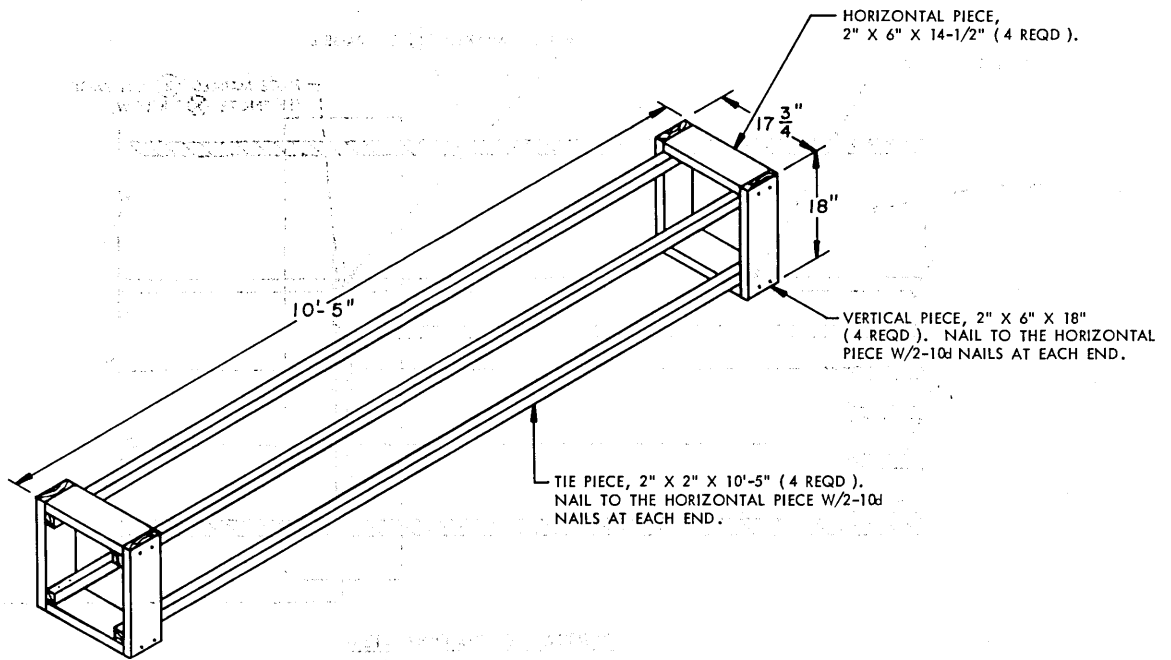
PLYWOOD, 1/4" X 12" X 72" (4 REQD.). POSITION AT EACH END OF THE LOAD BETWEEN THE BELT RAIL ON THE SIDE WALL AND THE CONTAINER.



**SIDE FILL**

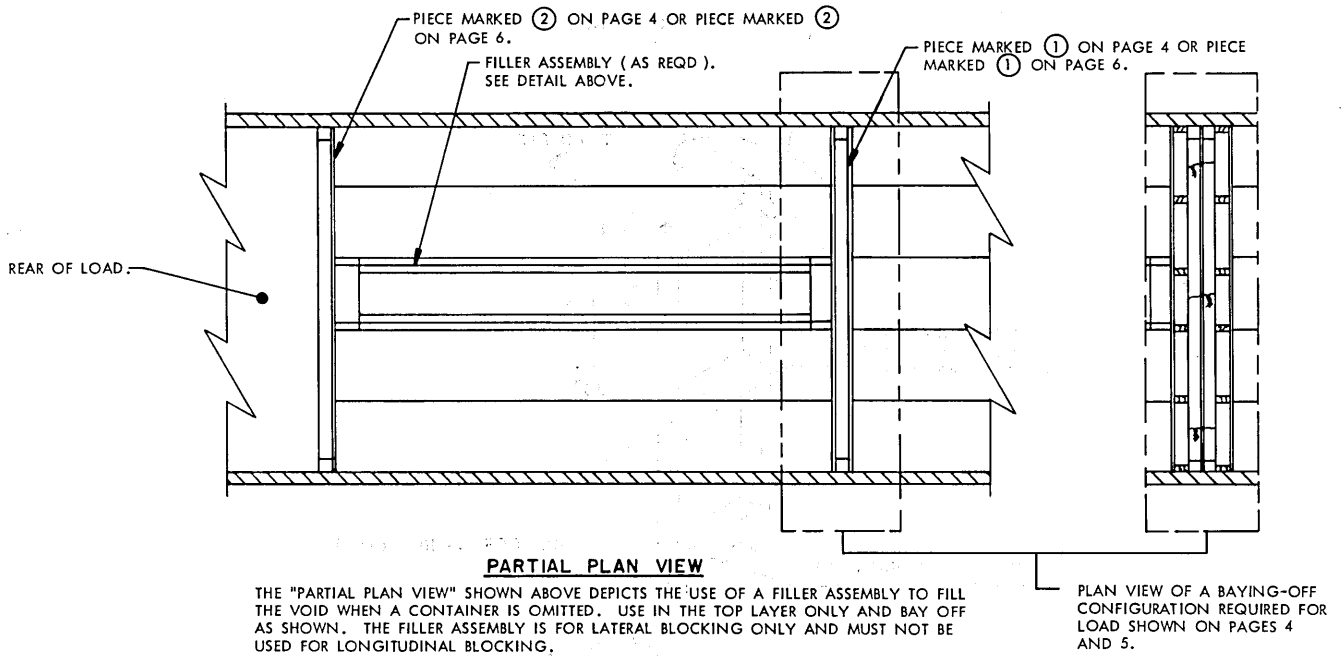
SEE SPECIAL NOTE 2 ON PAGES 5 AND 7.

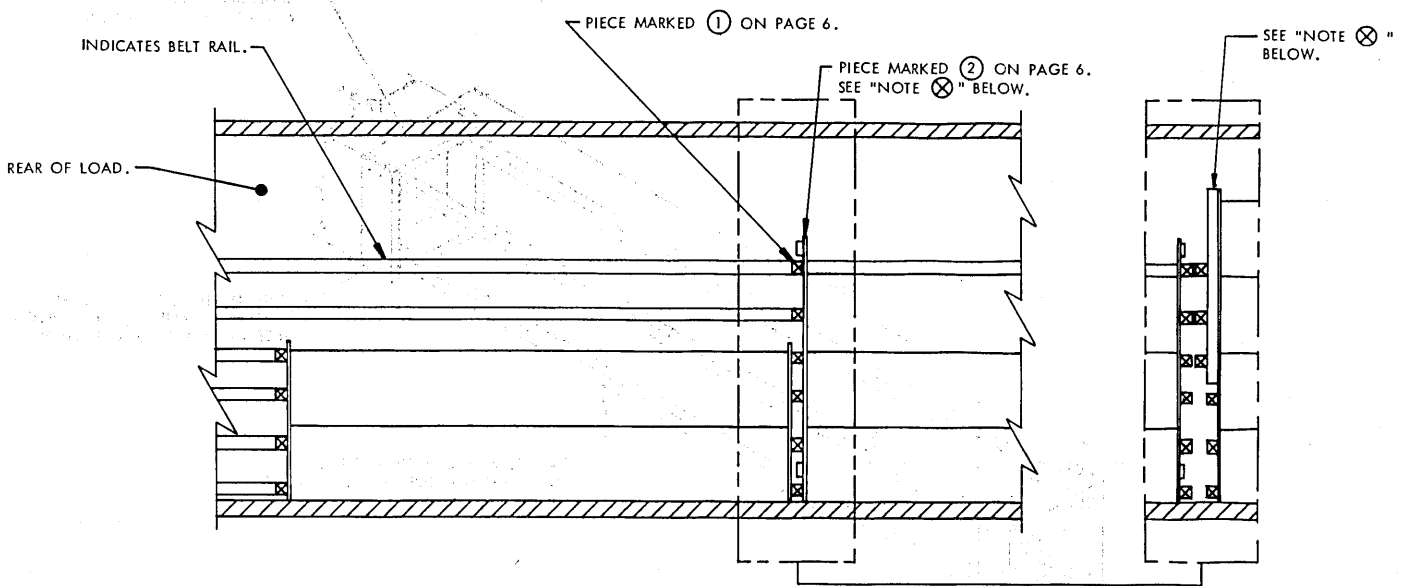




**FILLER ASSEMBLY**

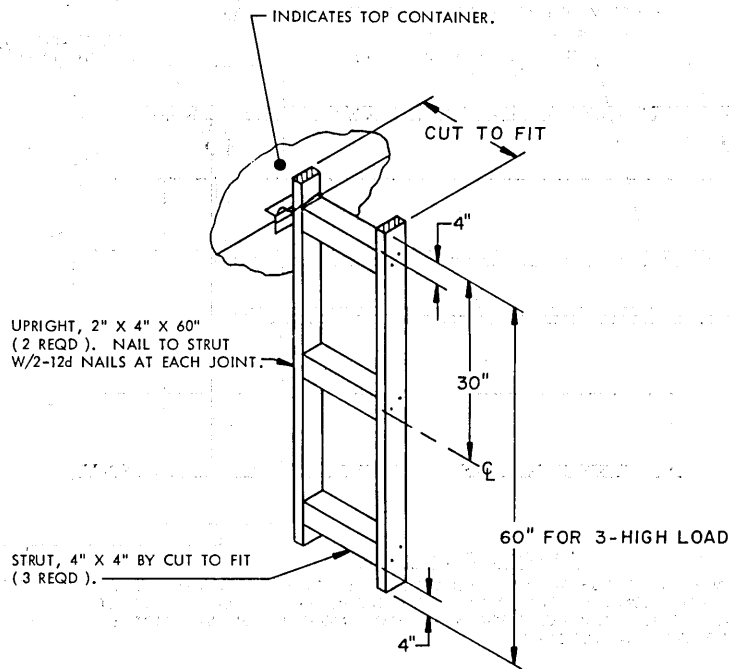
SEE SPECIAL NOTE 6 ON PAGE 5 AND SPECIAL NOTE 4 ON PAGE 7.





**PARTIAL ELEVATION VIEW**

THE PARTIAL ELEVATION VIEW SHOWN ABOVE DEPICTS THE BLOCKING REQUIRED FOR A FULL LOAD, AS SHOWN ON PAGE 6, MINUS FIVE (5) CONTAINERS.  
 NOTE ⊗ : THE GATE ASSEMBLY WILL BE AS SPECIFIED ON PAGE 5 WHEN THE PRINCIPLES SHOWN ABOVE ARE APPLIED TO A 4-HIGH LOAD AS DEPICTED ON PAGES 4 AND 5.



**SPACER ASSEMBLY**

SEE "SECTION VIEW" ON PAGE 7. WIRE TIE TO THE HANDLES OF THE TOP AND BOTTOM CONTAINER. NOTE THAT THE 60" AND 30" DIMENSIONS WILL BE CHANGED TO 80" AND 40", RESPECTIVELY, WHEN ASSEMBLIES ARE FABRICATED FOR USE WITHIN 4-HIGH LOADS.

**DETAILS**