



## 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. THIS PROCEDURAL DRAWING IS APPLICABLE TO TRAILERS AND/OR CONTAINERS WHICH ARE EQUIPPED WITH SPECIAL BULKHEAD SYSTEMS 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.
- C. TYPICAL LOADS SHOWN ARE BASED ON THE FOLLOWING TRAILERS.
1. TRAILERS WHICH ARE EQUIPPED WITH SPECIAL BULKHEAD BRACES HAVING 35'-0" BETWEEN THE BULKHEAD BOARDS. THESE LOADS REQUIRE THE USE OF STRAPPING TO SECURE THE UPRIGHT BRACES.
  2. TRAILERS WHICH HAVE A BULKHEAD BUILT INTO THE FRONT WALL AND ARE EQUIPPED WITH A SPECIAL BULKHEAD BRACE AT THE REAR OF THE TRAILER. THE DISTANCE FROM THE FRONT WALL TO THE BULKHEAD BOARDS AT THE REAR IS 38'-6". STRAPPING IS NOT REQUIRED FOR THESE LOADS.
  3. TRAILERS WHICH ARE EQUIPPED WITH A CAMUS III RESTRAINING SYSTEM. THIS SYSTEM CONSISTS OF ADJUSTABLE BULKHEADS AT THE FRONT AND REAR OF THE TRAILER. THE DISTANCE BETWEEN THE BULKHEADS AT THE MAXIMUM OPEN POSITION IS 37'-8-1/2". THE DISTANCE AT THE MINIMUM CLOSED POSITION IS 30'-4-1/2".
- D. ALL LOADS SHOWN ARE BASED ON TRAILERS WHICH ARE 40'-0" LONG BY 7'-8-1/2" WIDE (INSIDE DIMENSION) WITH WOOD, WOOD AND METAL, OR METAL FLOORS. THE DELINEATED OUTLOADING PROCEDURES ARE ALSO APPLICABLE TO NARROWER TRAILERS EXCEPT WHEN LOADING FIBERBOARD CARTONS OF BULK EXPLOSIVES AS SHOWN IN LOADS ON PAGES 26 THROUGH 29, WHICH CANNOT BE LOADED IN TRAILERS NARROWER THAN 7'-8".
- E. 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 THRU WHICH THE TRAILERS WILL BE TRANSPORTED VIA HIGHWAY (MOTOR CARRIER).
- F. THE NUMBER OF LADING UNITS MAY BE ADJUSTED TO FIT THE SIZE OF THE TRAILER TO BE LOADED OR THE QUANTITY TO BE SHIPPED; HOWEVER, THE APPROVED METHODS SHOWN HEREIN MUST BE FOLLOWED AS CLOSELY AS POSSIBLE FOR BLOCKING, BRACING, AND STAYING OF THE DESIGNATED ITEM.
- G. WHEN STEEL STRAPPING IS SEALED AT AN END-OVER-END LAP JOINT AS SHOWN, A MINIMUM OF TWO (2) SEALS, BUTTED TOGETHER, WITH TWO (2) PAIR OF CRIMPS PER SEAL MUST BE USED TO SEAL THE JOINT. CAUTION: EXERCISE CARE DURING TENSIONING TO PREVENT DAMAGE TO CONTAINERS.
- H. IF SPECIAL AUTHORITY IS GRANTED BY HIGHER HEADQUARTERS, AND PROVIDING THEY ARE FURNISHED BY THE CARRIER, REUSABLE WEB STRAP ASSEMBLIES IDENTIFIED AS AEROQUIP CORPORATION PART NO. FE2000079C MAY BE UTILIZED IN LIEU OF THE SPECIFIED 2" STEEL STRAPPING FOR THE SECUREMENT OF THE UPRIGHT BRACES IN THE LOADS DEPICTED ON PAGES 4 THRU 39. THE SHIPPER IS RESPONSIBLE FOR CLOSE INSPECTION OF THE WEB STRAP ASSEMBLIES DURING INSTALLATION TO ENSURE THAT ASSEMBLIES WHICH HAVE BEEN DAMAGED SUFFICIENTLY TO IMPAIR THEIR STRENGTH WILL NOT BE USED. SCUFF SLEEVES WILL BE POSITIONED TO PROVIDE PADDING WHERE A WEB STRAP IS BEARING ON AN UPRIGHT BRACE. THE STRAPPING WILL BE DRAWN TAUT WHEN ASSEMBLIES ARE TENSIONED, AND MUST FORM AT LEAST ONE AND ONE-HALF COMPLETE WRAPS ON A TAKEUP SPOOL OF A TENSIONING DEVICE. A SOCKET WRENCH HAVING AN 18" HANDLE CAN BE USED TO ACHIEVE PROPER STRAP TAUTNESS. ONE MAN, UNASSISTED AND USING THE LEVER ADVANTAGE OF AN 18" LONG WRENCH HANDLE TO ITS FULLEST EXTENT, CAN ACHIEVE THE PROPER PRESTRESS IN A WEB STRAP ASSEMBLY.
- J. EXCEPT FOR PLYWOOD, 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 OR 1-1/2" THICK BY 3-1/2" WIDE AND 2" X 6" MATERIAL IS ACTUALLY 1-5/8" THICK BY 5-5/8" WIDE OR 1-1/2" THICK BY 5-1/2" WIDE.

(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 THE SAME SIZE.
- STRAPPING STEEL** ----- : TYPE I OR IV, CLASS A, B OR C, FED SPEC QQ-5-781.
- PLYWOOD** ----- : GROUP B OR C, GRADE C-D (EXTERIOR); FED SPEC NN-P-530.
- FIBERBOARD** ----- : TYPE CF, CLASS-WEATHER RESISTANT, SW, GRADE V3C, FED SPEC PPP-F-320.
- HARDBOARD** ----- : FED SPEC LLL-H-35.
- STRAP SEAL** ----- : COMMERCIAL GRADE.

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

## (GENERAL NOTES CONTINUED)

- K. NOTICE: A STAGGERED NAILING PATTERN WILL BE USED WHEREVER POSSIBLE WHEN NAILS ARE DRIVEN INTO JOINTS OF DUNNAGE ASSEMBLIES. ALSO, A STAGGERED NAILING PATTERN WILL BE USED WHEN 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.
- L. DO NOT NAIL BLOCKING SHOWN HEREIN TO THE TRAILER WALLS OR FLOOR: ALL NAILING WILL BE ACCOMPLISHED WITHIN THE DUNNAGE.
- M. PORTIONS OF THE TRAILER BODY DEPICTED WITHIN THIS PROCEDURAL DRAWING, SUCH AS ONE OF THE SIDE WALLS, HAVE BEEN OMITTED FROM THE LOAD VIEWS FOR CLARITY PURPOSES.
- N. FOR ADDITIONAL GUIDANCE, ATTENTION IS DIRECTED TO THE "SPECIAL NOTES" SECTION WHICH IS IMMEDIATELY ADJACENT TO THE DEPICTED OUTLOADING METHOD.

## REVISIONS

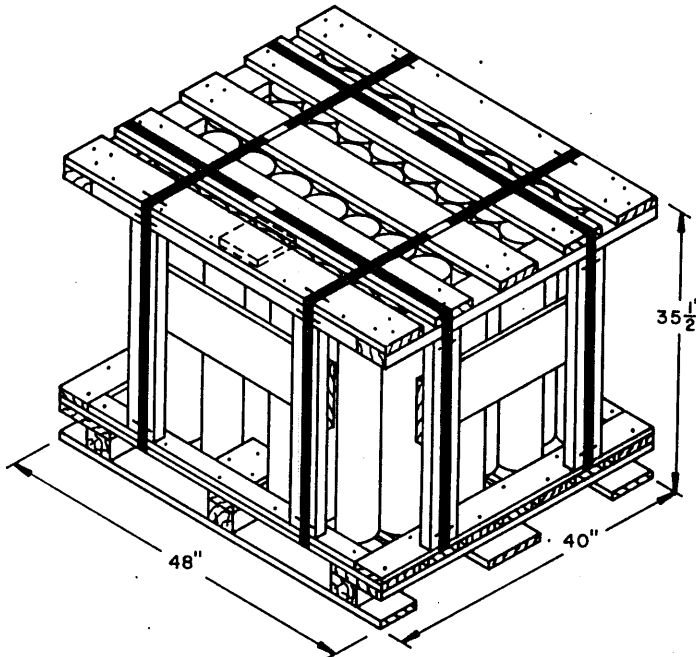
REVISION NO. 1, DATED FEBRUARY 1974, CONSISTS OF:

1. DELETING PROCEDURES FOR TRAILERS HAVING 25'-0" BETWEEN BULKHEADS.
2. ADDING PROCEDURES FOR TRAILERS HAVING 35'-0" BETWEEN BULKHEADS.
3. ADDING PROCEDURES FOR TRAILERS HAVING 38'-6" BETWEEN BULKHEADS.
4. ADDING PROCEDURES FOR TRAILERS EQUIPPED WITH CAMUS III RESTRAINING SYSTEMS HAVING 30'-4-1/2" TO 37'-8-1/2" BETWEEN ADJUSTABLE BULKHEADS.
5. CHANGES NECESSARY TO UPDATE THE DRAWING FORMAT.

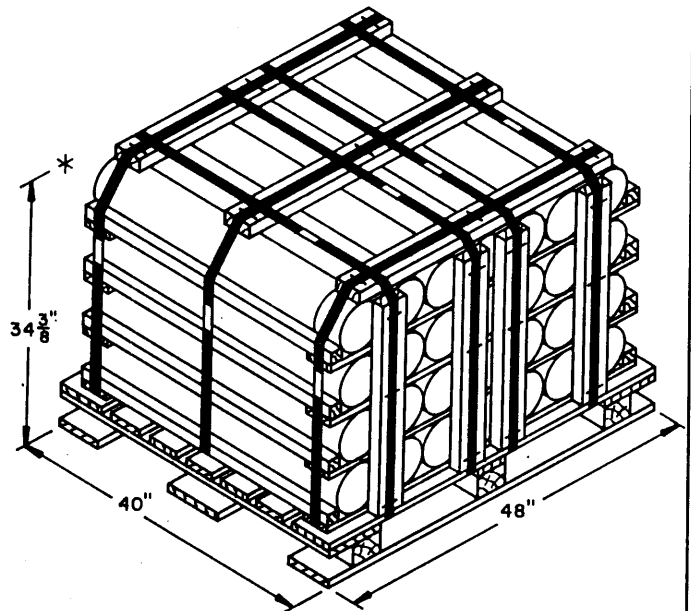
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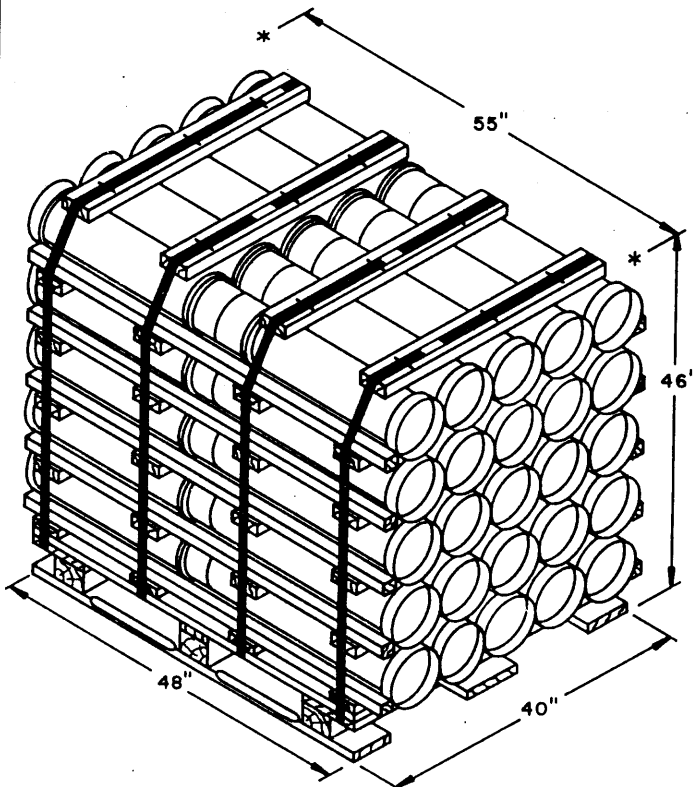
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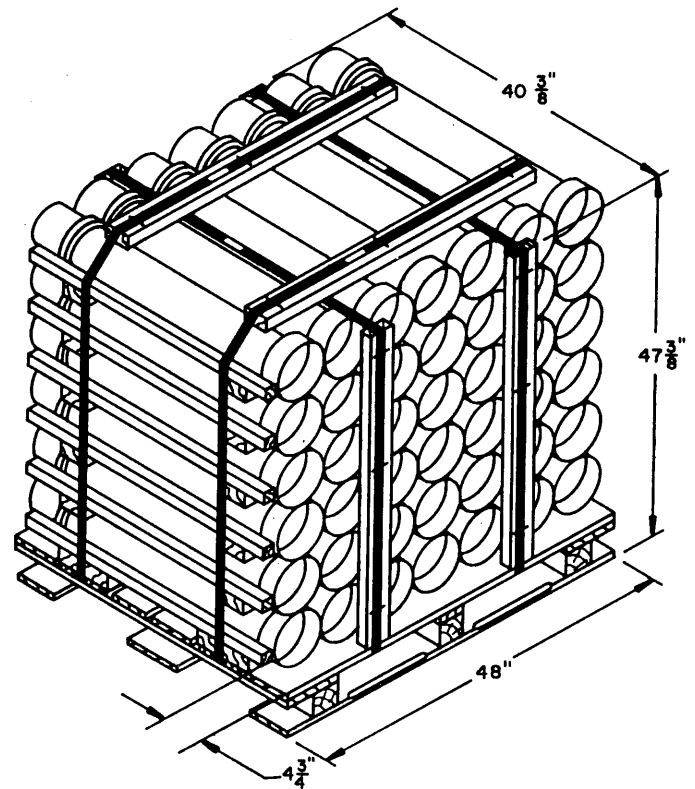
**PALLET A**  
THE M173 CONTAINER FOR COMPLETE ROUNDS IS SHOWN.



**PALLET B**  
THE M152 CONTAINER FOR COMPLETE ROUNDS IS SHOWN.

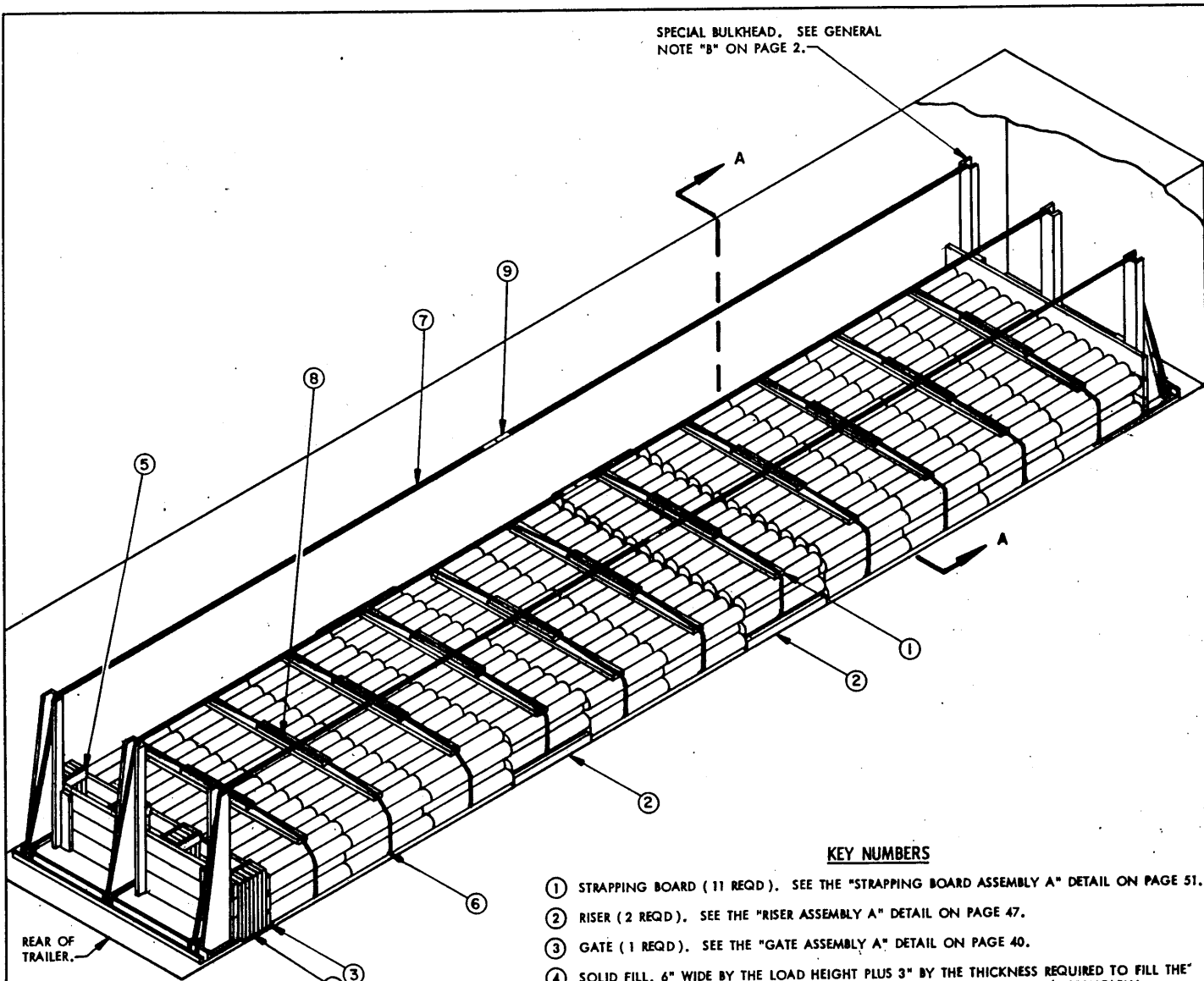


**PALLET C**  
THE M13 SERIES CONTAINER FOR PROPELLING CHARGES IS SHOWN.



**PALLET D**  
THE M14 SERIES CONTAINER FOR PROPELLING CHARGES IS SHOWN.

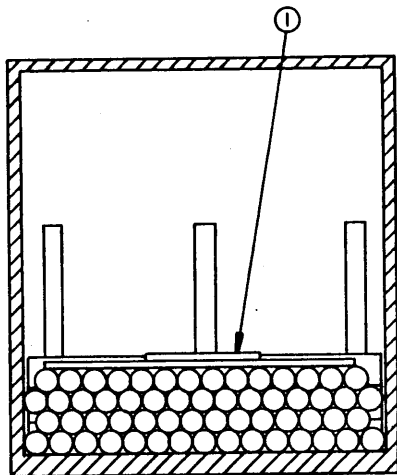
**TYPICAL PALLET UNITS**



**ISOMETRIC VIEW**

**KEY NUMBERS**

- ① STRAPPING BOARD ( 11 REQD ). SEE THE "STRAPPING BOARD ASSEMBLY A" DETAIL ON PAGE 51.
- ② RISER ( 2 REQD ). SEE THE "RISER ASSEMBLY A" DETAIL ON PAGE 47.
- ③ GATE ( 1 REQD ). SEE THE "GATE ASSEMBLY A" DETAIL ON PAGE 40.
- ④ SOLID FILL, 6" WIDE BY THE LOAD HEIGHT PLUS 3" BY THE THICKNESS REQUIRED TO FILL THE VOID BETWEEN THE GATE AND THE BULKHEAD ( 4 REQD ). LAMINATE W/3 APPLICABLY SIZED NAILS. POSITION EACH PIECE FLUSH WITH EACH VERTICAL PIECE OF THE GATE ASSEMBLY ( PIECE MARKED ③ ).
- ⑤ CLEAT, 1" X 4" BY CUT TO FIT ( 6 REQD ). NAIL TO THE SOLID FILL W/3-6d NAILS.
- ⑥ BUNDLING STRAP, 1-1/4" X .035" X 21'-0" STEEL STRAPPING ( 11 REQD ). PRE-POSITION. SEE GENERAL NOTE "G" ON PAGE 2. STAPLE TO THE STRAPPING BOARDS W/2 STAPLES EACH.
- ⑦ BULKHEAD STRAP, 2" X .050" X 60'-0" STEEL STRAPPING ( 3 REQD ). INSTALL EACH STRAP FROM TWO ( 2 ) 30'-0" LONG PIECES. SEE GENERAL NOTE "H" ON PAGE 2.
- ⑧ SEAL FOR 1-1/4" STRAPPING ( 22 REQD, 2 PER STRAP ). DOUBLE-CRIMP EACH SEAL.
- ⑨ SEAL FOR 2" STRAPPING ( 18 REQD, 2 PER STRAP JOINT ). DOUBLE-CRIMP EACH SEAL.



**SECTION A-A**

BUNDLING STRAP SHOWN AS PIECE MARKED ④ IS OMITTED FOR CLARITY.

**TYPICAL LOAD IN A TRAILER HAVING 35'-0" BETWEEN BULKHEADS**

**SPECIAL NOTES:**

1. A TYPICAL LOAD OF COMPLETE ROUNDS IS SHOWN IN A 7'-8-1/2" WIDE (INSIDE DIMENSION) TRAILER HAVING 35'-0" BETWEEN THE INSTALLED BULKHEADS. THE PROCEDURES SHOWN WILL APPLY TO ALL COMPLETE ROUNDS LOADED IN TRAILERS OF VARIOUS INSIDE WIDTH AND LENGTH.
2. CONTAINER DETAIL: THE M152 CONTAINER IS SHOWN.  
DIMENSIONS ----- 6-1/8" DIAMETER X 37-1/8" LONG.  
GROSS WEIGHT ----- 71 POUNDS (APPROX).
3. IF THE EXCESS SPACE BETWEEN THE REAR OF THE LADING AND THE INSTALLED BULKHEAD IS GREATER THAN 18" USE A GATE AND STRUTS, AS SHOWN IN LOAD ON PAGE 6, IN LIEU OF SOLID FILL.
4. CONTAINERS MAY BE ALTERNATED (CAP AND BASE) INDIVIDUALLY OR BY LAYER. SEE SECTION A-A ON PAGE 4.
5. IF THE EXCESS SPACE ACROSS THE WIDTH OF THE TRAILER IS GREATER THAN 3/4" SIDE FILL AS SHOWN ON PAGES 8, 16, OR 18 MUST BE USED IN ORDER TO MAINTAIN LEVEL LAYERS.
6. WHEN LOADING LESS THAN A FULL STACK, RISER ASSEMBLIES AS SHOWN ON PAGE 4, AND/OR FILLER ASSEMBLIES AS SHOWN ON PAGE 6, WILL BE USED AS REQUIRED TO PROPERLY BRACE THE LOAD.

**LOAD CAPACITY CHART**

CONTAINER	WEIGHT	QUANTITY	* LOAD WEIGHT
M159	67.4 LBS	623	41,990 LBS
M173	33.7 LBS	1246	41,990 LBS
T53	29.5 LBS	1423	41,978 LBS

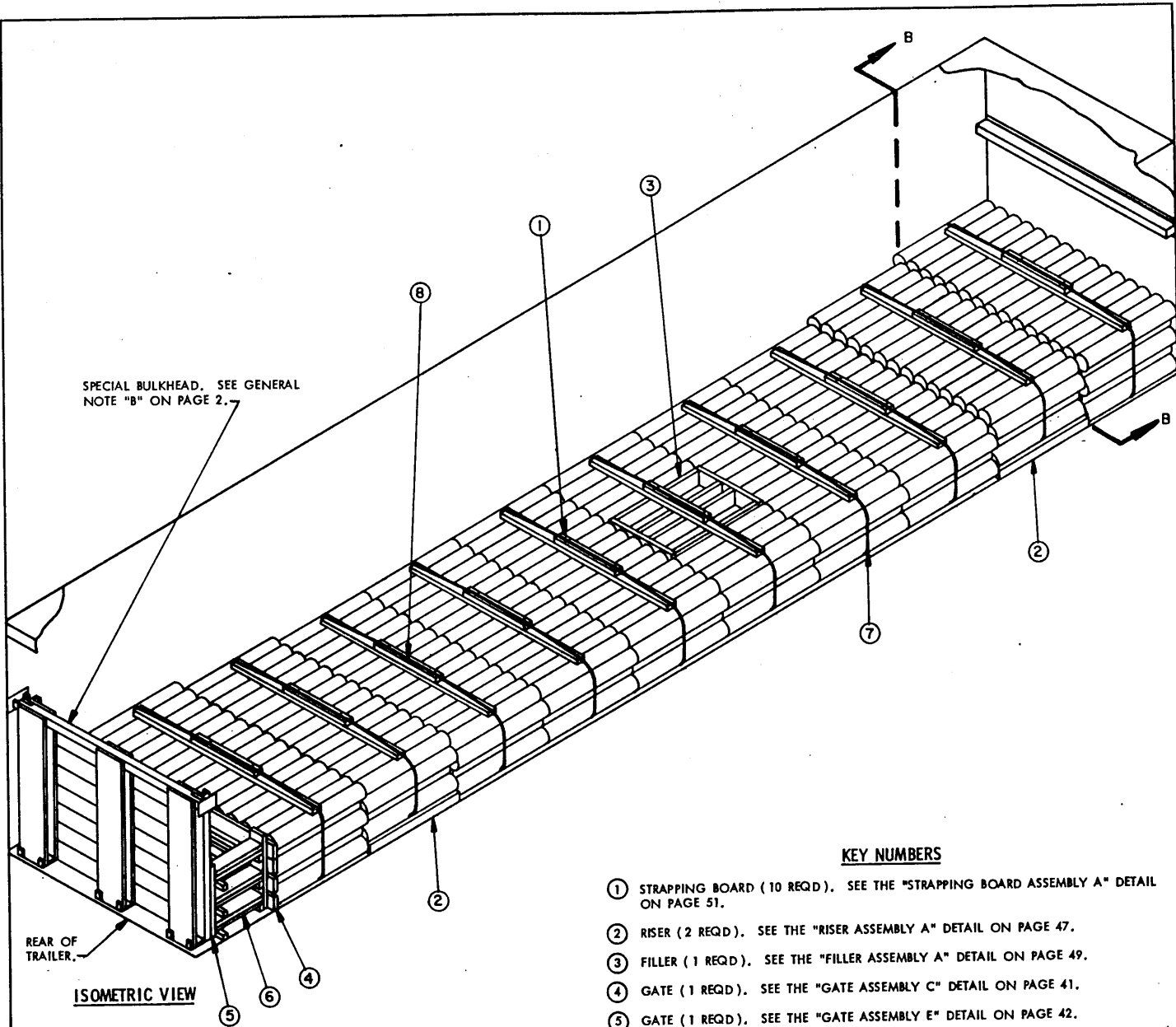
\* LOAD WEIGHT IS FOR COMPLETE ROUNDS ONLY AND DOES NOT INCLUDE DUNNAGE.

**BILL OF MATERIAL**

LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	8	3
2" X 4"	160	107
2" X 6"	68	68
NAILS	NO. REQD	POUNDS
6d (2")	18	1/4
10d (3")	164	2-3/4
STEEL STRAPPING, 1-1/4" X .035" -----	231' REQD -----	33 LBS
STEEL STRAPPING, 2" X .050" -----	180' REQD -----	60 LBS
SEAL FOR 1-1/4" STRAPPING -----	22 REQD -----	1 LB
SEAL FOR 2" STRAPPING -----	18 REQD -----	4 LBS
STAPLE FOR 1-1/4" STRAPPING -----	22 REQD -----	NIL

**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT (APPROX)
M152 CONTAINER-----	582 -----	41,322 LBS
DUNNAGE-----	-----	544 LBS
TOTAL WEIGHT-----		41,866 LBS



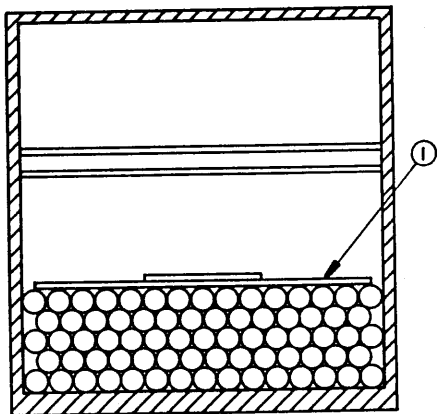
SPECIAL BULKHEAD. SEE GENERAL NOTE "B" ON PAGE 2.

REAR OF TRAILER.

**ISOMETRIC VIEW**

**KEY NUMBERS**

- ① STRAPPING BOARD (10 REQD). SEE THE "STRAPPING BOARD ASSEMBLY A" DETAIL ON PAGE 51.
- ② RISER (2 REQD). SEE THE "RISER ASSEMBLY A" DETAIL ON PAGE 47.
- ③ FILLER (1 REQD). SEE THE "FILLER ASSEMBLY A" DETAIL ON PAGE 49.
- ④ GATE (1 REQD). SEE THE "GATE ASSEMBLY C" DETAIL ON PAGE 41.
- ⑤ GATE (1 REQD). SEE THE "GATE ASSEMBLY E" DETAIL ON PAGE 42.
- ⑥ STRUT, 2" X 6" BY CUT TO FIT (DOUBLED) (12 REQD). LAMINATE W/1-10d NAIL EVERY 6". TOENAIL TO THE VERTICAL PIECES OF PIECES MARKED ④ AND ⑤ W/2-12d NAILS AT EACH END.
- ⑦ BUNDLING STRAP, 1-1/4" X .035" X 21'-0" STEEL STRAPPING (10 REQD). PRE-POSITION. SEE GENERAL NOTE "G" ON PAGE 2. STAPLE TO THE STRAPPING BOARDS W/2-STAPLES EACH.
- ⑧ SEAL FOR 1-1/4" STRAPPING (20 REQD, 2 PER STRAP JOINT). DOUBLE-CRIMP EACH SEAL.



**SECTION B-B**

BUNDLING STRAP, SHOWN AS PIECE MARKED ⑦ IS OMITTED FOR CLARITY.

**TYPICAL LOAD IN A TRAILER HAVING 38'-6" BETWEEN BULKHEADS**



**SPECIAL NOTES:**

1. A TYPICAL LOAD OF COMPLETE ROUNDS IS SHOWN IN A 7'-8-1/2" WIDE (INSIDE DIMENSION) TRAILER HAVING 38'-6" BETWEEN THE BULKHEAD AT THE FRONT (BUILT INTO THE FRONT WALL) AND THE INSTALLED BULKHEAD AT THE REAR. THE PROCEDURES SHOWN WILL APPLY TO ALL COMPLETE ROUNDS LOADED IN TRAILERS OF VARIOUS INSIDE WIDTH AND LENGTH.
2. CONTAINER DETAIL: THE M159 CONTAINER IS SHOWN.  
 DIMENSIONS ----- 6-1/8" DIAMETER X 43-3/8" LONG.  
 GROSS WEIGHT ----- 67.4 POUNDS (APPROX).
3. IF THE EXCESS SPACE BETWEEN THE REAR OF THE LADING AND THE INSTALLED BULKHEAD IS LESS THAN 18" USE SOLID FILL AS SHOWN IN LOAD ON PAGE 4, IN LIEU OF GATES AND STRUTS.
4. CONTAINERS MAY BE ALTERNATED (CAP AND BASE) INDIVIDUALLY OR BY LAYER. SEE SECTION B-B ON PAGE 6.
5. IF THE EXCESS SPACE ACROSS THE WIDTH OF THE TRAILER IS GREATER THAN 3/4" SIDE FILL AS SHOWN ON PAGES 8, 16, OR 18 MUST BE USED IN ORDER TO MAINTAIN LEVEL LAYERS.
6. WHEN LOADING LESS THAN A FULL STACK, RISER ASSEMBLIES AS SHOWN ON PAGE 6 AND/OR FILLER ASSEMBLIES AS SHOWN ON PAGE 6 WILL BE USED AS REQUIRED TO PROPERLY BRACE THE LOAD.

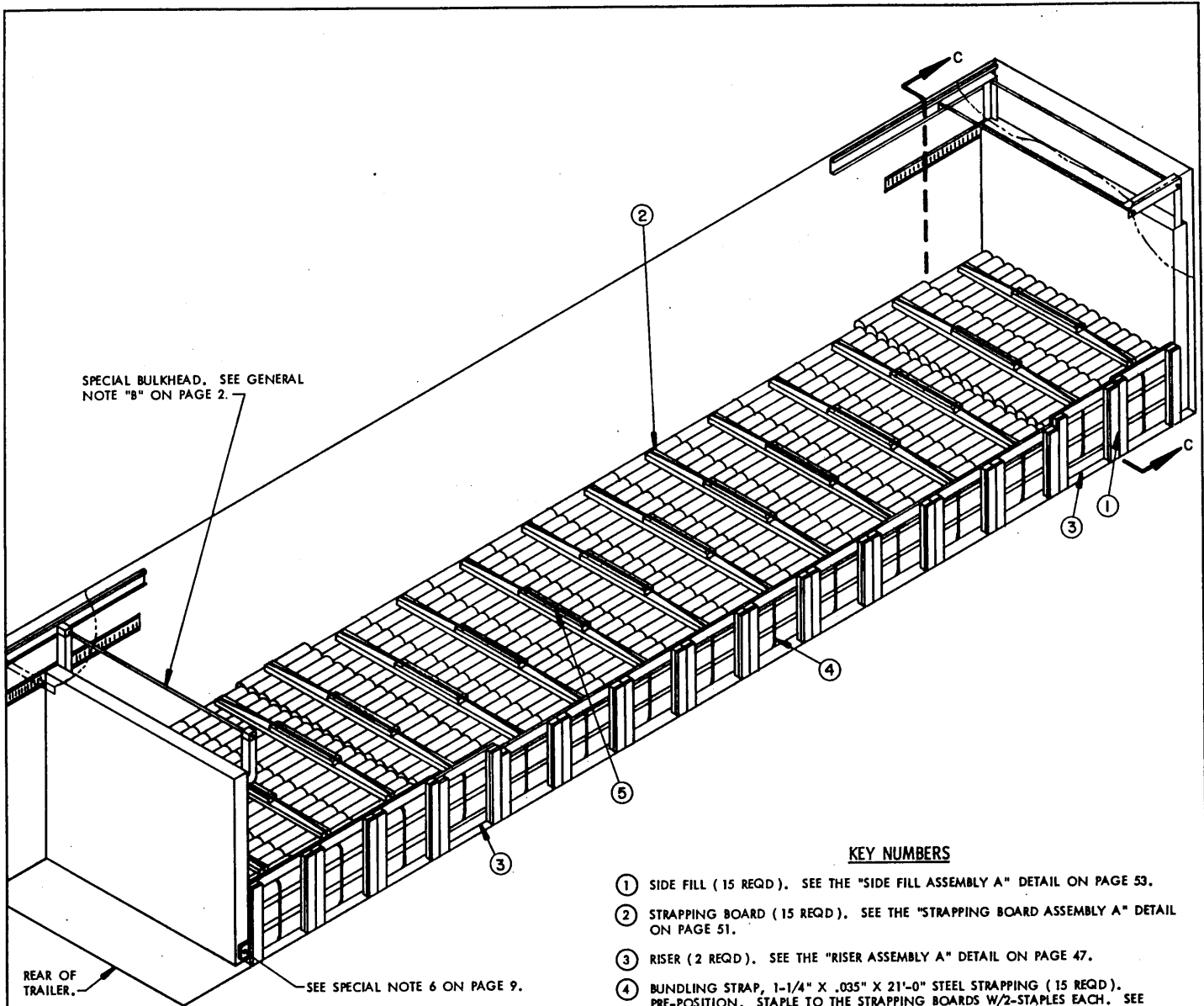
BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 2"	36	12
2" X 4"	158	105
2" X 6"	119	119
NAILS	NO. REQD	POUNDS
10d (3")	184	3
12d (3-1/4")	84	1-1/2
STEEL STRAPPING, 1-1/4" X .035" -- 210' REQD -----		30 LBS
SEALS FOR 1-1/4" STRAPPING -----		20 REQD ----- 1 LB
STAPLE FOR 1-1/4" STRAPPING -----		20 REQD ----- NIL

LOAD CAPACITY CHART			
CONTAINER	WEIGHT	QUANTITY	* LOAD WEIGHT
M152	71.0 LBS	591	41,962 LBS
M173	33.7 LBS	1246	41,990 LBS
T53	29.5 LBS	1423	41,978 LBS

\* LOAD WEIGHT IS FOR COMPLETE ROUNDS ONLY AND DOES NOT INCLUDE DUNNAGE.

**LOAD AS SHOWN**

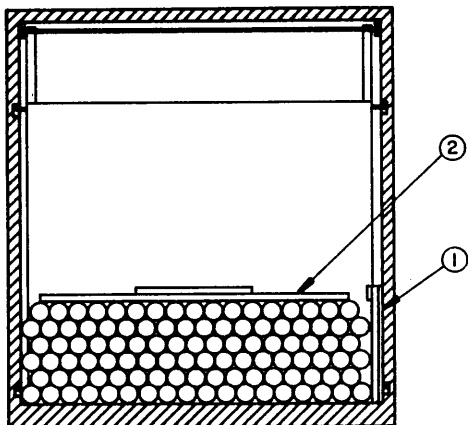
ITEM	QUANTITY	WEIGHT (APPROX)
M159 CONTAINER --	605 -----	40,777 LBS
DUNNAGE -----		626 LBS
<b>TOTAL WEIGHT -----</b>		<b>41,403 LBS</b>



**ISOMETRIC VIEW**

**KEY NUMBERS**

- ① SIDE FILL (15 REQD). SEE THE "SIDE FILL ASSEMBLY A" DETAIL ON PAGE 53.
- ② STRAPPING BOARD (15 REQD). SEE THE "STRAPPING BOARD ASSEMBLY A" DETAIL ON PAGE 51.
- ③ RISER (2 REQD). SEE THE "RISER ASSEMBLY A" DETAIL ON PAGE 47.
- ④ BUNDLING STRAP, 1-1/4" X .035" X 21'-0" STEEL STRAPPING (15 REQD). PRE-POSITION. STAPLE TO THE STRAPPING BOARDS W/2-STAPLES EACH. SEE GENERAL NOTE "G" ON PAGE 2.
- ⑤ SEAL FOR 1-1/4" STRAPPING (30 REQD, 2 PER STRAP JOINT). DOUBLE-CRIMP EACH SEAL.



**SECTION C-C**

BUNDLING STRAP, SHOWN AS PIECE MARKED ④ IS OMITTED FOR CLARITY.

**SPECIAL NOTES:**

1. A TYPICAL LOAD OF COMPLETE ROUNDS IS SHOWN IN A 40'-0" LONG BY 7'-8-1/2" WIDE ( INSIDE DIMENSION ) TRAILER WHICH IS EQUIPPED WITH A CAMUS III RESTRAINING SYSTEM. THE PROCEDURES SHOWN WILL APPLY TO ALL COMPLETE ROUNDS LOCATED IN TRAILERS OF VARIOUS INSIDE WIDTH AND LENGTH.
2. CONTAINER DETAIL: THE M173 CONTAINER IS SHOWN.  
 DIMENSIONS ----- 5" DIAMETER X 29-1/4" LONG.  
 GROSS WEIGHT ----- 29.5 POUNDS ( APPROX ).
3. CONTAINERS MAY BE ALTERNATED ( CAP AND BASE ) INDIVIDUALLY OR BY LAYER. SEE SECTION C-C ON PAGE 8.
4. IF THE EXCESS SPACE ACROSS THE WIDTH OF THE TRAILER IS GREATER THAN 3/4", SIDE FILL AS SHOWN ON PAGE 8 MUST BE USED IN ORDER TO MAINTAIN LEVEL LAYERS.
5. WHEN LOADING LESS THAN A FULL STACK, RISER ASSEMBLIES AS SHOWN ON PAGE 8 MUST BE USED.
6. FILLER BLOCKS AS SHOWN IN "FILLER BLOCK DETAIL" ON PAGE 57 MUST BE USED TO REDUCE LATERAL MOVEMENT OF THE REAR BULKHEAD IN A CAMUS III TRAILER.
7. LOAD AS SHOWN WILL REQUIRE THE STRAPPING BOARD TO BE CUT TRAILER WIDTH MINUS THREE CONTAINER DIAMETERS.

**BILL OF MATERIAL**

LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	107	36
2" X 4"	212	142
NAILS	NO. REQD	POUNDS
6d ( 2" )	210	1-1/4
10d ( 3" )	120	2
STEEL STRAPPING, 1-1/4" X .035" --- 315' REQD -----		45 LBS
SEAL FOR 1-1/4" STRAPPING ----- 30 REQD -----		1-1/4 LBS
STAPLE FOR 1-1/4" STRAPPING ----- 30 REQD -----		NIL

**LOAD CAPACITY CHART**

CONTAINER	WEIGHT	QUANTITY	* LOAD WEIGHT
M152	71.0 LBS	591	41,961 LBS
M159	67.4 LBS	623	41,990 LBS
T53	29.5 LBS	1246	36,757 LBS

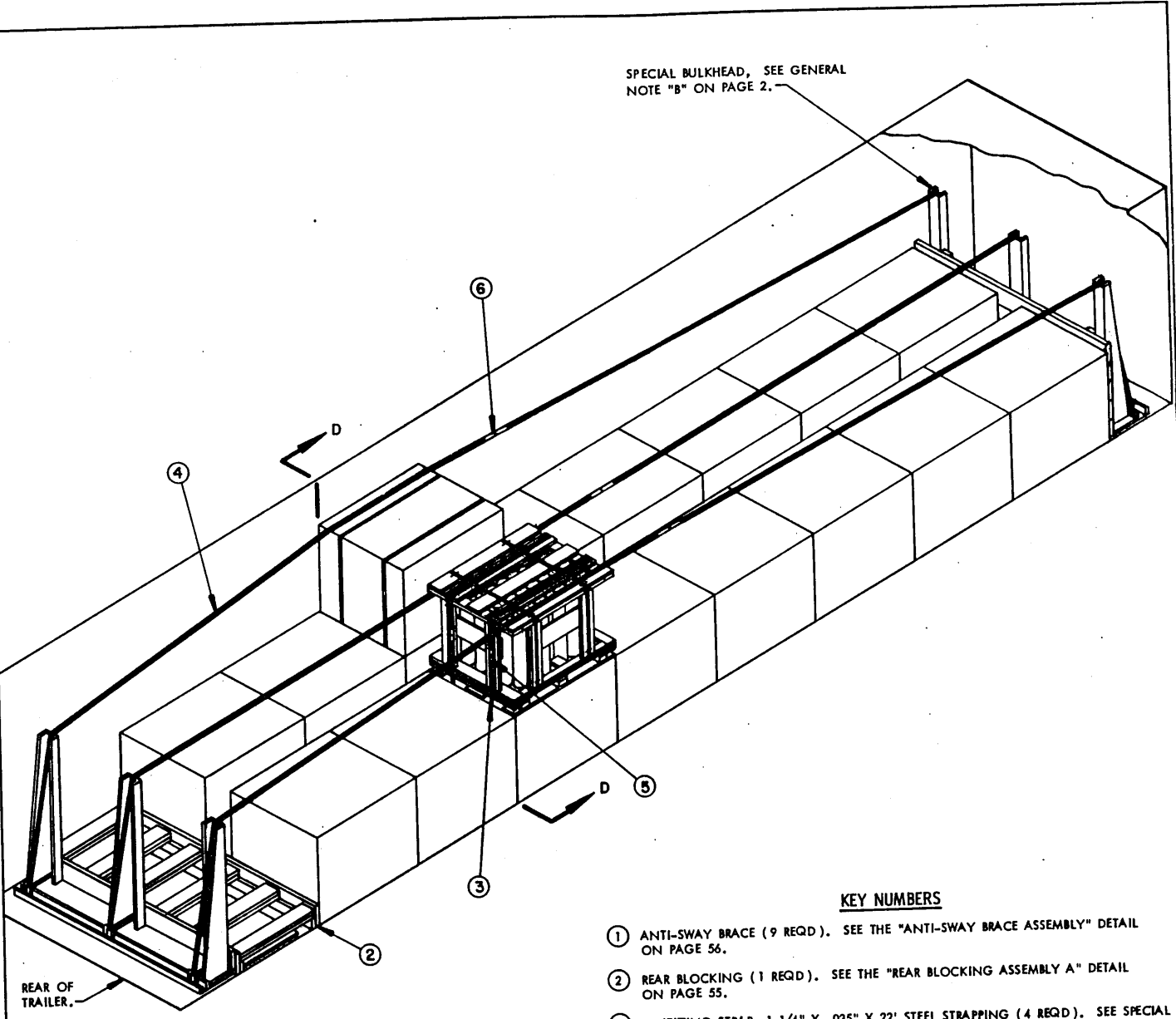
\*LOAD WEIGHT IS FOR COMPLETE ROUNDS ONLY AND DOES NOT INCLUDE DUNNAGE.

**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT ( APPROX )
M173 CONTAINER ---	1388	40,946 LBS
DUNNAGE -----		495 LBS
TOTAL WEIGHT -----		41,441 LBS

TYPICAL LOAD IN A TRAILER HAVING 30'-4-1/2" TO 37'-8" BETWEEN BULKHEADS

SPECIAL BULKHEAD, SEE GENERAL NOTE "B" ON PAGE 2.



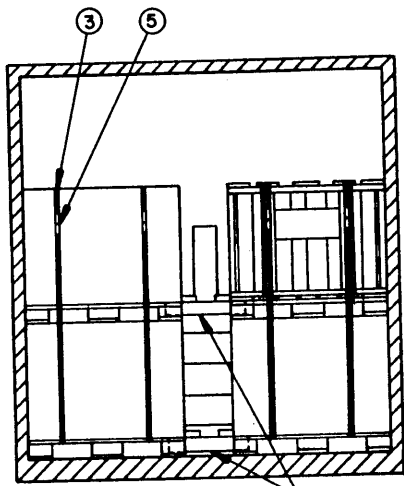
REAR OF TRAILER.

**ISOMETRIC VIEW**

THE PALLETIZED M173 CONTAINER IS SHOWN ABOVE. SEE PALLET A ON PAGE 3.

**KEY NUMBERS**

- ① ANTI-SWAY BRACE (9 REQD). SEE THE "ANTI-SWAY BRACE ASSEMBLY" DETAIL ON PAGE 56.
- ② REAR BLOCKING (1 REQD). SEE THE "REAR BLOCKING ASSEMBLY A" DETAIL ON PAGE 55.
- ③ UNITIZING STRAP, 1-1/4" X .035" X 22' STEEL STRAPPING (4 REQD). SEE SPECIAL NOTE 7 ON PAGE 11.
- ④ BULKHEAD STRAP, 2" X .050" X 60'-0" STEEL STRAPPING (3 REQD). INSTALL EACH STRAP FROM TWO (2) 30'-0" LONG PIECES. SEE GENERAL NOTE "H" ON PAGE 2.
- ⑤ SEAL FOR 1-1/4" STRAPPING (8 REQD, 2 PER STRAP). DOUBLE-CRIMP EACH SEAL.
- ⑥ SEAL FOR 2" STRAPPING (18 REQD, 2 PER STRAP JOINT). DOUBLE CRIMP EACH SEAL.



SECTION D-D

TYPICAL LOAD IN A TRAILER HAVING 35'-0" BETWEEN BULKHEADS

**SPECIAL NOTES:**

1. A TYPICAL LOAD OF PALLETIZED COMPLETE ROUNDS IS SHOWN IN A 7'-8-1/2" WIDE (INSIDE DIMENSION) TRAILER HAVING 35'-0" BETWEEN THE INSTALLED BULKHEADS. THE PROCEDURES SHOWN WILL APPLY TO ALL PALLETIZED COMPLETE ROUNDS LOADED IN TRAILERS OF VARIOUS INSIDE WIDTH AND LENGTH.
2. PALLET DETAIL: THE M173 CONTAINER IS SHOWN.  
 DIMENSIONS ----- 40" LONG X 48" WIDE X 35-1/2" HIGH.  
 GROSS WEIGHT ----- 2,189 POUNDS (APPROX).
3. WHEN LOADING A STANDARD TRAILER AS SHOWN ON PAGE 10 THE EXCESS SPACE BETWEEN THE REAR PALLET AND THE REAR BULKHEAD MUST BE 16" OR GREATER TO ALLOW FOR PROPER INSTALLATION OF THE BULKHEAD. THIS DOES NOT APPLY TO TRAILERS WHICH HAVE AN ADJUSTABLE BULKHEAD SYSTEM OR WHICH HAVE 38'-6" BETWEEN BULKHEADS.
4. THE SECOND LAYER OF A LOAD MUST CONTAIN AT LEAST TWO (2) PALLET UNITS. THESE UNITS MUST BE POSITIONED Laterally ADJACENT TO EACH OTHER. ONE (1) UNIT CANNOT BE OUTLOADED IN THE SECOND LAYER. FOR MORE THAN TWO (2) PALLET UNITS ON SECOND LAYER SEE PAGE 20.
5. IF THE HEIGHT OF THE PALLET UNIT IS GREATER THAN ITS WIDTH (48" DIMENSION OF THE PALLET) THE REAR BLOCKING MUST BE PALLET UNIT HEIGHT AS SHOWN IN THE LOAD ON PAGE 38.
6. FOR ALTERNATIVE LOADING METHODS SEE PAGES 12, 20, 22, AND 38.
7. IF THE REAR DOOR OPENING IS NOT HIGH ENOUGH TO PERMIT THE ENTRY OF A TWO (2) PALLET HIGH UNITIZED STACK, OR IF THE CAPACITY OF THE MATERIAL HANDLING EQUIPMENT IS NOT ADEQUATE TO HANDLE A UNITIZED STACK, IT WILL BE NECESSARY TO LOAD THE PALLET UNITS ONE AT A TIME AND PERFORM THE STACKING AND UNITIZING OPERATIONS INSIDE THE TRAILER.
8. IF THE TRAILER BEING LOADED HAS 38'-6" BETWEEN FIXED BULKHEADS OR 30'-4-1/2" TO 37'-8" BETWEEN ADJUSTABLE BULKHEADS THE TWO PALLETS ON THE SECOND LAYER MAY BE POSITIONED ON THE FLOOR.
9. LATERAL BRACING IS NOT REQUIRED IF THE EXCESS SPACE ACROSS THE WIDTH OF THE TRAILER MEASURES SIX INCHES (6") OR LESS.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	96	64
2" X 6"	33	33
2" X 8"	16	22
NAILS	NO. REQD	POUNDS
10d (3")	146	2
12d (3-1/4")	16	1/2
STEEL STRAPPING, 1-1/4" X .035"	88' REQD	13 LBS
STEEL STRAPPING, 2" X .050"	180' REQD	60 LBS
SEAL FOR 1-1/4" STRAPPING	8 REQD	1/2 LB
SEAL FOR 2" STRAPPING	18 REQD	4 LBS

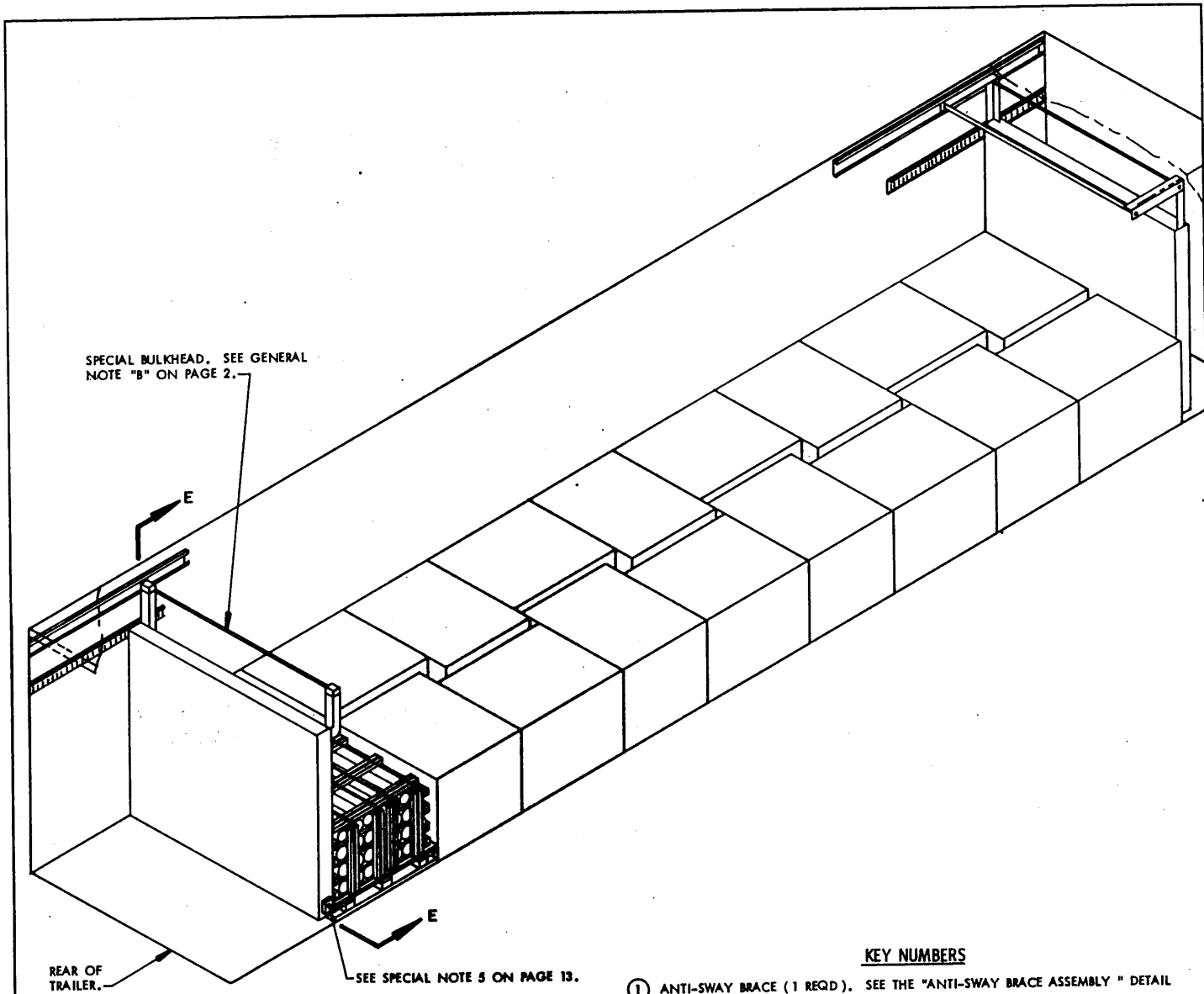
LOAD CAPACITY CHART			
CONTAINER	WEIGHT	QUANTITY	* LOAD WEIGHT
M152	2,160 LBS	18	38,880 LBS
M159	2,200 LBS	18	39,600 LBS
T53	2,197 LBS	18	39,546 LBS

\*LOAD WEIGHT IS FOR PALLETIZED COMPLETE ROUNDS ONLY AND DOES NOT INCLUDE DUNNAGE.

**LOAD AS SHOWN**

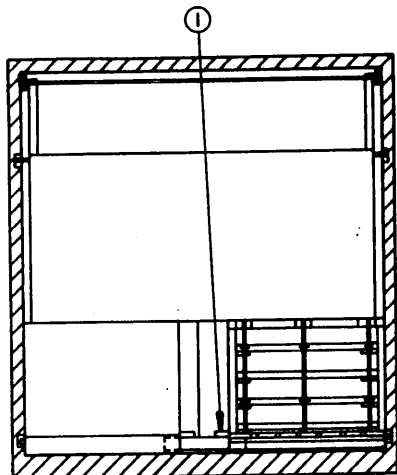
ITEM	QUANTITY	WEIGHT (APPROX)
PALLETIZED M173		
CONTAINER -----	18	39,402 LBS
DUNNAGE-----		378 LBS
TOTAL WEIGHT -----		39,780 LBS

**TYPICAL LOAD IN A TRAILER HAVING 35'-0" BETWEEN BULKHEADS**



**ISOMETRIC VIEW**

THE PALLETIZED M152 CONTAINER IS SHOWN ABOVE.  
SEE PALLET B ON PAGE 3.



**SECTION E-E**

**SPECIAL NOTES:**

1. A TYPICAL LOAD OF PALLETIZED COMPLETE ROUNDS IS SHOWN IN A 40'-0" LONG BY 7'-8-1/2" WIDE ( INSIDE DIMENSION ) TRAILER WHICH IS EQUIPPED WITH A CAMUS III RESTRAINING SYSTEM. THE PROCEDURES SHOWN WILL APPLY TO ALL COMPLETE ROUNDS LOADED IN TRAILERS OF VARIOUS INSIDE WIDTH AND LENGTH.
2. PALLET DETAIL: THE M152 CONTAINER IS SHOWN.  
 DIMENSIONS ----- 40" LONG X 48" WIDE X 34-3/8" HIGH.  
 GROSS WEIGHT ----- 2,160 POUNDS ( APPROX ).
3. WHEN LOADING A STANDARD TRAILER AS SHOWN ON PAGE 10 THE EXCESS SPACE BETWEEN THE REAR PALLET AND THE REAR BULKHEAD MUST BE 16" OR GREATER TO ALLOW FOR PROPER INSTALLATION OF THE BULKHEAD. THIS DOES NOT APPLY TO TRAILERS WHICH HAVE AN ADJUSTABLE BULKHEAD SYSTEM OR WHICH HAVE 38'-6" BETWEEN BULKHEADS.
4. "CHIMNEY-PATTERN" LOADS, AS SHOWN ON PAGE 12, ARE LIMITED TO ONE-LAYER IN HEIGHT.
5. FILLER BLOCKS AS SHOWN IN "FILLER BLOCK DETAIL" ON PAGE 57 MUST BE USED TO REDUCE LATERAL MOVEMENT OF THE REAR BULKHEAD IN A CAMUS III TRAILER.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	9	6
NAILS	NO. REQD	POUNDS
10d ( 3" )	8	1/4

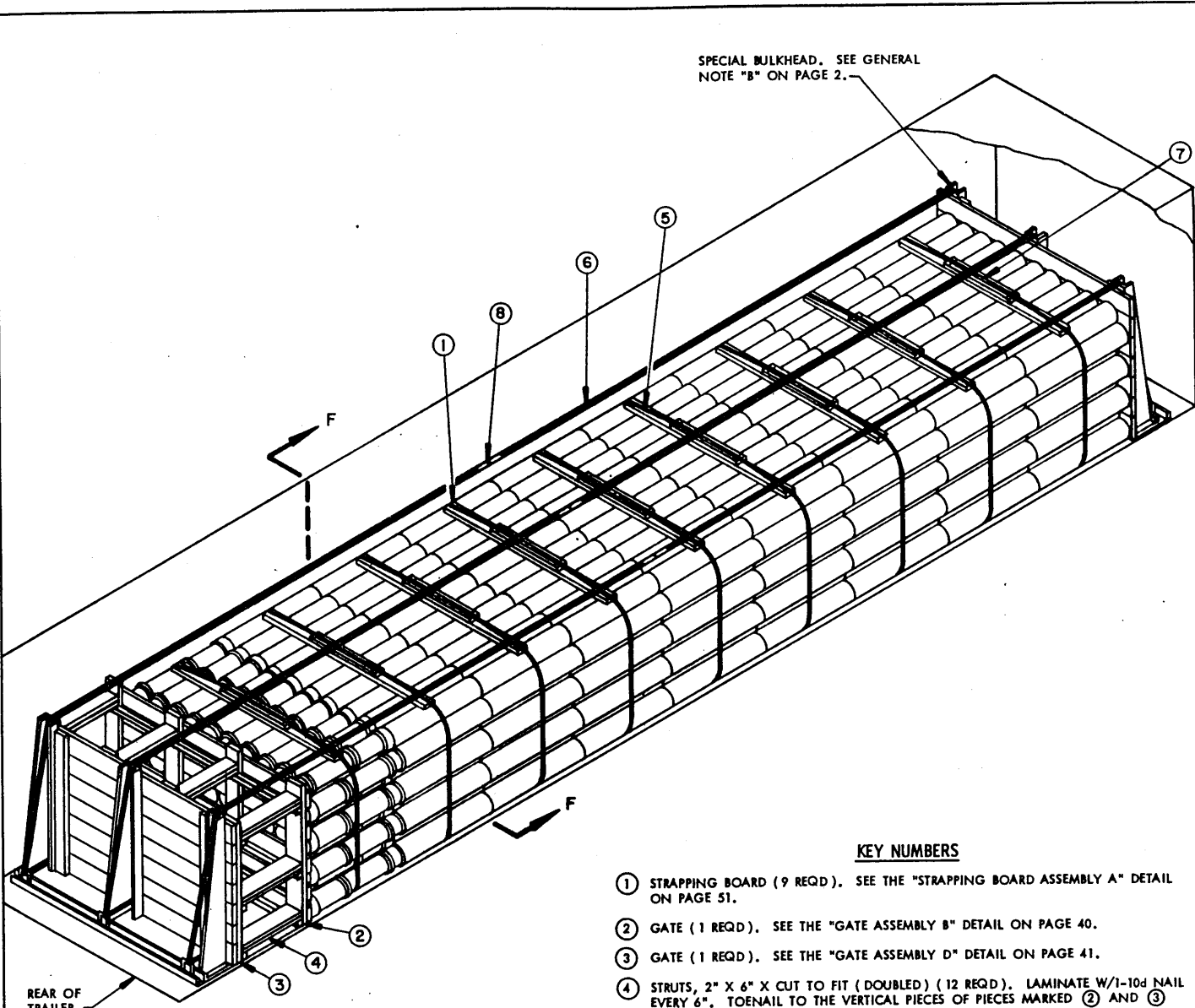
LOAD CAPACITY CHART			
CONTAINER	WEIGHT	QUANTITY	* LOAD WEIGHT
M159	2,200 LBS	18	39,600 LBS
M173	2,189 LBS	18	39,402 LBS
T33	2,197 LBS	18	39,546 LBS

\* LOAD WEIGHT IS FOR PALLETIZED COMPLETE ROUNDS ONLY AND DOES NOT INCLUDE DUNNAGE.

**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT ( APPROX )
PALLETIZED		
M152 CONTAINER -----	18 -----	38,880 LBS
DUNNAGE -----		16 LBS
TOTAL WEIGHT -----		38,896 LBS

**TYPICAL LOAD IN A TRAILER HAVING 30'-4-1/2" TO 37'-8" BETWEEN BULKHEADS**



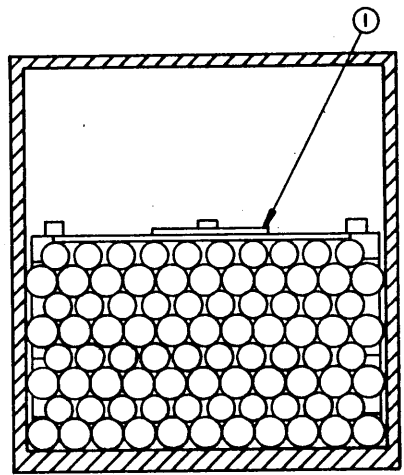
SPECIAL BULKHEAD. SEE GENERAL NOTE "B" ON PAGE 2.

REAR OF TRAILER.

**ISOMETRIC VIEW**

**KEY NUMBERS**

- ① STRAPPING BOARD (9 REQD). SEE THE "STRAPPING BOARD ASSEMBLY A" DETAIL ON PAGE 51.
- ② GATE (1 REQD). SEE THE "GATE ASSEMBLY B" DETAIL ON PAGE 40.
- ③ GATE (1 REQD). SEE THE "GATE ASSEMBLY D" DETAIL ON PAGE 41.
- ④ STRUTS, 2" X 6" X CUT TO FIT (DOUBLED) (12 REQD). LAMINATE W/1-10d NAIL EVERY 6". TOENAIL TO THE VERTICAL PIECES OF PIECES MARKED ② AND ③ W/2-12d NAILS AT EACH END.
- ⑤ BUNDLING STRAP, 1-1/4" X .035" X 26'-0" STEEL STRAPPING (9 REQD). PRE-POSITION. SEE GENERAL NOTE "G" ON PAGE 2. STAPLE TO THE STRAPPING BOARDS W/2-STAPLES EACH.
- ⑥ BULKHEAD STRAP, 2" X .050" X 60'-0" STEEL STRAPPING (3 REQD). INSTALL EACH STRAP FROM TWO (2) 30'-0" LONG PIECES. SEE GENERAL NOTE "H" ON PAGE 2.
- ⑦ SEAL FOR 1-1/4" STRAPPING (18 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL.
- ⑧ SEAL FOR 2" STRAPPING (18 REQD, 2 PER STRAP JOINT). DOUBLE CRIMP EACH SEAL.



**SECTION F-F**

BUNDLING STRAP SHOWN AS PIECE MARKED ⑤ IS OMITTED FOR CLARITY.

**TYPICAL LOAD IN A TRAILER HAVING 35'-0" BETWEEN BULKHEADS**



**SPECIAL NOTES:**

1. A TYPICAL LOAD OF PROPELLING CHARGES IS SHOWN IN A 7'-8-1/2" WIDE (INSIDE DIMENSIONS) TRAILER HAVING 35'-0" BETWEEN THE INSTALLED BULKHEADS. THE PROCEDURES SHOWN WILL APPLY TO ALL PROPELLING CHARGES LOADED IN TRAILERS OF VARIOUS INSIDE WIDTH AND LENGTH.
2. CONTAINER DETAIL: THE M16 CONTAINER IS SHOWN.  
 DIMENSIONS ----- 8-13/32" DIAMETER X 42-21/32" LONG.  
 GROSS WEIGHT ----- 55 POUNDS (APPROX).
3. IF THE EXCESS SPACE BETWEEN THE REAR OF THE LADING AND THE INSTALLED BULKHEAD IS 18" OR LESS USE SOLID FILL, AS SHOWN ON PAGE 4, IN LIEU OF STRUTS.
4. CONTAINERS MAY BE ALTERNATED (CAP AND BASE) INDIVIDUALLY OR BY LAYER. SEE SECTION F-F ON PAGE 14.
5. IF THE EXCESS SPACE ACROSS THE WIDTH OF THE TRAILER IS GREATER THAN 3/4" SIDE FILL AS SHOWN ON PAGES 8, 16, OR 18 MUST BE USED IN ORDER TO MAINTAIN LEVEL LAYERS.
6. WHEN LOADING LESS THAN A FULL STACK, RISER ASSEMBLIES AS SHOWN ON PAGE 16, AND/OR FILLER ASSEMBLIES AS SHOWN ON PAGE 6 WILL BE USED AS REQUIRED TO PROPERLY BRACE THE LOAD.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 2"	46	18
2" X 4"	80	54
2" X 6"	115	115
NAILS	NO. REQD	POUNDS
10d (3")	165	2-3/4
12d (3-1/4")	48	1
STEEL STRAPPING, 1-1/4" X .035" --- 234' REQD		34 LBS
STEEL STRAPPING, 2" X .050" --- 180' REQD		60 LBS
SEAL FOR 1-1/4" STRAPPING	18 REQD	1 LB
SEAL FOR 2" STRAPPING	18 REQD	4 LBS
STAPLE FOR 1-1/4" STRAPPING	18 REQD	NIL

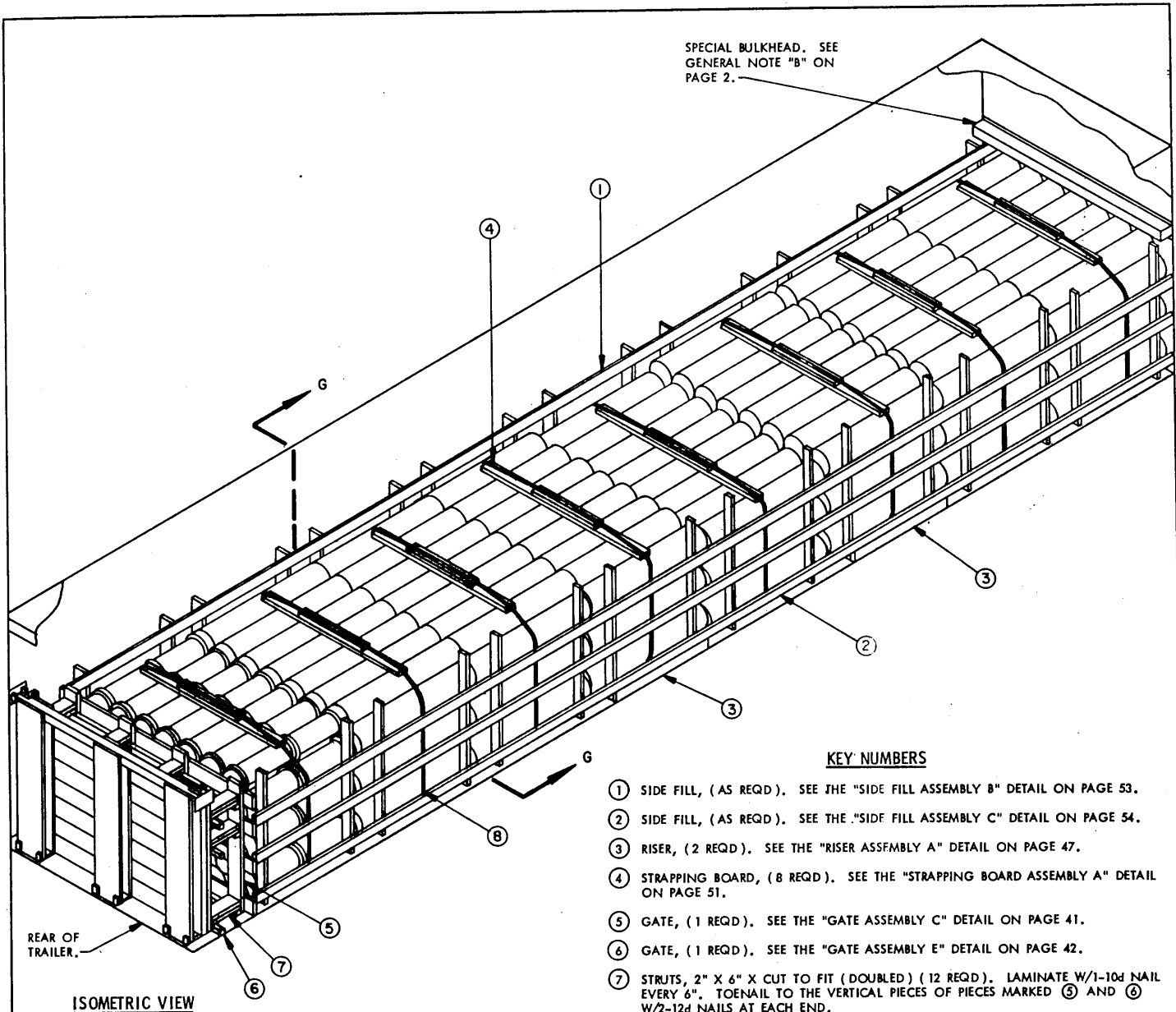
LOAD CAPACITY CHART			
CONTAINER	WEIGHT	QUANTITY	* LOAD WEIGHT
M10	121.0 LBS	347	41,987 LBS
M13	30.5 LBS	1377	41,999 LBS
M14	28.5 LBS	1473	41,980 LBS
M18	31.0 LBS	1354	41,974 LBS
M19	51.9 LBS	809	41,987 LBS
M460	120.0 LBS	350	42,000 LBS

\*LOAD WEIGHT IS FOR PROPELLING CHARGES ONLY AND DOES NOT INCLUDE DUNNAGE.

**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT (APPROX)
M16 CONTAINER	756	41,580 LBS
DUNNAGE		571 LBS
<b>TOTAL WEIGHT</b>		<b>42,151 LBS</b>

TYPICAL LOAD IN A TRAILER HAVING 35'-0" BETWEEN BULKHEADS



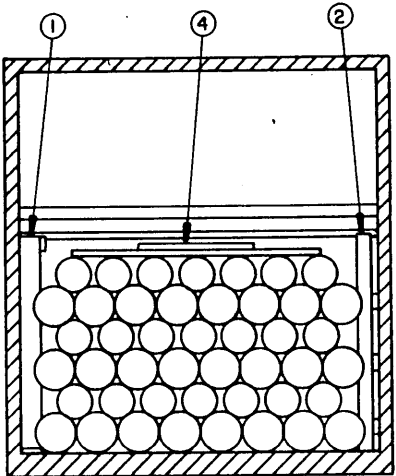
SPECIAL BULKHEAD. SEE GENERAL NOTE "B" ON PAGE 2.

REAR OF TRAILER.

ISOMETRIC VIEW

**KEY NUMBERS**

- ① SIDE FILL, (AS REQD). SEE THE "SIDE FILL ASSEMBLY B" DETAIL ON PAGE 53.
- ② SIDE FILL, (AS REQD). SEE THE "SIDE FILL ASSEMBLY C" DETAIL ON PAGE 54.
- ③ RISER, (2 REQD). SEE THE "RISER ASSEMBLY A" DETAIL ON PAGE 47.
- ④ STRAPPING BOARD, (8 REQD). SEE THE "STRAPPING BOARD ASSEMBLY A" DETAIL ON PAGE 51.
- ⑤ GATE, (1 REQD). SEE THE "GATE ASSEMBLY C" DETAIL ON PAGE 41.
- ⑥ GATE, (1 REQD). SEE THE "GATE ASSEMBLY E" DETAIL ON PAGE 42.
- ⑦ STRUTS, 2" X 6" X CUT TO FIT (DOUBLED) (12 REQD). LAMINATE W/1-10d NAIL EVERY 6". TOENAIL TO THE VERTICAL PIECES OF PIECES MARKED ⑤ AND ⑥ W/2-12d NAILS AT EACH END.
- ⑧ BUNDLING STRAP, 1-1/4" X .035" X 24'-0" STEEL STRAPPING, (8 REQD). PRE-POSITION. SEE GENERAL NOTE "G" ON PAGE 2. STAPLE TO THE STRAPPING BOARDS W/2 STAPLES EACH.
- ⑨ SEAL FOR 1-1/4" STRAPPING (16 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL.



SECTION G-G

BUNDLING STRAP SHOWN AS PIECE MARKED ⑧ IS OMITTED FOR CLARITY.

TYPICAL LOAD IN A TRAILER HAVING 38'-6" BETWEEN BULKHEADS

**SPECIAL NOTES:**

1. A TYPICAL LOAD OF PROPELLING CHARGES IS SHOWN IN A 7'-8-1/2" WIDE (INSIDE DIMENSION) TRAILER HAVING 38'-6" BETWEEN THE BULKHEAD AT THE FRONT (BUILT INTO THE FRONT WALL) AND THE INSTALLED BULKHEAD AT THE REAR. THE PROCEDURES SHOWN WILL APPLY TO ALL PROPELLING CHARGES LOADED IN TRAILERS OF VARIOUS INSIDE WIDTH AND LENGTH.
2. CONTAINER DETAIL: THE M10 CONTAINER IS SHOWN.  
 DIMENSIONS ----- 10-15/32" DIAMETER X 55-3/8" LONG.  
 GROSS WEIGHT ----- 121 POUNDS (APPROX).
3. IF THE EXCESS SPACE BETWEEN THE REAR OF THE LADING AND THE INSTALLED BULKHEAD IS 18" OR LESS USE SOLID FILL, AS SHOWN IN LOAD ON PAGE 4, IN LIEU OF STRUTS.
4. CONTAINERS MAY BE ALTERNATED (CAP AND BASE) INDIVIDUALLY OR BY LAYER. SEE SECTION G-G ON PAGE 16.
5. IF THE EXCESS SPACE ACROSS THE WIDTH OF THE TRAILER IS GREATER THAN 3/4" SIDE FILL AS SHOWN ON PAGE 16 MUST BE USED IN ORDER TO MAINTAIN LEVEL LAYERS.
6. WHEN LOADING LESS THAN A FULL STACK, RISER ASSEMBLIES AS SHOWN ON PAGE 16 AND/OR FILLER ASSEMBLIES AS SHOWN ON PAGE 6 WILL BE USED AS REQUIRED TO PROPERLY BRACE THE LOAD.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	74	25
2" X 2"	44	15
2" X 4"	386	258
2" X 6"	96	96
NAILS	NO. REQD	POUNDS
6d (2")	32	5 1/4
10d (3")	312	5
12d (3-1/4")	48	1
STEEL STRAPPING 1-1/4" X .035" -----	192' REQD -----	28 LBS
SEAL FOR 1-1/4" STRAPPING -----	16 REQD -----	1 LB
STAPLE FOR 1-1/4" STRAPPING -----	16 REQD -----	NIL

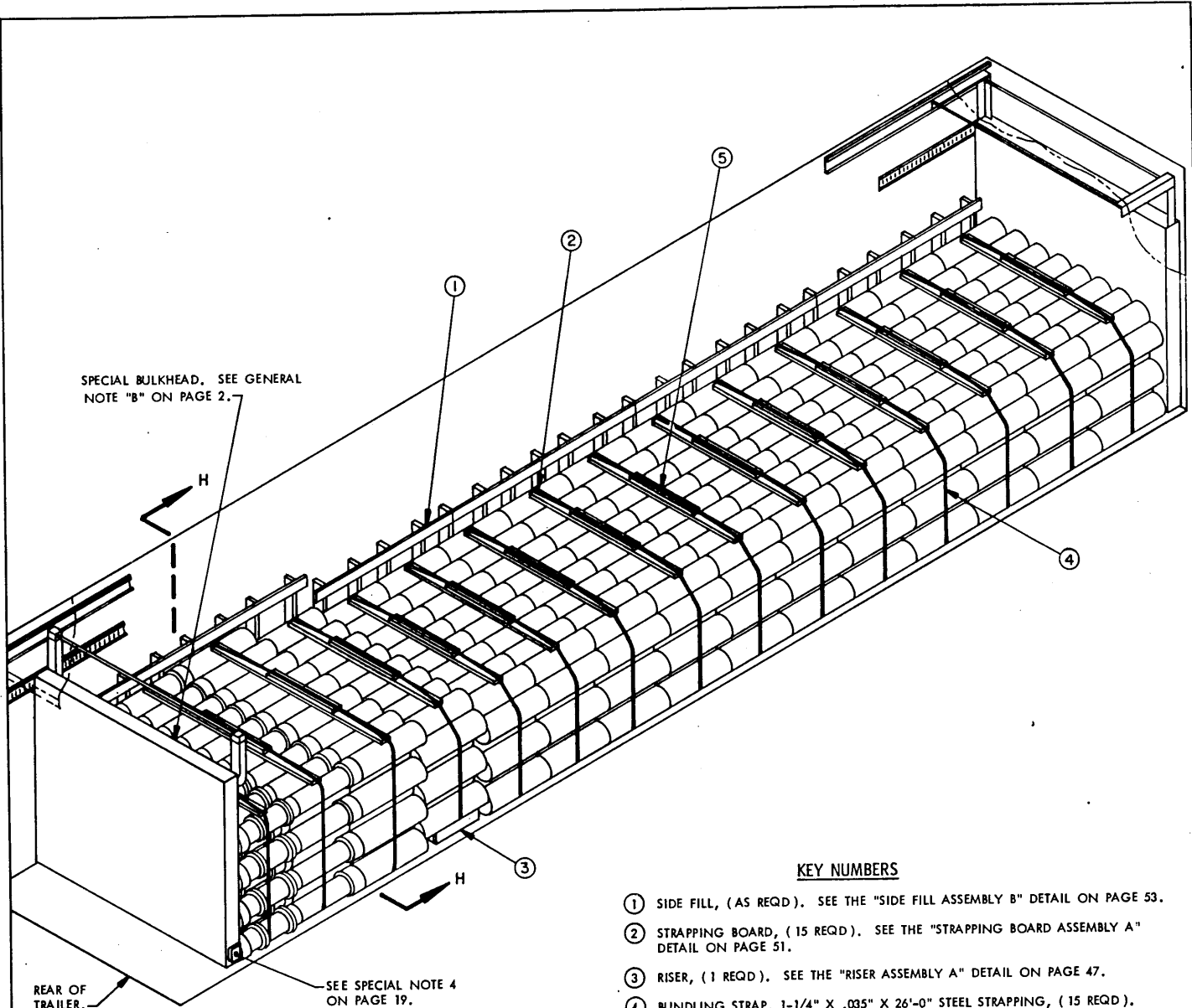
LOAD CAPACITY CHART			
CONTAINER	WEIGHT	QUANTITY	* LOAD WEIGHT
M13	30.5 LBS	1,377	41,999 LBS
M14	28.5 LBS	1,473	41,980 LBS
M16	55.0 LBS	763	41,965 LBS
M18	31.0 LBS	1,354	41,974 LBS
M19	51.9 LBS	809	41,987 LBS
M460	120.0 LBS	350	42,000 LBS

\* LOAD WEIGHT IS FOR PROPELLING CHARGES ONLY AND DOES NOT INCLUDE DUNNAGE.

**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT (APPROX)
M10 CONTAINER-----	339 -----	41,019 LBS
DUNNAGE-----	-----	1,021 LBS
TOTAL WEIGHT-----	-----	42,040 LBS

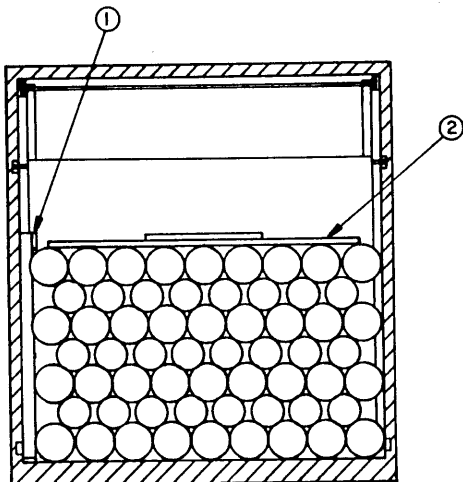
TYPICAL LOAD IN A TRAILER HAVING 38'-6" BETWEEN BULKHEADS



**ISOMETRIC VIEW**

**KEY NUMBERS**

- ① SIDE FILL, (AS REQD). SEE THE "SIDE FILL ASSEMBLY B" DETAIL ON PAGE 53.
- ② STRAPPING BOARD, (15 REQD). SEE THE "STRAPPING BOARD ASSEMBLY A" DETAIL ON PAGE 51.
- ③ RISER, (1 REQD). SEE THE "RISER ASSEMBLY A" DETAIL ON PAGE 47.
- ④ BUNDLING STRAP, 1-1/4" X .035" X 26'-0" STEEL STRAPPING, (15 REQD). PRE-POSITION. SEE GENERAL NOTE "G" ON PAGE 2. STAPLE TO THE STRAPPING BOARD W/2 STAPLES EACH.
- ⑤ SEAL FOR 1-1/4" STRAPPING (30 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL.



**SECTION H-H**

BUNDLING STRAP SHOWN AS PIECE MARKED ④ IS OMITTED FOR CLARITY.

TYPICAL LOAD IN A TRAILER HAVING 30'-4-1/2" TO 37'-8" BETWEEN BULKHEADS

**SPECIAL NOTES:**

1. A TYPICAL LOAD OF PROPELLING CHARGES IS SHOWN IN A 40'-0" LONG BY 7'-8-1/2" WIDE ( INSIDE DIMENSION ) TRAILER WHICH IS EQUIPPED WITH A CAMUS III RESTRAINING SYSTEM. THE PROCEDURES SHOWN WILL APPLY TO ALL PROPELLING CHARGES LOADED IN TRAILERS OF VARIOUS INSIDE WIDTH AND LENGTH.
2. CONTAINER DETAILS: THE M19 CONTAINER IS SHOWN.  
 DIMENSIONS ----- 9-13/16" DIAMETER X 29-9/32" LONG.  
 GROSS WEIGHT----- 51.9 POUNDS ( APPROX ).
3. WHEN LOADING A STANDARD TRAILER AS SHOWN ON PAGE 10 THE EXCESS SPACE BETWEEN THE REAR PALLET AND THE REAR BULKHEAD MUST BE 16" OR GREATER TO ALLOW FOR PROPER INSTALLATION OF THE BULKHEAD. THIS DOES NOT APPLY TO TRAILERS WHICH HAVE AN ADJUSTABLE BULKHEAD SYSTEM OR WHICH HAVE 38'-6" BETWEEN BULKHEADS.
4. FILLER BLOCKS AS SHOWN IN "FILLER BLOCK DETAIL" ON PAGE 57 MUST BE USED TO REDUCE LATERAL MOVEMENT OF THE REAR BULKHEAD IN A CAMUS III TRAILER.
5. CONTAINERS MAY BE ALTERNATED ( CAP AND BASE ) INDIVIDUALLY OR BY LAYER. SEE SECTION H-H ON PAGE 18.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	74	25
2" X 4"	285	190
2" X 6"	26	26
NAILS	NO. REQD	POUNDS
6d (2")	150	2
10d (3")	72	1-1/4
STEEL STRAPPING, 1-1/4" X .035" --- 390' REQD ----- 56 LBS		
SEAL FOR 1-1/4" STRAPPING ----- 30 REQD ----- 2 LBS		
STAPLE FOR 1-1/4" STRAPPING ----- 30 REQD ----- NIL		

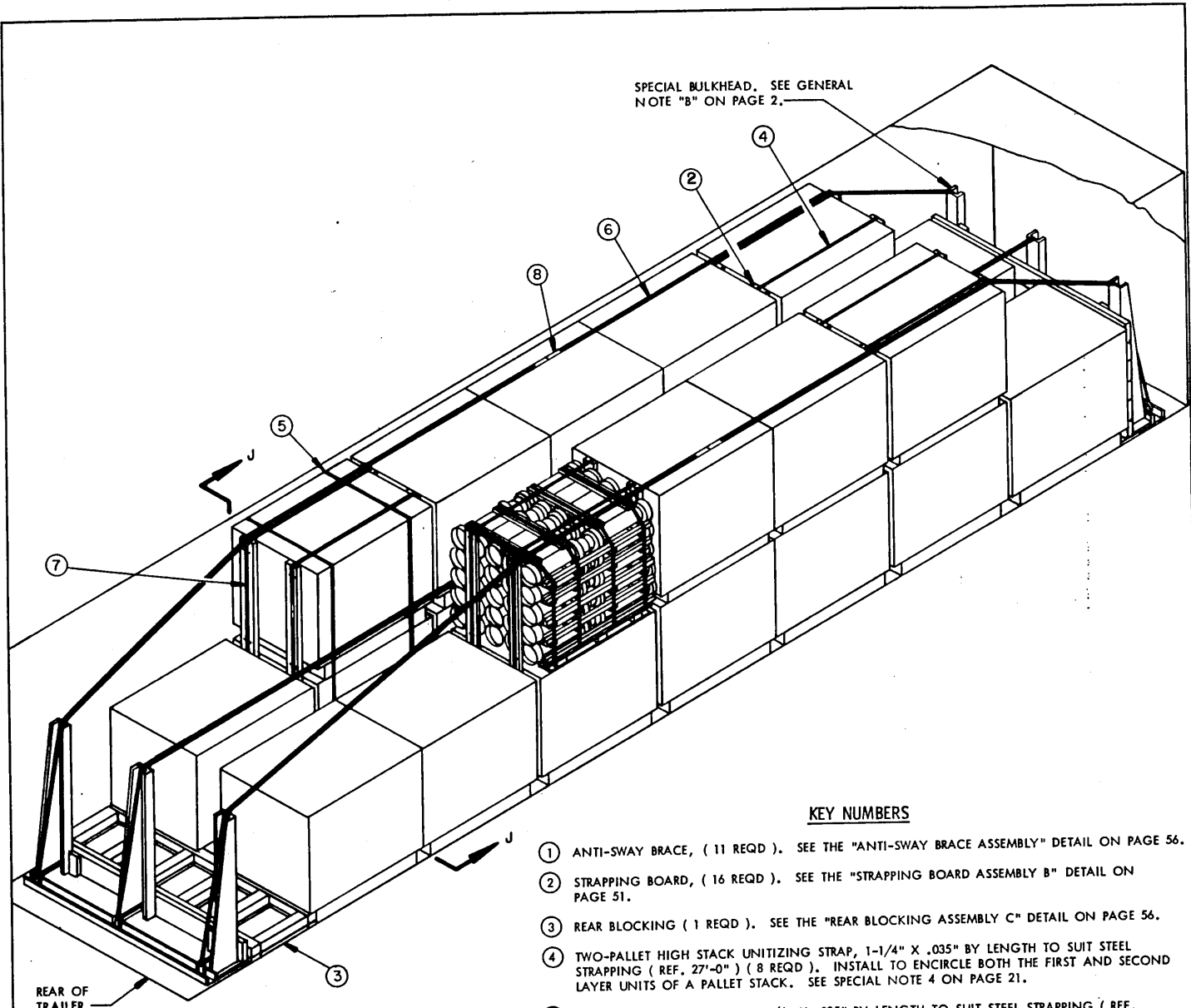
LOAD CAPACITY CHART			
CONTAINER	WEIGHT	QUANTITY	* LOAD WEIGHT
M10	121.0 LBS	347	41,987 LBS
M13	30.5 LBS	1,377	41,999 LBS
M14	28.5 LBS	1,473	41,980 LBS
M16	55.0 LBS	756	41,580 LBS
M18	31.0 LBS	1,354	41,974 LBS
M460	120.0 LBS	350	42,000 LBS

\* LOAD WEIGHT IS FOR PROPELLING CHARGES ONLY AND DOES NOT INCLUDE DUNNAGE.

**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT ( APPROX )
M19 CONTAINER ----	792 -----	41,105 LBS
DUNNAGE-----		664 LBS
TOTAL WEIGHT -----		41,769 LBS

TYPICAL LOAD IN A TRAILER HAVING 30'-4-1/2' TO 37'-8" BETWEEN BULKHEADS



SPECIAL BULKHEAD, SEE GENERAL NOTE "B" ON PAGE 2.

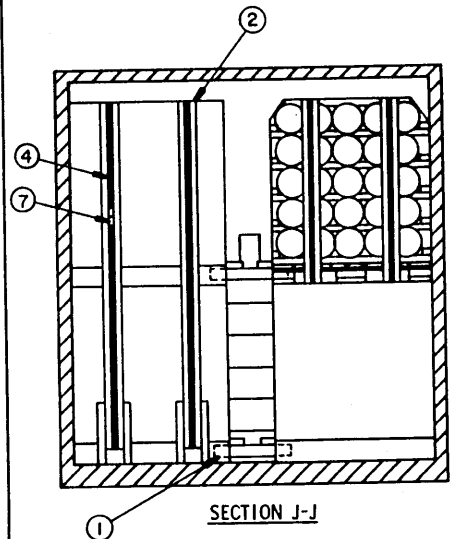
REAR OF TRAILER.

**ISOMETRIC VIEW**

THE PALLETIZED M13 SERIES CONTAINER IS SHOWN ABOVE. SEE PALLET C ON PAGE 3.

**KEY NUMBERS**

- ① ANTI-SWAY BRACE, ( 11 REQD ). SEE THE "ANTI-SWAY BRACE ASSEMBLY" DETAIL ON PAGE 56.
- ② STRAPPING BOARD, ( 16 REQD ). SEE THE "STRAPPING BOARD ASSEMBLY B" DETAIL ON PAGE 51.
- ③ REAR BLOCKING ( 1 REQD ). SEE THE "REAR BLOCKING ASSEMBLY C" DETAIL ON PAGE 56.
- ④ TWO-PALLET HIGH STACK UNITIZING STRAP, 1-1/4" X .035" BY LENGTH TO SUIT STEEL STRAPPING ( REF. 27'-0" ) ( 8 REQD ). INSTALL TO ENCIRCLE BOTH THE FIRST AND SECOND LAYER UNITS OF A PALLET STACK. SEE SPECIAL NOTE 4 ON PAGE 21.
- ⑤ STACK STABILIZING STRAP, 1-1/4" X .035" BY LENGTH TO SUIT STEEL STRAPPING ( REF. 24'-0" ) ( 2 REQD ). INSTALL AROUND THE TOP AND BOTTOM PALLETS OF A 2-PALLET HIGH STACK WHICH DOES NOT HAVE A PALLET LATERALLY ADJACENT TO IT IN THE SECOND LAYER. SEE SPECIAL NOTE 8 ON PAGE 21.
- ⑥ BULKHEAD STRAP, 2" X .050" X 60'-0" STEEL STRAPPING ( 3 REQD ). INSTALL EACH STRAP FROM TWO ( 2 ) 30'-0" LONG PIECES. SEE GENERAL NOTE "H" ON PAGE 2.
- ⑦ SEAL FOR 1-1/4" STRAPPING ( 20 REQD, 2 PER STRAP ). DOUBLE CRIMP EACH SEAL.
- ⑧ SEAL FOR 2" STRAPPING ( 18 REQD, 2 PER STRAP JOINT ). DOUBLE CRIMP EACH SEAL.



SECTION J-J

**SPECIAL NOTES**

1. A TYPICAL LOAD OF PALLETIZED PROPELLING CHARGES IS SHOWN IN A 7'-8-1/2" WIDE ( INSIDE DIMENSION ) TRAILER HAVING 35'-0" BETWEEN THE INSTALLED BULKHEADS. THE PROCEDURES SHOWN WILL APPLY TO ALL PALLETIZED PROPELLING CHARGES LOADED IN TRAILERS OF VARIOUS INSIDE WIDTH AND LENGTH.
2. PALLET DETAIL: THE M13 SERIES CONTAINER WITH ITEM IS SHOWN.  
DIMENSIONS ----- 40" LONG X 55" WIDE X 46" HIGH.  
GROSS WEIGHT ----- 1,777 POUNDS ( APPROX ).
3. WHEN LOADING A STANDARD TRAILER AS SHOWN ON PAGE 20 THE EXCESS SPACE BETWEEN THE REAR PALLET AND THE REAR BULKHEAD MUST BE 16" OR GREATER TO ALLOW FOR PROPER INSTALLATION OF THE BULKHEAD. THIS DOES NOT APPLY TO TRAILERS WHICH HAVE AN ADJUSTABLE BULKHEAD SYSTEM OR WHICH HAVE 38'-6" BETWEEN BULKHEADS.
4. PALLET UNITS AT EACH END OF THE SECOND LAYER OF THE TWO WIDE PORTION OF THE LOAD MUST BE UNITIZED TO A PALLET UNIT IN THE FIRST LAYER. THE STRAPPING BOARD ASSEMBLIES AND THE UNITIZING STRAPS MUST BE INSTALLED PRIOR TO FINAL POSITIONING OF THE TWO LAYER STACK. THE SECOND LAYER MUST CONTAIN AT LEAST TWO ( 2 ) PALLET UNITS. FOR BLOCKING TWO ( 2 ) PALLET UNITS SEE PAGE 10.
5. IF THE HEIGHT OF THE PALLET UNIT IS GREATER THAN ITS WIDTH ( 48" DIMENSION OF THE PALLET ) THE REAR BLOCKING MUST BE PALLET UNIT HEIGHT AS SHOWN IN THE LOAD ON PAGE 38.
6. FOR ALTERNATIVE LOADING METHODS SEE PAGES 10, 12, 22, AND 38.
7. IF THE REAR DOOR OPENING IS NOT HIGH ENOUGH TO PERMIT THE ENTRY OF A TWO ( 2 ) PALLET HIGH UNITIZED STACK, OR IF THE CAPACITY OF THE MATERIAL HANDLING EQUIPMENT IS NOT ADEQUATE TO HANDLE A UNITIZED STACK, IT WILL BE NECESSARY TO LOAD THE PALLET UNITS ONE AT A TIME AND PERFORM THE STACKING AND UNITIZING OPERATIONS INSIDE THE TRAILER.
8. WHEN THE LAST PALLET UNIT IN THE SECOND LAYER DOES NOT HAVE A PALLET UNIT LATERALLY ADJACENT TO IT, AS SHOWN IN THE LOAD VIEW ON PAGE 20, THIS UNIT MUST BE SECURED TO THE UNIT IMMEDIATELY BENEATH TO PREVENT DISPLACEMENT. ADDITIONALLY, THE STACK STABILIZING STRAP, PIECE MARKED ⑤ MUST BE THREADED THROUGH THE PALLET OF THE LOWER UNIT OF THE STACK PRIOR TO POSITIONING OF THE STACK.

LOAD CAPACITY CHART			
CONTAINER	WEIGHT	QUANTITY	* LOAD WEIGHT
M10	2,146 LBS	19	40,774 LBS
M14	1,212 LBS	⊕ 32	38,784 LBS
M16	1,552 LBS	27	41,904 LBS
M18	1,810 LBS	23	41,630 LBS
M19	1,886 LBS	22	41,492 LBS
MM60	2,001 LBS	20	40,020 LBS

\* LOAD WEIGHT IS FOR PALLETIZED PROPELLING CHARGES ONLY AND DOES NOT INCLUDE DUNNAGE.

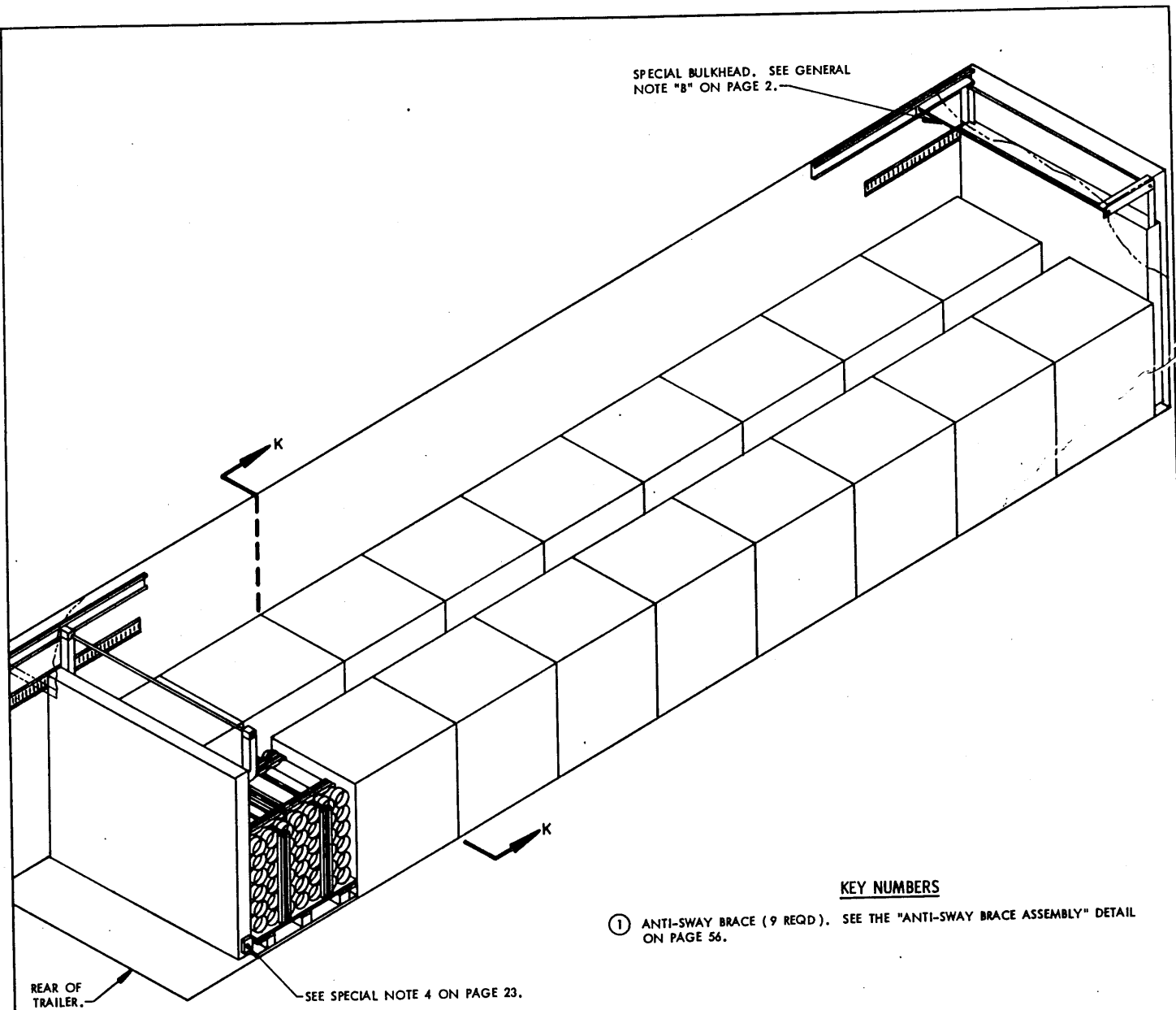
⊕ IN TRAILERS HAVING 38'-6" BETWEEN FIXED BULKHEADS AND 30'-4-1/2" TO 37'-8" BETWEEN ADJUSTABLE BULKHEADS, 34 PALLETS MAY BE LOADED.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 2"	55	19
2" X 4"	87	58
2" X 6"	124	124
4" X 4"	30	40
NAILS	NO. REQD	POUNDS
10d (3")	146	2-1/4
16d (3-1/2")	24	3/4
STEEL STRAPPING, 1-1/4" X .035" -- 268' REQD	-----	39 LBS
STEEL STRAPPING, 2" X .050" ----- 63' REQD	-----	21 LBS
SEAL FOR 1-1/4" STRAPPING ----- 20 REQD	-----	1 LB
SEAL FOR 2" STRAPPING ----- 18 REQD	-----	4 LBS
STAPLE FOR 1-1/4" STRAPPING ----- 36 REQD	-----	NIL

**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT ( APPROX )
PALLETIZED M13		
CONTAINER ----- 23 -----		40,871 LBS
DUNNAGE -----		671 LBS
TOTAL WEIGHT -----		41,542 LBS

TYPICAL LOAD IN A TRAILER HAVING 35'-0' BETWEEN BULKHEADS

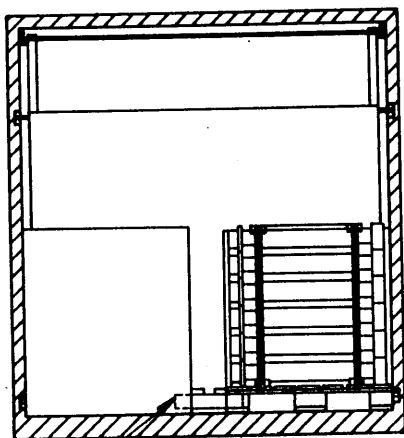


**KEY NUMBERS**

- ① ANTI-SWAY BRACE (9 REQD). SEE THE "ANTI-SWAY BRACE ASSEMBLY" DETAIL ON PAGE 56.

**ISOMETRIC VIEW**

THE PALLETIZED M14 SERIES CONTAINER IS SHOWN ABOVE.



① SECTION K-K



**SPECIAL NOTES:**

1. A TYPICAL LOAD OF PALLETIZED PROPELLING CHARGES IS SHOWN IN A 40'-0" LONG BY 7'-8-1/2" WIDE ( INSIDE DIMENSION ) TRAILER WHICH IS EQUIPPED WITH CAMUS III RESTRAINING SYSTEM. THE PROCEDURES SHOWN WILL APPLY TO ALL PALLETIZED PROPELLING CHARGES LOADED IN TRAILERS OF VARIOUS INSIDE WIDTH AND LENGTH.
2. PALLET DETAIL: THE M14 SERIES CONTAINER IS SHOWN.  
 DIMENSIONS----- 40-3/8" LONG X 48" WIDE X 47-3/8" HIGH.  
 GROSS WEIGHT ----- 1,212 POUNDS ( APPROX ).
3. WHEN LOADING A STANDARD TRAILER AS SHOWN ON PAGE 20 THE EXCESS SPACE BETWEEN THE REAR PALLET AND THE REAR BULKHEAD MUST BE 16" OR GREATER TO ALLOW FOR PROPER INSTALLATION OF THE BULKHEAD. THIS DOES NOT APPLY TO TRAILERS WHICH HAVE AN ADJUSTABLE BULKHEAD SYSTEM OR WHICH HAVE 38'-6" BETWEEN BULKHEADS.
4. FILLER BLOCKS AS SHOWN IN "FILLER BLOCK DETAIL" ON PAGE 57 MUST BE USED TO REDUCE LATERAL MOVEMENT OF THE REAR BULKHEAD IN A CAMUS III TRAILER.

**BILL OF MATERIAL**

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	81	54
NAILS	NO. REQD	POUNDS
10d (3")	72	1-1/4

**LOAD CAPACITY CHART**

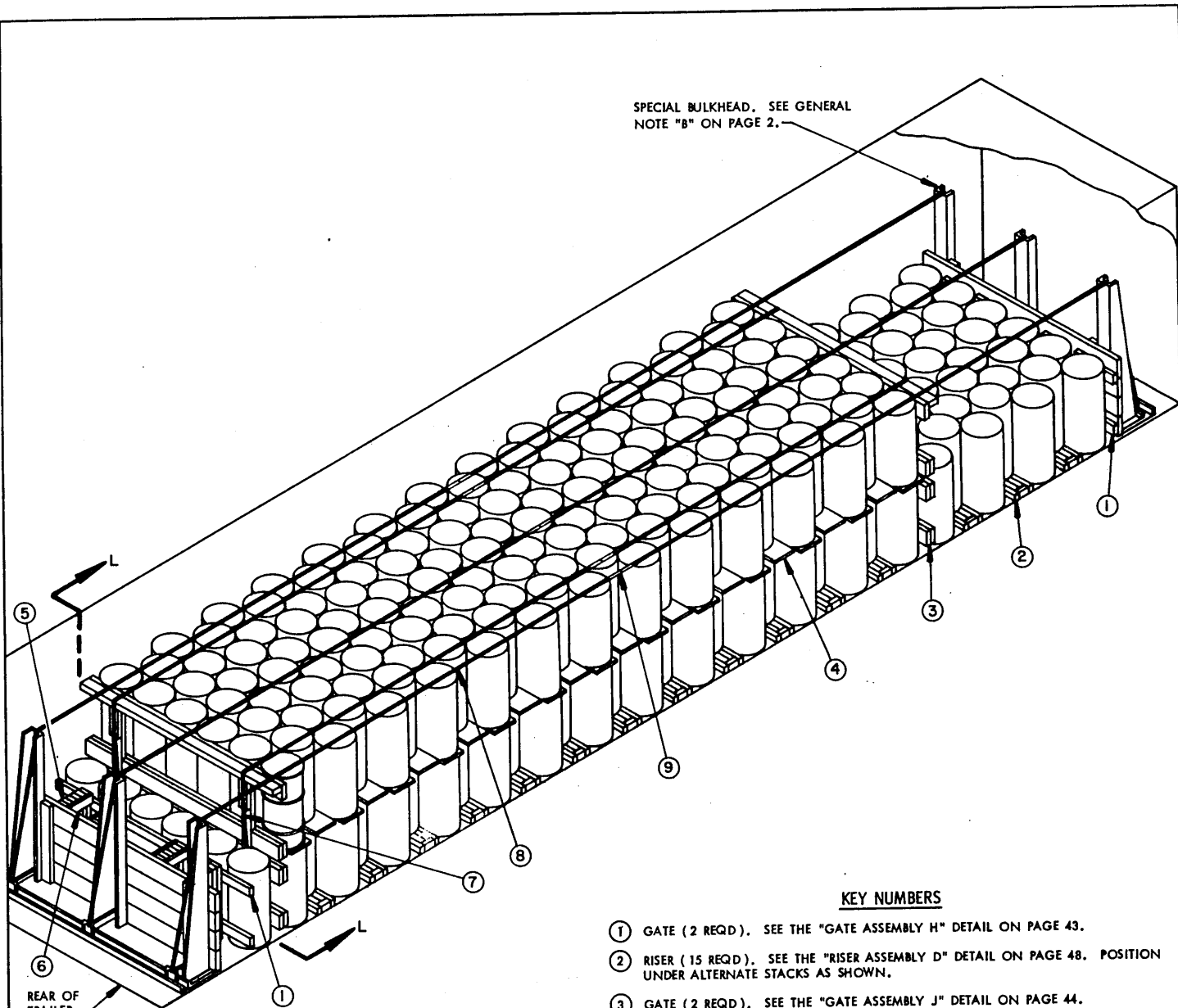
CONTAINER	WEIGHT	QUANTITY	* LOAD WEIGHT
M10	2,146 LBS	19	40,774 LBS
M13	1,777 LBS	23	40,871 LBS
M16	1,552 LBS	27	41,904 LBS
M18	1,810 LBS	23	41,630 LBS
M19	1,886 LBS	22	41,492 LBS
M460	2,001 LBS	20	40,020 LBS

\* LOAD WEIGHT IS FOR PALLETIZED PROPELLING CHARGES ONLY AND DOES NOT INCLUDE DUNNAGE.

**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT ( APPROX )
PALLETIZED M14		
CONTAINER -----	18 -----	21,816 LBS
DUNNAGE -----		137 LBS
TOTAL WEIGHT -----		21,953 LBS

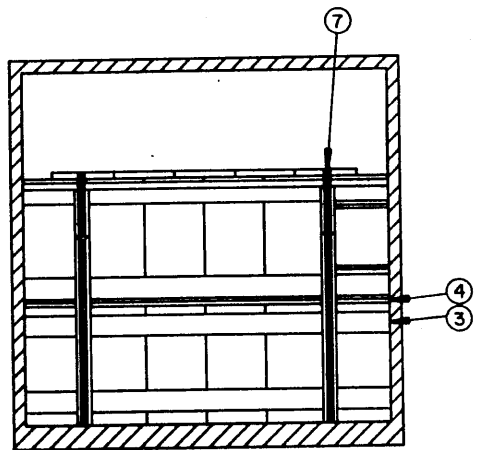
TYPICAL LOAD IN A TRAILER HAVING 30'-4-1/2' TO 37'-8" BETWEEN BULKHEADS



**ISOMETRIC VIEW**

**KEY NUMBERS**

- ① GATE (2 REQD). SEE THE "GATE ASSEMBLY H" DETAIL ON PAGE 43.
- ② RISER (15 REQD). SEE THE "RISER ASSEMBLY D" DETAIL ON PAGE 48. POSITION UNDER ALTERNATE STACKS AS SHOWN.
- ③ GATE (2 REQD). SEE THE "GATE ASSEMBLY J" DETAIL ON PAGE 44.
- ④ DECKING, 1" X 10" BY TRAILER WIDTH MINUS 1/2" (25 REQD). POSITION BETWEEN LAYERS OF DRUMS.
- ⑤ SOLID FILL, 4" WIDE BY THE LOAD HEIGHT PLUS 3" BY THE THICKNESS REQUIRED TO FILL THE VOID BETWEEN THE GATE AND THE BULKHEAD (4 REQD). LAMINATE W/4 APPLICABLY SIZED NAILS.
- ⑥ CLEAT, 1" X 4" BY CUT TO FIT (6 REQD). NAIL TO PIECES MARKED ⑤ W/1-6d NAIL EVERY 4".
- ⑦ UNITIZING STRAP, 2" X .050" X 75'-0" STEEL STRAPPING (2 REQD). PRE-POSITION. SEE GENERAL NOTE "G" ON PAGE 2.
- ⑧ BULKHEAD STRAP, 2" X .050" X 60'-0" STEEL STRAPPING (3 REQD). INSTALL EACH STRAP FROM TWO (2) 30'-0" LONG PIECES. SEE GENERAL NOTE "H" ON PAGE 2.
- ⑨ SEAL FOR 2" STRAPPING (22 REQD, 2 PER JOINT). DOUBLE CRIMP EACH SEAL.



**SECTION L-L**

**SPECIAL NOTES:**

1. A TYPICAL LOAD OF PROPELLING CHARGES PACKED IN METAL DRUMS IS SHOWN IN A 7'-8-1/2" WIDE ( INSIDE DIMENSION ) TRAILER HAVING 35'-0" BETWEEN THE INSTALLED BULKHEADS. THE PROCEDURES SHOWN WILL APPLY TO ALL PROPELLING CHARGES PACKED IN DRUMS AND LOADED IN TRAILERS OF VARIOUS INSIDE WIDTH AND LENGTH.
2. CONTAINER DETAIL: METAL DRUM FOR 75MM AND 105MM HOWITZER IS SHOWN.  
 DIMENSIONS ----- 15" DIAMETER X 30-3/16" HIGH.  
 GROSS WEIGHT ----- 127 POUNDS ( APPROX ).
3. IF THE EXCESS SPACE BETWEEN THE REAR OF THE LADING AND THE INSTALLED BULKHEAD IS GREATER THAN 18" USE A GATE AND STRUTS, AS SHOWN IN THE LOAD ON PAGE 6, IN LIEU OF SOLID FILL.
4. A RISER IS REQUIRED UNDER ALTERNATE STACKS TO PROVIDE PROPER NESTING OF DRUMS AND TO MAINTAIN A TIGHT LOAD.
5. IF A LOAD CONSISTS OF TWO COMPLETE LAYERS DELETE GATE ASSEMBLY J, PIECE MARKED ③ AND UNITIZING STRAP, PIECE MARKED ⑦.

**BILL OF MATERIAL**

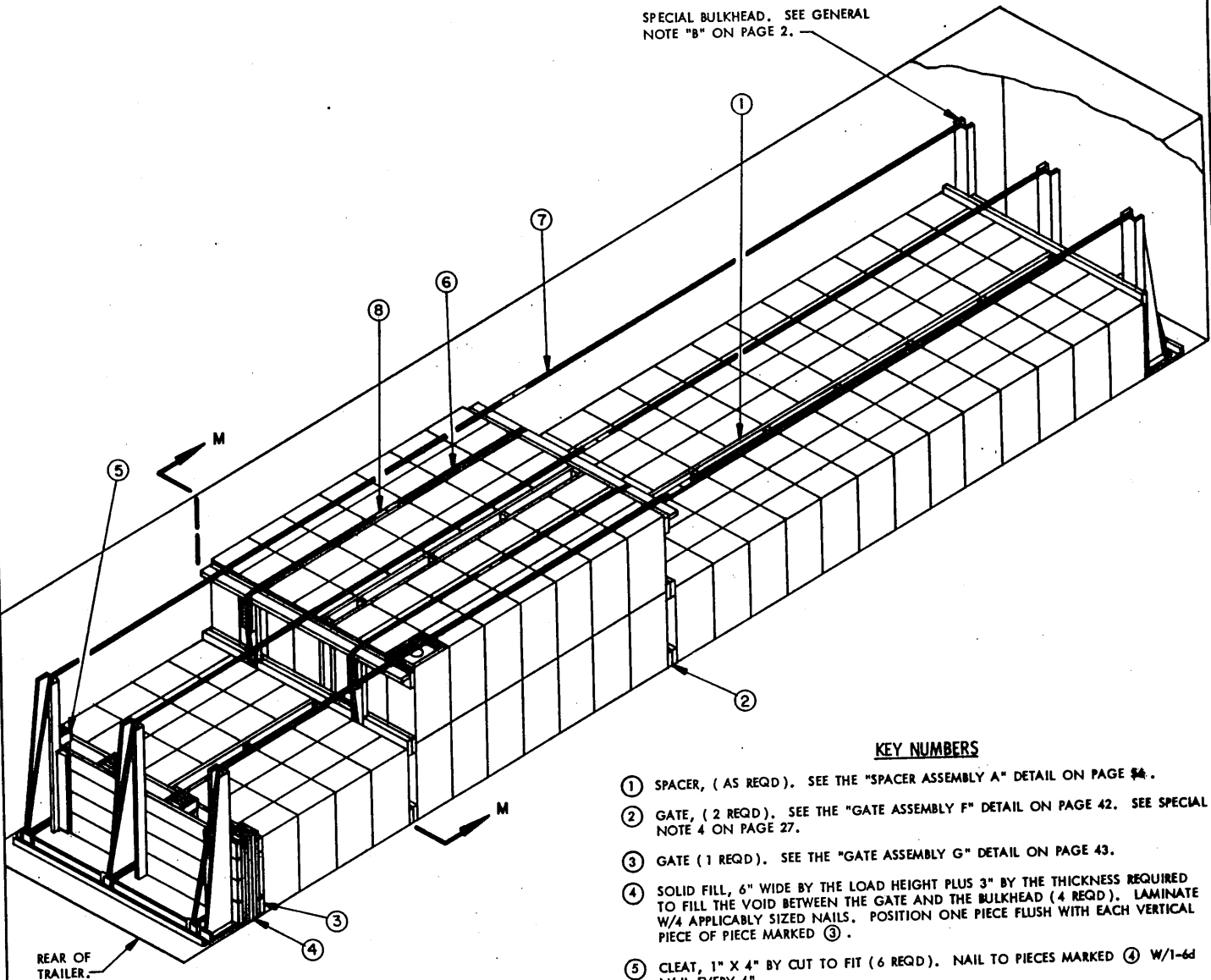
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	6	2
1" X 10"	192	160
2" X 2"	253	85
2" X 4"	124	83
2" X 6"	157	157
NAILS	NO. REQD	POUNDS
6d (2")	18	1/4
10d (3")	292	4-1/2
12d (3-1/4")	90	1-1/2
STEEL STRAPPING, 2" X .050" -----	286' REQD -----	96 LBS
SEAL FOR 2" STRAPPING -----	22 REQD -----	5 LBS

**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT ( APPROX )
METAL DRUM -----	321 -----	40,767 LBS
DUNNAGE -----	-----	1,324 LBS
TOTAL WEIGHT -----	-----	42,091 LBS

TYPICAL LOAD IN A TRAILER HAVING 35'-0" BETWEEN BULKHEADS

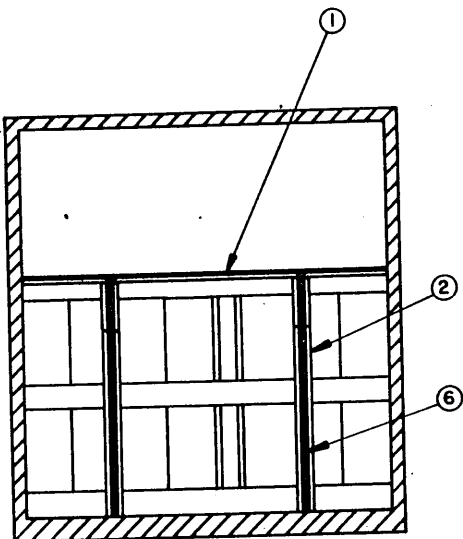
SPECIAL BULKHEAD. SEE GENERAL NOTE "B" ON PAGE 2.



**KEY NUMBERS**

- ① SPACER, ( AS REQD ). SEE THE "SPACER ASSEMBLY A" DETAIL ON PAGE 44.
- ② GATE, ( 2 REQD ). SEE THE "GATE ASSEMBLY F" DETAIL ON PAGE 42. SEE SPECIAL NOTE 4 ON PAGE 27.
- ③ GATE ( 1 REQD ). SEE THE "GATE ASSEMBLY G" DETAIL ON PAGE 43.
- ④ SOLID FILL, 6" WIDE BY THE LOAD HEIGHT PLUS 3" BY THE THICKNESS REQUIRED TO FILL THE VOID BETWEEN THE GATE AND THE BULKHEAD ( 4 REQD ). LAMINATE W/4 APPLICABLY SIZED NAILS. POSITION ONE PIECE FLUSH WITH EACH VERTICAL PIECE OF PIECE MARKED ③ .
- ⑤ CLEAT, 1" X 4" BY CUT TO FIT ( 6 REQD ). NAIL TO PIECES MARKED ④ W/1-6d NAIL EVERY 4".
- ⑥ BUNDLING STRAP, 2" X .050" X 34'-0" STEEL STRAPPING ( 2 REQD ). PRE-POSITION. SEE GENERAL NOTE "G" ON PAGE 2.
- ⑦ BULKHEAD STRAP, 2" X .050" X 60'-0" STEEL STRAPPING ( 3 REQD ). INSTALL EACH STRAP FROM TWO ( 2 ) 30'-0" LONG PIECES. SEE GENERAL NOTE "H" ON PAGE 2.
- ⑧ SEAL FOR 2" STRAPPING ( 22 REQD, 2 PER JOINT ). DOUBLE CRIMP EACH SEAL.

**ISOMETRIC VIEW**



**SECTION M-M**

**SPECIAL NOTES:**

1. A TYPICAL LOAD OF BULK POWDER PACKED IN A WIREBOUND WOODEN BOX IS SHOWN IN A 7'-8-1/2" WIDE ( INSIDE DIMENSION ) TRAILER HAVING 35'-0" BETWEEN THE INSTALLED BULKHEADS. THE PROCEDURES SHOWN WILL APPLY TO ALL BULK POWDER PACKED IN WOODEN AND/OR METAL BOXES AND LOADED IN TRAILERS OF VARIOUS INSIDE WIDTH AND LENGTH.
2. CONTAINER DETAIL: THE WIRE BOUND WOODEN BOX PA54 IS SHOWN.  
DIMENSIONS----- 16-7/8" LONG X 12-1/4" WIDE X 31" HIGH.  
GROSS WEIGHT----- 186 POUNDS ( APPROX ).
3. IF THE EXCESS SPACE BETWEEN THE REAR OF THE LADING AND THE INSTALLED BULKHEAD IS GREATER THAN 18" USE A GATE AND STRUTS, AS SHOWN IN LOAD ON PAGE 6, IN LIEU OF SOLID FILL.
4. TO PRECLUDE BOX CRUSHING, TWO ( 2 ) "GATE ASSEMBLIES F" MUST ALWAYS BE USED FOR THE SHIPMENT OF PARTIAL SECOND LAYERS EVEN THOUGH THE PARTIAL LAYER MIGHT BE POSITIONED DIRECTLY AGAINST A BULKHEAD.
5. FOR LESS THAN A FULL ROW ACROSS THE TRAILER USE A "FILLER ASSEMBLY C" AS SHOWN IN LOAD ON PAGE 32.
6. THE CONTAINER MUST BE POSITIONED WITH THE OPENING END UP.
7. IF THE EXCESS SPACE ACROSS THE WIDTH OF THE TRAILER IS LESS THAN 1/3 OR THE BOX WIDTH, "SPACER ASSEMBLY A" MAY BE OMITTED.

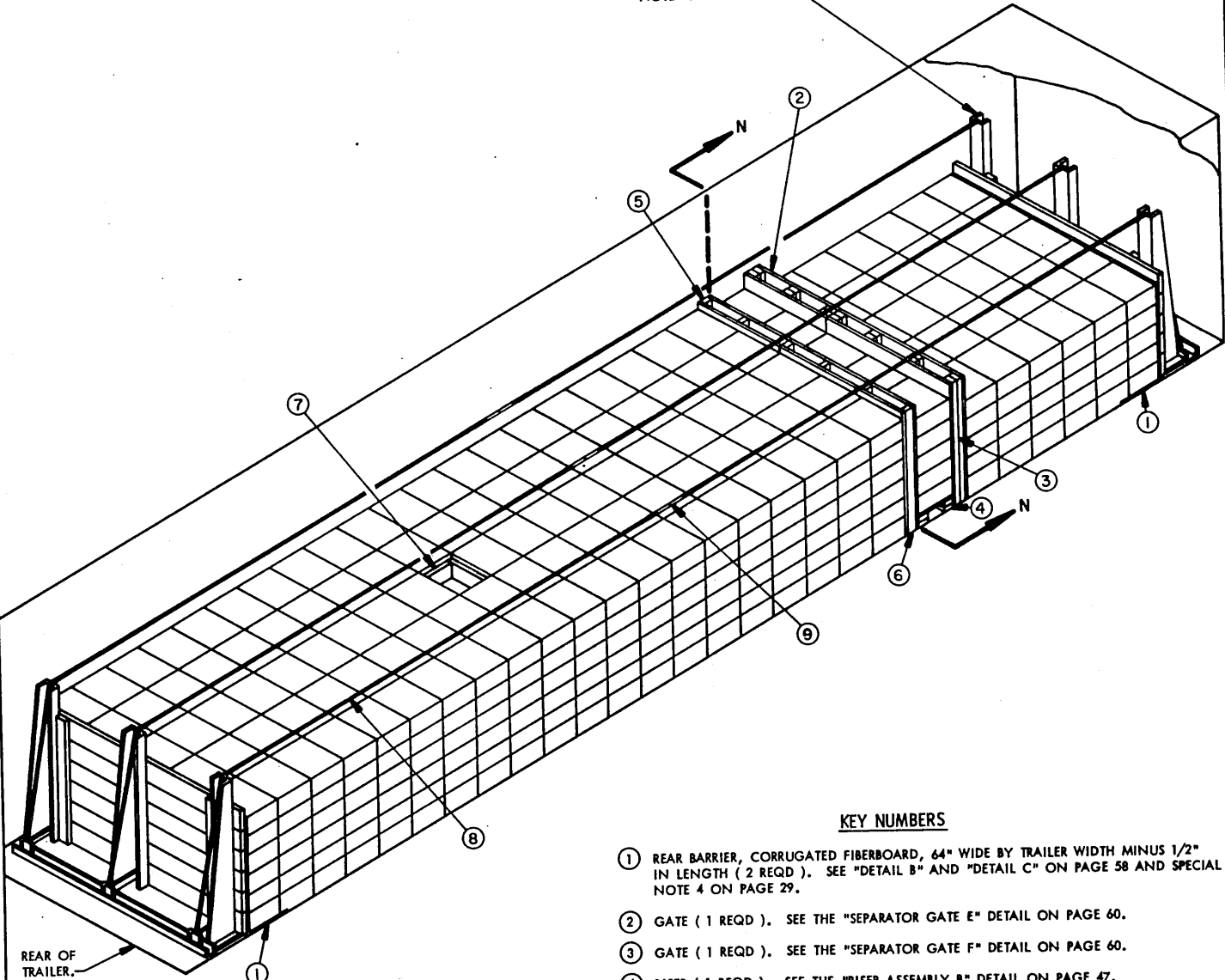
**BILL OF MATERIAL**

LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	4	2
2" X 4"	295	197
2" X 6"	147	147
NAILS	NO. REQD	POUNDS
6d (2")	24	1/4
10d (3")	358	5-3/4
STEEL STRAPPING, 2" X .050" -----	248' REQD -----	83 LBS
SEAL FOR 2" STRAPPING -----	22 REQD -----	5 LBS

**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT ( APPROX )
WOODEN BOX -----	217 -----	40,362 LBS
DUNNAGE -----	-----	959 LBS
TOTAL WEIGHT -----		41,321 LBS

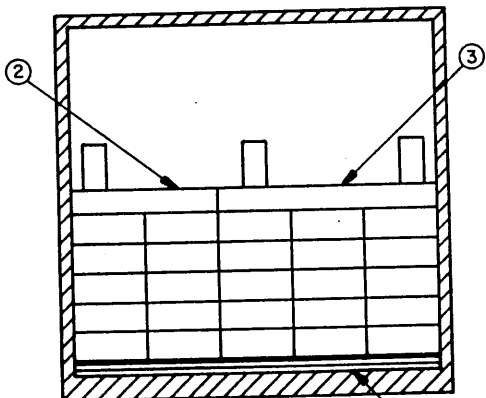
SPECIAL BULKHEAD. SEE GENERAL NOTE "B" ON PAGE 2.



ISOMETRIC VIEW

**KEY NUMBERS**

- ① REAR BARRIER, CORRUGATED FIBERBOARD, 64" WIDE BY TRAILER WIDTH MINUS 1/2" IN LENGTH ( 2 REQD ). SEE "DETAIL B" AND "DETAIL C" ON PAGE 58 AND SPECIAL NOTE 4 ON PAGE 29.
- ② GATE ( 1 REQD ). SEE THE "SEPARATOR GATE E" DETAIL ON PAGE 60.
- ③ GATE ( 1 REQD ). SEE THE "SEPARATOR GATE F" DETAIL ON PAGE 60.
- ④ RISER ( 1 REQD ). SEE THE "RISER ASSEMBLY B" DETAIL ON PAGE 47.
- ⑤ GATE ( 1 REQD ). SEE THE "SEPARATOR GATE A" DETAIL ON PAGE 45.
- ⑥ GATE ( 1 REQD ). SEE THE "SEPARATOR GATE B" DETAIL ON PAGE 45.
- ⑦ FILLER ( 1 REQD ). SEE THE "FILLER ASSEMBLY B" DETAIL ON PAGE 50.
- ⑧ BULKHEAD STRAP, 2" X .050" X 60'-0" STEEL STRAPPING ( 3 REQD ). INSTALL EACH STRAP FROM TWO ( 2 ) 30'-0" LONG PIECES. SEE GENERAL NOTE "H" ON PAGE 2.
- ⑨ SEAL FOR 2" STRAPPING ( 18 REQD, 2 PER STRAP JOINT ). DOUBLE CRIMP EACH SEAL.



SECTION N-N

TYPICAL LOAD IN A TRAILER HAVING 35'-0" BETWEEN BULKHEADS

**SPECIAL NOTES:**

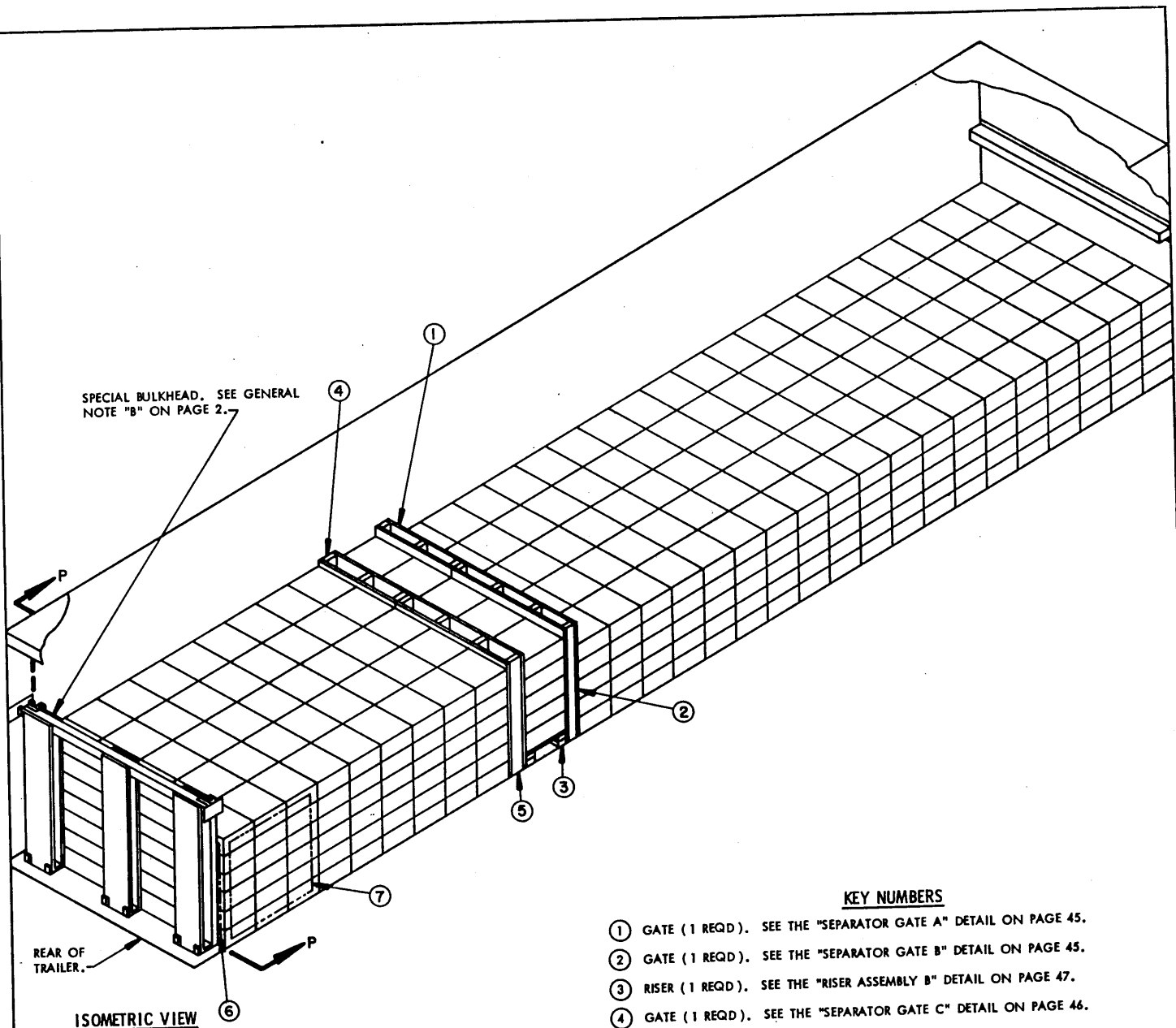
1. A TYPICAL LOAD OF BULK POWDER PACKED IN FIBERBOARD CARTONS IS SHOWN IN A 7'-8-1/2" WIDE ( INSIDE DIMENSION ) TRAILER HAVING 35'-0" BETWEEN THE INSTALLED BULKHEADS. TRAILERS NARROWER THAN 7'-8" CANNOT BE USED.
2. CONTAINER DETAIL: A FIBERBOARD CARTON IS SHOWN.  
 DIMENSIONS ----- 18-1/2" LONG BY 15-1/4" WIDE BY 7-5/8" HIGH.  
 GROSS WEIGHT:  
 TNT ----- 54 LBS ( APPROX )  
 TNT ----- 59 LBS ( APPROX )  
 COMP B ----- 64 LBS ( APPROX )
3. IF IT IS DESIRED TO SHIP A LESSER LOAD QUANTITY, THE RISER ASSEMBLY SHOWN AS PIECE MARKED ④ AND THE SEPARATOR GATES SHOWN AS PIECES MARKED ②, ③, ⑤ AND ⑥ MAY BE LOCATED CLOSER TO THE REAR OF THE TRAILER.
4. BARRIER PIECES OF FIBERBOARD ARE USED AT THE REAR AND/OR AT THE FRONT AND REAR OF THE DEPICTED LOADS TO PROVIDE A COVER TO SEPARATE THE LADING AND THE METAL COMPONENTS OF THE BULKHEAD BRACES. OTHER EXPOSED METAL PLATES ON THE FLOOR WITHIN THE CARGO SPACE OF A TRAILER MUST ALSO BE COVERED. FOR TRAILERS EQUIPPED WITH EITHER TYPE OF BULKHEAD SYSTEM, THIS COVERING CAN BE MADE FROM ADDITIONAL BARRIER PIECES OF CORRUGATED FIBERBOARD. THE COVERING IS SPECIFIED TO BE LOAD HEIGHT AT THE SIDES AND END AND LARGE ENOUGH AT THE BOTTOM OF THE LOAD TO EXTEND PAST THE METAL A FEW INCHES AND OUT ONTO THE NON-METAL PORTION OF THE FLOOR.
5. FOR ALTERNATIVE LOADING METHOD SEE PAGES 30 AND 31.

**BILL OF MATERIAL**

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	115	77
2" X 6"	6	6
NAILS	NO. REQD	POUNDS
6d ( 2" )	186	1-1/4
10d ( 3" )	58	1
12d ( 3-1/4" )	8	NIL
PLYWOOD, 1/2"-----	133 SQ. FT. REQD -----	183 LBS
FIBERBOARD -----	62 SQ. FT. REQD -----	16 LBS
STEEL STRAPPING, 2" X .050"-----	180' REQD -----	60 LBS
SEAL FOR 2" STRAPPING -----	18 REQD -----	4 LBS

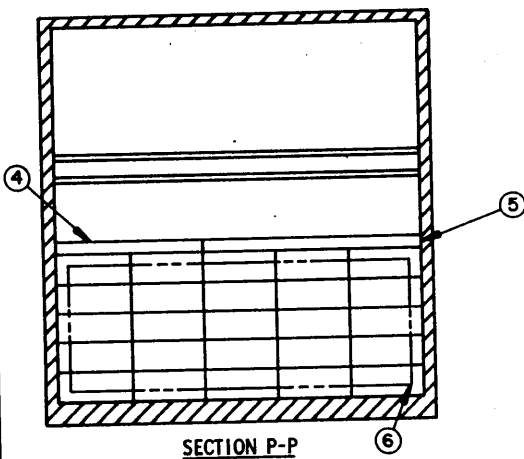
**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT ( APPROX )
FIBERBOARD CARTON -----	774 -----	41,796 LBS
DUNNAGE -----	-----	473 LBS
TOTAL WEIGHT -----		42,269 LBS



**KEY NUMBERS**

- ① GATE (1 REQD). SEE THE "SEPARATOR GATE A" DETAIL ON PAGE 45.
- ② GATE (1 REQD). SEE THE "SEPARATOR GATE B" DETAIL ON PAGE 45.
- ③ RISER (1 REQD). SEE THE "RISER ASSEMBLY B" DETAIL ON PAGE 47.
- ④ GATE (1 REQD). SEE THE "SEPARATOR GATE C" DETAIL ON PAGE 46.
- ⑤ GATE (1 REQD). SEE THE "SEPARATOR GATE D" DETAIL ON PAGE 46.
- ⑥ REAR BARRIER, CORRUGATED FIBERBOARD, 60" WIDE BY TRAILER WIDTH MINUS 1/2" IN LENGTH (1 REQD). SEE "DETAIL B" AND "DETAIL C" ON PAGE 58 AND SPECIAL NOTE 4 ON PAGE 31.
- ⑦ SIDE BARRIER, CORRUGATED FIBERBOARD, 60" WIDE BY 54" LONG (2 REQD, 1 RIGHT HAND AND 1 LEFT HAND). SEE "DETAIL A" AND "DETAIL C" ON PAGE 58.



TYPICAL LOAD IN A TRAILER HAVING 38'-6" BETWEEN BULKHEADS



**SPECIAL NOTES:**

1. A TYPICAL LOAD OF BULK POWDER PACKED IN FIBERBOARD CARTONS IS SHOWN IN A 7'-8-1/2" WIDE ( INSIDE DIMENSION ) TRAILER HAVING 38'-6" BETWEEN THE BULKHEAD AT THE FRONT ( BUILT INTO THE FRONT WALL ) AND THE INSTALLED BULKHEAD AT THE REAR. TRAILERS NARROWER THAN 7'-8" CANNOT BE USED.
2. CONTAINER DETAIL: A FIBERBOARD CARTON IS SHOWN.  
 DIMENSIONS ----- 18-1/2" LONG BY 15-1/4" WIDE BY 7-5/8" HIGH.  
 GROSS WEIGHT:  
 TNT ----- 54 LBS ( APPROX ).  
 TNT ----- 59 LBS ( APPROX ).  
 COMP B ----- 64 LBS ( APPROX ).
3. IF IT IS DESIRED TO SHIP A LESSER LOAD QUANTITY, THE RISER ASSEMBLY SHOWN AS PIECE MARKED ③ AND THE SEPARATOR GATES SHOWN AS PIECES MARKED ② AND ④ MAY BE LOCATED CLOSER TO THE REAR OF THE TRAILER.
4. BARRIER PIECES OF FIBERBOARD ARE USED AT THE REAR AND/OR AT THE FRONT AND REAR OF THE DEPICTED LOADS TO PROVIDE A COVER TO SEPARATE THE LADING AND THE METAL COMPONENTS OF THE BULKHEAD BRACES. OTHER EXPOSED METAL PLATES ON THE FLOOR WITHIN THE CARGO SPACE OF A TRAILER MUST ALSO BE COVERED. FOR TRAILERS EQUIPPED WITH EITHER TYPE OF BULKHEAD SYSTEM, THIS COVERING CAN BE MADE FROM ADDITIONAL BARRIER PIECES OF CORRUGATED FIBERBOARD. THE COVERING IS SPECIFIED TO BE LOAD HEIGHT AT THE SIDES AND END AND LARGE ENOUGH AT THE BOTTOM OF THE LOAD TO EXTEND PAST THE METAL A FEW INCHES AND OUT ONTO THE NON-METAL PORTION OF THE FLOOR.
5. FOR ALTERNATIVE LOADING METHOD SEE PAGES 28 AND 29.

**BILL OF MATERIAL**

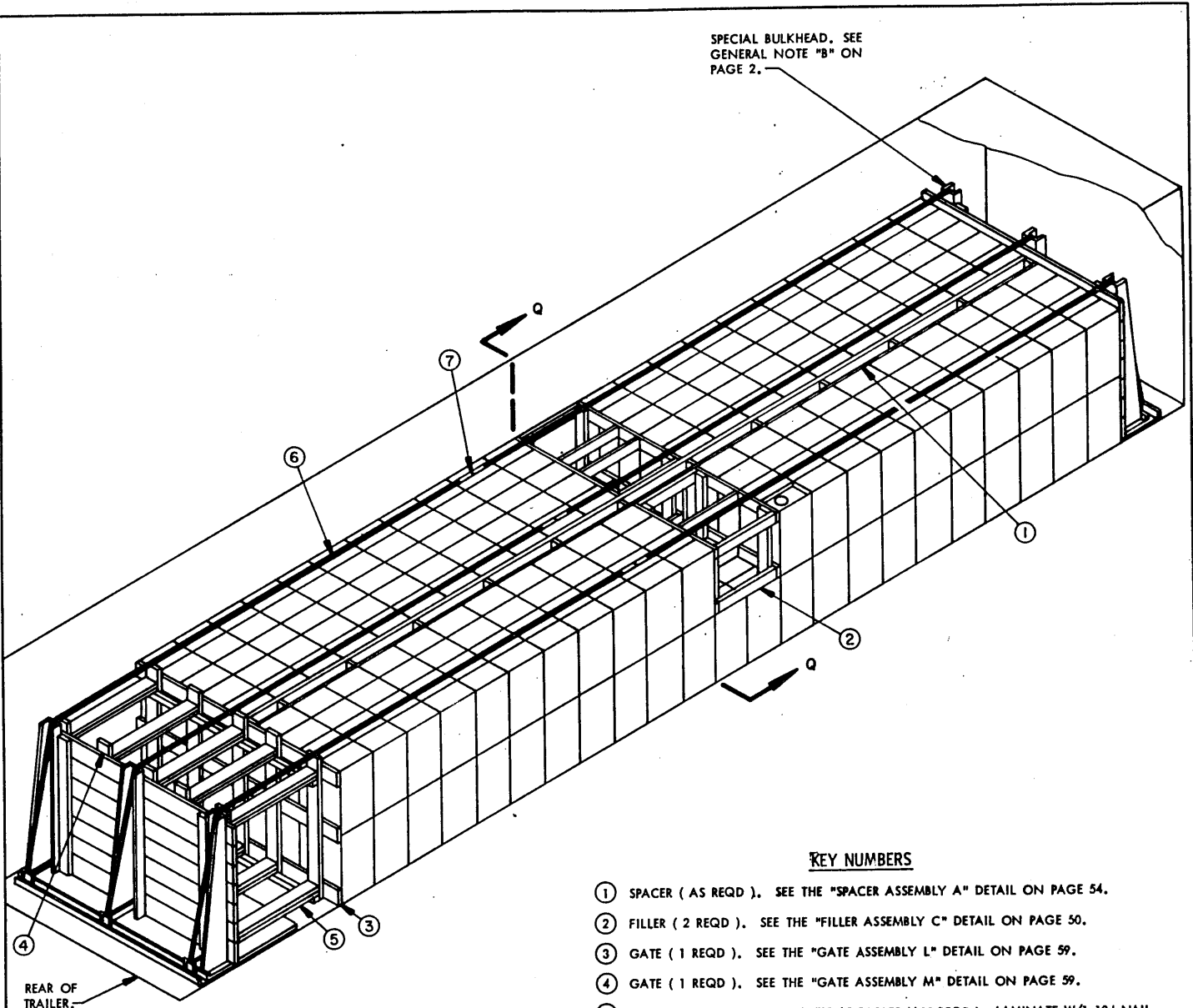
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	59	40
2" X 6"	28	28
NAILS	NO. REQD	POUNDS
6d (2")	186	1-1/4
10d (3")	16	1/4
PLYWOOD, 1/2" -----	133 SQ. FT. REQD -----	183 LBS
FIBERBOARD -----	84 SQ. FT. REQD -----	21 LBS

**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT (APPROX)
FIBERBOARD CARTON - 770 -----		41,580 LBS
DUNNAGE -----		376 LBS
TOTAL WEIGHT -----		41,956 LBS

TYPICAL LOAD IN A TRAILER HAVING 38'-6" BETWEEN BULKHEADS

SPECIAL BULKHEAD. SEE  
GENERAL NOTE "B" ON  
PAGE 2.

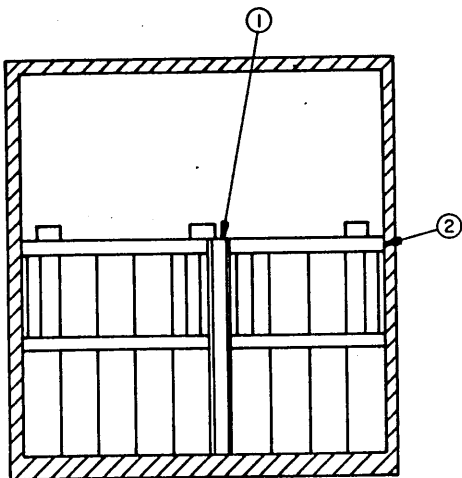


REAR OF  
TRAILER.

ISOMETRIC VIEW

KEY NUMBERS

- ① SPACER ( AS REQD ). SEE THE "SPACER ASSEMBLY A" DETAIL ON PAGE 54.
- ② FILLER ( 2 REQD ). SEE THE "FILLER ASSEMBLY C" DETAIL ON PAGE 50.
- ③ GATE ( 1 REQD ). SEE THE "GATE ASSEMBLY L" DETAIL ON PAGE 59.
- ④ GATE ( 1 REQD ). SEE THE "GATE ASSEMBLY M" DETAIL ON PAGE 59.
- ⑤ STRUTS, 2" X 6" BY. CUT TO FIT ( DOUBLED ) ( 10 REQD ). LAMINATE W/1-10d NAIL EVERY 6". TOENAIL TO THE VERTICAL PIECES OF PIECES MARKED ③ AND ④ W/2-12d NAILS AT EACH END.
- ⑥ BULKHEAD STRAP, 2" X .050" X 60'-0" STEEL STRAPPING ( 3 REQD ). INSTALL EACH STRAP FROM TWO ( 2 ) 30'-0" LONG PIECES. SEE GENERAL NOTE "H" ON PAGE 2.
- ⑦ SEAL FOR 2" STRAPPING ( 18 REQD, 2 PER STRAP JOINT ). DOUBLE CRIMP EACH SEAL.



SECTION Q-Q

TYPICAL LOAD IN A TRAILER HAVING 35'-0" BETWEEN BULKHEADS

**SPECIAL NOTES:**

1. A TYPICAL LOAD OF BULK POWDER PACKED IN A STEEL BOX IS SHOWN IN A 7'-8-1/2" WIDE ( INSIDE DIMENSION ) TRAILER HAVING 35'-0" BETWEEN THE INSTALLED BULKHEADS. THE PROCEDURES SHOWN WILL APPLY TO ALL BULK POWDER PACKED IN WOODEN AND/OR METAL BOXES AND LOADED IN TRAILERS OF VARIOUS INSIDE WIDTH AND LENGTH.
2. CONTAINER DETAIL: A STEEL BOX IS SHOWN.  
DIMENSIONS -----16-1/4" LONG X 9-5/8" WIDE X 28-3/8" HIGH.  
GROSS WEIGHT-----105 POUNDS ( APPROX )
3. IF THE EXCESS SPACE BETWEEN THE REAR OF THE LADING AND THE INSTALLED BULKHEAD IS LESS THAN 18" USE SOLID FILL AS SHOWN IN LOAD ON PAGE 4, IN LIEU OF GATES AND STRUTS.
4. IF THE EXCESS SPACE ACROSS THE WIDTH OF THE TRAILER IS LESS THAN 1/3 OF THE BOX WIDTH, SPACER ASSEMBLY "A" MAY BE OMITTED.

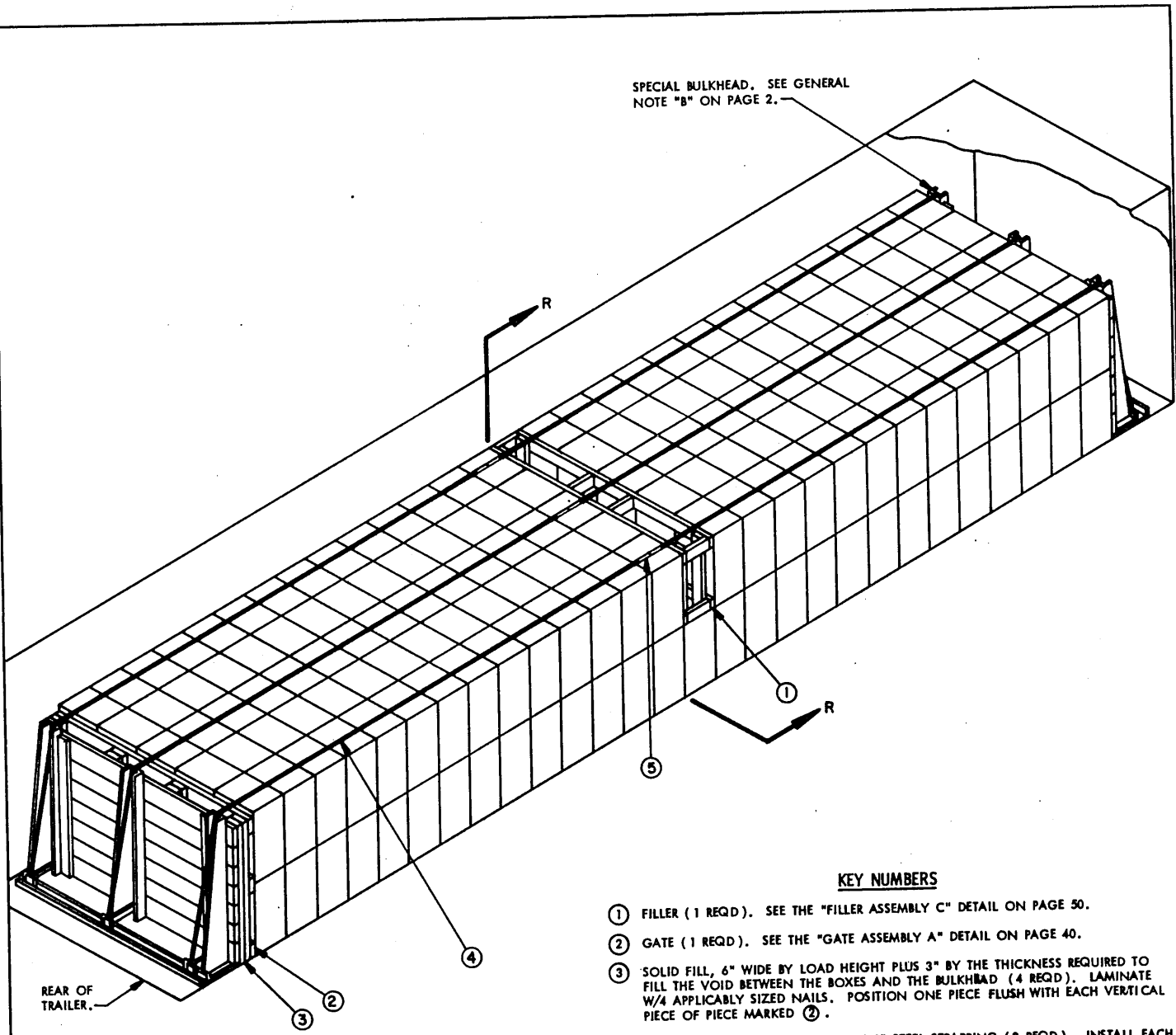
**BILL OF MATERIAL**

LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	94	32
2" X 2"	27	9
2" X 4"	248	166
2" X 6"	142	142
NAILS	NO. REQD	POUNDS
10d (3")	359	5-3/4
12d (3-1/4")	56	1
STEEL STRAPPING, 2" X .050" ----- 180' REQD ----- 60 LBS		
SEAL FOR 2" STRAPPING ----- 18 REQD ----- 4 LBS		

**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT ( APPROX )
STEEL BOX -----	396 -----	41,580 LBS
DUNNAGE -----	-----	944 LBS
TOTAL WEIGHT-----		42,524 LBS

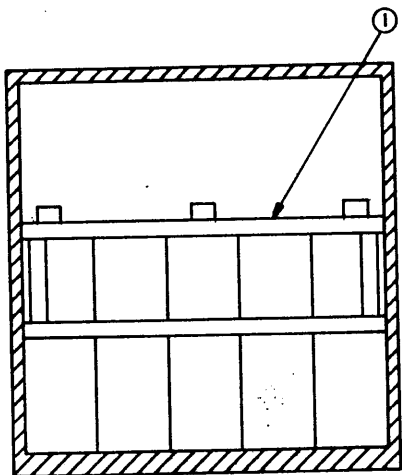
TYPICAL LOAD IN A TRAILER HAVING 35'-0" BETWEEN BULKHEADS



**ISOMETRIC VIEW**

**KEY NUMBERS**

- ① FILLER (1 REQD). SEE THE "FILLER ASSEMBLY C" DETAIL ON PAGE 50.
- ② GATE (1 REQD). SEE THE "GATE ASSEMBLY A" DETAIL ON PAGE 40.
- ③ SOLID FILL, 6" WIDE BY LOAD HEIGHT PLUS 3" BY THE THICKNESS REQUIRED TO FILL THE VOID BETWEEN THE BOXES AND THE BULKHEAD (4 REQD). LAMINATE W/4 APPLICABLY SIZED NAILS. POSITION ONE PIECE FLUSH WITH EACH VERTICAL PIECE OF PIECE MARKED ②.
- ④ BULKHEAD STRAP, 2" X .050" X 60'-0" STEEL STRAPPING (3 REQD). INSTALL EACH STRAP FROM TWO (2) 30'-0" LONG PIECES. SEE GENERAL NOTE "H" ON PAGE 2.
- ⑤ SEAL FOR 2" STRAPPING (18 REQD, 2 PER STRAP JOINT). DOUBLE CRIMP EACH SEAL.



**SECTION R-R**

**SPECIAL NOTES:**

1. A TYPICAL LOAD OF BULK POWDER PACKED IN A METAL LINED WOODEN BOX IS SHOWN IN A 7'-8-1/2" WIDE ( INSIDE DIMENSION ) TRAILER HAVING 35'-0" BETWEEN THE INSTALLED BULKHEADS. THE PROCEDURES SHOWN WILL APPLY TO ALL BULK POWDER PACKED IN WOODEN AND/OR METAL BOXES LOADED IN TRAILERS OF VARIOUS INSIDE WIDTH AND LENGTH.
2. CONTAINER DETAIL: A METAL LINED WOODEN BOX IS SHOWN.  
 DIMENSIONS ----- 17-3/4" LONG X 14-3/4" WIDE X 30" HIGH.  
 GROSS WEIGHT ----- 150 POUNDS ( APPROX ).
3. IF THE EXCESS SPACE BETWEEN THE REAR OF THE LADING AND THE INSTALLED BULKHEAD IS GREATER THAN 18" USE A GATE AND STRUTS, AS SHOWN IN THE LOAD ON PAGE 6, IN LIEU OF SOLID FILL.
4. IF THE EXCESS SPACE ACROSS THE WIDTH OF THE TRAILER IS GREATER THAN 1/3 OF THE BOX WIDTH A SPACER ASSEMBLY, AS SHOWN IN THE LOAD ON PAGE 26, MUST BE USED.

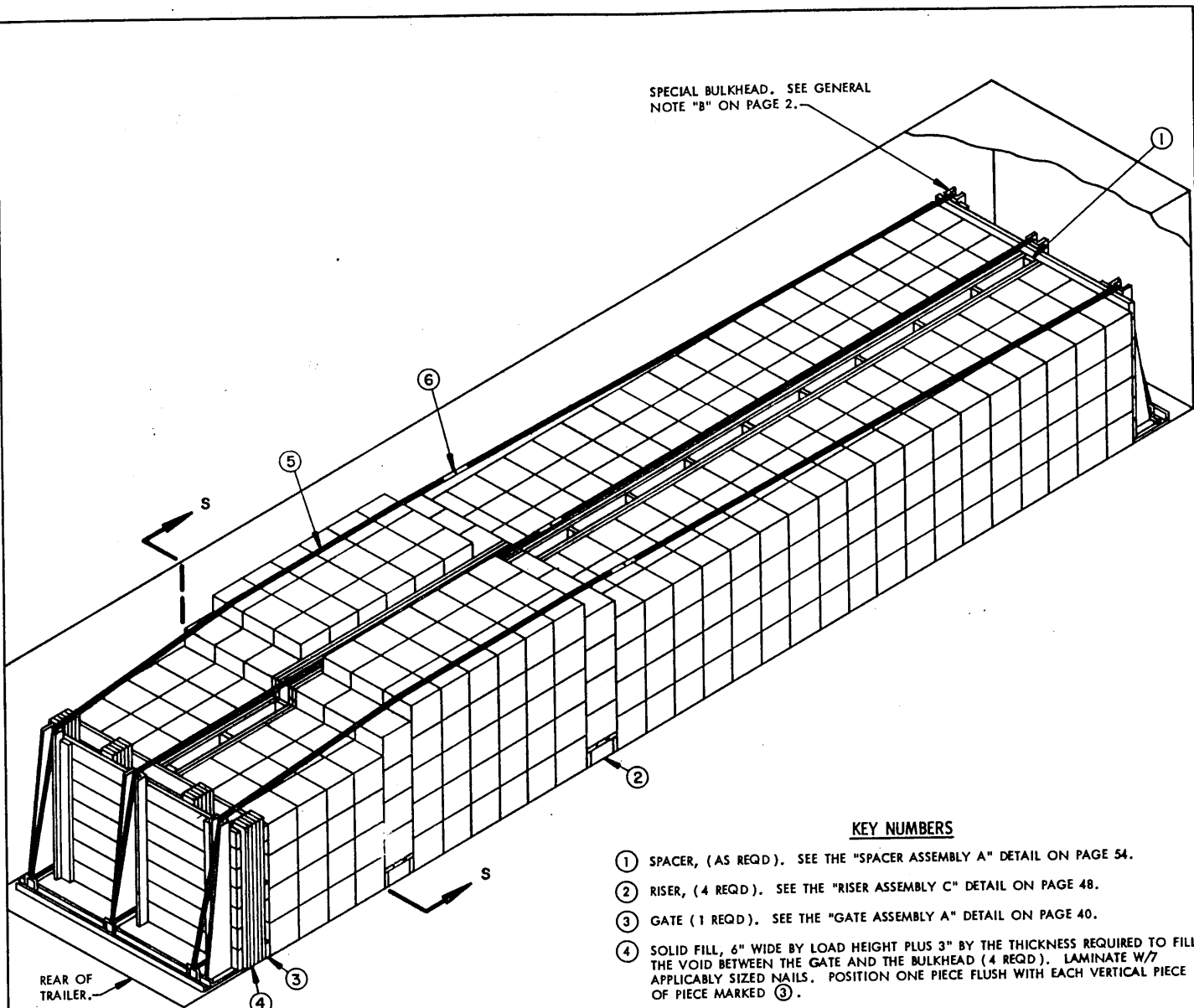
**BILL OF MATERIAL**

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	49	33
2" X 6"	61	61
NAILS	NO. REQD	POUNDS
10d (3")	68	1
12d (3-1/4")	32	3/4
STEEL STRAPPING, 2" X .050" -----	180' REQD -----	60 LBS
SEAL FOR 2" STRAPPING -----	18 REQD -----	4 LBS

**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT ( APPROX )
METAL LINED WOODEN BOX -----	275 -----	41,250 LBS
DUNNAGE -----		301 LBS
TOTAL WEIGHT -----		41,551 LBS

TYPICAL LOAD IN A TRAILER HAVING 35'-0' BETWEEN BULKHEADS

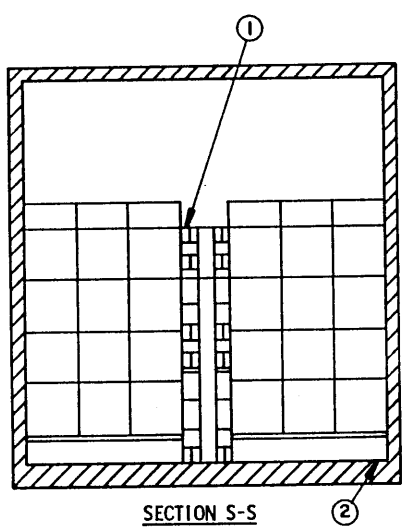


SPECIAL BULKHEAD. SEE GENERAL NOTE "B" ON PAGE 2.

**KEY NUMBERS**

- ① SPACER, (AS REQD). SEE THE "SPACER ASSEMBLY A" DETAIL ON PAGE 54.
- ② RISER, (4 REQD). SEE THE "RISER ASSEMBLY C" DETAIL ON PAGE 48.
- ③ GATE (1 REQD). SEE THE "GATE ASSEMBLY A" DETAIL ON PAGE 40.
- ④ SOLID FILL, 6" WIDE BY LOAD HEIGHT PLUS 3" BY THE THICKNESS REQUIRED TO FILL THE VOID BETWEEN THE GATE AND THE BULKHEAD (4 REQD). LAMINATE W/7 APPLICABLY SIZED NAILS. POSITION ONE PIECE FLUSH WITH EACH VERTICAL PIECE OF PIECE MARKED ③.
- ⑤ BULKHEAD STRAP, 2" X .050" X 60'-0" STEEL STRAPPING (3 REQD). INSTALL EACH STRAP FROM TWO (2) 30'-0" LONG PIECES. SEE GENERAL NOTE "H" ON PAGE 2.
- ⑥ SEAL FOR 2" STRAPPING (18 REQD, 2 PER STRAP JOINT). DOUBLE CRIMP EACH SEAL.

**ISOMETRIC VIEW**



**SECTION S-S**

**SPECIAL NOTES:**

1. A TYPICAL LOAD OF BULK POWDER PACKED IN A WOODEN BOX IS SHOWN IN A 7'-8-1/2" WIDE (INSIDE DIMENSION) TRAILER HAVING 35'-0" BETWEEN THE INSTALLED BULKHEADS. THE PROCEDURES SHOWN WILL APPLY TO ALL BULK POWDER PACKED IN WOODEN AND OR METAL BOXES AND LOADED IN TRAILERS OR VARIOUS INSIDE WIDTH AND LENGTH.
2. CONTAINER DETAIL: THE M18 WOODEN BOX IS SHOWN.  
 DIMENSIONS ----- 13-5/8" LONG X 13-5/8" WIDE X 13-5/8" HIGH.  
 GROSS WEIGHT ----- 54 POUNDS (APPROX).
3. IF THE EXCESS SPACE BETWEEN THE REAR OF THE LADING AND THE INSTALLED BULKHEAD IS GREATER THAN 18" USE A GATE AND STRUTS, AS SHOWN IN THE LOAD ON PAGE 6, IN LIEU OF SOLID FILL.
4. IF THE EXCESS SPACE ACROSS THE WIDTH OF THE TRAILER IS LESS THAN 1/3 OF THE BOX WIDTH, SPACER ASSEMBLY A MAY BE OMITTED.

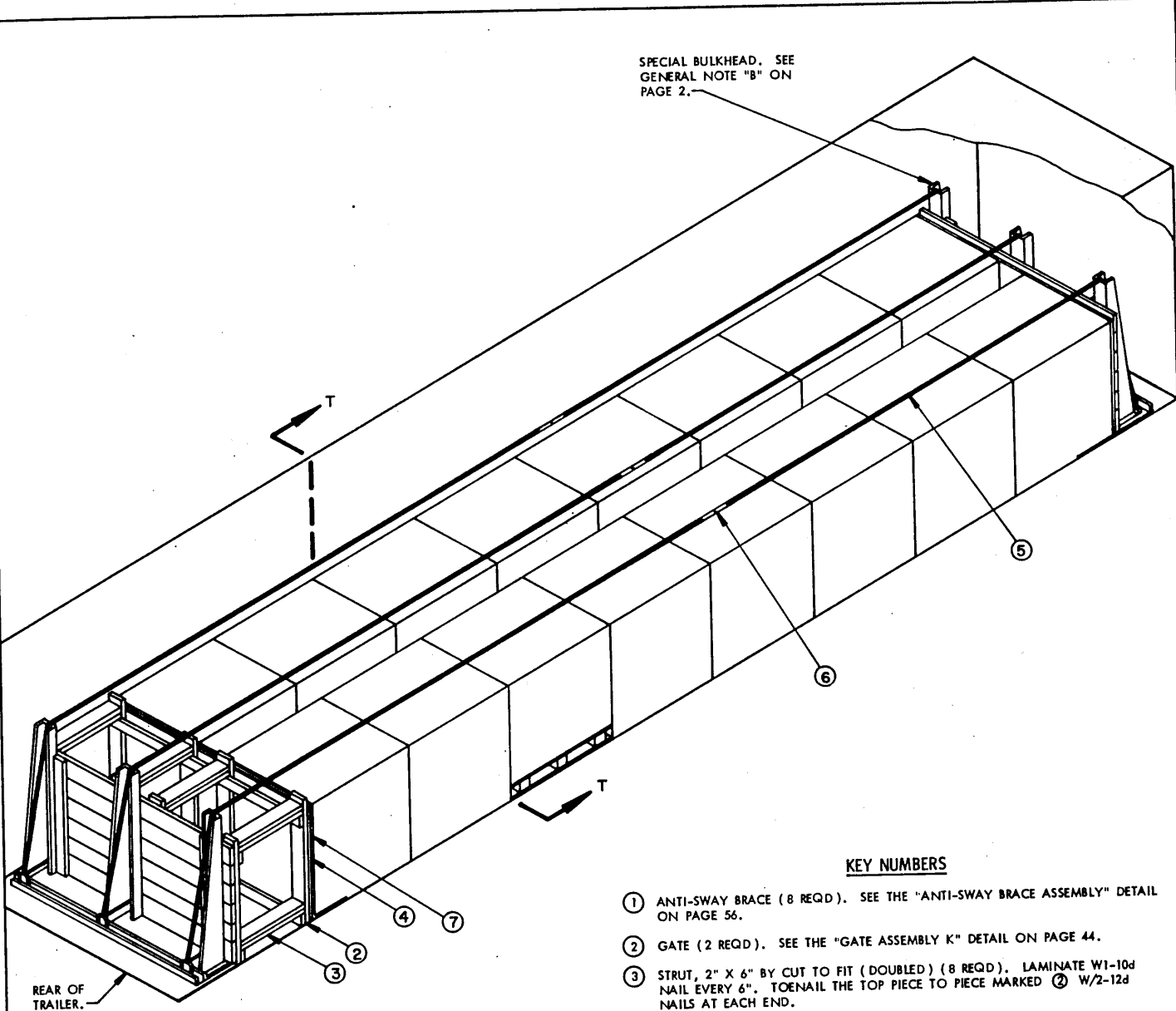
**BILL OF MATERIAL**

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	157	105
2" X 6"	153	153
NAILS	NO. REQD	POUNDS
10d (3")	412	6-1/2
STEEL STRAPPING 2" X .050" -----	60' REQD -----	20 LBS
SEAL FOR 2" STRAPPING -----	18 REQD -----	4 LBS

**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT (APPROX)
WOODEN BOX -----	756 -----	40,824 LBS
DUNNAGE -----		676 LBS
TOTAL WEIGHT -----		41,500 LBS

TYPICAL LOAD IN A TRAILER HAVING 35'-0' BETWEEN BULKHEADS



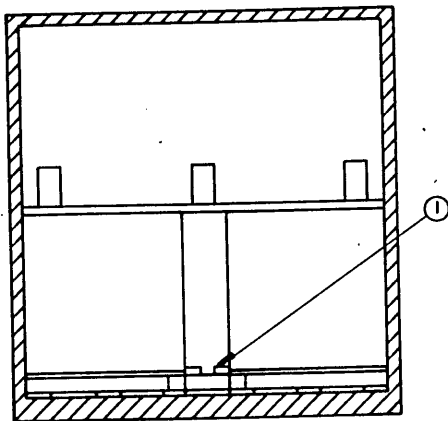
SPECIAL BULKHEAD. SEE GENERAL NOTE "B" ON PAGE 2.

REAR OF TRAILER.

**ISOMETRIC VIEW**

**KEY NUMBERS**

- ① ANTI-SWAY BRACE ( 8 REQD ). SEE THE "ANTI-SWAY BRACE ASSEMBLY" DETAIL ON PAGE 56.
- ② GATE ( 2 REQD ). SEE THE "GATE ASSEMBLY K" DETAIL ON PAGE 44.
- ③ STRUT, 2" X 6" BY CUT TO FIT ( DOUBLED ) ( 8 REQD ). LAMINATE W1-10d NAIL EVERY 6". TOENAIL THE TOP PIECE TO PIECE MARKED ② W/2-12d NAILS AT EACH END.
- ④ REAR SUPPORT, 1/2" PLYWOOD, 4' WIDE BY TRAILER WIDTH MINUS 1/2" IN LENGTH ( 1 REQD ). SEE SPECIAL NOTE 7 ON PAGE 39.
- ⑤ BULKHEAD STRAP, 2" X .050" X 60'-0" STEEL STRAPPING ( 3 REQD ). INSTALL EACH STRAP FROM TWO ( 2 ) 30'-0" LONG PIECES. SEE GENERAL NOTE "H" ON PAGE 2.
- ⑥ SEAL FOR 2" STRAPPING ( 18 REQD, 2 PER STRAP JOINT ). DOUBLE-CRIMP EACH SEAL.
- ⑦ REAR BARRIER, CORRUGATED FIBERBOARD, 66" WIDE BY TRAILER WIDTH MINUS 1/2" IN LENGTH ( 2 REQD ). SEE "DETAIL B" AND "DETAIL C" ON PAGE 58 AND SPECIAL NOTE 6 ON PAGE 39.



**SECTION T-T**

TYPICAL LOAD IN A TRAILER HAVING 35'-0" BETWEEN BULKHEADS



**SPECIAL NOTES:**

1. A TYPICAL LOAD OF PALLETIZED FIBERBOARD CONTAINERS IS SHOWN IN A 7'-7-1/2" WIDE ( INSIDE DIMENSION ) TRAILER HAVING 35'-0" BETWEEN THE INSTALLED BULKHEADS. THE PROCEDURES SHOWN WILL APPLY TO ALL PALLETIZED FIBERBOARD CONTAINERS LOADED IN TRAILERS OF VARIOUS INSIDE WIDTH AND LENGTH.
2. PALLET DETAIL: THE FIBERBOARD CONTAINER NO. 4 IS SHOWN.  
DIMENSIONS ----- 40-1/2" LONG X 48-1/4" WIDE X 48-1/4" HIGH.  
GROSS WEIGHT ----- 2,116 POUNDS ( APPROX ).
3. WHEN LOADING A STANDARD TRAILER AS SHOWN ON PAGE 38 THE EXCESS SPACE BETWEEN THE REAR PALLET AND THE REAR BULKHEAD MUST BE 16" OR GREATER TO ALLOW FOR PROPER INSTALLATION OF THE BULKHEAD. THIS DOES NOT APPLY TO TRAILERS WHICH HAVE AN ADJUSTABLE BULKHEAD SYSTEM OR WHICH HAVE 38'-6" BETWEEN BULKHEADS.
4. PALLETIZED FIBERBOARD CONTAINERS MUST BE BLOCKED AT THE BOTTOM AND TOP OF THE LOAD.
5. FOR ALTERNATE LOADING METHODS SEE PAGES 12 AND 22, PALLETIZED EXPLOSIVES IN FIBERBOARD CONTAINERS WILL NOT BE SHIPPED MORE THAN ONE LAYER HIGH.
6. BARRIER PIECES OF FIBERBOARD ARE USED AT THE REAR AND/OR AT THE FRONT AND REAR OF THE DEPICTED LOAD TO PROVIDE A COVER TO SEPARATE THE LADING AND THE METAL COMPONENTS OF THE BULKHEAD BRACES. OTHER EXPOSED METAL PLATES ON THE FLOOR WITHIN THE CARGO SPACE OF A TRAILER MUST ALSO BE COVERED. FOR TRAILERS EQUIPPED WITH EITHER TYPE OF BULKHEAD SYSTEM, THIS COVERING CAN BE MADE FROM ADDITIONAL BARRIER PIECES OF CORRUGATED FIBERBOARD. THE COVERING IS SPECIFIED TO BE LOAD HEIGHT AT THE SIDES AND END AND LARGE ENOUGH AT THE BOTTOM OF THE LOAD TO EXTEND PAST THE METAL A FEW INCHES AND OUT ONTO THE NON-METAL PORTION OF THE FLOOR.
7. INSTALL 1/2" PLYWOOD PIECE MARKED ④ BETWEEN GATE PIECE MARKED ② AND REAR BARRIER PIECE MARKED ⑦. NAIL PLYWOOD TO EACH UPRIGHT OF THE GATE WITH 8-Bd NAILS, TWO ( 2 ) NAILS IN EACH UPRIGHT.

**BILL OF MATERIAL**

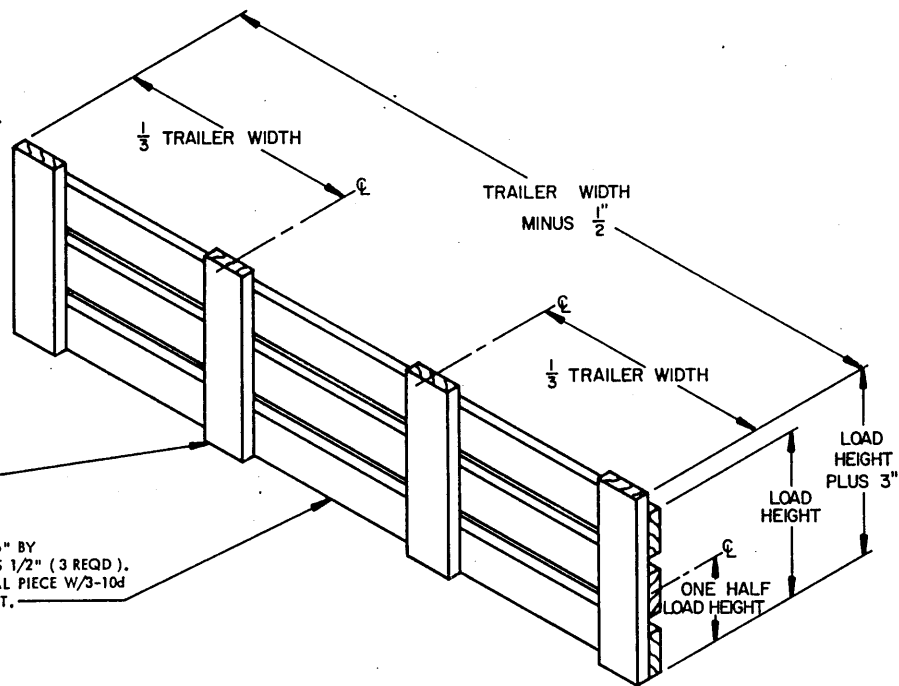
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	96	64
2" X 6"	74	74
NAILS	NO. REQD	POUNDS
10d (3")	144	1-3/4
12d (3-1/2")	32	1/2
FIBERBOARD ----- 46 SQ.FT. REQD ----- 11 LBS		
STEEL STRAPPING, 2" X .050" --- 201' REQD ----- 67 LBS		
SEALS FOR 2" STRAPPING ----- 18 REQD ----- 3-1/2 LBS		
PLYWOOD, 1/2" ----- 31 SQ.FT. REQD ----- 43 LBS		

**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT ( APPROX )
PALLET UNIT -----	18 -----	33,856 LBS
DUNNAGE -----		472 LBS
TOTAL WEIGHT -----		34,328 LBS

**NOTE ■:**

ADDITIONAL VERTICAL PIECES WILL BE ADDED, IF REQUIRED, AND THE SPACING ADJUSTED AS NECESSARY, SO THAT AT LEAST ONE JOINT ON EACH ROW OF BOXES IS CAPTURED. ADDITIONAL VERTICAL PIECES WILL BE BRACED WITH ADDITIONAL STRUTS OR SOLID FILL, AS APPROPRIATE.

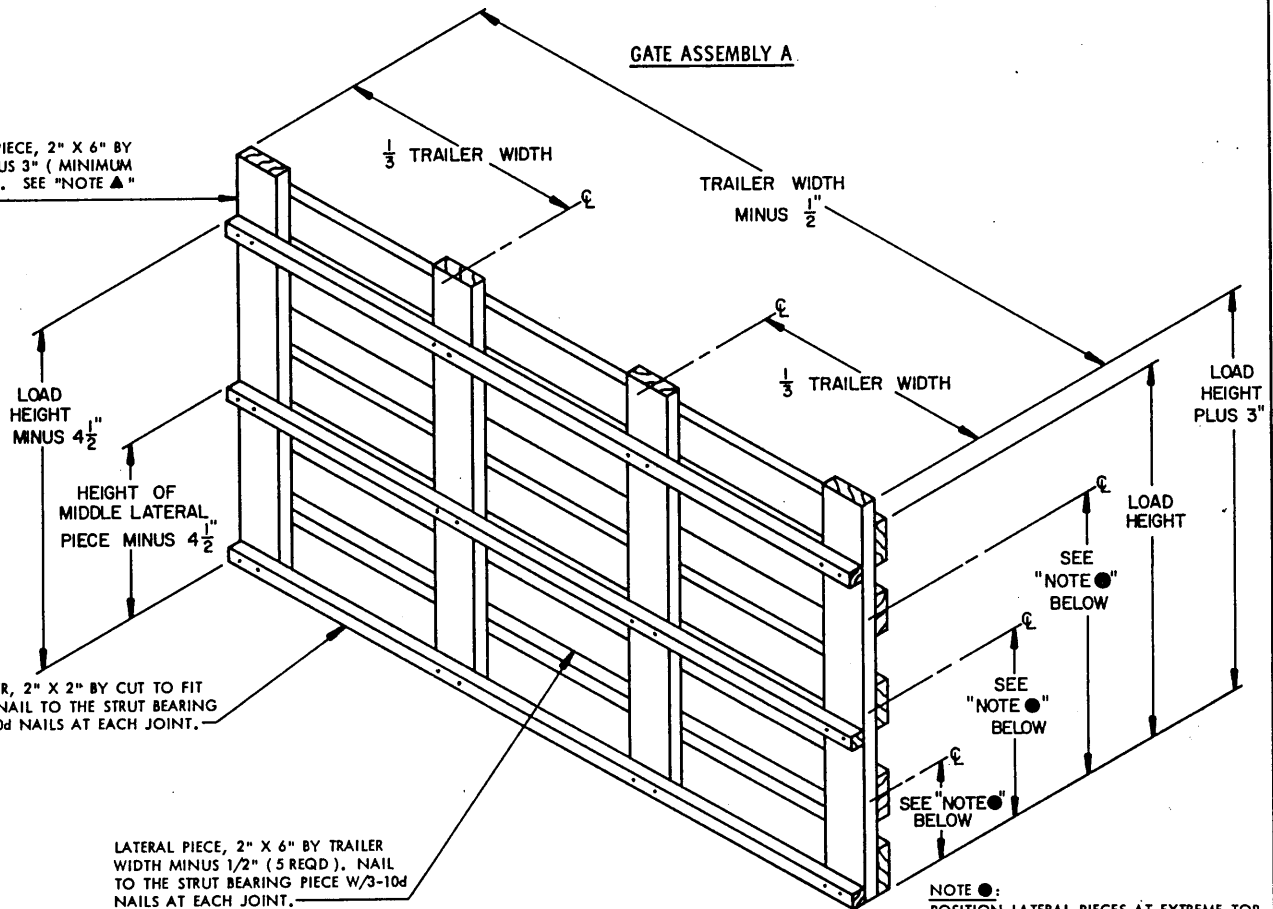


VERTICAL PIECE, 2" X 6" BY LOAD HEIGHT PLUS 3" (MINIMUM OF 4 REQUIRED). SEE "NOTE ■" ABOVE.

LATERAL PIECE, 2" X 6" BY TRAILER WIDTH MINUS 1/2" (3 REQD). NAIL TO THE VERTICAL PIECE W/3-10d NAILS AT EACH JOINT.

**GATE ASSEMBLY A**

STRUT BEARING PIECE, 2" X 6" BY LOAD HEIGHT PLUS 3" (MINIMUM OF 4 REQUIRED). SEE "NOTE ▲" BELOW.



LOAD HEIGHT MINUS 4 1/2"

HEIGHT OF MIDDLE LATERAL PIECE MINUS 4 1/2"

STRUT LEDGER, 2" X 2" BY CUT TO FIT (3 REQD). NAIL TO THE STRUT BEARING PIECE W/2-10d NAILS AT EACH JOINT.

LATERAL PIECE, 2" X 6" BY TRAILER WIDTH MINUS 1/2" (5 REQD). NAIL TO THE STRUT BEARING PIECE W/3-10d NAILS AT EACH JOINT.

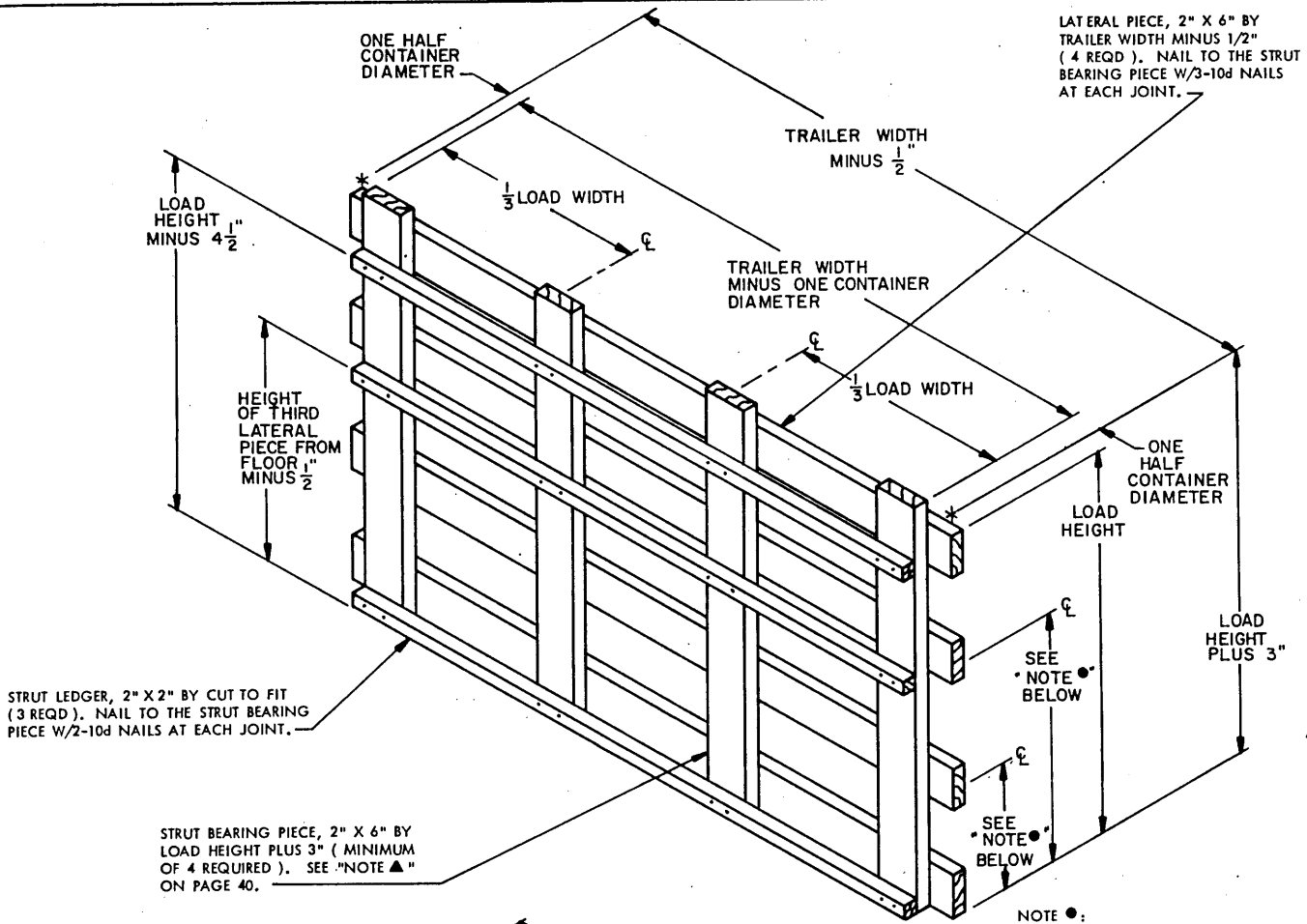
**NOTE ▲:**

ADDITIONAL STRUT BEARING PIECES WILL BE ADDED, IF REQUIRED, AND THE SPACING ADJUSTED AS NECESSARY, SO THAT AT LEAST ONE JOINT ON EACH ROW OF BOXES IS CAPTURED. ADDITIONAL STRUT BEARING PIECES WILL BE BRACED WITH ADDITIONAL STRUTS OR SOLID FILL, AS APPROPRIATE.

**NOTE ●:**

POSITION LATERAL PIECES AT EXTREME TOP AND BOTTOM OF THE LOAD. POSITION THE REMAINING LATERAL PIECES TO CENTER ON ALTERNATE JOINTS BETWEEN LAYERS OF CONTAINERS WITHIN A STACK HEIGHT ASSURING THAT ALL LAYERS ARE CONTACTED.

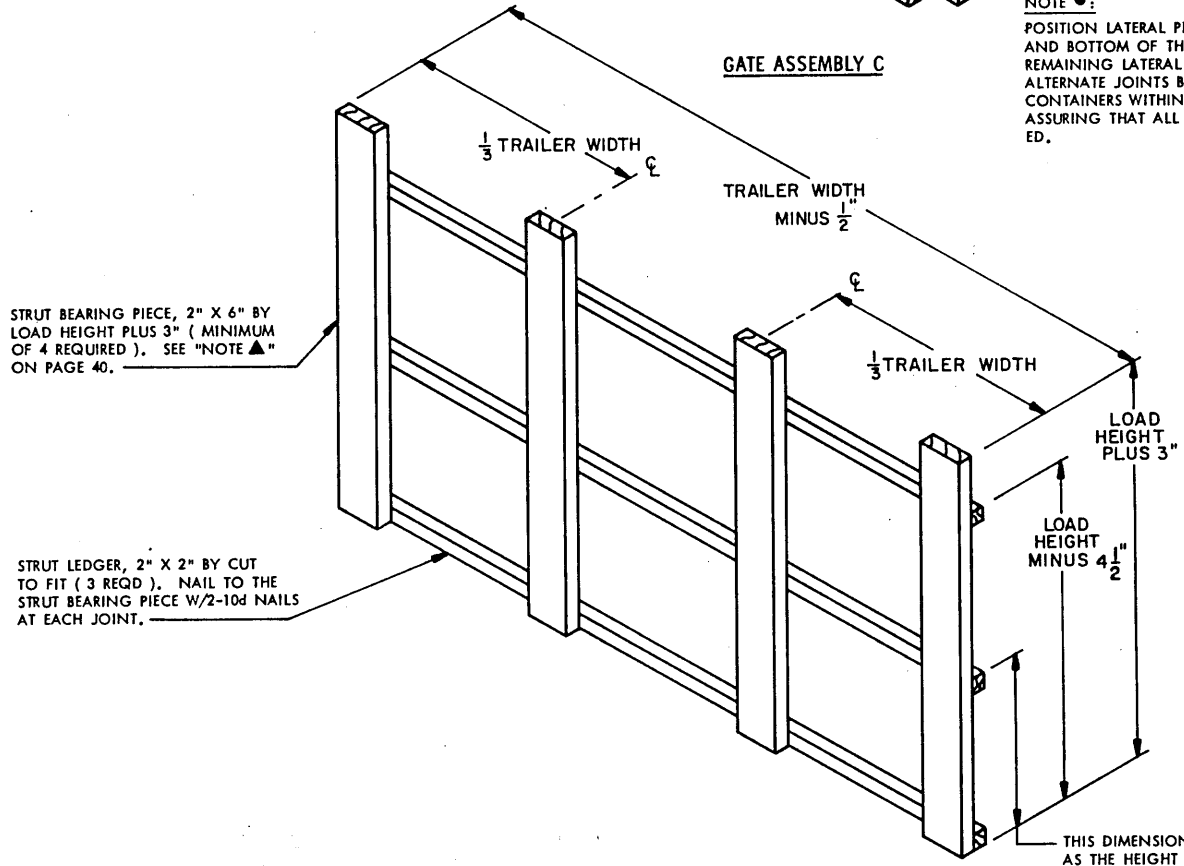
**GATE ASSEMBLY B**



LATERAL PIECE, 2" X 6" BY TRAILER WIDTH MINUS  $\frac{1}{2}$ " (4 REQD). NAIL TO THE STRUT BEARING PIECE W/3-10d NAILS AT EACH JOINT.

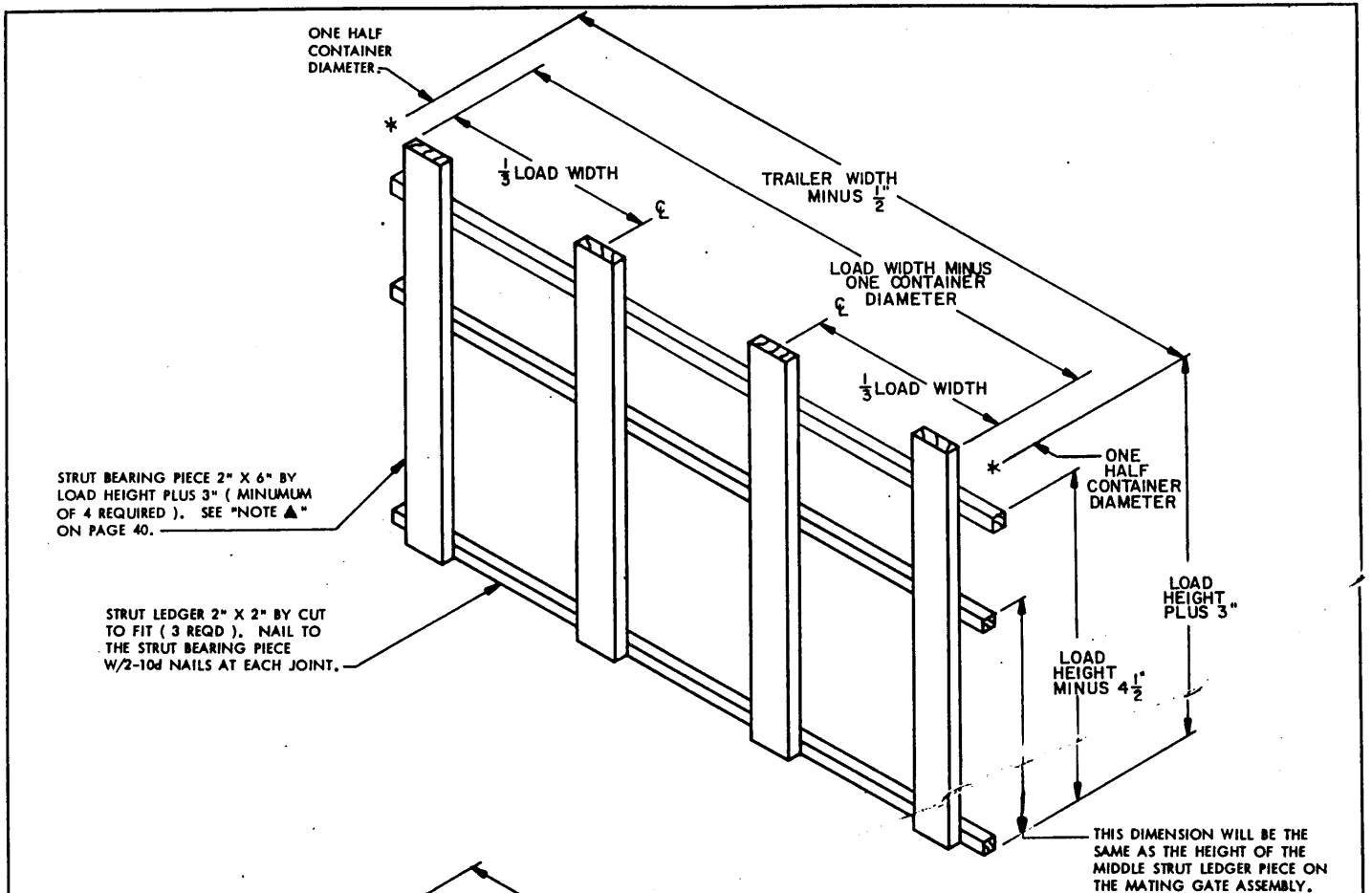
NOTE ●:  
POSITION LATERAL PIECES AT EXTREME TOP AND BOTTOM OF THE LOAD. POSITION THE REMAINING LATERAL PIECES TO CENTER ON ALTERNATE JOINTS BETWEEN LAYERS OF CONTAINERS WITHIN A STACK HEIGHT ASSURING THAT ALL LAYERS ARE CONTACTED.

GATE ASSEMBLY C

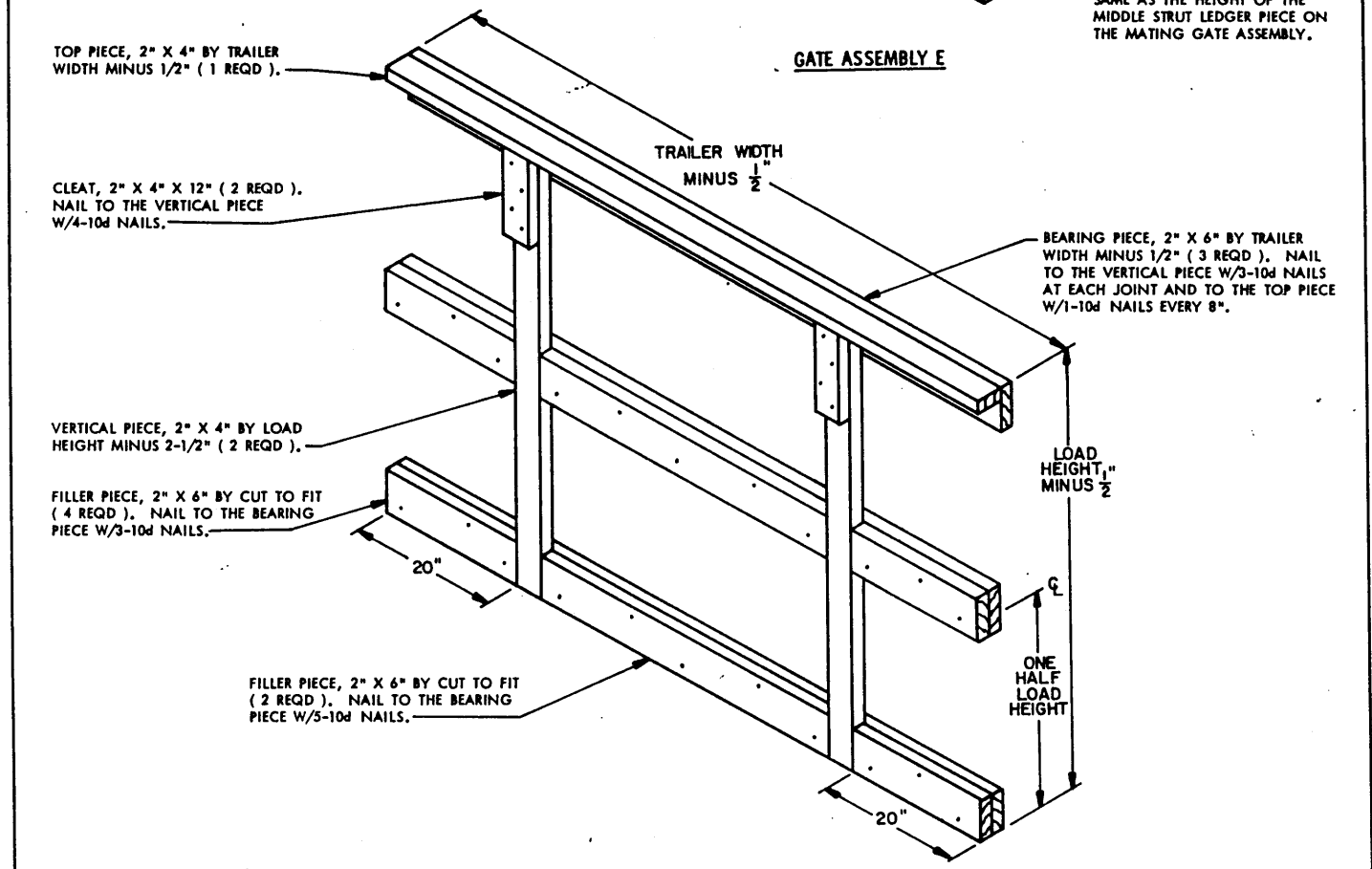


GATE ASSEMBLY D

DETAILS

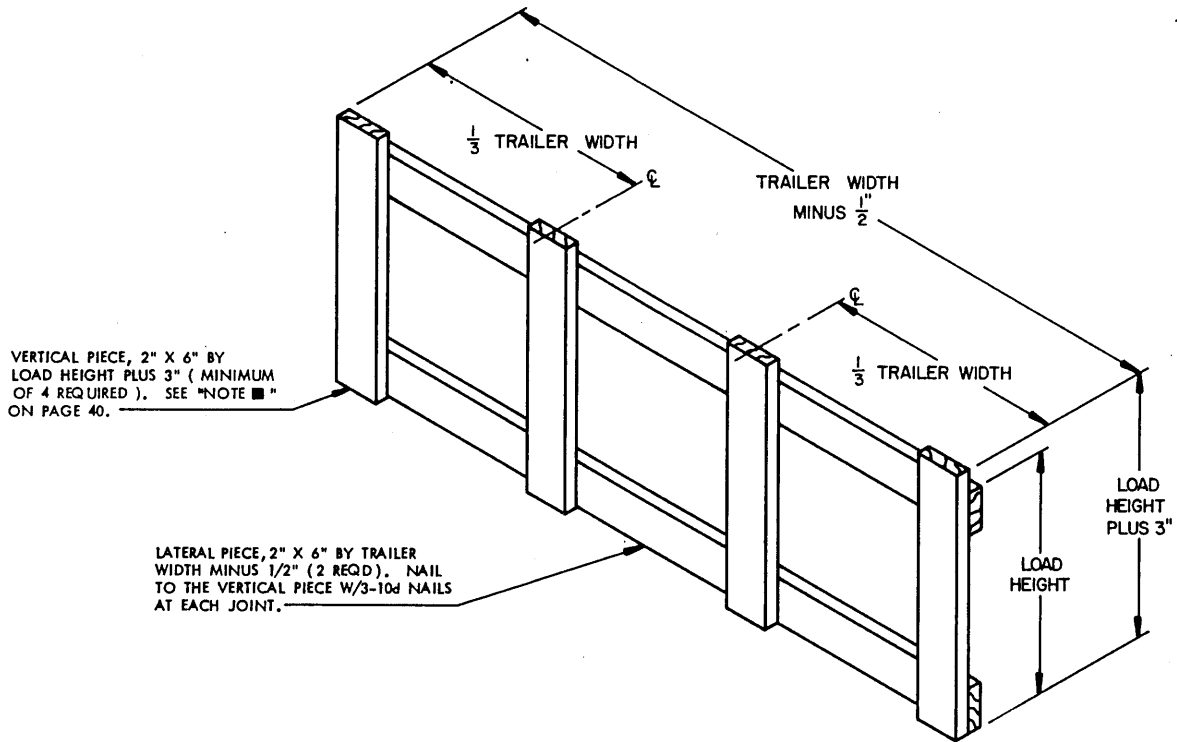


**GATE ASSEMBLY E**

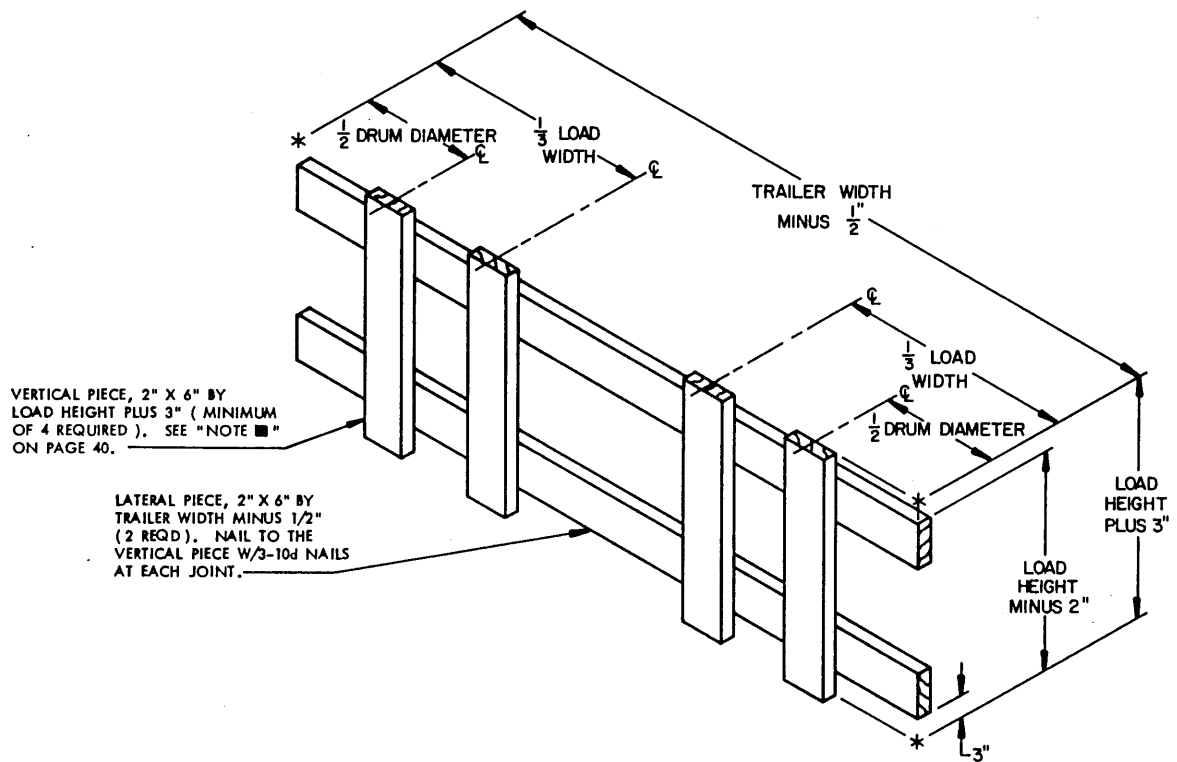


**GATE ASSEMBLY F**

**DETAILS**



GATE ASSEMBLY G



GATE ASSEMBLY H

TOP PIECE, 2" X 4" BY TRAILER WIDTH MINUS 1/2" (1 REQD).

CLEAT, 2" X 4" X 12" (2 REQD). NAIL TO THE VERTICAL PIECE W/4-10d NAILS.

VERTICAL PIECE, 2" X 4" BY LOAD HEIGHT MINUS 2-1/2" (2 REQD).

FILLER PIECE, 2" X 6" BY CUT TO FIT (6 REQD). NAIL TO THE BEARING PIECE W/3-10d NAILS.

FILLER PIECE, 2" X 6" BY CUT TO FIT (3 REQD). NAIL TO THE BEARING PIECE W/5-10d NAILS.

TRAILER WIDTH MINUS 1/2"

BEARING PIECE, 2" X 6" BY TRAILER WIDTH MINUS 1/2" (4 REQD). NAIL TO THE VERTICAL PIECE W/3-10d NAILS AT EACH JOINT AND TO THE TOP PIECE W/1-10d NAIL EVERY 8".

LOAD HEIGHT MINUS 1"

DRUM DIAMETER

1/2 LOAD HEIGHT PLUS 3"

1/2 LOAD HEIGHT MINUS 2"

DRUM DIAMETER

GATE ASSEMBLY J

PALLET LENGTH

VERTICAL PIECE, 2" X 6" BY LOAD HEIGHT PLUS 3" (4 REQD).

TRAILER WIDTH MINUS 1/2"

PALLET LENGTH

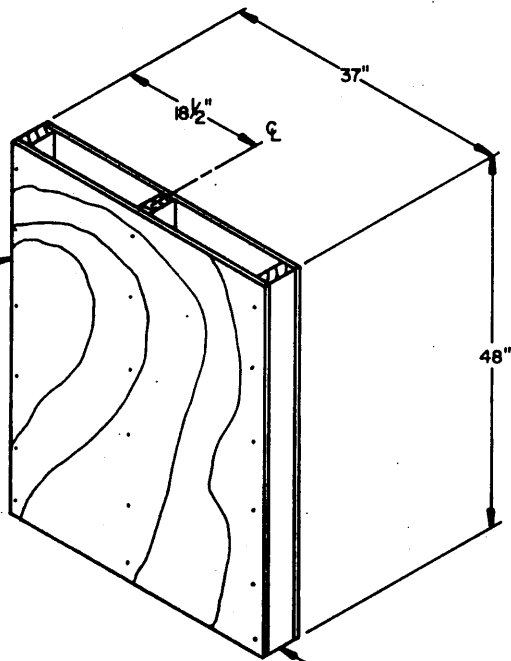
LOAD HEIGHT PLUS 3"

LATERAL PIECE, 2" X 4" BY TRAILER WIDTH MINUS 1/2" (2 REQD). NAIL TO THE VERTICAL PIECE W/3-10d NAILS AT EACH JOINT.

LOAD HEIGHT MINUS 3"

GATE ASSEMBLY K

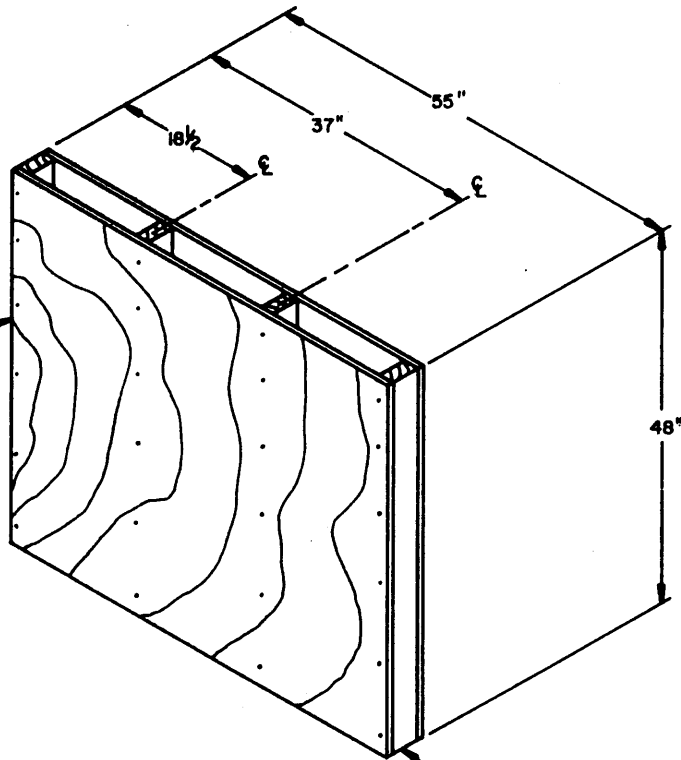
PLYWOOD, 1/2" THICK BY 48" WIDE BY 37" LONG (2 REQD). NAIL TO THE SPACER PIECES W/6-6d NAILS AT EACH JOINT.



SPACER PIECE, 2" X 4" X 48" (3 REQD).

**SEPARATOR GATE A**

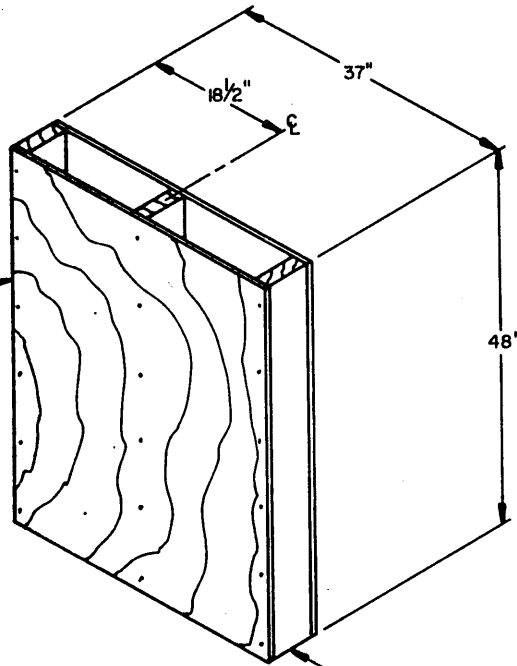
PLYWOOD, 1/2" THICK BY 48" WIDE BY 55" LONG (2 REQD). NAIL TO THE SPACER PIECES W/6-6d NAILS AT EACH JOINT.



SPACER PIECE, 2" X 4" X 48" (4 REQD).

**SEPARATOR GATE B**

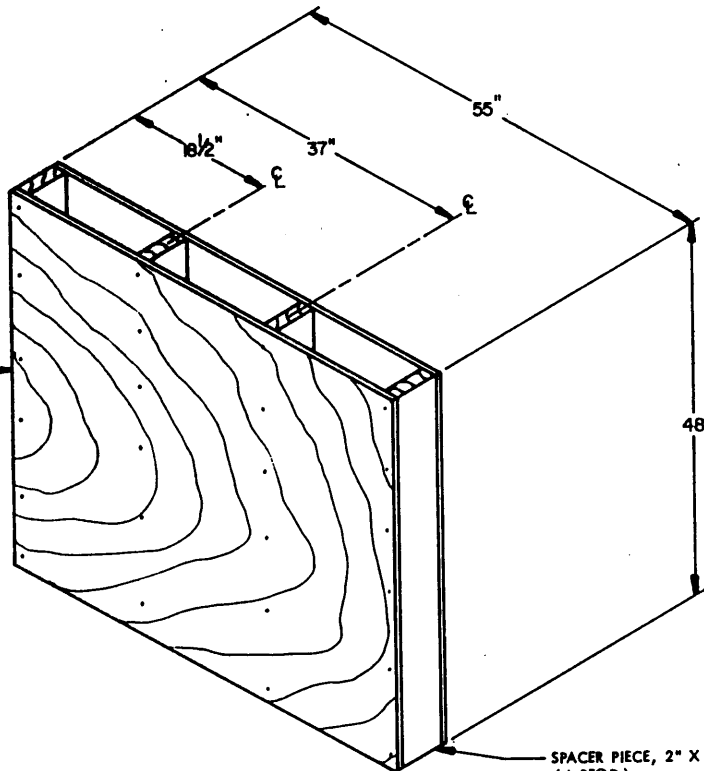
PLYWOOD, 1/2" THICK BY 48" WIDE BY 37" LONG (2 REQD). NAIL TO THE SPACER PIECES W/6-6d NAILS AT EACH JOINT.



SPACER PIECE, 2" X 6" X 48" (3 REQD).

**SEPARATOR GATE C**

PLYWOOD, 1/2" THICK BY 48" WIDE BY 55" LONG (2 REQD). NAIL TO THE SPACER PIECES W/6-6d NAILS AT EACH JOINT.



SPACER PIECE, 2" X 6" X 48" (4 REQD).

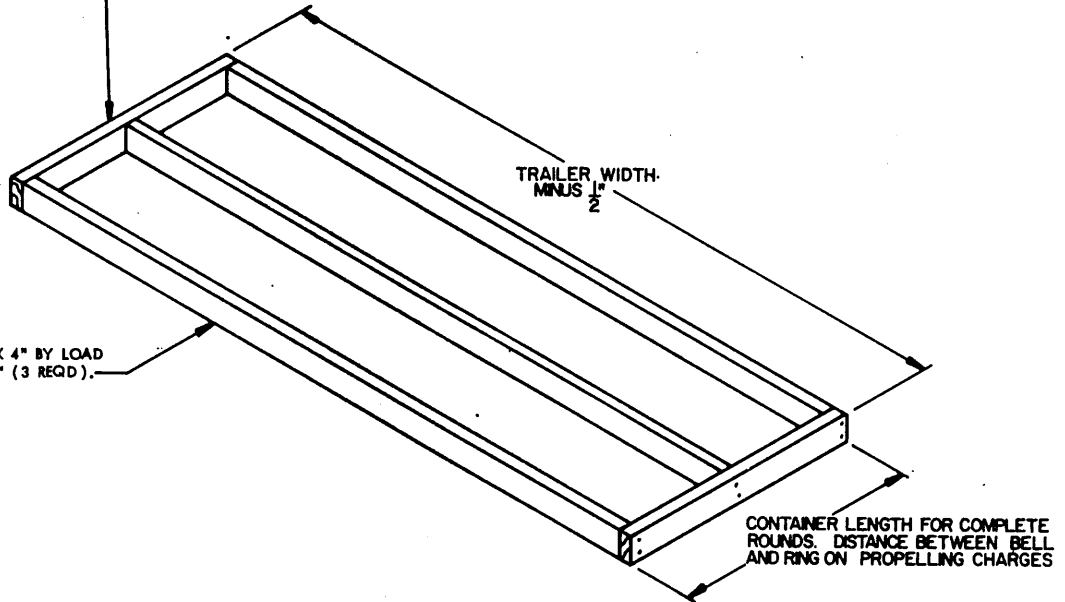
**SEPARATOR GATE D**

**DETAILS**



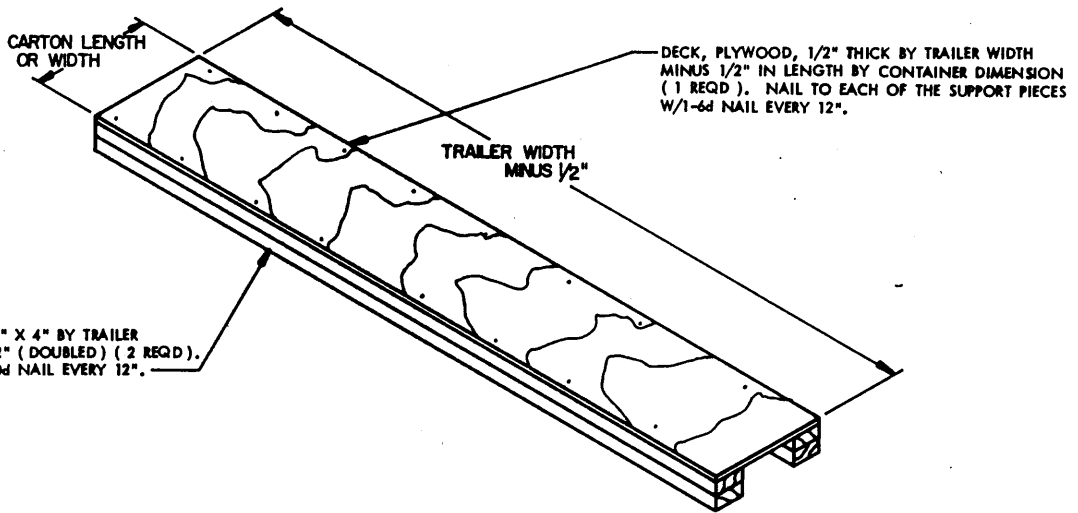
END PIECE, 2" X 4" BY LENGTH TO SUIT (2 REQD). NAIL TO THE SUPPORT PIECES W/2-12d NAILS AT EACH JOINT.

SUPPORT PIECE, 2" X 4" BY LOAD WIDTH MINUS 3-1/2" (3 REQD).

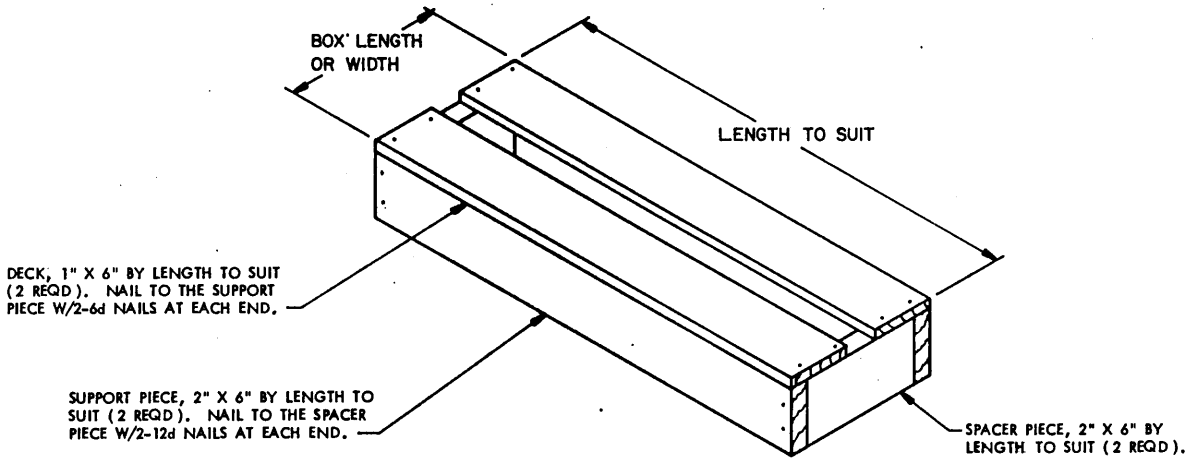


**RISER ASSEMBLY A**

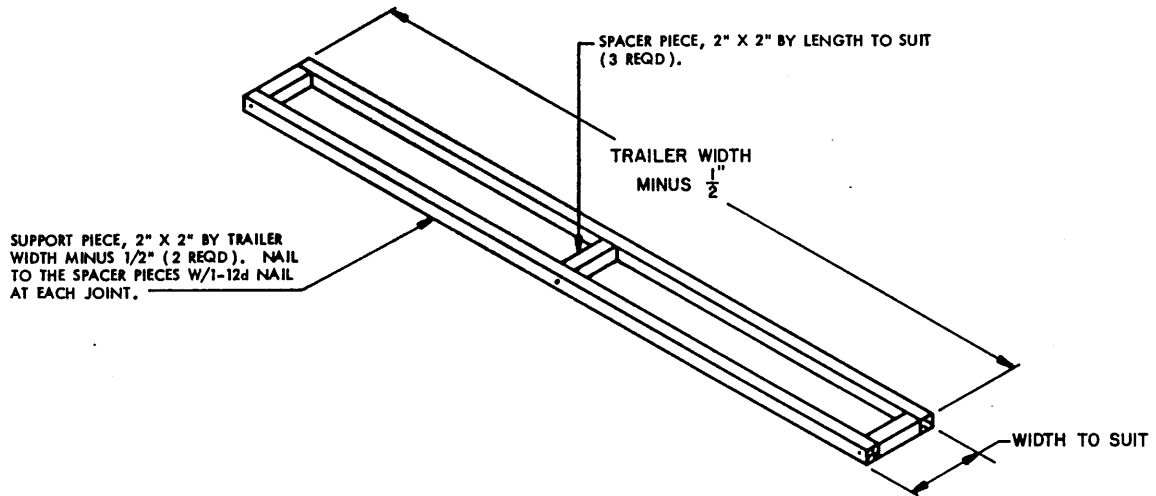
**NOTE:** RISER MUST BE ONE-HALF OF THE CONTAINER DIAMETER IN HEIGHT. OTHER WIDTH LUMBER MAY BE USED.



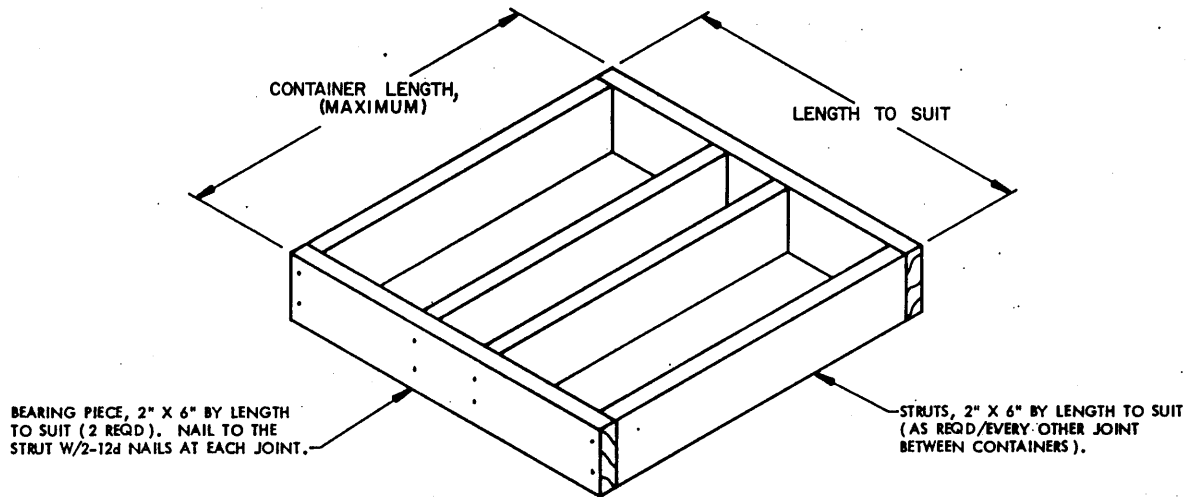
**RISER ASSEMBLY B**



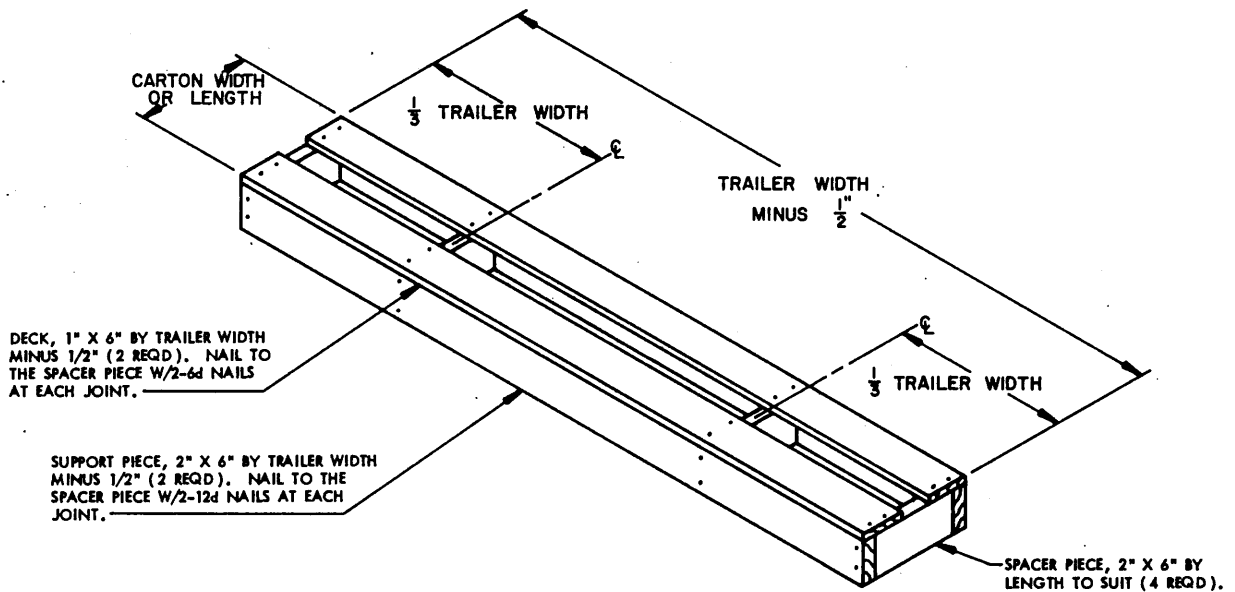
**RISER ASSEMBLY C**



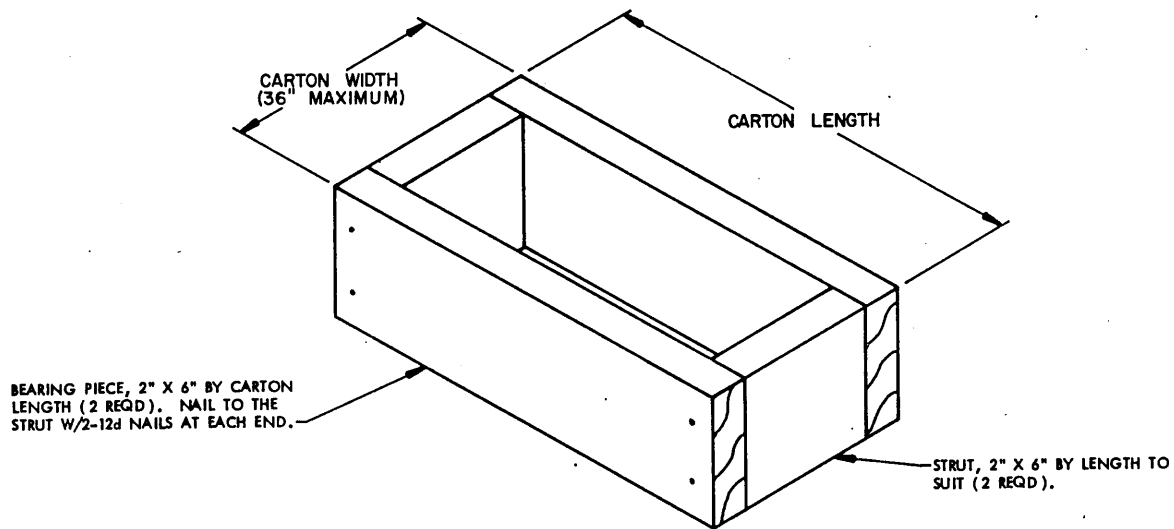
**RISER ASSEMBLY D**



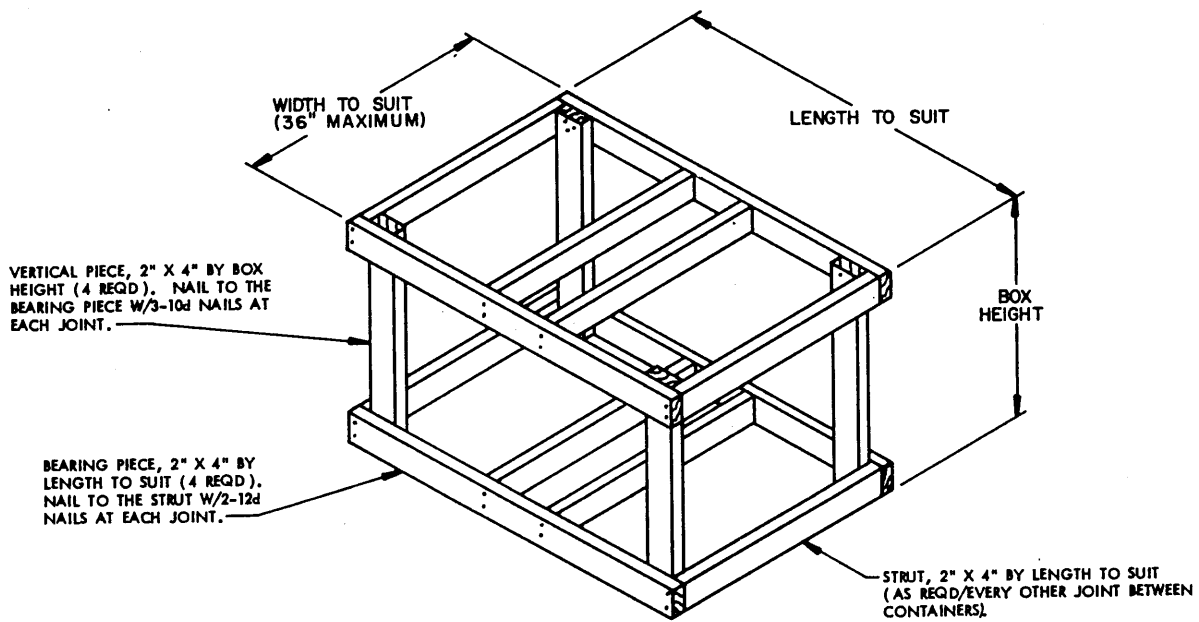
**FILLER ASSEMBLY A**



**RISER ASSEMBLY E**



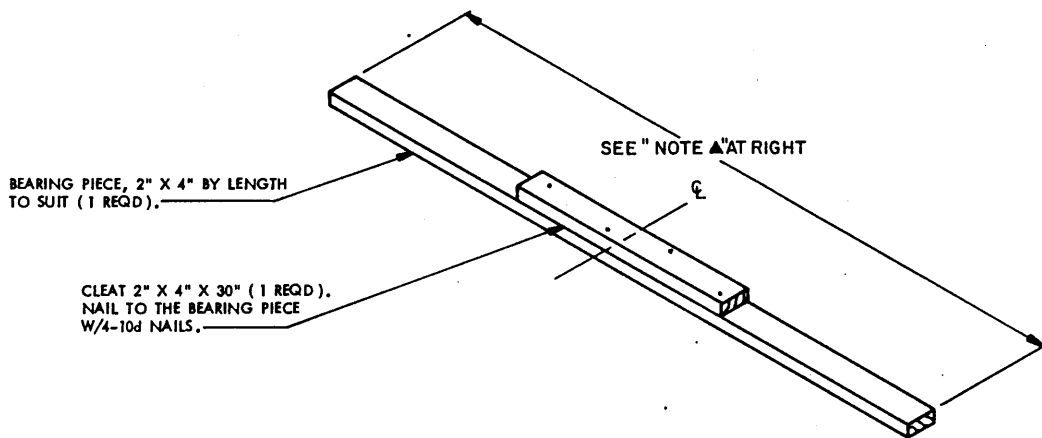
FILLER ASSEMBLY B



FILLER ASSEMBLY C

**NOTE ▲:**

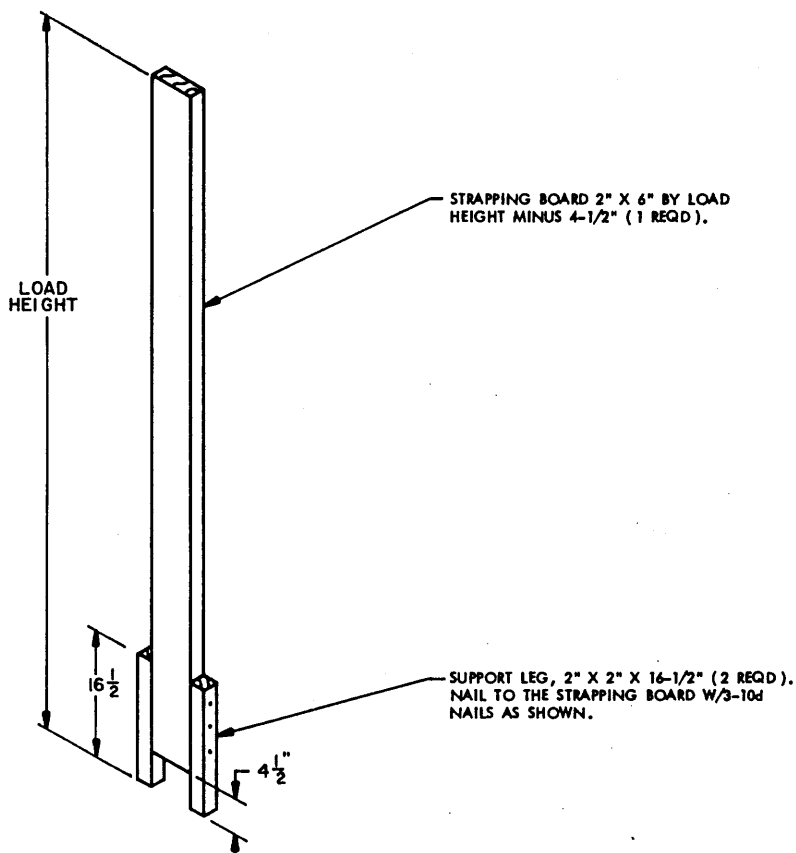
THIS DIMENSION WILL BE TRAILER WIDTH MINUS ONE CONTAINER DIAMETER FOR STACKS AS SHOWN IN "SECTION B-B" ON PAGE 6 OR TRAILER WIDTH MINUS TWO CONTAINER DIAMETERS FOR STACKS AS SHOWN IN "SECTION A-A" ON PAGE 4.



BEARING PIECE, 2" X 4" BY LENGTH TO SUIT (1 REQD).

CLEAT 2" X 4" X 30" (1 REQD).  
NAIL TO THE BEARING PIECE  
W/4-10d NAILS.

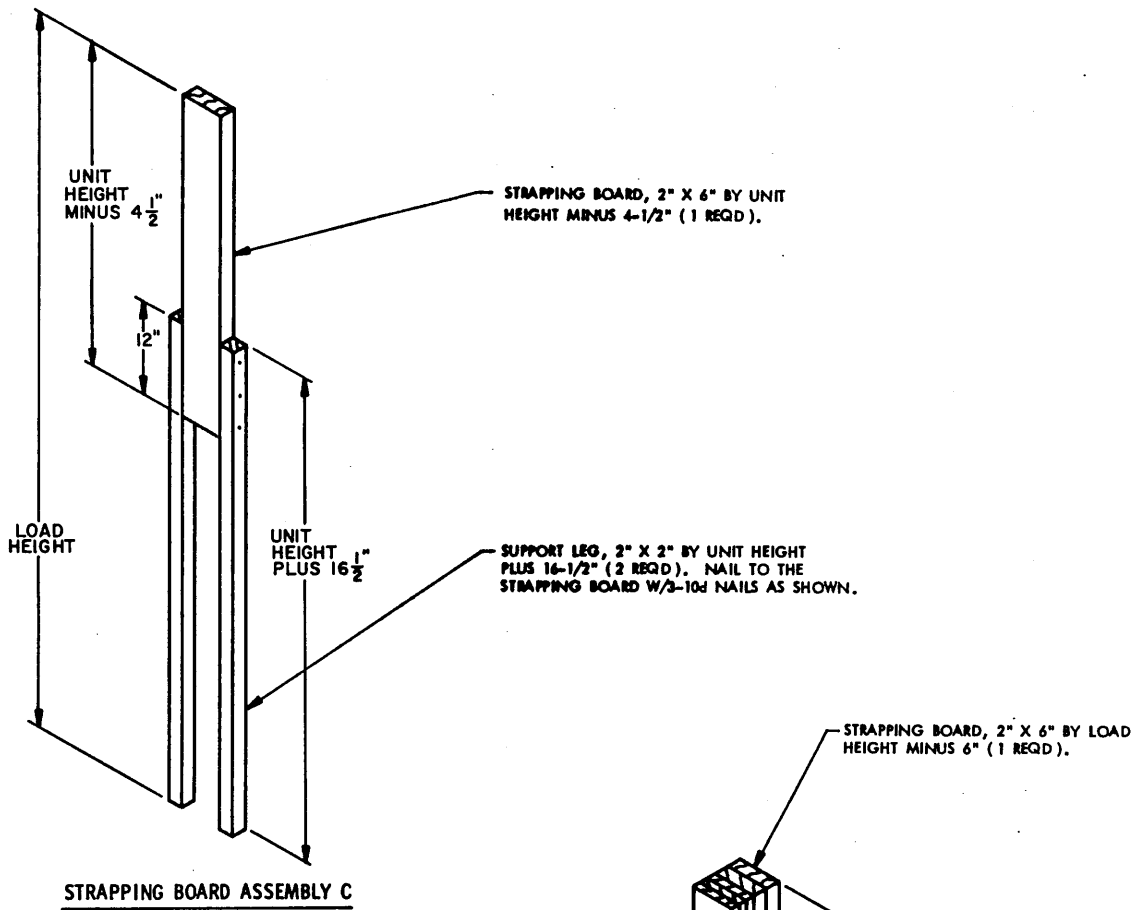
**STRAPPING BOARD ASSEMBLY A**



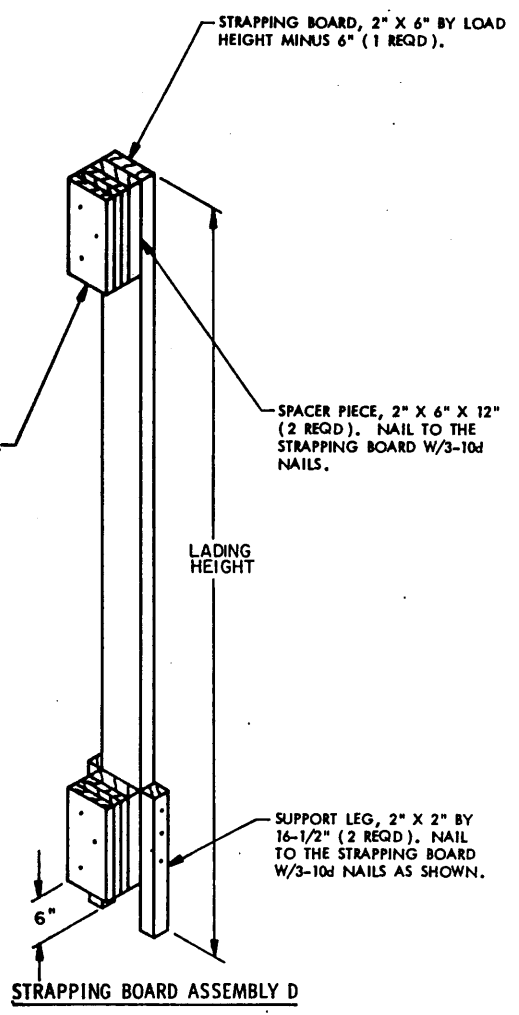
STRAPPING BOARD 2" X 6" BY LOAD HEIGHT MINUS 4-1/2" (1 REQD).

SUPPORT LEG, 2" X 2" X 16-1/2" (2 REQD).  
NAIL TO THE STRAPPING BOARD W/3-10d  
NAILS AS SHOWN.

**STRAPPING BOARD ASSEMBLY B**

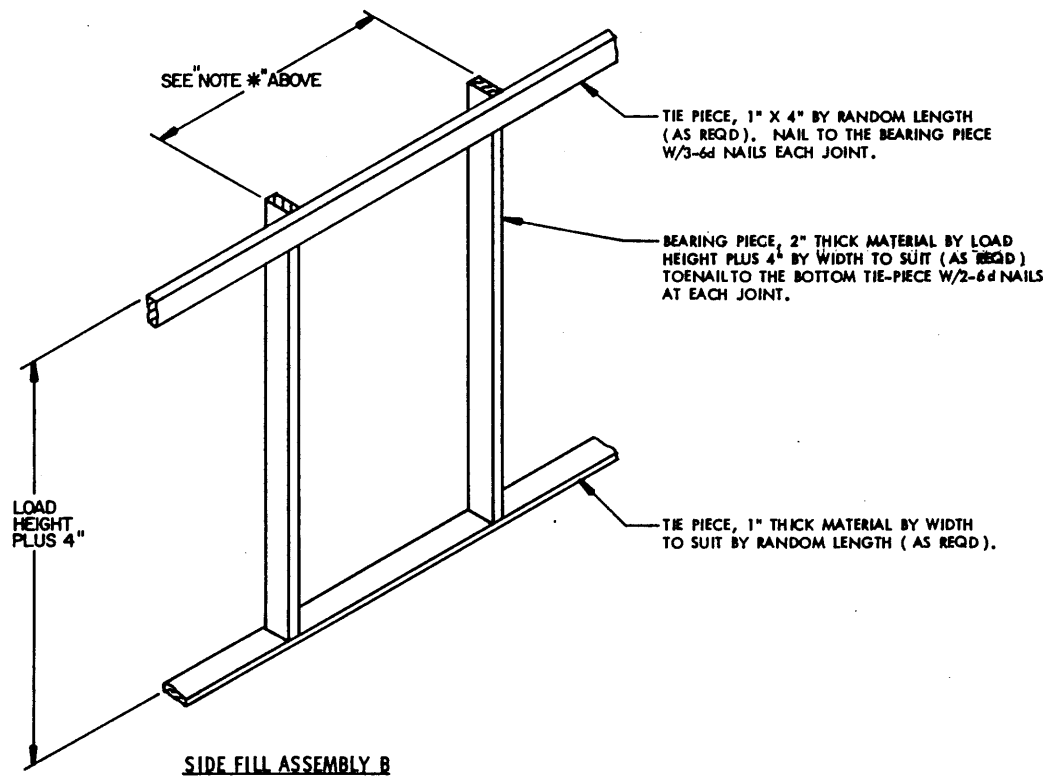
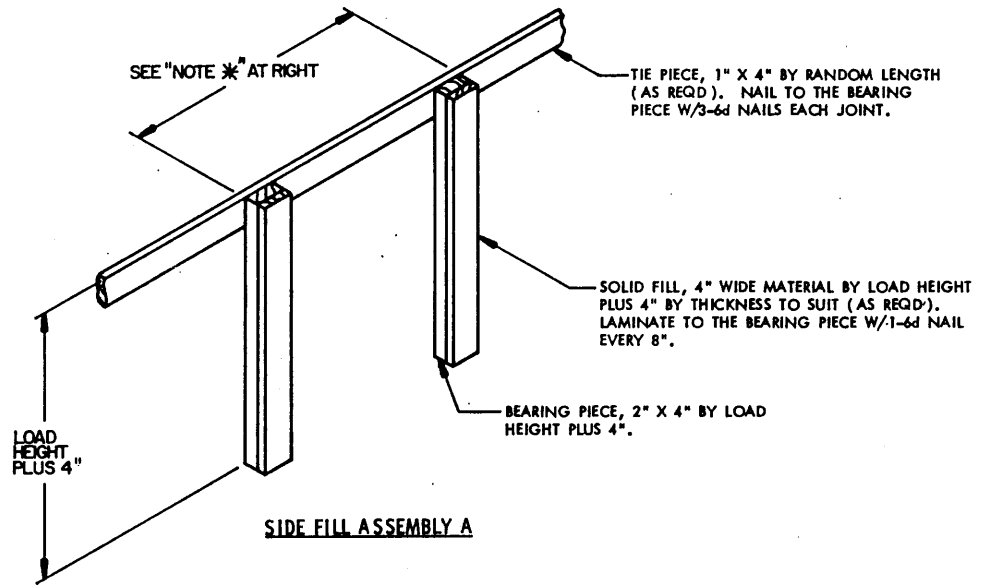


SOLID FILL, 6" WIDE MATERIAL BY 12" LONG BY THICKNESS TO SUIT (AS REQD). NAIL THE FIRST PIECE TO THE SPACER PIECES W/3-6d NAILS. LAMINATE EACH ADDITIONAL PIECE W/3-6d NAILS.



NOTE \*

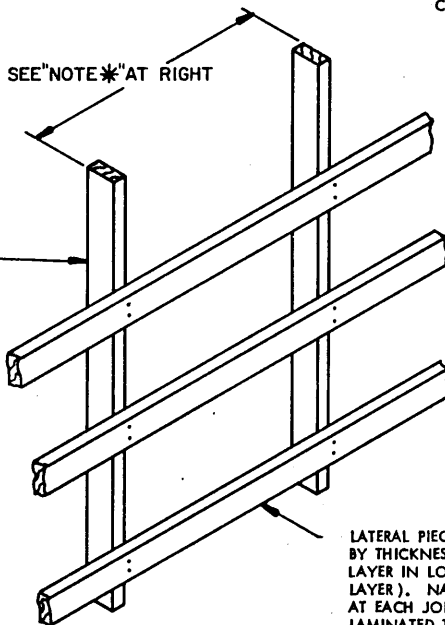
DISTANCE BETWEEN THE BELL AND RING ON PROP CHARGES OR CONTAINER LENGTH ON COMPLETE ROUNDS.



NOTE \* :

DISTANCE BETWEEN THE BELL AND RING ON PROP CHARGES OR CONTAINER LENGTH ON COMPLETE ROUNDS.

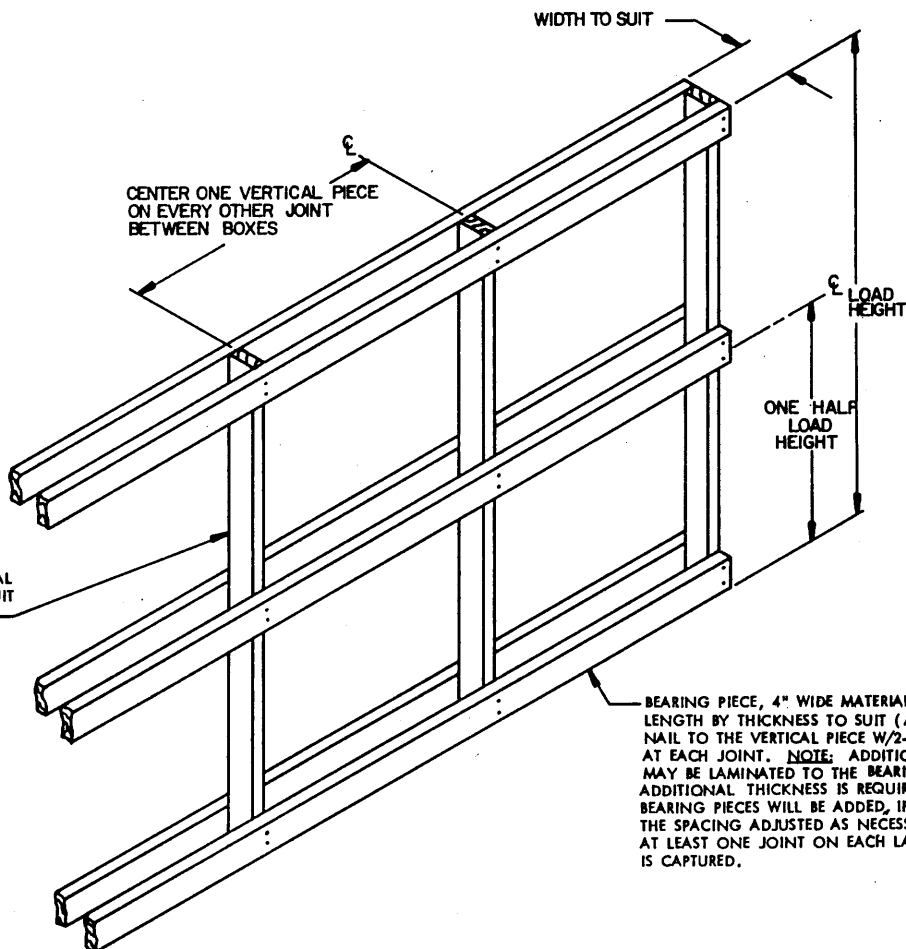
BEARING PIECE, 2" THICK MATERIAL BY LOAD HEIGHT PLUS 4" BY WIDTH TO SUIT (AS REQD).



LATERAL PIECE, 4" WIDE MATERIAL BY RANDOM LENGTH BY THICKNESS TO SUIT (AS REQD) ONE AT EVERY OTHER LAYER IN LOAD HEIGHT STARTING WITH THE BOTTOM LAYER). NAIL TO THE BEARING PIECE W/2-10d NAILS AT EACH JOINT. NOTE: ADDITIONAL PIECES MAY BE LAMINATED TO THE LATERAL PIECE IF ADDITIONAL THICKNESS IS REQUIRED.

SIDE FILL ASSEMBLY C

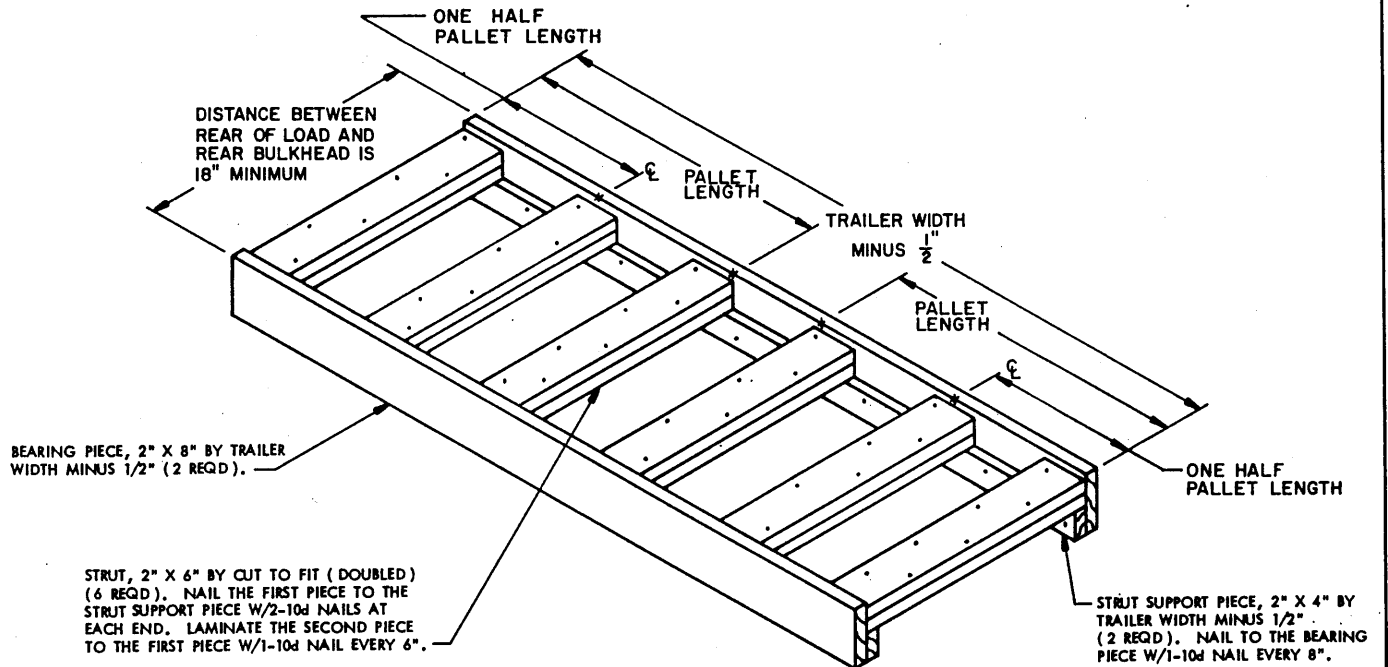
VERTICAL PIECE, 2" THICK MATERIAL BY LOAD HEIGHT BY WIDTH TO SUIT (AS REQD).



BEARING PIECE, 4" WIDE MATERIAL BY RANDOM LENGTH BY THICKNESS TO SUIT (AS REQD). NAIL TO THE VERTICAL PIECE W/2-10d NAILS AT EACH JOINT. NOTE: ADDITIONAL PIECES MAY BE LAMINATED TO THE BEARING PIECE IF ADDITIONAL THICKNESS IS REQUIRED. ADDITIONAL BEARING PIECES WILL BE ADDED, IF REQUIRED, AND THE SPACING ADJUSTED AS NECESSARY, SO THAT AT LEAST ONE JOINT ON EACH LAYER OF BOXES IS CAPTURED.

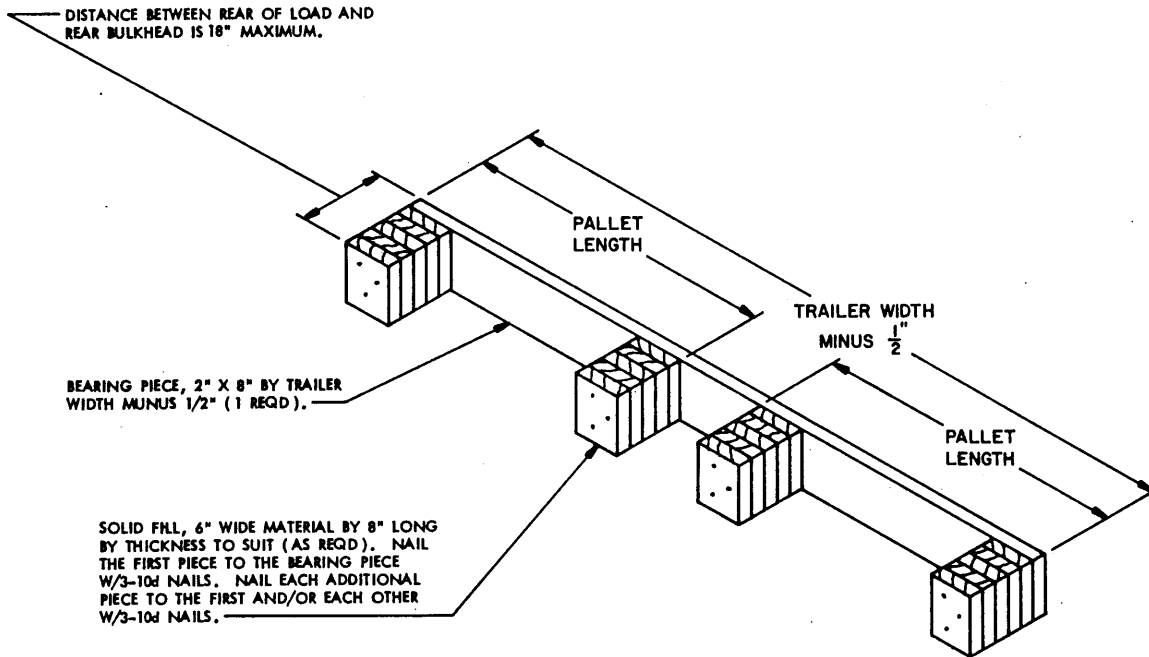
SPACER ASSEMBLY A





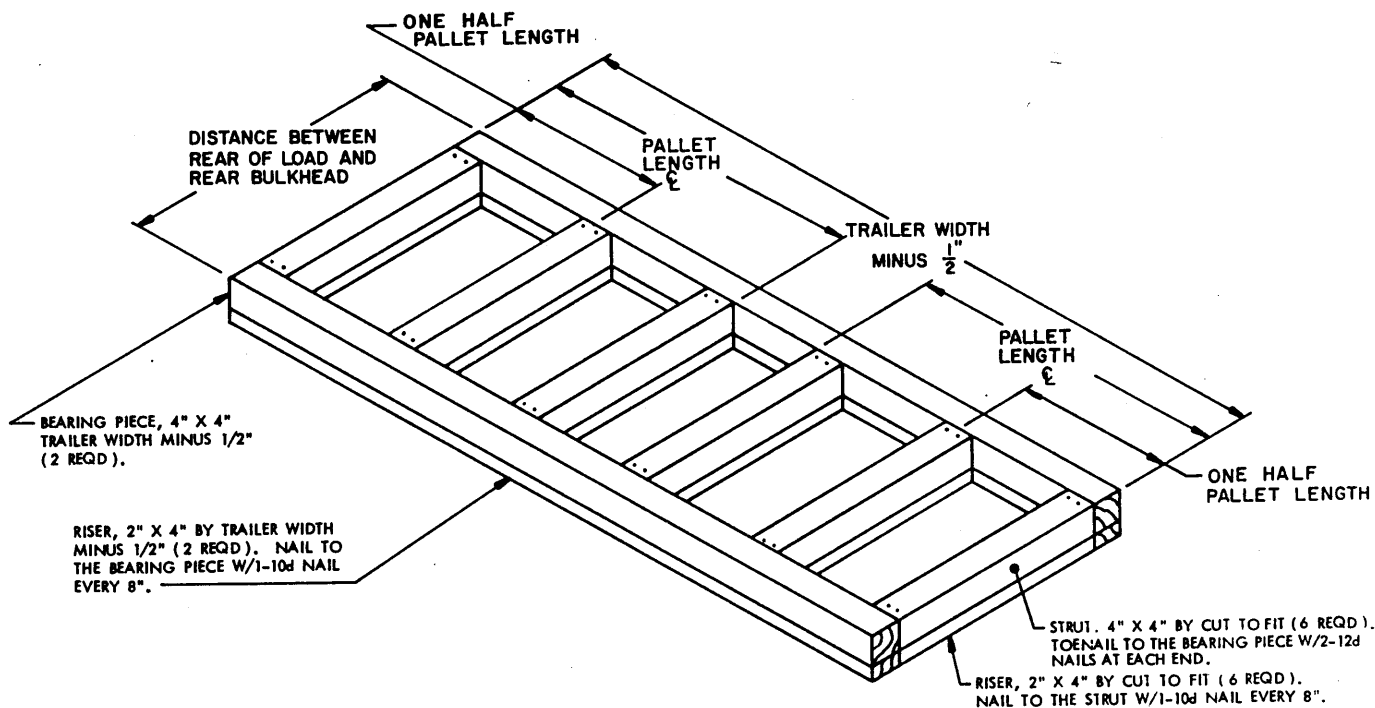
**REAR BLOCKING ASSEMBLY A**

FOR USE WHEN DISTANCE BETWEEN REAR OF LOAD AND REAR BULKHEAD IS 18" OR MORE.

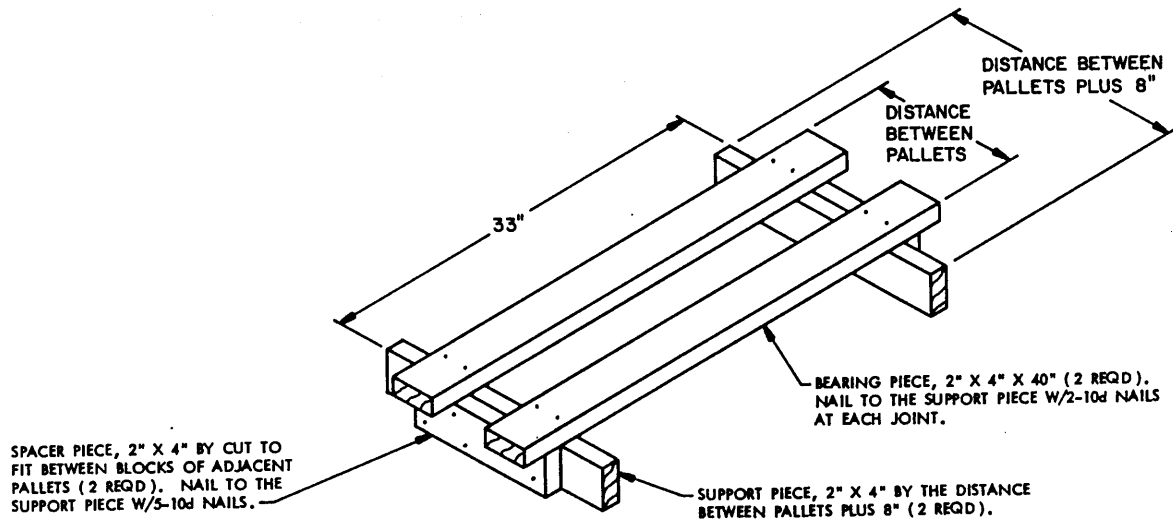


**REAR BLOCKING ASSEMBLY B**

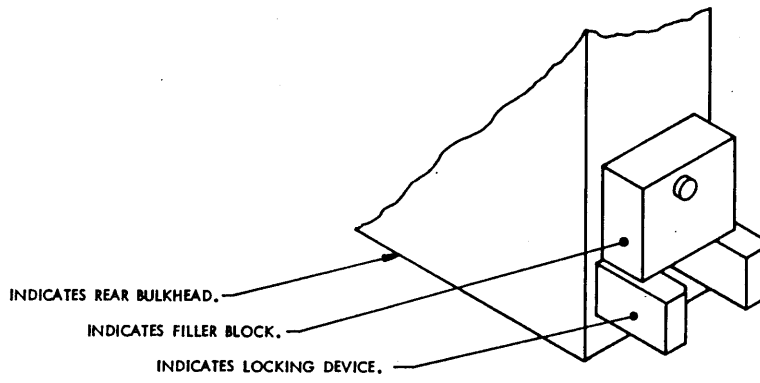
FOR USE WHEN DISTANCE BETWEEN REAR OF LOAD AND REAR BULKHEAD IS LESS THAN 18".



**REAR BLOCKING ASSEMBLY C**

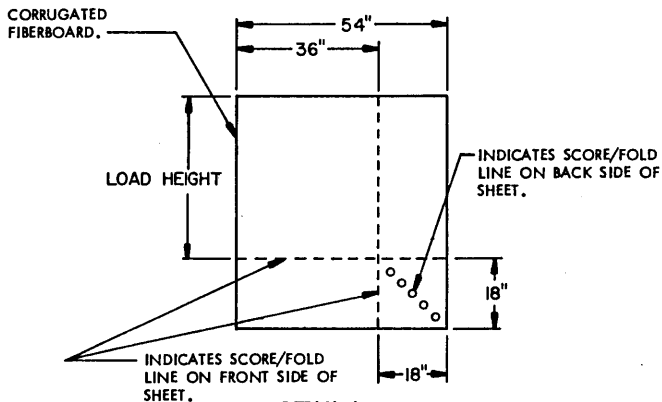


**ANTI-SWAY BRACE ASSEMBLY**



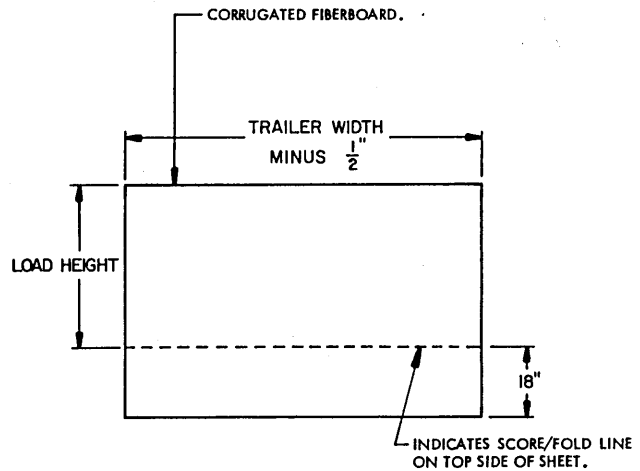
**FILLER BLOCK DETAIL**

INSTALLED BY THE CARRIER TO PREVENT SIDESWAY  
OF THE CAMUS-III REAR BULKHEAD AND RESULTANT  
DISENGAGEMENT OF THE LOCKING PINS.



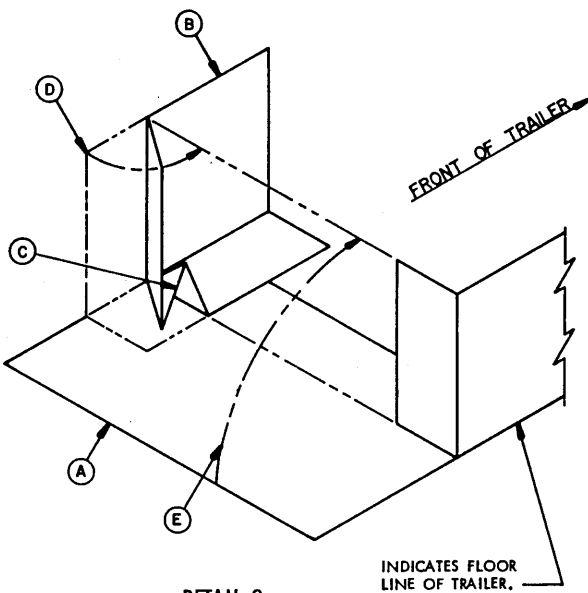
**DETAIL A**

SIDE BARRIER, PIECE MARKED ⑦ ON PAGE 30 AND PIECE MARKED ④ ON PAGE 38. NOTE THAT 1 RIGHT HAND, AS SHOWN, AND 1 LEFT HAND ARE REQUIRED.



**DETAIL B**

REAR BARRIER, PIECE MARKED ① ON PAGE 28 AND PIECE MARKED ⑥ ON PAGE 30. SEE "DETAIL C" AND THE "BARRIER INSTALLATION INSTRUCTIONS" BELOW.



**DETAIL C**

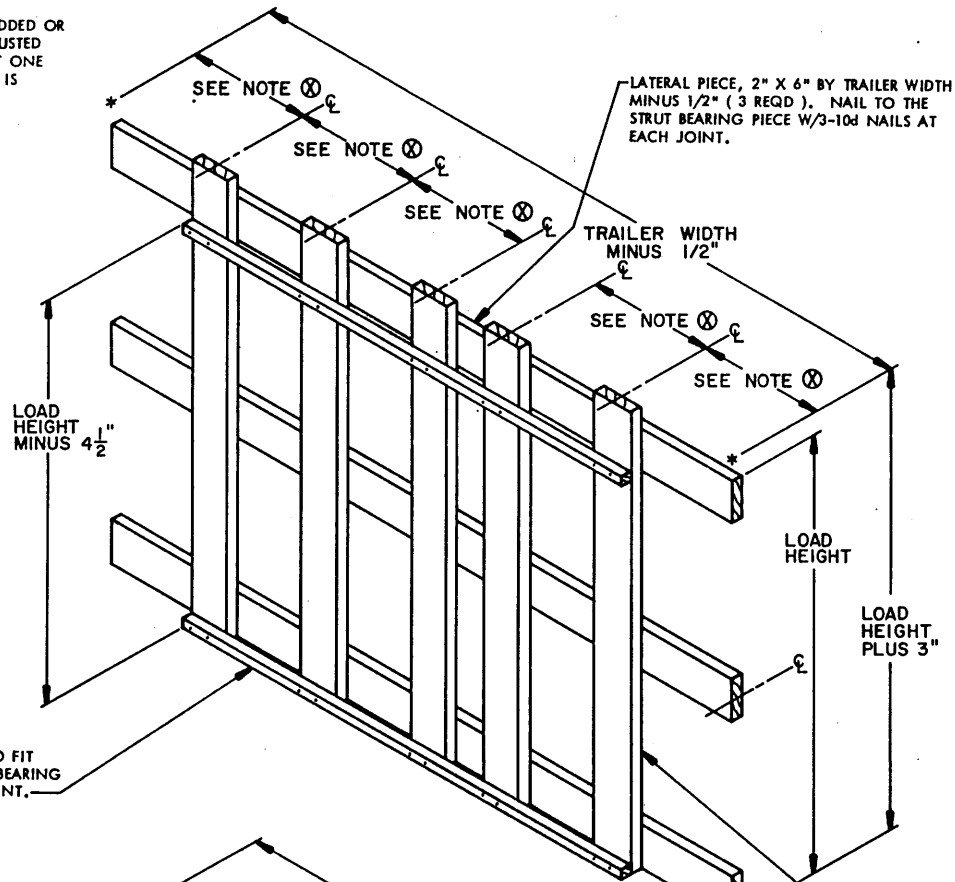
IN THE EVENT A PACKAGE OR PACKAGES IN THE REAR PORTION OF THE LADING SHOULD RUPTURE DURING SHIPMENT, FIBERBOARD WILL BE INSTALLED AS SHOWN, TO PREVENT ANY LOOSE EXPLOSIVES FROM SIFTING DOWN INTO THE METAL-TO-METAL WORKING PARTS OF THE TRAILER DOOR HINGES AND/OR THE REAR BULKHEAD. SEE "DETAIL A" AND "DETAIL B" ABOVE, THE DEPICTED LOAD VIEWS ON PAGES 28, 30, AND 38, AND THE "BARRIER INSTALLATION INSTRUCTIONS" AT THE RIGHT FOR FURTHER GUIDANCE.

**BARRIER INSTALLATION INSTRUCTIONS**

- (A) POSITION THE REAR BARRIER, DETAIL B, ON THE TRAILER FLOOR SO THAT THE EIGHTEEN INCH (18") WIDE PORTION WILL EXTEND UNDER THE REARMOST STACKS AND SO THAT THE SCORE/FOLD LINE WILL BE FLUSH WITH THE REAR OF THE LOAD WHEN THE CARTONS ARE POSITIONED.
- (B) FOLD THE SIDE BARRIER PIECES, DETAIL A, ON THE 54" LONG SCORE/FOLD LINES AND POSITION ONE AT EACH SIDE OF THE TRAILER. LOCATE IN SUCH A MANNER, ON TOP OF DETAIL B, THAT 36" OF THE FOLDED 18" X 54" PORTION OF THE BARRIER PIECE WILL EXTEND UNDER THE REARMOST THREE STACKS, AND SO THAT THE 60" LONG SCORE/FOLD LINE WILL BE FLUSH WITH THE REAR OF THE LOAD WHEN THE CARTONS ARE POSITIONED.
- (C) POSITION THE LAST 3 STACKS IN THE TRAILERS ON TOP OF DETAIL A AND DETAIL B. FOLD THE 18" WIDE PORTION OF DETAIL A, WHICH IS IN CONTACT WITH THE TRAILER FLOOR, UP AGAINST THE LADING. NOTE THE SCORE LINE ON THE BACK OF THE BARRIER PIECE, AS SHOWN IN "DETAIL A" WHICH WILL FACILITATE THE FOLDING OPERATION.
- (D) FOLD THE REMAINING PORTION OF DETAIL A AROUND AGAINST THE PREVIOUSLY FOLDED SECTION. SECURE WITH TAPE.
- (E) FOLD THE 42" WIDE PORTION OF DETAIL B, WHICH EXTENDS BEYOND THE LOAD, UP AGAINST THE LADING AND SECURE TO DETAIL B WITH TAPE. INSTALL THE BULKHEAD BRACES AND BOARDS.

NOTE ⊗:

STRUT BEARING PIECES WILL BE ADDED OR OMITTED AND THE SPACING ADJUSTED AS NECESSARY SO THAT AT LEAST ONE JOINT ON EACH ROW OF BOXES IS CAPTURED.

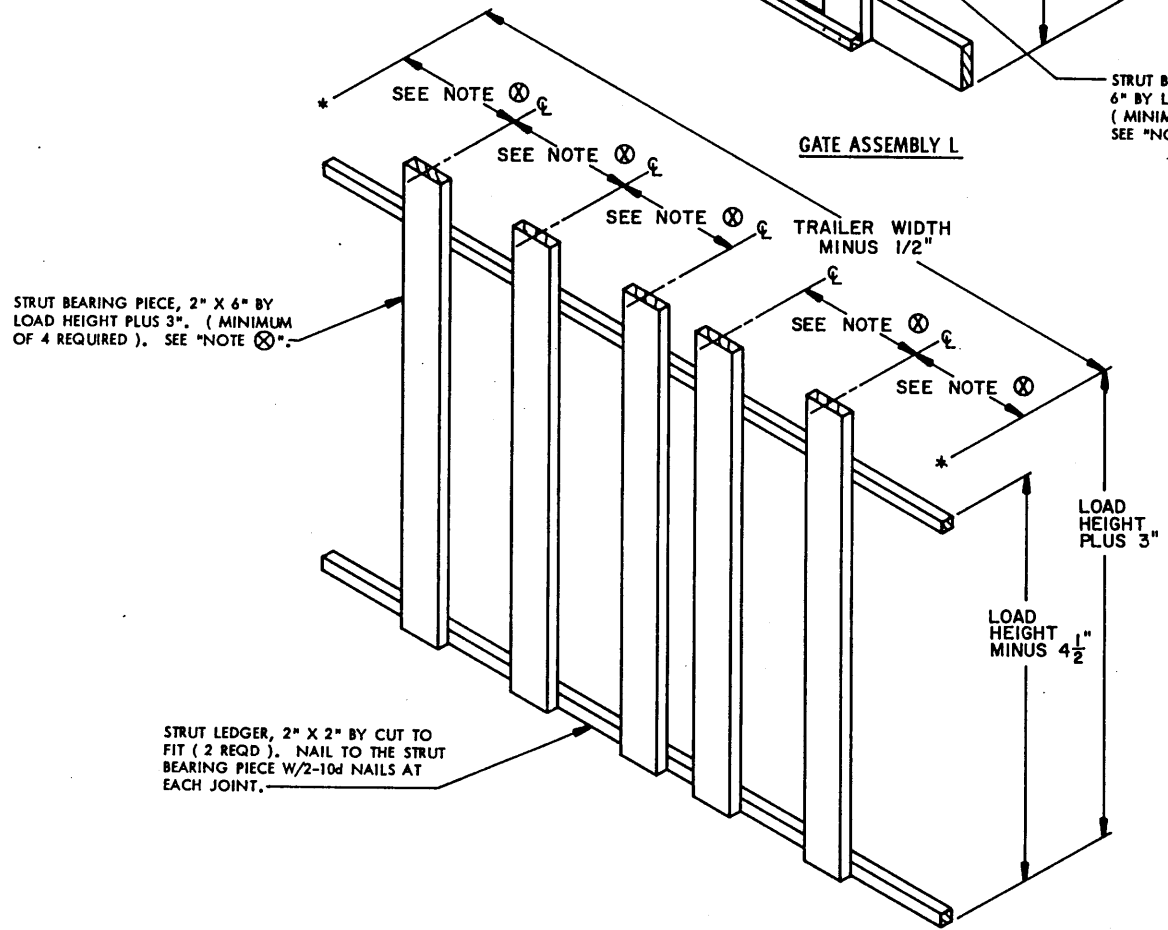


STRUT LEDGER, 2" X 2" BY CUT TO FIT (2 REQD.). NAIL TO THE STRUT BEARING PIECE W/2-10d NAILS AT EACH JOINT.

LATERAL PIECE, 2" X 6" BY TRAILER WIDTH MINUS 1/2" (3 REQD.). NAIL TO THE STRUT BEARING PIECE W/3-10d NAILS AT EACH JOINT.

STRUT BEARING PIECE, 2" X 6" BY LOAD HEIGHT PLUS 3". (MINIMUM OF 4 REQUIRED). SEE "NOTE ⊗".

GATE ASSEMBLY L



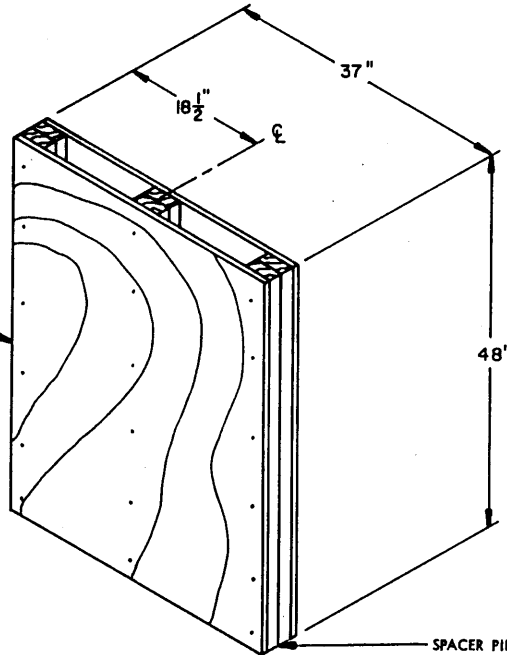
STRUT BEARING PIECE, 2" X 6" BY LOAD HEIGHT PLUS 3". (MINIMUM OF 4 REQUIRED). SEE "NOTE ⊗".

STRUT LEDGER, 2" X 2" BY CUT TO FIT (2 REQD.). NAIL TO THE STRUT BEARING PIECE W/2-10d NAILS AT EACH JOINT.

GATE ASSEMBLY M

DETAILS

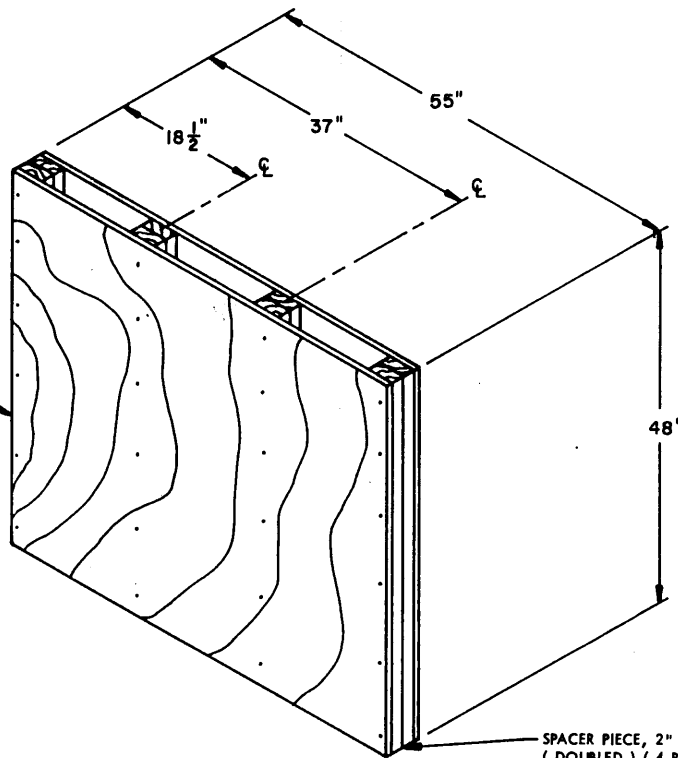
PLYWOOD, 1/2" THICK BY 48" WIDE BY 37" LONG ( 2 REQD ). NAIL TO THE SPACER PIECES W/6-d NAILS AT EACH JOINT.



SPACER PIECE, 2" X 4" X 48" ( DOUBLED ) ( 3 REQD ). LAMINATE W/1-10d NAIL EVERY 8". SEE NOTE ①.

SEPARATOR GATE E

PLYWOOD, 1/2" THICK BY 48" WIDE BY 55" LONG ( 2 REQD ). NAIL TO THE SPACER PIECES W/6-d NAILS AT EACH JOINT.



SPACER PIECE, 2" X 4" X 48" ( DOUBLED ) ( 4 REQD ). LAMINATE W/1-10d NAIL EVERY 8". SEE "NOTE ①".

SEPARATOR GATE F

NOTE ①:

ADDITIONAL PIECES OF 4" WIDE MATERIAL BY THICKNESS TO SUIT MAY BE LAMINATED TO THE SPACER PIECE AS REQUIRED TO ASSURE A TIGHT LOAD. IF SPACE BETWEEN PLYWOOD SHEETS EXCEEDS 3-1/2", REFER TO DETAILS FOR SEPARATOR GATES A, B, C, AND/OR D.