LOADING AND BRACING (TL & LTL) IN CLOSED OR OPEN TOP VAN TRAILERS ⌖ OF COMPLETE ROUNDS● PACKED IN CYLINDRICAL METAL CONTAINERS AND UNITIZED ON A 40" X 48" WOODEN PALLET

MI8 SERIES CONTAINER

INDEX

⌖ THIS DOCUMENT INCLUDES OUTLOADING PROCEDURES FOR CONVENTIONAL TYPE TRAILERS AND FOR TRAILERS EQUIPPED WITH MECHANICAL BRACING DEVICES AS APPROVED BY THE BUREAU OF EXPLOSIVES, ASSOCIATION OF AMERICAN RAILROADS.
CAUTION: THE PROCEDURES SHOWN HEREIN, FOR BOTH TYPES OF TRAILERS, ARE ONLY APPLICABLE FOR HIGHWAY MOVEMENTS; NOT FOR TRAILER-ON-FLATCAR MOVEMENTS.

● PROCEDURES CONTAINED WITHIN THIS DRAWING APPLY TO DEMOLITION CRATERING CHARGES.

DO NOT SCALE

REVISIONS				DRAFTSMAN	TYPIST	CHECKED	TECHNICIAN	ENGINEER
		DEV DED DE		SWB	tcm		PB	
		DEV DED DE		SMCAC - DEV		SMCAC - DED		SMCAC - DE
		DEV DED DE		APPROVED, U.S. ARMY ARMAMENT, MUNITIONS AND CHEMICAL COMMAND: Daniel E Stackwick				
		DEV DED DE		APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND (AMC): U.S. ARMY DEFENSE AMMUNITION CENTER AND SCHOOL				
		DEV DED DE		U.S. ARMY MATERIEL COMMAND				
		DEV DED DE		OCTOBER 1989				
		DEV DED DE		CLASS	DIVISION	DRAWING	FILE	
		DEV DED DE		19	48	4213/13	11 PM 1003	

PROJECT CA 226/13-85

GENERAL NOTES

A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1, AND AUGMENTS TM 743-200-1 (CHAPTER 5).

B. THE OUTLOADING PROCEDURES SPECIFIED IN THIS DRAWING ARE APPLICABLE FOR DEMOLITION CRATERING CHARGES PACKED IN M18 SERIES CONTAINERS, ASSEMBLED ON THE 40" X 48" 4-WAY ENTRY PALLET. SEE THE PICTORIAL VIEW ON PAGE 3 FOR SIZE AND WEIGHT. REFER TO U.S. ARMY AMC DRAWING 19-48-4079/11-20PM1002 FOR UNITIZATION PROCEDURES FOR THE M18 METAL AMMUNITION CONTAINER.

C. THE OUTLOADING PROCEDURES DEPICTED WITHIN THIS DOCUMENT ARE APPLICABLE FOR SHIPMENTS IN CONVENTIONAL TYPE VAN TRAILERS, AND FOR SHIPMENTS IN VAN TRAILERS EQUIPPED WITH VARIOUS TYPES OF SELF-CONTAINED MECHANICAL BRACING DEVICES (CROSS MEMBERS AND WALL MEMBERS) AND APPLY TO TRAILERS HAVING WOOD, OR WOOD AND METAL, OR ALL METAL FLOORS. VAN TRAILERS WHICH ARE 40'-0" LONG BY 7'-6" TO 8'-2" WIDE (INSIDE DIMENSION) HAVE BEEN SHOWN, HOWEVER, THE PROCEDURES ARE ALSO APPLICABLE FOR TRAILERS WHICH ARE EIGHTY-NINE (89") THRU NINETY-NINE (99") IN WIDTH AND FOR TRAILERS OF OTHER LENGTHS FROM THE SHORTEST TO THE LONGEST AVAILABLE (REF: 24' TO 53'), AND FOR STRAIGHT TRUCK VANS. THE LOADING AND BRACING PROCEDURES SPECIFIED HEREIN ARE ALSO ADEQUATE (CONFIGURATION WISE AND STRENGTH WISE) FOR LOADS IN SHORTER OR LONGER VANS AND IN NARROWER OR WIDER VANS THAN SHOWN. THE SPECIFIED BRACING IS ADEQUATE FOR LOADS WEIGHING UP TO AND INCLUDING THE MAXIMUM WEIGHTS PERMITTED BY LAW.

D. THE OUTLOADING PROCEDURES DEPICTED WITHIN THIS DOCUMENT FOR TRAILERS EQUIPPED WITH VARIOUS TYPES OF SELF-CONTAINED MECHANICAL BRACING DEVICES ARE LIMITED TO HIGHWAY MOVEMENTS ONLY. THE HEIGHT REQUIREMENTS SPECIFIED WITHIN THIS DRAWING FOR THE INSTALLATION OF CROSS MEMBERS ARE IDENTICAL WITH THOSE RECOMMENDED BY THE BUREAU OF EXPLOSIVES PAMPHLET 6C, AND APPENDICES THERETO. CAUTION: TRAILERS EQUIPPED WITH WALL MEMBERS WHICH DO NOT MEET THE LOCATION REQUIREMENTS MUST NOT BE USED.

1. PALLET UNITS SHOULD BE LOADED TIGHTLY AGAINST EACH OTHER AND/OR AGAINST INSTALLED CROSS MEMBERS. VOIDS LENGTHWISE WITHIN A LOAD SHOULD BE MINIMUM. CROSS MEMBERS MUST BE PLACED AGAINST THE LADING AS TIGHTLY AS THE WALL MEMBER LOCKING HOLE SPACING PERMITS. EACH CROSS MEMBER WILL BE INSTALLED WITH EACH END ATTACHED AS NEARLY AS POSSIBLE IN A "MATED" POSITION (AT EQUAL HEIGHTS, AND AT EQUAL DISTANCES FROM THE END OF THE TRAILER).

2. CROSS MEMBERS IN EMPTY TRAILERS AND THOSE UNUSED IN LOADED TRAILERS MUST BE "SECURED" FOR SHIPMENT. COMPONENTS ASSIGNED TO EACH TRAILER MUST REMAIN THEREWITH EVEN THOUGH UNUSED DURING SOME SHIPMENTS.

3. ONE (1) CROSS MEMBER WILL BE REQUIRED FOR EACH 10,000 POUNDS OF LADING AND SHOULD NOT BE RELIED UPON TO RETAIN A GREATER WEIGHT. CROSS MEMBERS WILL NOT BE DOUBLED, THAT IS, TWO CROSS MEMBERS AT THE SAME HEIGHT LOCATION WILL NOT BE PLACED SIDE BY SIDE.

E. SELECTION OF A VEHICLE TO BE USED TO TRANSPORT THE DESIGNATED ITEM MUST COMPLY WITH AR 55-355, CHAPTER 29, FOR EXPLOSIVES AND OTHER DANGEROUS ARTICLES, IN FULL.

F. 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. THE TOTAL WEIGHT OF THE LADING, OF THE DUNNAGE, OF THE TRACTOR AND OF THE SEMI-TRAILER CARRYING THE LADING MUST NOT EXCEED THE MAXIMUM GROSS WEIGHT ALLOWED FOR THE STATE OR STATES THRU WHICH THE LOAD IS TO BE TRANSPORTED BY MOTOR CARRIER. LIKEWISE, THE GROSS WEIGHT ON A SINGLE OR TANDEM AXLE MUST NOT EXCEED THE MAXIMUM ALLOWABLE WEIGHT. IF THERE IS ANY DOUBT AS TO WHETHER THE TOTAL GROSS WEIGHT OR AXLE WEIGHT EXCEEDS THE MAXIMUM ALLOWED, WEIGHT SHOULD BE VERIFIED BY ACTUALLY WEIGHING THE LOADED VEHICLE.

G. NOTICE: A SHIPMENT WILL BE POSITIONED IN THE TRAILER CONSISTENT WITH STATE LAWS. THE NUMBER OF LADING UNITS MAY BE ADJUSTED TO FIT THE SIZE OF THE TRAILER TO BE LOADED OR THE QUANTITY TO BE SHIPPED. COMBINATIONS OF THE OUTLOADING PROCEDURES SPECIFIED MAY BE USED; HOWEVER, THE APPROVED METHODS SHOWN MUST BE FOLLOWED AS CLOSELY AS POSSIBLE FOR BLOCKING, BRACING, AND STAYING OF THE DESIGNATED ITEMS.

(CONTINUED AT RIGHT)

MATERIAL SPECIFICATIONS

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

NAILS ---------- : FED SPEC FF-N-105; COMMON.

STRAPPING, STEEL ---------- : FED SPEC QQ-S-781; CLASS 1, TYPE I OR IV, HEAVY DUTY, FINISH A, B, (GRADE 2), OR C.

SEAL STRAP ---------- : FED SPEC QQ-S-781; TYPE D, STYLE I, II, OR IV, CLASS H, FINISH A, B (GRADE 2), OR C.

PLYWOOD ---------- : FED SPEC NN-P530; GROUP B, CONSTRUCTION AND INDUSTRIAL PLYWOOD, INTERIOR WITH EXTERIOR GLUE, GRADE C-D. IF SPECIFIED GRADE IS NOT AVAILABLE, A BETTER INTERIOR OR AN EXTERIOR GRADE MAY BE SUBSTITUTED.

WIRE ---------- : FED SPEC QQ-W-461.

TYGARD ---------- : POLYESTER YARN, 1,100 POUNDS/INCH OF WIDTH STRENGTH.

ADHESIVE ---------- : TYGARD ADHESIVE.

(GENERAL NOTES CONTINUED)

H. THE "LOAD AS SHOWN" FOR MOST OF THE FULL LOADS DEPICTED HEREIN IS BASED ON AN APPROXIMATE LADING WEIGHT OF 42,000 POUNDS. THE SPECIFIED BLOCKING AND BRACING FOR THE FULL LOADS IS ADEQUATE FOR THE RETENTION OF HEAVIER LOADS, IF IT IS DESIRED TO INCREASE THE LADING WEIGHT.

J. OTHER TYPES OF LADING ITEMS MAY BE LOADED INTO TRAILERS WHICH ARE PARTIALLY LOADED WITH PALLET UNITS OF COMPLETE ROUNDS, 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.

K. SOME LOADS ARE SHOWN IN TRAILERS HAVING ROUNDED CORNERS AT THE FORWARD END. IF THE CONVENTIONAL VAN TRAILER BEING USED IS EQUIPPED WITH A SQUARE FRONT OR WITH AN INSTALLED BULKHEAD, OMIT THE FORWARD BLOCKING ASSEMBLY, PIECE MARKED (1), AND POSTION THE PALLET UNITS DIRECTLY AGAINST THE FORWARD PORTION OF THE TRAILER; OMIT CROSS MEMBERS IN THE FORWARD END OF MECHANICAL VAN TRAILERS HAVING A SQUARE FRONT.

L. PALLET UNITS WHICH DO NOT CONTAIN A FULL QUANTITY OF ITEMS CAN BE TRANSPORTED. SEE THE "SHIPMENT OF A PARTIAL PALLET UNIT" DETAIL AND SPECIAL NOTES ON PAGE 17. FOR "SHIPMENT OF LEFTOVER CONTAINERS," SEE THE DETAILS AND SPECIAL NOTES ON PAGE 16.

M. WHEN STEEL STRAPPING IS SEALED AT AN END-OVER-END LAP JOINT, A MINIMUM OF ONE (1) SEAL WITH TWO (2) PAIR OF NOTCHES WILL BE USED TO SEAL THE JOINT WHEN A NOTCH-TYPE SEALER IS BEING USED. A MINIMUM OF TWO (2) SEALS, BUTTED TOGETHER, WITH TWO (2) PAIR OF CRIMPS PER SEAL WILL BE USED TO SEAL THE JOINT WHEN A CRIMP-TYPE SEALER IS BEING USED. REFER TO THE "STRAP JOINT A" AND "STRAP JOINT B" DEATILS ON PAGE 22 FOR GUIDANCE.

N. DUNNAGE LUMBER SPECIFIED THROUGHOUT THIS PROCEDURAL DRAWING IS OF NOMINAL SIZE. FOR EXAMPLE, 2" X 4" MATERIAL IS ACTUALLY 1-1/2" THICK BY 3-1/2" WIDE AND 2" X 6" MATERIAL IS ACTUALLY 1-1/2" THICK BY 5-1/2" WIDE.

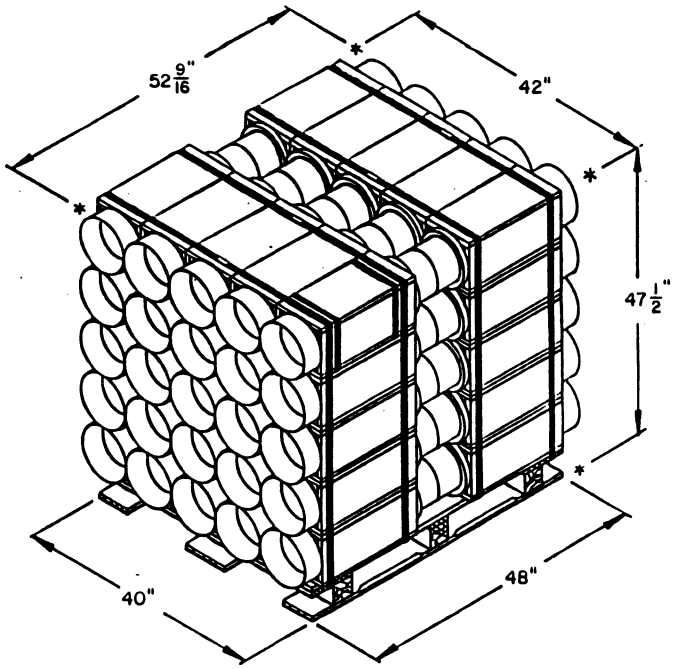
O. NOTICE: A STAGGERED NAILING PATTERN WILL BE USED WHEREVER POSSIBLE WHEN NAILS ARE DRIVEN INTO JOINTS OF DUNNAGE ASSEMBLIES. ALSO, A STAGGERED NAILING PATTERN WILL BE USED WHEN DUNNAGE IS NAILED TO THE FLOOR OF THE TRANSPORTING VEHICLE, OR WHEN LAMINATING DUNNAGE. THE NAILING PATTERN WILL BE ADJUSTED AS REQUIRED SO THAT A NAIL DOES NOT PENETRATE INTO OR NEAR A CRACK BETWEEN FLOOR BOARDS. ADDITIONALLY, THE NAILING PATTERN FOR AN UPPER PIECE OF LAMINATED DUNNAGE WILL BE ADJUSTED AS REQUIRED SO THAT A NAIL FOR THAT PIECE WILL NOT BE DRIVEN THROUGH, ONTO, OR RIGHT BESIDE A NAIL IN A LOWER PIECE.

P. POWER DRIVEN STAPLES MAY BE USED AS ALTERNATIVE FASTENERS FOR NAILS WHEN CONSTRUCTING DUNNAGE ASSEMBLIES WHICH ARE TO BE USED IN THE DELINEATED TRAILER LOADS SHOWN THROUGHOUT THIS DRAWING. THE STAPLES TO BE USED MUST BE EQUAL IN LENGTH TO THE SPECIFIED NAIL SIZE AND MUST BE SUBSTITUTED ON A ONE STAPLE FOR ONE NAIL BASIS. STAPLES WHICH ARE 2-1/2" OR LESS IN LENGTH SHOULD BE IN ACCORDANCE WITH FEDERAL SPECIFICATION FF-N-105 AS NEARLY AS PRACTICABLE. STAPLES WHICH ARE LONGER THAN 2-1/2" WILL BE A COMMERCIAL GRADE, OF A QUALITY EQUIVALENT TO THOSE MANUFACTURED BY SENCO PRODUCTS INCORPORATED. NOTE: STAPLES WILL NOT BE SUBSTITUTED FOR NAILS IN ANY LOAD RESTRAINING FLOOR DUNNAGE APPLICATION.

Q. PORTIONS OF THE TRAILERS, SUCH AS SIDEWALLS, END WALLS, AND ROOFS, HAVE NOT BEEN SHOWN IN THE LOAD VIEWS FOR CLARITY PURPOSES.

R. FOR ADDITIONAL GUIDANCE, ATTENTION IS DIRECTED TO THE "SPECIAL NOTES" SECTIONS WHICH ARE IMMEDIATELY ADJACENT TO THE DEPICTED OUTLOADING METHODS.

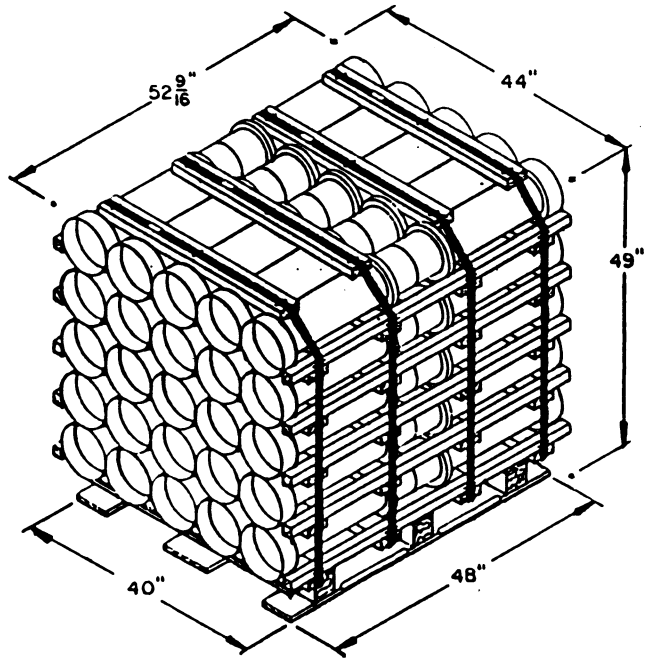
S. CONVERSION TO METRIC EQUIVALENTS: DIMENSIONS WITHIN THIS DOCUMENT ARE EXPRESSED IN INCHES, AND WEIGHTS ARE EXPRESSED IN POUNDS. WHEN NECESSARY, THE METRIC EQUIVALENTS MAY BE COMPUTED ON THE BASIS OF ONE INCH EQUALS 25,4MM AND ONE POUND EQUALS 0,454KG.



PROTECTIVE COVER METHOD UNIT

CONTAINER ---------- 50 EACH @ 59 LBS (APPROX)
CUBE ---------- 60 CUBIC FEET (APPROX)
GROSS WEIGHT ---------- 3,504 LBS (APPROX)

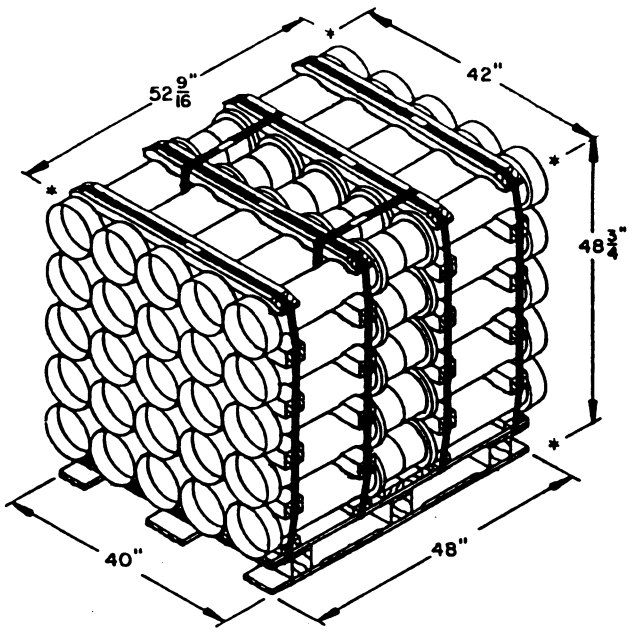
REFER TO PAGES 4 THRU 7 FOR OUTLOADING PROCEDURES.



FLAT DUNNAGE METHOD UNIT

CONTAINER ---------- 50 EACH @ 59 LBS (APPROX)
CUBE ---------- 65.6 CUBIC FEET (APPROX)
GROSS WEIGHT ---------- 3,179 LBS (APPROX)

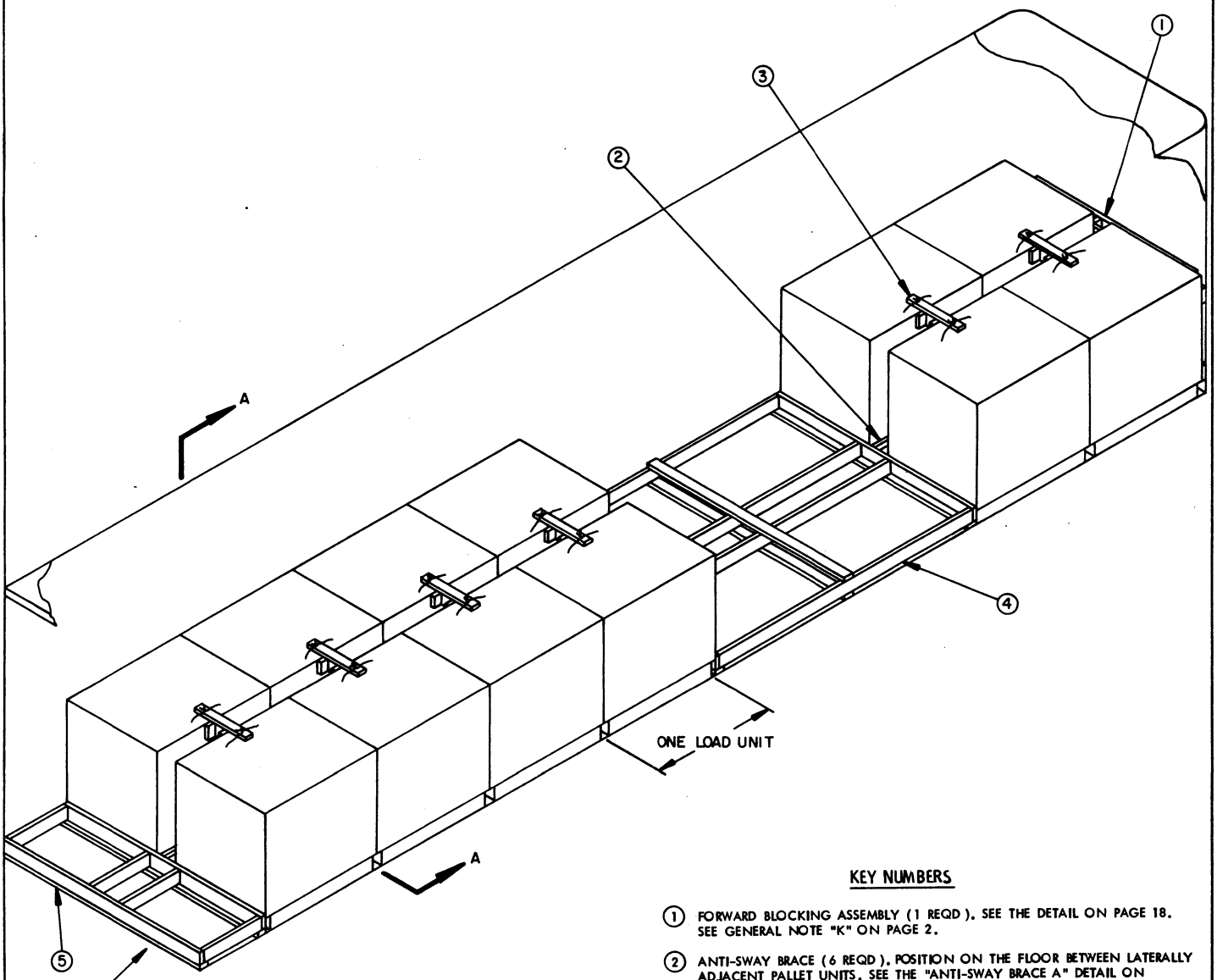
REFER TO PAGES 8 THRU 11 FOR OUTLOADING PROCEDURES.



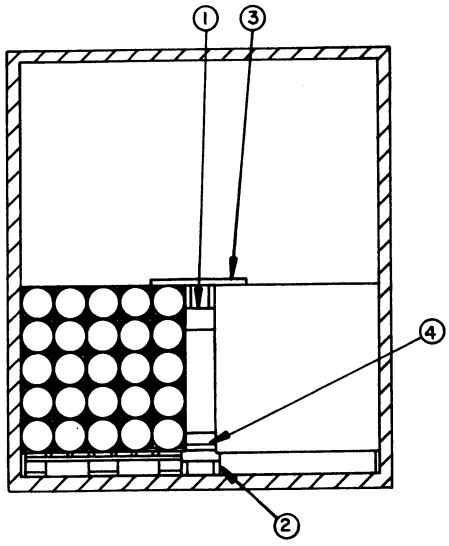
ROUTED DUNNAGE METHOD UNIT

CONTAINER ---------- 50 EACH @ 59 LBS (APPROX)
CUBE ---------- 62.3 CUBIC FEET (APPROX)
GROSS WEIGHT ---------- 3,192 LBS (APPROX)

REFER TO PAGES 8 THRU 11 FOR OUTLOADING PROCEDURES.



ISOMETRIC VIEW



SECTION A-A

KEY NUMBERS

(1) FORWARD BLOCKING ASSEMBLY (1 REQD). SEE THE DETAIL ON PAGE 18. SEE GENERAL NOTE "K" ON PAGE 2.

(2) ANTI-SWAY BRACE (6 REQD). POSITION ON THE FLOOR BETWEEN LATERALLY ADJACENT PALLET UNITS. SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 19. SEE GENERAL NOTES "O" AND "P" ON PAGE 2, AND SPECIAL NOTE 2 ON PAGE 5.

(3) TOP-OF-LOAD ANTI-SWAY BRACE (6 REQD). SEE THE "TOP-OF-LOAD ANTI-SWAY BRACE A" DETAIL ON PAGE 20. WIRE TIE TO THE UNIT TIEDOWN STRAP AS SHOWN BY THE "TIE WIRE APPLICATION A" DETAIL ON THAT PAGE.

(4) SPACER ASSEMBLY (1 REQD). SEE THE "SPACER ASSEMBLY A" DETAIL ON PAGE 18. SEE SPECIAL NOTE 3 ON PAGE 5.

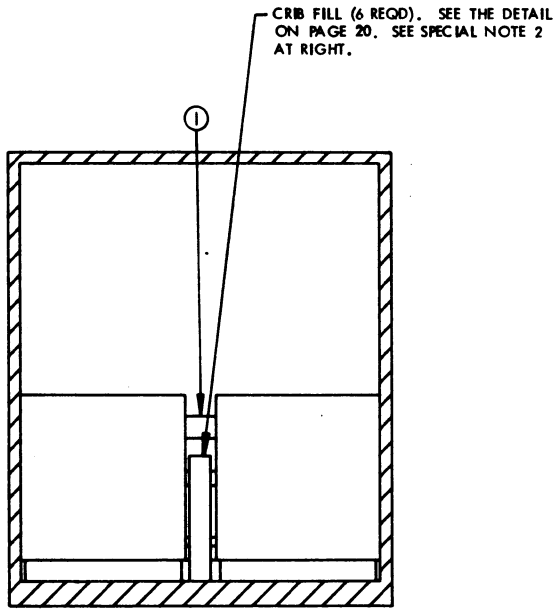
(5) REAR BLOCKING ASSEMBLY (1 REQD). SEE THE "REAR BLOCKING ASSEMBLY A" DETAIL ON PAGE 21. SEE SPECIAL NOTE 4 ON PAGE 5.

PROTECTIVE COVER METHOD UNIT
12-UNIT LOAD IN A 40'-0" LONG BY 7'-8" WIDE CONVENTIONAL VAN TRAILER

SMCAC FORM 6-1, 1 NOV 87

PROJECT CA 226/13-85

SUPERSEDES SMCAC FORM 6, 1 NOV 86



TYPICAL SECTION VIEW

SPECIAL NOTES:

1. A 12-UNIT LOAD IS SHOWN IN A 40'-0" LONG BY 7'-8" WIDE (INSIDE DIMENSION) CONVENTIONAL TYPE VAN TRAILER. TRAILERS OF OTHER DIMENSIONS CAN BE USED. SEE SPECIAL NOTE 2.

2. IF THE TRAILER TO BE LOADED IS MORE THAN 7'-6" WIDE, ANTI-SWAY BRACES AND TOP-OF-LOAD ANTI-SWAY BRACES, PIECES MARKED (2) AND (3) IN THE LOAD ON PAGE 4, MUST BE INSTALLED BETWEEN LATERALLY ADJACENT PALLET UNITS; NOTE THAT CRIB FILL MAY BE USED IN LIEU OF PIECES MARKED (2) AND (3), IF DESIRED. SEE THE "TYPICAL SECTION VIEW" AT LEFT FOR GUIDANCE. FOR TRAILERS WHICH ARE 8'-0" WIDE OR MORE, "ANTI-SWAY BRACE B" DETAILED ON PAGE 20 MAY BE USED IN LIEU OF PIECE MARKED (2).

3. SPACER ASSEMBLY "A" SHOWN AS PIECE MARKED (4) IN THE LOAD ON PAGE 4, IS USED FOR THE PURPOSE OF PROVIDING FOR PROPER WEIGHT DISTRIBUTION, AND IS SHOWN AS TYPICAL ONLY. IF THE TRAILER TO BE LOADED IS LONGER THAN 40' THE LOCATION OF THE ASSEMBLY, AND/OR THE STRUT LENGTHS, MAY BE DIFFERENT FROM WHAT IS SHOWN. IF A SHORTER TRAILER IS USED FOR THE DEPICTED LOAD, THIS ASSEMBLY MAY NOT BE REQUIRED. NOTE THAT A SPACER ASSEMBLY MUST NOT BE POSITIONED ADJACENT TO THE FORWARD BLOCKING ASSEMBLY, PIECE MARKED (1).

4. IF THE VOID AT THE REAR OF THE LOAD BETWEEN THE PALLET UNIT AND THE REAR DOOR MEASURES 1-1/2" OR LESS, REAR BLOCKING IS NOT REQUIRED. IF THE VOID AT THE REAR OF THE LOAD IS GREATER THAN 1-1/2" BUT LESS THAN 9", USE "REAR BLOCKING ASSEMBLY C" AS DETAILED ON PAGE 22. IF THE VOID AT THE REAR OF THE LOAD IS 9" OR GREATER, USE THE REAR BLOCKING ASSEMBLY, PIECE MARKED (5) ON PAGE 4.

5. IF A PALLET UNIT IS ADDED OR OMITTED FROM THE DEPICTED LOAD, PIECES MARKED (5) THRU (8) IN THE LOAD VIEW ON PAGE 8 MUST BE INSTALLED. SEE SPECIAL NOTES 4 AND 5 ON PAGE 9 FOR INSTALLATION GUIDANCE.

6. REFER TO PAGE 17 FOR GUIDANCE IN THE SHIPMENT OF PARTIAL PALLET UNITS.

7. LEFTOVER CONTAINERS IN AN AMOUNT NOT TO EXCEED TEN (10) MAY BE SECURED TO THE TOP OF A FULL PALLET UNIT FOR SHIPMENT. REFER TO THE "PROCEDURES FOR SHIPMENT OF LEFTOVER CONTAINERS" ON PAGE 16 FOR GUIDANCE.

8. FOR SHIPMENT OF LESS THAN FULL LOADS, REFER TO THE APPLICABLE GUIDANCE ON PAGES 12 THRU 14.

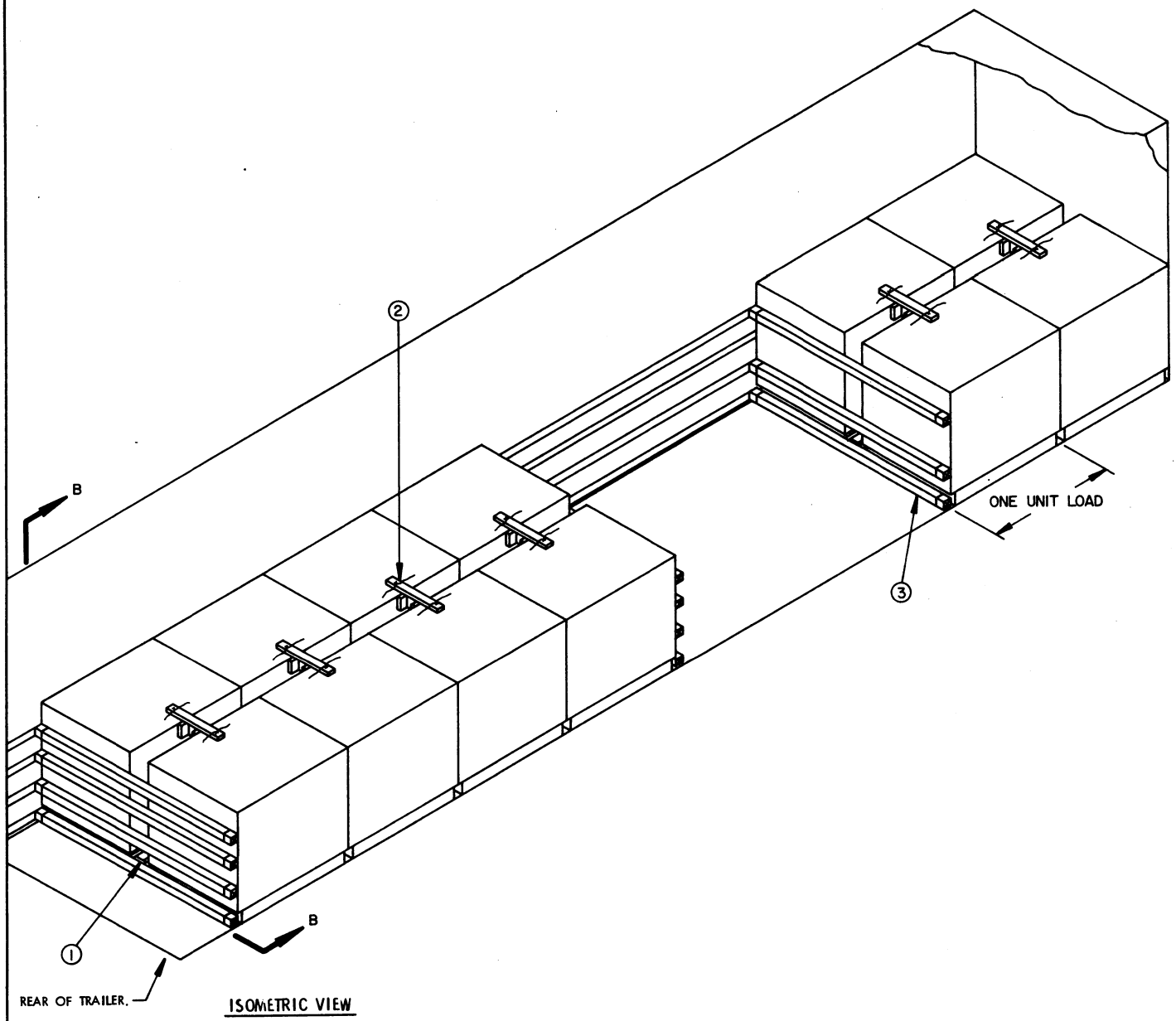
9. TRAILERS EQUIPPED WITH ROLL-UP TYPE DOORS MAY BE USED; HOWEVER, SPECIAL REAR BLOCKING MUST BE INSTALLED. SEE THE "PROCEDURES FOR CONVENTIONAL VAN TRAILERS EQUIPPED WITH ROLL-UP TYPE DOORS" ON PAGES 24 AND 25 FOR GUIDANCE. THE NAILED-HEADER METHOD IS SHOWN ON PAGE 24 AND THE TYGARD METHOD IS SHOWN ON PAGE 25. NOTE THAT THE SPECIAL REAR BLOCKING FOR TRAILERS EQUIPPED WITH ROLL-UP TYPE DOORS MAY ALSO BE USED IN TRAILERS EQUIPPED WITH HINGED DOORS.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4" 2" X 6"	140 118	94 102
NAILS	NO. REQD	POUNDS
10d (3")	278	4-1/2

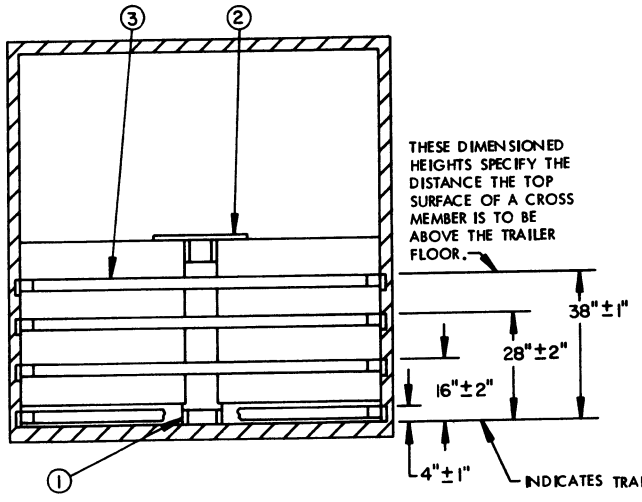
LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	12	42,048 LBS
DUNNAGE		397 LBS
TOTAL WEIGHT		42,445 LBS

PROTECTIVE COVER METHOD UNIT
12-UNIT LOAD IN A 40'-0" LONG BY 7'-8" WIDE CONVENTIONAL VAN TRAILER



ISOMETRIC VIEW



SECTION B-B

KEY NUMBERS

(1) ANTI-SWAY BRACE (6 REQD). POSITION ON THE FLOOR BETWEEN LATERALLY ADJACENT PALLET UNITS. SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 19. SEE GENERAL NOTES "O" AND "P" ON PAGE 2, AND SPECIAL NOTES 2 AND 3 ON PAGE 7.

(2) TOP-OF-LOAD ANTI-SWAY BRACE (6 REQD). WIRE TIE TO THE TIEDOWN STRAPS ON UNIT WITH NO. 14 GAGE WIRE. SEE THE "TOP-OF-LOAD ANTI-SWAY BRACE A" AND THE "TIE WIRE APPLICATION A" DETAILS ON PAGE 20.

(3) CROSS MEMBER (11 REQD). POSITION AT THE HEIGHTS SPECIFIED BY THE "SECTION B-B" VIEW BELOW. SEE GENERAL NOTES "D" AND "K" ON PAGE 2. SEE SPECIAL NOTES 3 AND 8 ON PAGE 7.

PROTECTIVE COVER METHOD UNIT

12-UNIT LOAD IN A 40'-0" LONG BY 7'-8" WIDE VAN TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES

SPECIAL NOTES:

1. A 12-UNIT LOAD IS SHOWN IN A 40'-0" LONG BY 7'-8" WIDE (INSIDE DIMENSION) TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. ANTI-SWAY BRACES AND TOP-OF-LOAD ANTI-SWAY BRACES, SHOWN AS PIECES MARKED ① AND ② IN THE LOAD ON PAGE 6 ARE TO BE POSITIONED BETWEEN ALL LATERALLY ADJACENT PALLET UNITS. NOTE THAT THE CRIB FILL DETAILED ON PAGE 20, MAY BE USED IN LIEU OF PIECES MARKED ① AND ② , IF DESIRED; THEN CROSS MEMBERS AT THE 4" HEIGHT LOCATION CAN BE OMITTED.
3. CROSS MEMBERS ARE REQUIRED AT THE 4" HEIGHT LOCATION TO PREVENT DISPLACEMENT OF THE ANTI-SWAY BRACES SHOWN AS PIECE MARKED ① . THESE CROSS MEMBERS, EXCEPT FOR THE ONE POSITIONED AT THE REAR OF THE LOAD, CAN BE OMITTED IF PALLET UNITS ARE POSITIONED AGAINST THE FORWARD END OF THE TRAILER, AND/OR IF THE CROSS MEMBERS ARE OMITTED FROM THE CENTER PORTION OF THE LOAD AS SPECIFIED IN SPECIAL NOTE 8.
4. IF A PALLET UNIT IS TO BE ADDED OR OMITTED FROM THE DEPICTED LOAD, THE SPACER ASSEMBLY PROCEDURES DEPICTED ON PAGE 15 MAY BE USED. NOTE THAT CROSS MEMBERS ARE REQUIRED AT BOTH ENDS OF THE ODD UNIT. AS AN ALTERNATIVE, PIECES MARKED ⑤ THRU ⑧ ON PAGE 8 MAY BE USED. SEE SPECIAL NOTES 4 AND 5 ON PAGE 9 FOR GUIDANCE.
5. FOR SHIPMENT OF LESS THAN FULL LOADS, REFER TO THE APPLICABLE GUIDANCE ON PAGE 15.
6. LEFTOVER CONTAINERS IN AN AMOUNT NOT TO EXCEED TEN (10) MAY BE SECURED TO THE TOP OF A FULL PALLET UNIT FOR SHIPMENT. REFER TO THE "PROCEDURES FOR SHIPMENT OF LEFTOVER CONTAINERS" ON PAGE 16 FOR GUIDANCE.
7. REFER TO PAGE 17 FOR GUIDANCE IN THE SHIPMENT OF PARTIAL UNITS.
8. IF THE TRAILER BEING LOADED IS EQUIPPED ONLY WITH SHORT WALL MEMBERS AT THE REAR FOR ATTACHMENT OF THE CROSS MEMBERS, THE CROSS MEMBERS LOCATED NEAR THE CENTER PORTION OF THE LOAD LENGTH WILL BE OMITTED. A 1/2" PLYWOOD GATE WHICH IS 48" HIGH BY TRAILER WIDTH MINUS 1/2" IN LENGTH MUST BE INSTALLED AT THE REAR OF THE LOAD, AND ONE ADDITIONAL CROSS MEMBER WILL BE INSTALLED AT THE 48" HEIGHT LOCATION. ALSO, SPACER ASSEMBLIES WILL BE INSTALLED AS REQUIRED FOR QUANTITY ADJUSTMENT, AND/OR TO PROVIDE FOR PROPER WEIGHT DISTRIBUTION. SEE PIECES MARKED ④ THRU ⑧ ON PAGE 8 FOR A TYPICAL INSTALLATION, AND SPECIAL NOTES 3 THRU 5 ON PAGE 9 FOR GUIDANCE.

BILL OF MATERIAL

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	78	52
2" X 6"	12	12
NAILS	**NO. REQD**	**POUNDS**
10d (3")	150	2-1/2
WIRE, NO. 14 GAGE ——— 48' REQD ——— 1 LB		
CROSS MEMBER ——— 11 REQD		

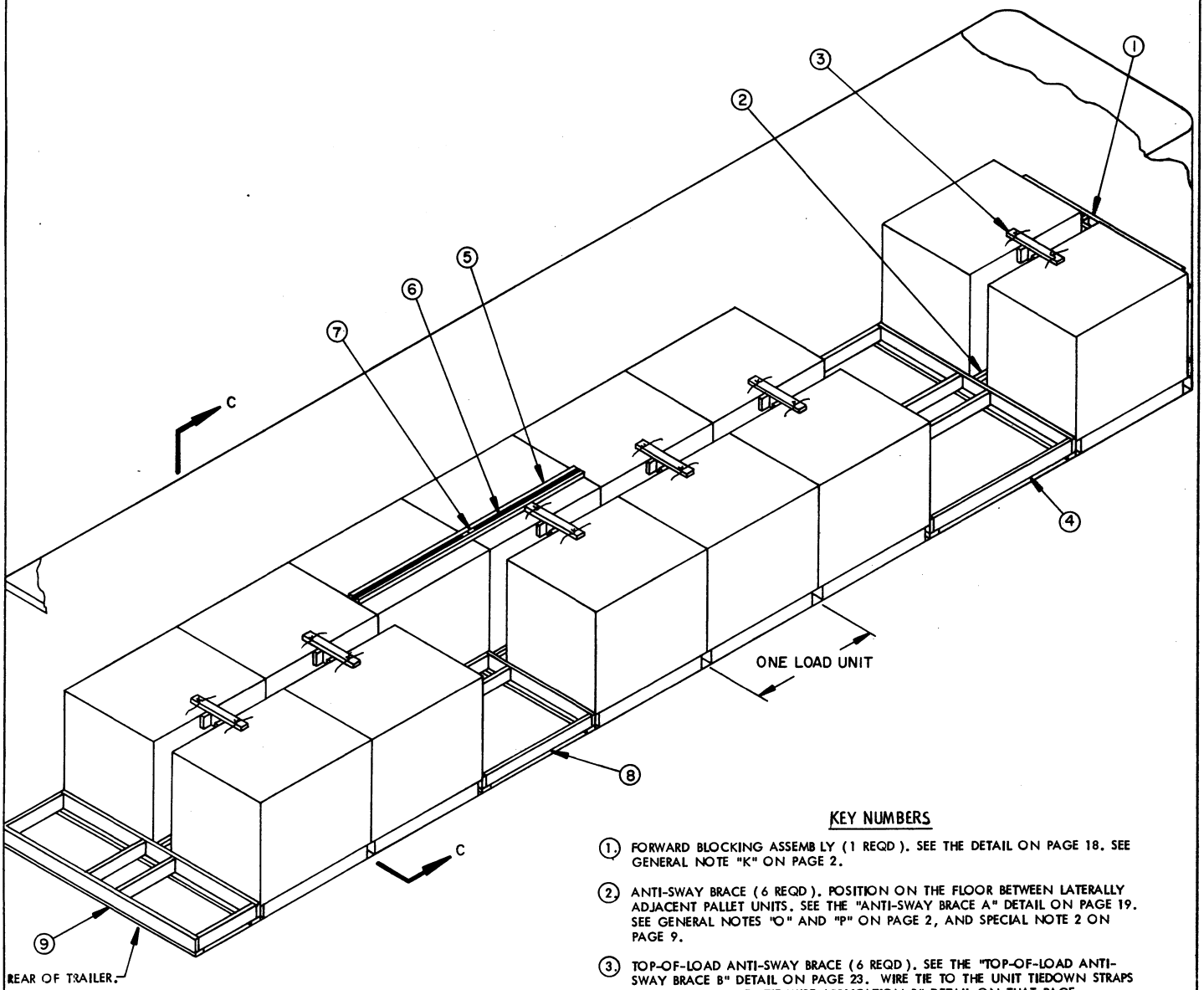
LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	12	42,048 LBS
DUNNAGE		132 LBS

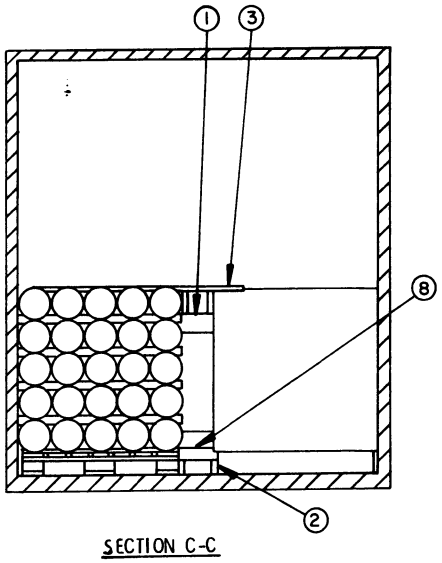
TOTAL WEIGHT ------- 42,180 LBS (APPROX)

PROTECTIVE COVER METHOD UNIT

12-UNIT LOAD IN A 40'-0" LONG BY 7'-8" WIDE TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES



ISOMETRIC VIEW



SECTION C-C

KEY NUMBERS

1. FORWARD BLOCKING ASSEMB LY (1 REQD). SEE THE DETAIL ON PAGE 18. SEE GENERAL NOTE "K" ON PAGE 2.
2. ANTI-SWAY BRACE (6 REQD). POSITION ON THE FLOOR BETWEEN LATERALLY ADJACENT PALLET UNITS. SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 19. SEE GENERAL NOTES "O" AND "P" ON PAGE 2, AND SPECIAL NOTE 2 ON PAGE 9.
3. TOP-OF-LOAD ANTI-SWAY BRACE (6 REQD). SEE THE "TOP-OF-LOAD ANTI-SWAY BRACE B" DETAIL ON PAGE 23. WIRE TIE TO THE UNIT TIEDOWN STRAPS AS SHOWN BY THE "TIE WIRE APPLICATION B" DETAIL ON THAT PAGE.
4. SPACER ASSEMBLY (1 REQD). SEE THE "SPACER ASSEMBLY A" DETAIL ON PAGE 18. SEE SPECIAL NOTE 3 ON PAGE 9.
5. STRAPPING BOARD, 2" X 6" X 8'-9" (1 REQD). POSITION AS SHOWN. SEE SPECIAL NOTE 4 ON PAGE 9.
6. BUNDLING STRAP, 1-1/4" X .035" OR .031" X 27'-0" LONG STEEL STRAPPING (1 REQD). INSTALL SO AS TO ENCIRCLE TWO (2) PALLET UNITS.
7. SEAL FOR 1-1/4" STRAPPING (2 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "M" ON PAGE 2.
8. SPACER ASSEMBLY (1 REQD). SEE THE "SPACER ASSEMBLY B" DETAIL ON PAGE 19. SEE SPECIAL NOTE 5 ON PAGE 9.
9. REAR BLOCKING ASSEMBLY (1 REQD). SEE THE "REAR BLOCKING ASSEMBLY A" DETAIL ON PAGE 21. SEE SPECIAL NOTES 6 AND 11 ON PAGE 9.

FLAT/ROUTED DUNNAGE METHOD UNITS
13-UNIT LOAD IN A 40'-0" LONG BY 7'-8" WIDE CONVENTIONAL VAN TRAILER

SMCAC FORM 6-1, 1 NOV 87
SUPERSEDES SMCAC FORM 6, 1 NOV 86
PROJECT CA 226/13-85

SPECIAL NOTES:

1. A 13-UNIT LOAD IS SHOWN IN A 40'-0" LONG BY 7'-8" WIDE (INSIDE DIMENSION) CONVENTIONAL TYPE VAN TRAILER. TRAILERS OF OTHER DIMENSIONS CAN BE USED. SEE SPECIAL NOTE 2.

2. IF THE TRAILER TO BE LOADED IS MORE THAN 7'-6" WIDE, ANTI-SWAY BRACES AND TOP-OF-LOAD ANTI-SWAY BRACES, PIECES MARKED ② AND ③ IN THE LOAD ON PAGE 8, MUST BE INSTALLED BETWEEN LATERALLY ADJACENT PALLET UNITS; NOTE THAT CRIB FILL MAY BE USED IN LIEU OF PIECES MARKED ② AND ③ , IF DESIRED. SEE THE "TYPICAL SECTION VIEW ON PAGE 5 AND THE "CRIB FILL" DETAIL ON PAGE 20 FOR GUIDANCE. IF SPACE PERMITS, "ANTI-SWAY BRACE B" DETAILED ON PAGE 20 MAY BE USED IN LIEU OF PIECE MARKED ② .

3. SPACER ASSEMBLY "A" SHOWN AS PIECE MARKED ④ IN THE LOAD ON PAGE 8, IS USED FOR THE PURPOSE OF PROVIDING FOR PROPER WEIGHT DISTRIBUTION, AND IS SHOWN AS TYPICAL ONLY. IF THE TRAILER TO BE LOADED IS LONGER THAN 40' THE LOCATION OF THE ASSEMBLY, AND/OR THE STRUT LENGTHS, MAY BE DIFFERENT FROM WHAT IS SHOWN. IF A SHORTER TRAILER IS USED FOR THE DEPICTED LOAD, THIS ASSEMBLY MAY NOT BE REQUIRED. NOTE THAT A SPACER ASSEMBLY MUST NOT BE POSITIONED ADJACENT TO THE FORWARD BLOCKING ASSEMBLY, PIECE MARKED ① .

4. A PALLET UNIT THAT DOES NOT HAVE A PALLET UNIT DIRECTLY OPPOSITE MUST BE SECURED BY INSTALLING A BUNDLING STRAP, SHOWN AS PIECE MARKED ⑥ IN THE LOAD ON PAGE 8, AROUND THAT PALLET UNIT AND THE PALLET UNIT IMMEDIATELY ADJACENT. A STRAPPING BOARD, SHOWN AS PIECE MARKED ⑤ WILL ALSO BE REQUIRED.

5. THE SPACER ASSEMBLY SHOWN AS PIECE MARKED ⑧ IN THE LOAD VIEW, IS ONLY SHOWN TO DEPICT A TYPICAL INSTALLATION. IF A PALLET UNIT IS LOADED IN PLACE OF THE SPACER ASSEMBLY THE STRAPPING BOARD AND BUNDLING STRAPS, PIECES MARKED ⑤ AND ⑥ WILL NOT BE REQUIRED. NOTE THAT A SPACER ASSEMBLY MUST BE POSITIONED WHERE THERE WILL BE A PALLET UNIT AT EACH END; A SPACER ASSEMBLY MUST NOT BE POSITIONED ADJACENT TO THE FORWARD BLOCKING ASSEMBLY, PIECE MARKED ① .

6. IF THE VOID AT THE REAR OF THE LOAD BETWEEN THE PALLET UNIT AND THE REAR DOOR MEASURES 1-1/2" OR LESS, REAR BLOCKING IS NOT REQUIRED. IF THE VOID AT THE REAR OF THE LOAD IS GREATER THAN 1-1/2" BUT LESS THAN 9", USE "REAR BLOCKING ASSEMBLY C" AS DETAILED ON PAGE 22. IF THE VOID AT THE REAR OF THE LOAD IS 9" OR GREATER, USE THE REAR BLOCKING ASSEMBLY, PIECE MARKED ⑨ ON PAGE 8.

7. REFER TO PAGE 17 FOR GUIDANCE IN THE SHIPMENT OF PARTIAL PALLET UNITS.

8. LEFTOVER CONTAINERS IN AN AMOUNT NOT TO EXCEED EIGHT (8) MAY BE SECURED TO THE TOP OF A FULL PALLET UNIT FOR SHIPMENT. REFER TO THE "PROCEDURES FOR SHIPMENT OF LEFTOVER CONTAINERS" ON PAGE 16 FOR GUIDANCE.

9. FOR SHIPMENT OF LESS THAN FULL LOADS, REFER TO THE APPLICABLE GUIDANCE ON PAGES 12 THRU 14.

10. TRAILERS EQUIPPED WITH ROLL-UP TYPE DOORS MAY BE USED; HOWEVER, SPECIAL REAR BLOCKING MUST BE INSTALLED. SEE THE "PROCEDURES FOR CONVENTIONAL VAN TRAILERS EQUIPPED WITH ROLL-UP TYPE DOORS" ON PAGES 24 AND 25 FOR GUIDANCE. THE NAILED-HEADER METHOD IS SHOWN ON PAGE 24 AND THE TYGARD METHOD IS SHOWN ON PAGE 25. NOTE THAT THE SPECIAL REAR BLOCKING FOR TRAILERS EQUIPPED WITH ROLL-UP TYPE DOORS MAY ALSO BE USED IN TRAILERS EQUIPPED WITH HINGED DOORS.

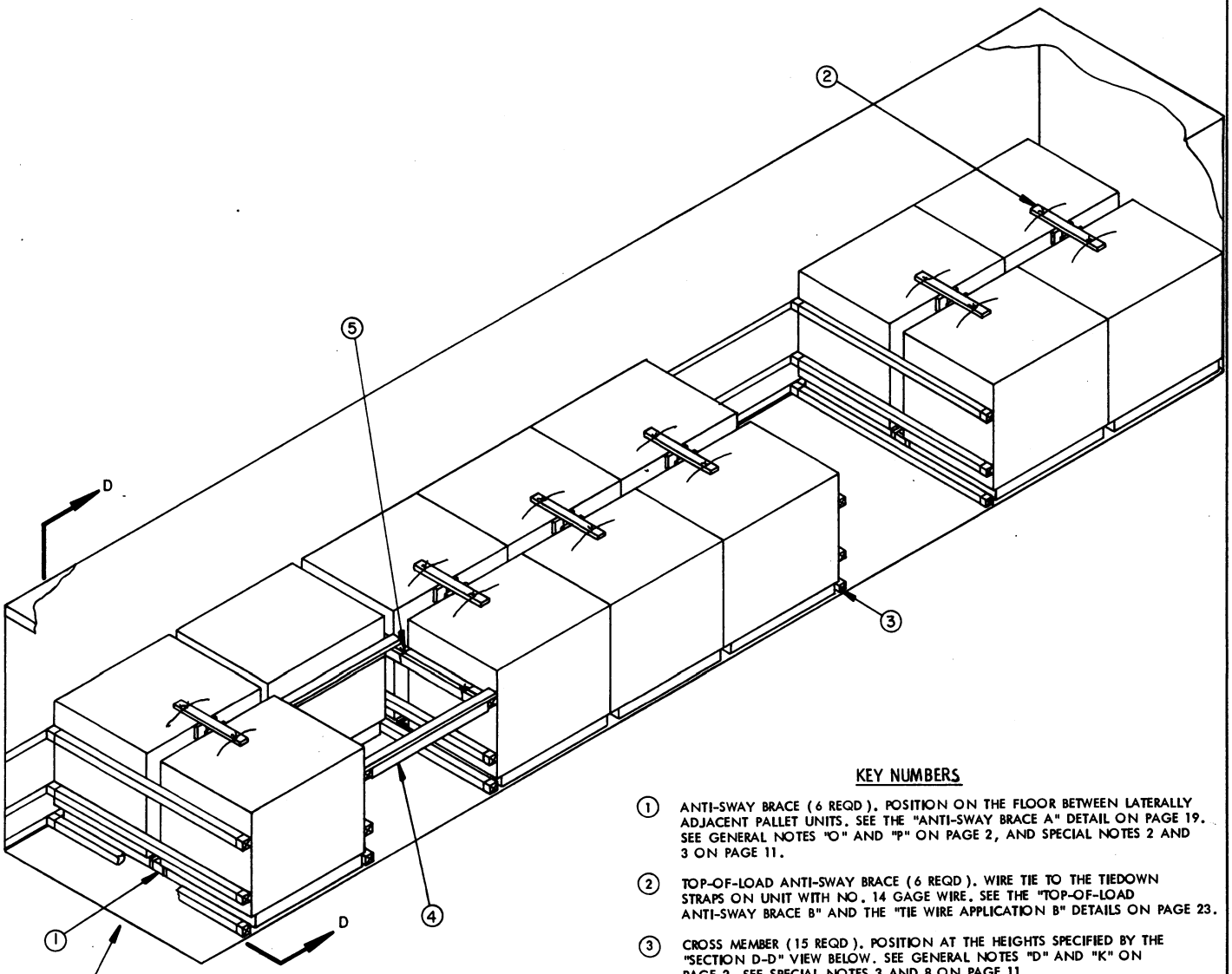
11. THE PALLET UNIT SHOWN IN THE LOAD ON PAGE 8 IS THE ROUTED DUNNAGE METHOD UNIT. IF THE FLAT DUNNAGE METHOD UNIT IS TO BE TRANSPORTED, "REAR BLOCKING ASSEMBLY B" DETAILED ON PAGE 21, WILL BE USED IN LIEU OF PIECE MARKED ⑨ .

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4" 2" X 6"	135 131	90 131
NAILS	NO. REQD	POUNDS
10d (3")	300	4-3/4
STEEL STRAPPING, 1-1/4" ---------- 27' REQD ---------- 4 LBS SEAL FOR 1-1/4" STRAPPING ---------- 2 REQD ---------- NIL		

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT -------	13 ----------	41,496 LBS
DUNNAGE ----------		451 LBS
TOTAL WEIGHT --------		41,947 LBS

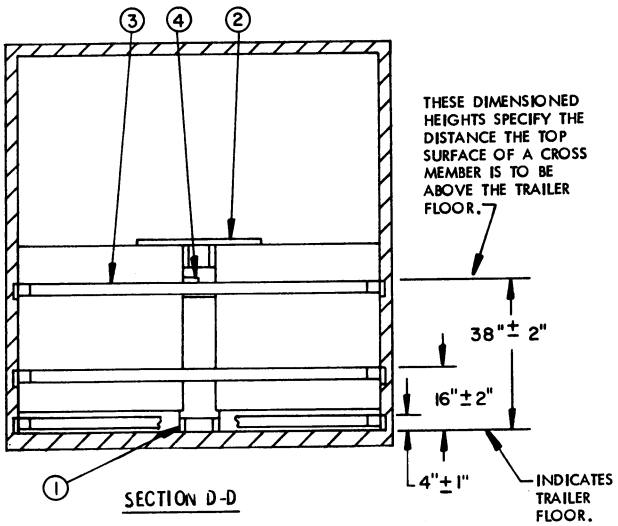
FLAT/ROUTED DUNNAGE METHOD UNITS
13-UNIT LOAD IN A 40'-0" LONG BY 7'-11" WIDE CONVENTIONAL VAN TRAILER



ISOMETRIC VIEW

KEY NUMBERS

1. ANTI-SWAY BRACE (6 REQD). POSITION ON THE FLOOR BETWEEN LATERALLY ADJACENT PALLET UNITS. SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 19. SEE GENERAL NOTES "O" AND "P" ON PAGE 2, AND SPECIAL NOTES 2 AND 3 ON PAGE 11.
2. TOP-OF-LOAD ANTI-SWAY BRACE (6 REQD). WIRE TIE TO THE TIEDOWN STRAPS ON UNIT WITH NO. 14 GAGE WIRE. SEE THE "TOP-OF-LOAD ANTI-SWAY BRACE B" AND THE "TIE WIRE APPLICATION B" DETAILS ON PAGE 23.
3. CROSS MEMBER (15 REQD). POSITION AT THE HEIGHTS SPECIFIED BY THE "SECTION D-D" VIEW BELOW. SEE GENERAL NOTES "D" AND "K" ON PAGE 2. SEE SPECIAL NOTES 3 AND 8 ON PAGE 11.
4. SPACER ASSEMBLY (1 REQD). SEE THE "SPACER ASSEMBLY C" DETAIL ON PAGE 19.
5. TIE WIRE, NO. 14 GAGE WIRE (4 REQD). INSTALL TO FORM A COMPLETE LOOP AROUND THE CROSS MEMBER AND SPACER ASSEMBLY. BRING THE ENDS TOGETHER AND TWIST TAUT.



SECTION D-D

FLAT/ROUTED DUNNAGE METHOD UNITS
13-UNIT LOAD IN A 40'-0" LONG BY 7'-8" WIDE VAN TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES

SMCAC FORM 6-1, 1 NOV 87

SUPERSEDES SMCAC FORM 6, 1 NOV 85

PROJECT CA 226/13-85

SPECIAL NOTES:

1. A 13-UNIT LOAD IS SHOWN IN A 40'-0" LONG BY 7'-8" WIDE (INSIDE DIMENSION) TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES. TRAILERS OF OTHER DIMENSIONS CAN BE USED.

2. ANTI-SWAY BRACES AND TOP-OF-LOAD ANTI-SWAY BRACES, SHOWN AS PIECES MARKED ① AND ② IN THE LOAD ON PAGE 10 ARE TO BE POSITIONED BETWEEN ALL LATERALLY ADJACENT PALLET UNITS. NOTE THAT THE CRIB FILL DETAILED ON PAGE 20, MAY BE USED IN LIEU OF PIECES MARKED ① AND ② , IF DESIRED.

3. CROSS MEMBERS ARE REQUIRED AT THE 4" HEIGHT LOCATION TO PREVENT DISPLACEMENT OF THE ANTI-SWAY BRACES SHOWN AS PIECE MARKED ① . THESE CROSS MEMBERS, EXCEPT FOR THE ONE POSITIONED AT THE REAR OF THE LOAD, CAN BE OMITTED IF PALLET UNITS ARE POSITIONED AGAINST THE FORWARD END OF THE TRAILER, AND/OR IF THE CROSS MEMBERS ARE OMITTED FROM THE CENTER PORTION OF THE LOAD AS SPECIFIED IN SPECIAL NOTE 8.

4. THE SPACER ASSEMBLY SHOWN AS PIECE MARKED ④ IN THE LOAD VIEW IS ONLY SHOWN TO DEPICT A TYPICAL INSTALLATION. IF A PALLET UNIT IS ADDED OR OMITTED FROM THE DEPICTED LOAD, PIECE MARKED ④ WILL NOT BE REQUIRED.

5. FOR SHIPMENT OF LESS THAN FULL LOADS, REFER TO THE APPLICABLE GUIDANCE ON PAGE 15.

6. LEFTOVER CONTAINERS IN AN AMOUNT NOT TO EXCEED EIGHT (8) MAY BE SECURED TO THE TOP OF A FULL PALLET UNIT FOR SHIPMENT. REFER TO THE "PROCEDURES FOR SHIPMENT OF LEFTOVER CONTAINERS" ON PAGE 16 FOR GUIDANCE.

7. REFER TO PAGE 17 FOR GUIDANCE IN THE SHIPMENT OF PARTIAL UNITS.

8. IF THE TRAILER BEING LOADED IS EQUIPPED ONLY WITH SHORT WALL MEMBERS AT THE REAR FOR ATTACHMENT OF THE CROSS MEMBERS, THE CROSS MEMBERS LOCATED THROUGHOUT THE CENTER PORTION OF THE LOAD LENGTH, AND PIECES MARKED ④ AND ⑤ , WILL BE OMITTED. A 1/2" PLYWOOD GATE WHICH IS 48" HIGH BY TRAILER WIDTH MINUS 1/2" IN LENGTH MUST BE INSTALLED AT THE REAR OF THE LOAD, AND ONE ADDITIONAL CROSS MEMBER WILL BE INSTALLED AT THE 48" HEIGHT LOCATION. ALSO, SPACER ASSEMBLIES WILL BE INSTALLED AS REQUIRED FOR QUANTITY ADJUSTMENT, AND/OR TO PROVIDE FOR PROPER WEIGHT DISTRIBUTION. SEE PIECES MARKED ④ THRU ⑧ ON PAGE 8 FOR A TYPICAL INSTALLATION, AND SPECIAL NOTES 3 THRU 5 ON PAGE 9 FOR GUIDANCE.

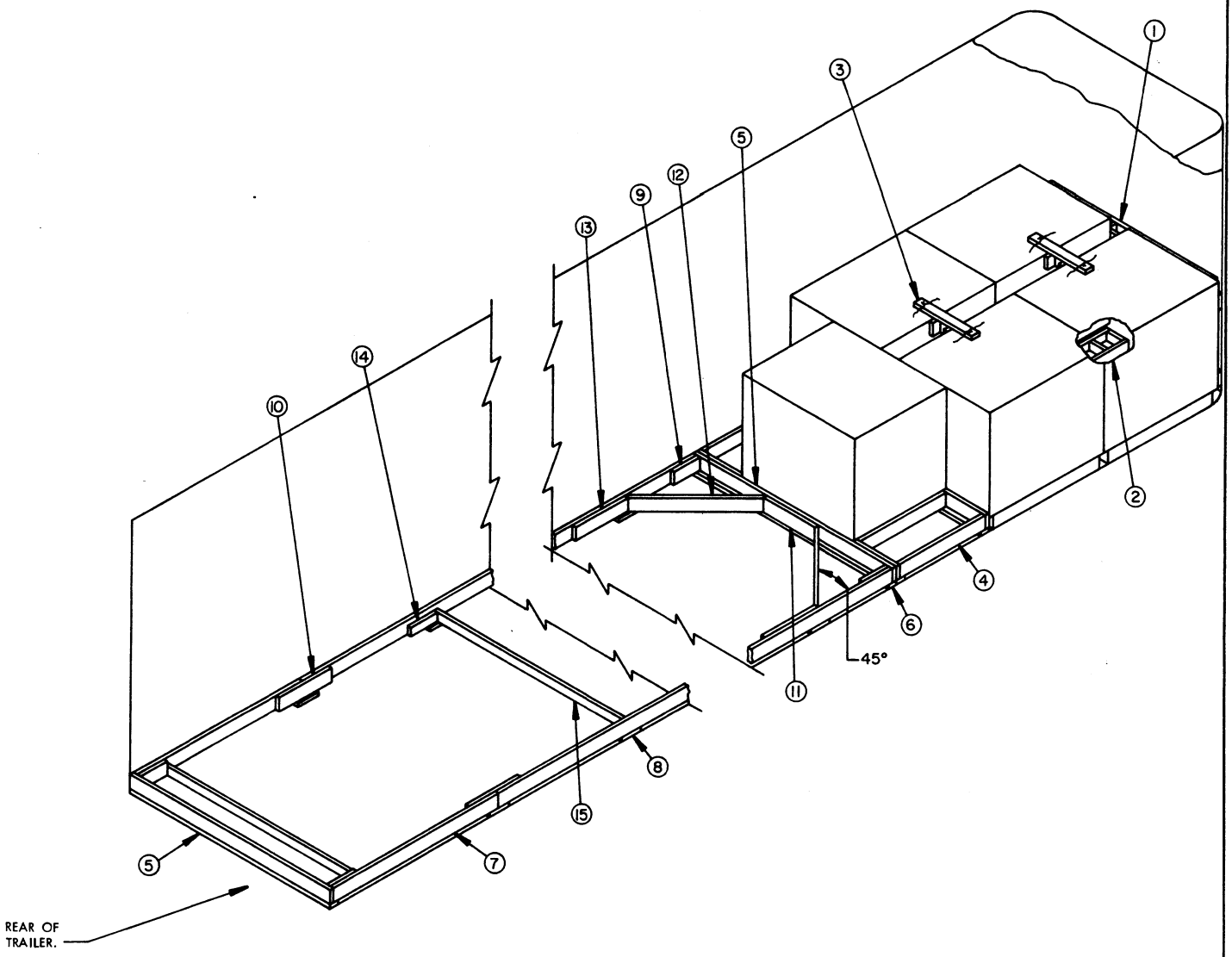
BILL OF MATERIAL

LUMBER	LINEAR FEET	BOARD FEET
2" X 4" 2" X 6"	105 12	70 12
NAILS	NO. REQD	POUNDS
10d (3")	170	2-3/4
WIRE, NO. 14 GAGE ---------- 60' REQD ---------- 1 LB CROSS MEMBER ---------- 15 REQD		

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	13	41,496 LBS
DUNNAGE		168 LBS
	TOTAL WEIGHT -------	41,664 LBS

FLAT/ROUTED DUNNAGE METHOD UNITS
13-UNIT LOAD IN A 40'-0" LONG BY 7'-8" WIDE TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES



ISOMETRIC VIEW

KEY NUMBERS

(1) FORWARD BLOCKING ASSEMBLY (1 REQD). SEE THE DETAIL ON PAGE 18. SEE GENERAL NOTE "K" ON PAGE 2.

(2) ANTI-SWAY BRACE (2 REQD). POSITION ON THE FLOOR BETWEEN LATERALLY ADJACENT PALLET UNITS. SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 19. SEE GENERAL NOTES "O" AND "P" ON PAGE 2, AND SPECIAL NOTE 2 ON PAGE 13.

(3) TOP-OF-LOAD ANTI-SWAY BRACE (2 REQD). SEE THE APPLICABLE DETAIL ON PAGE 20 OR 23. WIRE TIE TO THE TIEDOWN STRAPS ON UNIT AS SHOWN BY THE "TIE WIRE APPLICATION" DETAILS ON THOSE PAGES.

(4) SPACER ASSEMBLY (2 REQD). SEE THE "SPACER ASSEMBLY D" DETAIL ON PAGE 19. NAIL TO A HEADER, PIECE MARKED (5), W/2-10d NAILS. SEE SPECIAL NOTE 3 ON PAGE 13.

(5) HEADER, 2" X 6" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (2 REQD). SEE SPECIAL NOTES 9 THRU 11 ON PAGE 13.

(6) HEADER AND SIDE STRUT SUPPORT, 2" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (2 REQD). NAIL TO THE BOTTOM EDGE OF A HEADER, PIECE MARKED (5), W/1-10d NAIL EVERY 8".

(7) SIDE STRUT, 2" X 6" BY CUT-TO-FIT BETWEEN THE FORWARD AND REAR HEADERS, PIECES MARKED (5) (2 REQD). SEE SPECIAL NOTE 4 ON PAGE 13.

(8) RISER PIECE, 2" X 4" X 9" (AS REQD). CENTER UNDER THE JOINTS OF PIECES MARKED (12) AND (13), (14), AND (15), AND UNDER THE SPLICE OF PIECES MARKED (7) IF APPLICABLE. NAIL TO SIDE STRUT MARKED (7) W/2-10d NAILS.

(CONTINUED AT LEFT)

(KEY NUMBERS CONTINUED)

(9) POCKET CLEAT, 2" X 6" X 12" (4 REQD). NAIL TO A SIDE STRUT, PIECE MARKED (7), W/3-10d NAILS. TOENAIL TO THE ADJACENT HEADER, PIECE MARKED (5), W/2-12d NAILS.

(10) SPLICE PIECE, 2" X 6" X 24" (AS REQD). CENTER ON JOINT OF PIECES MARKED (7) AND NAIL TO SIDE STRUT MARKED (7) W/4-10d NAILS AT EACH END. SEE SPECIAL NOTE 4 ON PAGE 13.

(11) CENTER CLEAT, 2" X 6" X 24" (1 REQD). NAIL TO A HEADER, PIECE MARKED (5), W/6-10d NAILS.

(12) DIAGONAL BRACE, 2" X 6" BY CUT-TO-FIT (2 REQD). DOUBLE BEVEL EACH END WITH 45° CUTS. INSTALL AT A 45° ANGLE AS SHOWN AND TOENAIL TO THE ADJACENT HEADER AND SIDE STRUT, PIECES MARKED (5) AND (7), W/2-16d NAILS AT EACH END.

(13) BACK-UP CLEAT, 2" X 6" X 24" (2 REQD). NAIL TO A SIDE STRUT, PIECE MARKED (7), W/8-10d NAILS.

(14) STRUT BRACE RETAINING CLEAT, 2" X 4" X 12" (AS REQD). NAIL TO A SIDE STRUT, PIECE MARKED (7), W/3-10d NAILS. SEE SPECIAL NOTE 5 ON PAGE 13.

(15) STRUT BRACE, 2" X 4" BY TRAILER WIDTH MINUS 3" IN LENGTH (MINIMUM OF ONE REQUIRED). NAIL TO THE POCKET CLEATS, PIECES MARKED (9), AND/OR TO THE STRUT BRACE RETAINING CLEATS, PIECES MARKED (14), W/2-12d NAILS AT EACH END.

TYPICAL LTL (5-UNIT LOAD) IN A CONVENTIONAL VAN TRAILER

SPECIAL NOTES:

1. A 7'-8" (INSIDE DIMENSION) CONVENTIONAL VAN TRAILER IS SHOWN. TRAILERS OF OTHER WIDTHS CAN BE USED.

2. ANTI-SWAY BRACES AND TOP-OF-LOAD ANTI-SWAY BRACES, PIECES MARKED (2) AND (3), MUST BE POSITIONED BETWEEN LATERALLY ADJACENT PALLET UNITS. CRIB FILL MAY BE USED IF THE LATERAL VOID DOES NOT FACILITATE THE USE OF PIECES MARKED (2) AND (3). SEE THE "CRIB FILL" DETAIL ON PAGE 20.

3. THE SPACER ASSEMBLIES, PIECE MARKED (4), ARE SHOWN ONLY TO DEPICT A TYPICAL INSTALLATION. SPACER ASSEMBLIES WILL BE USED WHEN A PALLET UNIT IS OMITTED. THEY MAY OR MAY NOT BE REQUIRED, DEPENDING ON THE QUANTITY OF PALLET UNITS TO BE SHIPPED.

4. DEPENDING ON THE NUMBER OF UNITS BEING LOADED, EACH OF THE SIDE STRUTS, PIECES MARKED (7), MAY NEED TO BE FORMED FROM MORE THAN ONE PIECE OF MATERIAL. IF SUCH IS THE CASE, THE SIDE STRUTS MUST BE SPLICED. SPLICING CAN BE ACCOMPLISHED BY CENTERING A 2" X 6" X 24" PIECE ON THE JOINT OF THE SIDE STRUTS AND NAILING IT TO THE SIDE STRUTS W/4-10d NAILS AT EACH END. CAUTION: A RISER PIECE, PIECE MARKED (8), MUST BE POSITIONED UNDER EACH SPLICE JOINT. NOTE: IF DESIRED, THE STRUT BRACING PIECE (S), PIECE MARKED (15), MAY BE NAILED TO THE SPLICE PIECES IN LIEU OF USING ADDITIONAL STRUT BRACE RETAINING CLEATS, PIECES MARKED (14).

5. ALL LTL LOADS, REGARDLESS OF THEIR SIZE, REQUIRE ONE STRUT BRACE POSITIONED AT THE REAR OF THE TRAILER AND NAILED TO PIECE MARKED (9). IF THE SIDE STRUTS, PIECES MARKED (7), ARE LONGER THAN 7'-0", AN ADDITIONAL STRUT BRACE, PIECE MARKED (15), AND TWO (2) STRUT BRACE RETAINING CLEATS, PIECES MARKED (14), AND TWO (2) RISER PIECES MARKED (8), MUST BE APPLIED FOR EVERY 7'-0" OF SIDE STRUT LENGTH.

6. THE "K-BRACE" BLOCKING, SHOWN AS PIECES MARKED (5) THRU (15), IS ADEQUATE FOR RETAINING A MAXIMUM LTL LOAD OF 20,000 POUNDS.

7. REFER TO PAGE 17 GUIDANCE IN THE SHIPMENT OF PARTIAL PALLET UNITS.

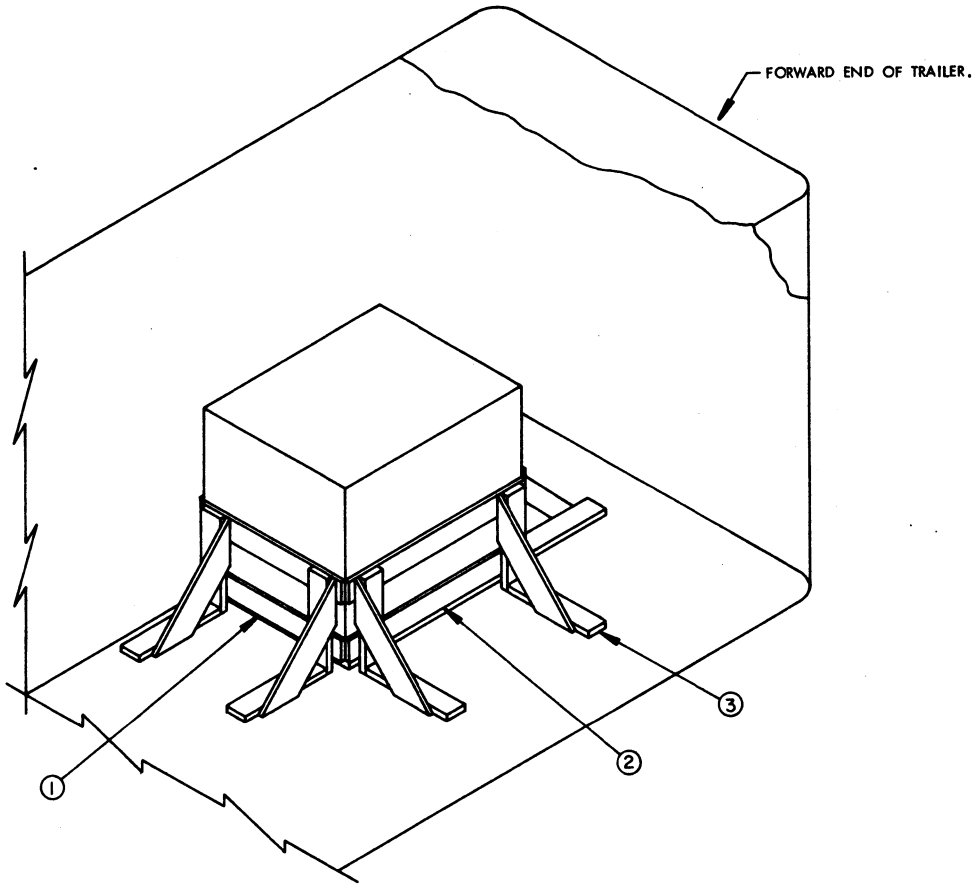
8. LEFTOVER CONTAINERS, MAY BE SECURED TO THE TOP OF A FULL PALLET UNIT FOR SHIPMENT. REFER TO THE "PROCEDURES FOR SHIPMENT OF LEFTOVER CONTAINERS" AND SPECIAL NOTE 4 ON PAGE 16.

9. TRAILERS EQUIPPED WITH ROLL-UP TYPE DOORS MAY BE USED; HOWEVER, SPECIAL REAR BLOCKING MUST BE INSTALLED. SEE THE "PROCEDURES FOR CONVENTIONAL VAN TRAILERS EQUIPPED WITH ROLL-UP TYPE DOORS" ON PAGES 24 AND 25 FOR GUIDANCE. THE NAILED-HEADER METHOD SHOWN ON PAGE 24 OR THE TYGARD METHOD SHOWN ON PAGE 25 SHOULD BE USED IF POSSIBLE IN LIEU OF PIECES MARKED (5) THRU (15) WHICH APPLY TO TRAILERS HAVING NON-NAILABLE FLOORS. NOTE THAT THE SPECIAL REAR BLOCKING FOR TRAILERS EQUIPPED WITH ROLL-UP TYPE DOORS MAY ALSO BE USED IN TRAILERS EQUIPPED WITH HINGED DOORS.

10. WHEN THE NAILED-HEADER METHOD OF BRACING SHOWN ON PAGE 24 IS APPLIED FOR THE BRACING OF THE DEPICTED 5-UNIT LOAD OR ANY ODD NUMBERED QUANTITY, OMIT THE REAR BLOCKING ASSEMBLY AND SUBSTITUTE 2" X 6" MATERIAL FOR THE 2" X 4" HEADER MATERIAL TO FACILITATE NAILING; NOTE THAT THE LENGTH OF THE SPACER ASSEMBLY, PIECE MARKED (4), WILL HAVE TO BE ADJUSTED TO ACCOMMODATE THE HEADER. WHEN SHIPPING AN EVEN NUMBERED QUANTITY, THE NAILED-HEADER METHOD WILL APPLY AS SHOWN.

11. IF DESIRED, IN TRAILERS EQUIPPED WITH NAILABLE FLOORS, THE NAILED HEADER METHOD OF REAR BLOCKING MAY BE USED IN LIEU OF THE K-BRACE BLOCKING SHOWN AS PIECES MARKED (5) THRU (15). REFER TO PAGE 24 FOR GUIDANCE. AS AN ALTERNATIVE IN NAILABLE FLOOR TRAILERS, OR IN TRAILERS HAVING NON-NAILABLE FLOORS, THE TYGARD METHOD DEPICTED ON PAGE 25 MAY BE USED.

12. THE DEPICTED PROCEDURES ARE APPLICABLE FOR ALL OF THE UNITS SHOWN ON PAGE 3 OF THIS DRAWING.



ISOMETRIC VIEW

SPECIAL NOTES:

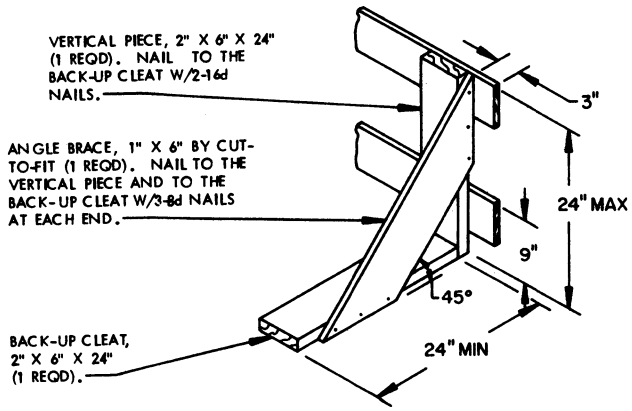
1. A 7'-6" WIDE (INSIDE DIMENSION) TRAILER WHICH HAS A NAILABLE FLOOR IS SHOWN. TRAILERS OF OTHER WIDTHS CAN BE USED.
2. THE POSITIONING OF A SINGLE PALLET UNIT IS OPTIONAL. IF THE TRAILER HAS A SQUARE FRONT, THE TWO (2) FORWARD LTL BRACES MAY BE OMITTED AND THE UNIT POSITIONED AGAINST THE END WALL.
3. MORE THAN ONE PALLET UNIT CAN BE SHIPPED PROVIDING THE CAPACITY OF THE LTL BRACES IS NOT EXCEEDED. THE LOAD SHOULD BE FORMED IN ROWS, WITH THE UNITS POSITIONED AGAINST OPPOSITE SIDEWALLS.
4. EACH LTL BRACE AS APPLIED FOR LONGITUDINAL BRACING WILL SUPPORT 2,000 POUNDS OF LADING, HOWEVER, NOT LESS THAN TWO (2) BRACES WILL BE USED AGAINST EACH PALLET UNIT ACROSS THE WIDTH OF THE TRAILER. ADDITIONAL BRACES MAY BE INSTALLED FOR THE RETENTION OF A HEAVIER LOAD.

KEY NUMBERS

(1) LOAD BEARING PIECE, 1" X 6" X 42" (4 REQD). LOCATE AT THE HEIGHT AS SPECIFIED IN THE "LTL BRACE" DETAIL BELOW. NAIL TO THE LTL BRACES W/4-6d NAILS AT EACH JOINT. SEE GENERAL NOTE "O" ON PAGE 2.

(2) LOAD BEARING PIECE, 1" X 6" X 52" (2 REQD). LOCATE AT THE HEIGHTS AS SPECIFIED IN THE "LTL BRACE" DETAIL BELOW. NAIL TO THE LTL BRACES W/4-6d NAILS AT EACH JOINT.

(3) LTL BRACE (6 REQD). SEE THE "LTL BRACE" DETAIL BELOW. NAIL TO THE TRAILER FLOOR W/10-10d NAILS. SEE SPECIAL NOTE 2 AT LEFT.



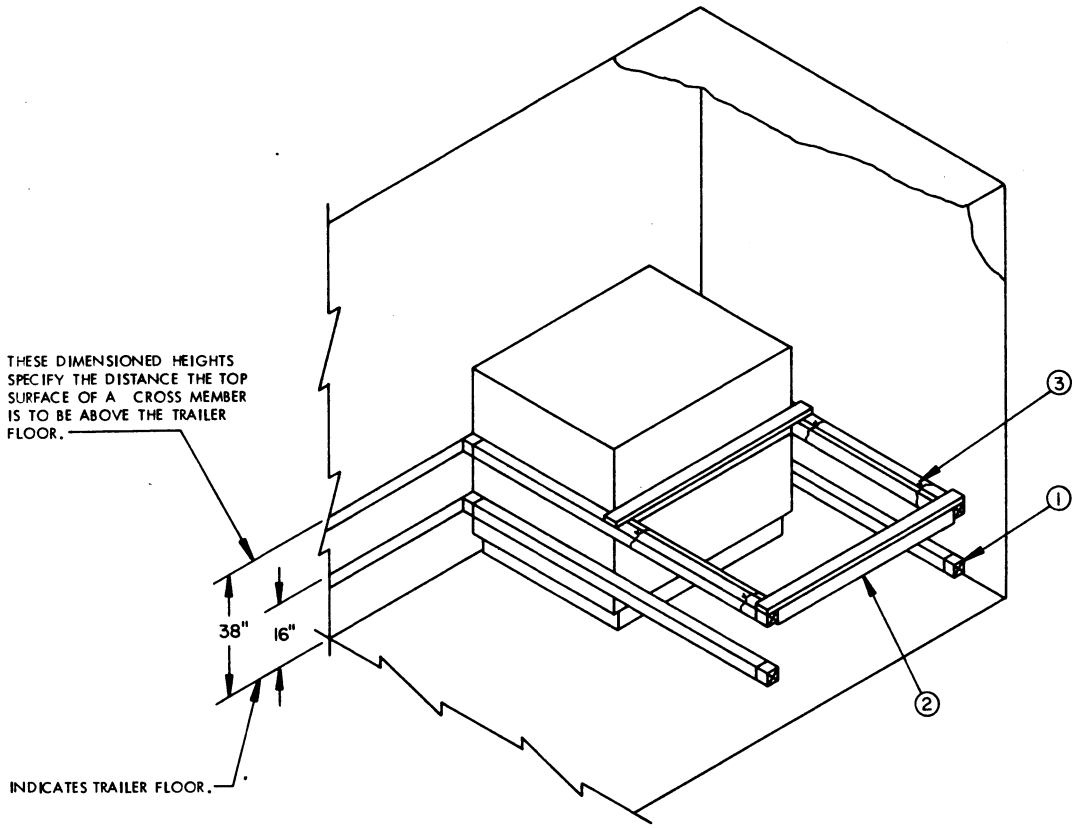
LTL BRACE

TYPICAL LTL (1-UNIT LOAD) IN A CONVENTIONAL VAN TRAILER

SUPERSEDES SMCAC FORM 6, 1 NOV 86

SMCAC FORM 6-1, 1 NOV 87

PROJECT CA 226/13-85



ISOMETRIC VIEW

SPECIAL NOTES:

1. A 7'-6" WIDE (INSIDE DIMENSION) VAN TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES IS SHOWN. TRAILERS OF OTHER WIDTHS MAY BE USED.
2. A TYPICAL LTL LOAD OF ONE (1) PALLETIZED UNIT SHOWN. IF TWO (2) PALLETIZED UNITS ARE TO BE TRANSPORTED, POSITION THE UNITS TWO ACROSS THE WIDTH OF THE TRAILER. OMIT THE SPACER ASSEMBLY AND TIE WIRES, SHOWN AS PIECES MARKED (2) AND (3). NOTE: WHEN LOADING TWO (2) PALLETIZED UNITS ACROSS THE WIDTH OF THE TRAILER, POSITION THE UNITS AGAINST THE FORWARD END WALL (UNLESS TRAILER HAS ROUNDED CORNERS) AND OMIT THE TWO CROSS MEMBERS AT THE FORWARD END. INSTALL CRIB FILL, OR ANTI-SWAY BRACES AND TOP-OF-LOAD ANTI-SWAY BRACES, AS SPECIFIED BY SPECIAL NOTES 2 AND 3 ON PAGE 11.
3. THE DEPICTED PROCEDURES ARE APPLICABLE FOR ALL OF THE UNITS SHOWN ON PAGE 3 OF THIS DRAWING.

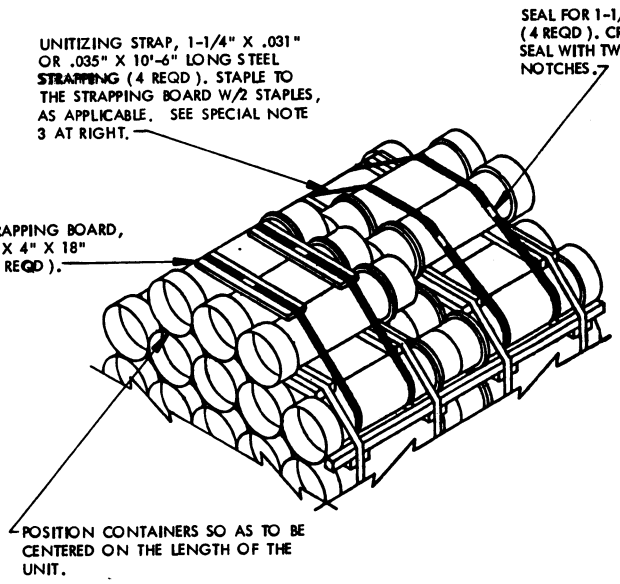
KEY NUMBERS

(1) CROSS MEMBER (4 REQD). POSITION AT THE HEIGHT AS SPECIFIED BY THE ISOMETRIC VIEW ABOVE. SEE GENERAL NOTES "D" AND "K" ON PAGE 2.

(2) SPACER ASSEMBLY (1 REQD). SEE THE "SPACER ASSEMBLY C" DETAIL ON PAGE 19.

(3) TIE WIRE, NO. 14 GAGE WIRE 30" LONG (4 REQD). INSTALL TO FORM A COMPLETE LOOP AROUND THE CROSS MEMBERS AND SPACER ASSEMBLY. BRING THE ENDS TOGETHER AND TWIST TAUT. SECURE TO THE SPACER ASSEMBLY WITH A PARTIALLY DRIVEN 10d NAIL BENT OVER THE WIRE, OR WITH A STRAP STAPLE.

TYPICAL LTL (1-UNIT LOAD) IN A TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES



SECUREMENT OF FIVE CONTAINERS

FLAT DUNNAGE METHOD SHOWN AS TYPICAL. SEE SPECIAL NOTE 3 AT RIGHT.

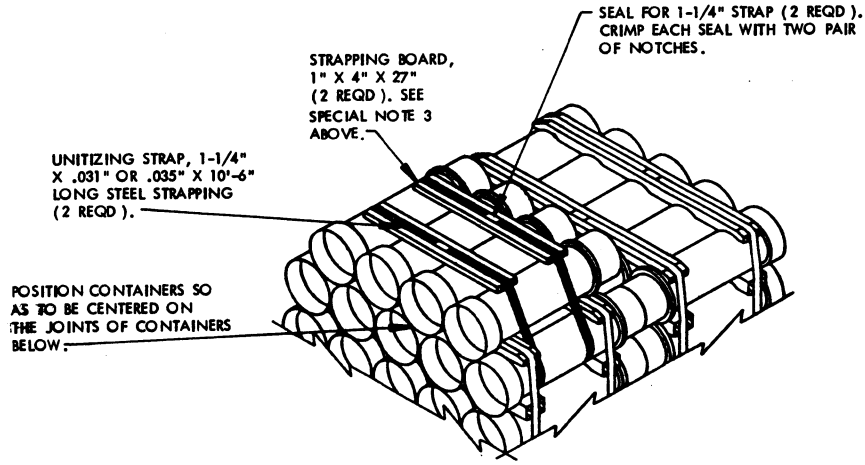
SPECIAL NOTES:

1. SHIPMENTS OF COMPLETE ROUNDS SHOULD CONSIST OF FULL-HEIGHT AND FULL-LAYER UNITS TO THE MAXIMUM EXTENT POSSIBLE, HOWEVER, THE END OF A LOT, OR THE QUANTITY OF ITEMS NEEDED TO FILL A REQUISITION, MAY NECESSITATE THE SHIPMENT OF ONE OR MORE LEFTOVER CONTAINERS. LEFTOVER CONTAINERS ARE DESCRIBED AS A QUANTITY OF CONTAINERS WHICH IS INSUFFICIENT TO FORM A FULL-LAYERED PARTIAL UNIT FOR SECUREMENT ON TOP OF A FULL PALLET UNIT AS SHOWN ON PAGE 17.

2. SHIPMENT OF LEFTOVER CONTAINERS IS APPLICABLE FOR CONUS AND OCONUS MOTOR CARRIER SHIPMENTS FROM DEPOT TO DEPOT OR FROM DEPOT TO POSTS, CAMPS, AND STATIONS, OR UPON APPROVAL FROM HIGHER HEADQUARTERS, FOR SHIPMENTS FROM LOAD, ASSEMBLE AND PACK PLANTS TO DEPOTS. CAUTION: A LOAD CONTAINING LEFTOVER CONTAINERS IN AN AMOUNT WHICH IS LESS THAN A FULL LAYER, AND SECURED TO THE TOP OF A FULL OR PARTIAL UNIT, MUST NOT BE DESTINED FOR SHIPMENT OVERSEAS BY WATER CARRIER.

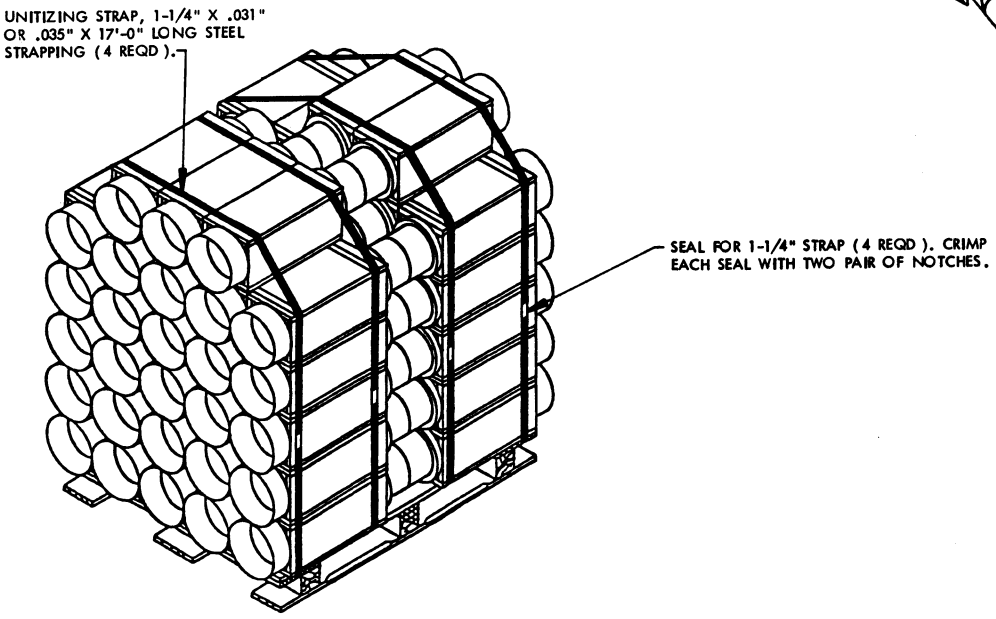
3. FOR THE FLAT DUNNAGE METHOD UNITS, THE UNITIZING STRAP MUST NOT GO AROUND THE INTERMEDIATE DUNNAGE ASSEMBLY; THE STRAP MUST BE THREADED BEHIND THE 2" X 2" PIECES OF THE ASSEMBLIES AS SHOWN AT LEFT. NOTE THAT STRAPPING BOARDS ARE REQUIRED WHEN SECURING THREE OR MORE CONTAINERS TO A FULL HEIGHT PALLET UNIT OF FLAT OR ROUTED DUNNAGE METHOD UNITS ONLY.

4. THE PROCEDURES ON THIS PAGE ARE APPLICABLE FOR THE SHIPMENT OF LEFTOVER CONTAINERS IN ANY OF THE LOADS DEPICTED HEREIN. LEFTOVER CONTAINERS IN AN AMOUNT NOT TO EXCEED TEN (10) FOR THE PROTECTIVE COVER METHOD UNIT, OR NOT TO EXCEED EIGHT (8) FOR THE FLAT/ROUTED DUNNAGE METHOD UNITS, MAY BE SECURED TO THE TOP OF A FULL PALLET UNIT FOR SHIPMENT.

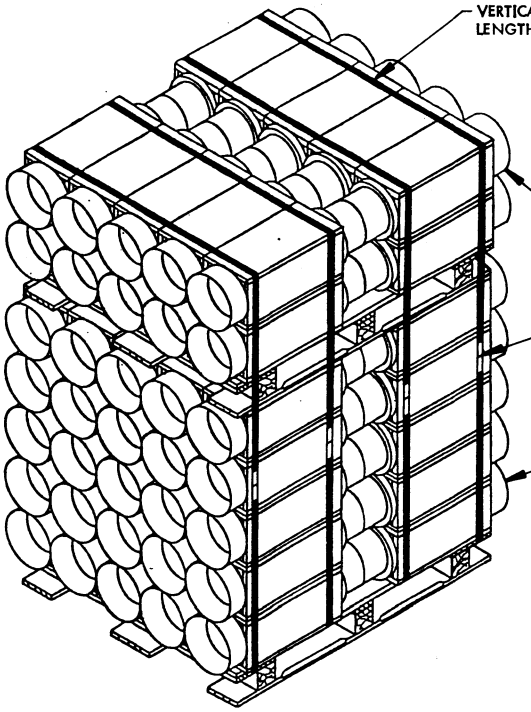


SECUREMENT OF FOUR CONTAINERS

ROUTED DUNNAGE METHOD UNIT SHOWN AS TYPICAL.



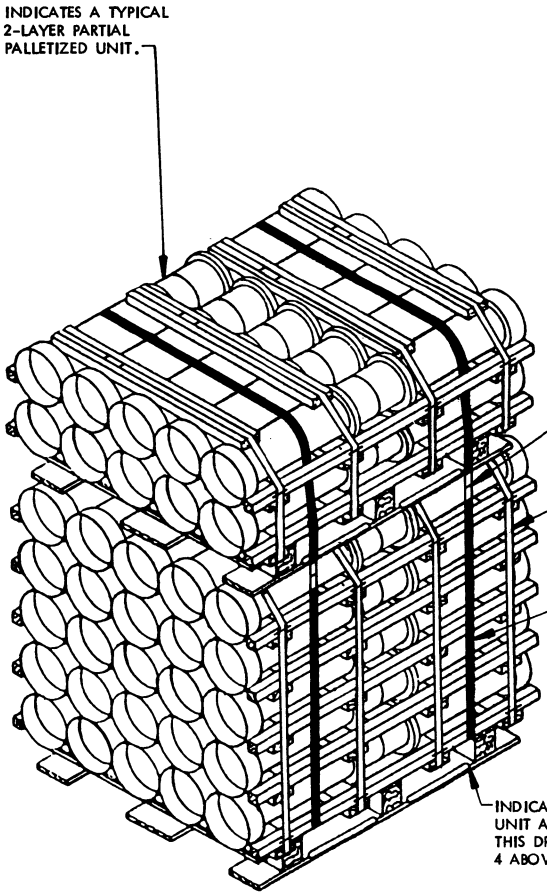
SECUREMENT OF FIVE CONTAINERS



SECUREMENT OF A PARTIAL PALLET UNIT
ON TOP OF A FULL PALLET UNIT

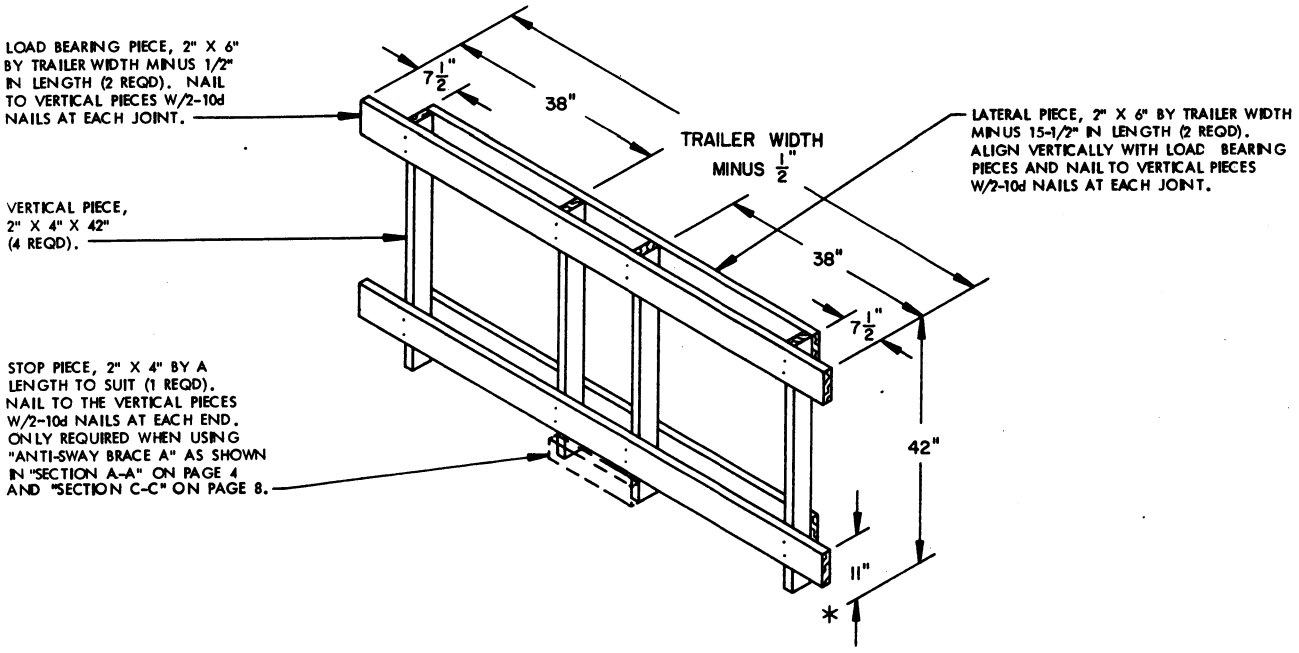
SPECIAL NOTES:

1. THE VIEWS SHOWN ON THIS PAGE DEPICT PARTIAL 2-LAYER PALLET UNITS POSITIONED ON TOP OF FULL-HEIGHT PALLET UNITS AND UNITIZED WITH TWO VERTICAL UNITIZING STRAPS. PLACEMENT WITHIN THE LOAD IS OPTIONAL, EXCEPT THAT IT WILL NOT BE POSITIONED ADJACENT TO THE SPACER ASSEMBLIES, PIECES MARKED ④ AND ⑧ IN THE LOAD ON PAGE 4, IN THE REAR LOAD UNIT, OR WITHIN A GROUP WHICH IS BUNDLED TOGETHER.
2. SHIPMENTS OF PALLET UNITS SHOULD CONSIST OF FULL-HEIGHT AND FULL-LAYER UNITS TO THE MAXIMUM EXTENT POSSIBLE, HOWEVER, THE END OF A LOT, OR THE QUANTITY OF ITEMS NEEDED TO FILL A REQUISITION MAY NECESSITATE THE SHIPMENT OF ONE OR MORE LESS-THAN-FULL PALLET UNITS WITHIN A LOAD. THE PROCEDURES ON THIS PAGE AND ON PAGE 16 ARE PRESENTED AS GUIDANCE IN THE SHIPMENT OF THESE PARTIAL UNITS.
3. THE "SHIPMENT OF A PARTIAL PALLET UNIT" PROCEDURES ON THIS PAGE ARE APPLICABLE FOR LOADS IN CONVENTIONAL TYPE VAN TRAILERS AND IN TRAILERS EQUIPPED WITH MECHANICAL BRACING DEVICES.
4. ONLY THE PROTECTIVE COVER METHOD UNIT AND THE FLAT DUNNAGE METHOD UNITS ARE SHOWN, HOWEVER, THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR THE ROUTED DUNNAGE METHOD UNIT SHOWN ON PAGE 3 OF THIS DRAWING. UNITIZE AS SHOWN FOR THE FLAT DUNNAGE METHOD UNIT BELOW.



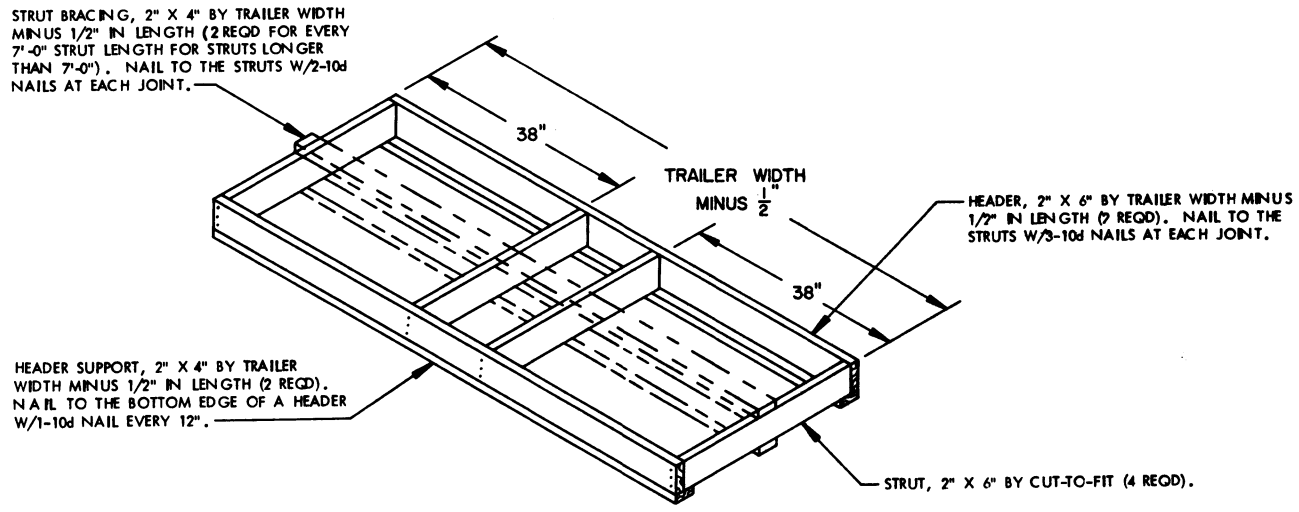
SECUREMENT OF A PARTIAL PALLET UNIT
ON TOP OF A FULL PALLET UNIT

SHIPMENT OF A PARTIAL PALLET UNIT

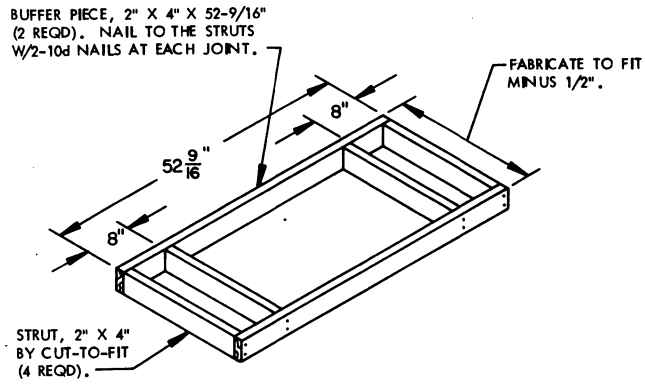


FORWARD BLOCKING ASSEMBLY

THIS ASSEMBLY IS DESIGNED FOR USE AT THE FRONT END OF A TRAILER HAVING ROUNDED CORNERS, AND IS APPLICABLE FOR A CORNER RADIUS OF NOT MORE THAN 6-1/2". IF THE RADIUS IS FROM 6-1/2" TO 8", 2" X 6" VERTICAL PIECES WILL BE USED IN LIEU OF THE 2" X 4" PIECES. IF THE TRAILER TO BE LOADED HAS LARGE-ANGLED CORNERS AT THE FORWARD END, REFER TO PAGE 26 FOR GUIDANCE.

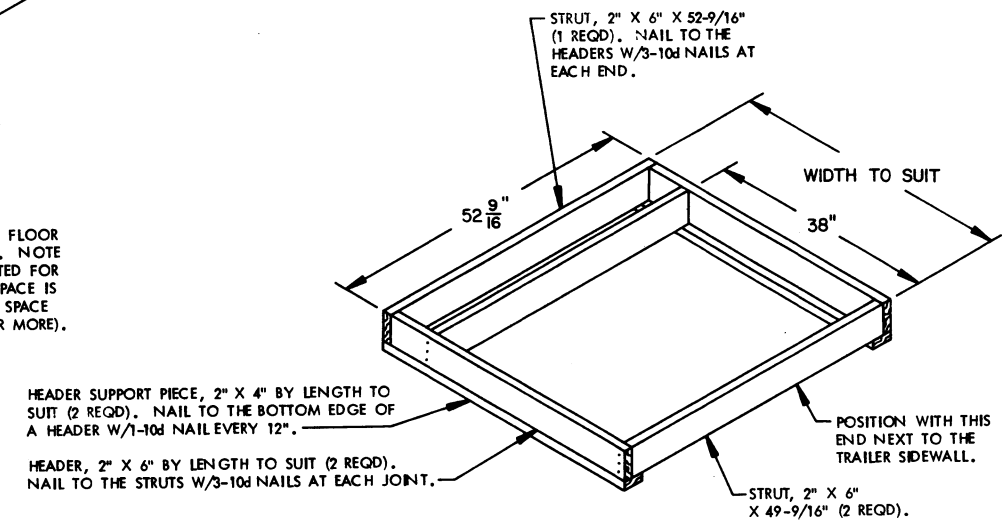


SPACER ASSEMBLY A



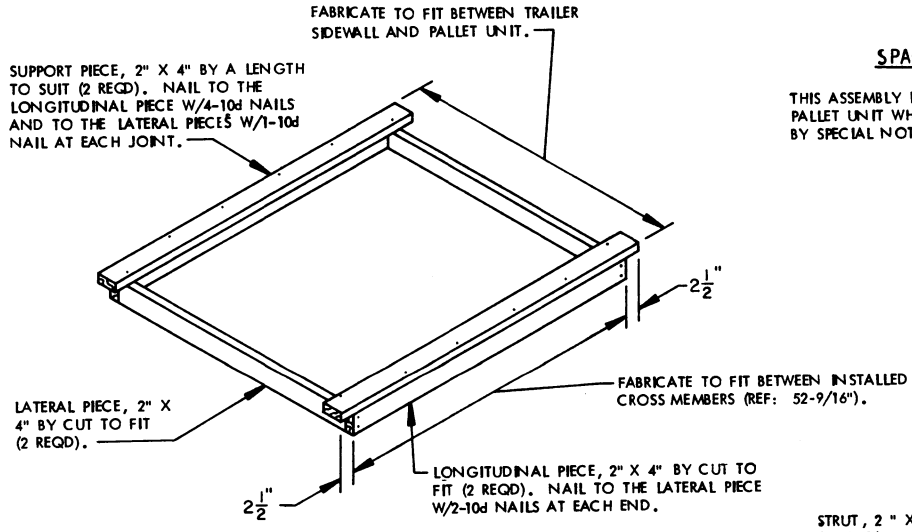
ANTI-SWAY BRACE A

THIS ASSEMBLY IS DESIGNED FOR USE ON THE FLOOR BETWEEN LATERALLY ADJACENT PALLET UNITS. NOTE THAT AN ASSEMBLY NEED NOT BE CONSTRUCTED FOR A TIGHT FIT; UP TO ONE HALF INCH (1/2") SPACE IS PERMITTED. (ONLY REQD WHEN THE LATERAL SPACE BETWEEN UNITS MEASURES SIX INCHES (6") OR MORE).



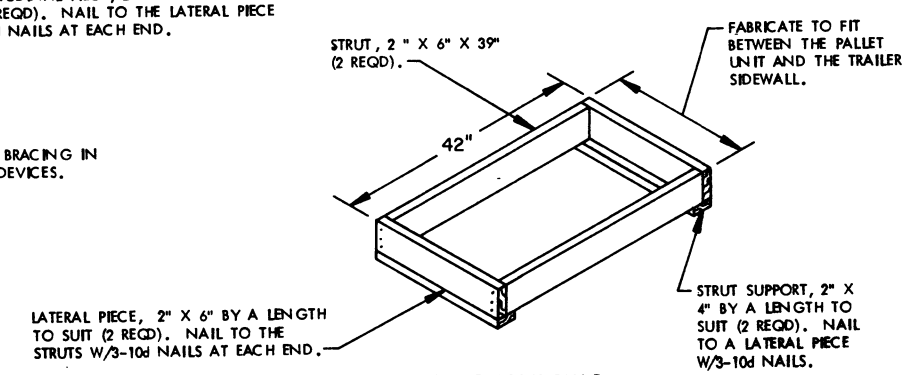
SPACER ASSEMBLY B

THIS ASSEMBLY IS DESIGNED FOR USE IN THE PLACE OF A PALLET UNIT WHICH IS OMITTED FROM A LOAD AS SPECIFIED BY SPECIAL NOTE 5 ON PAGE 9.



SPACER ASSEMBLY C

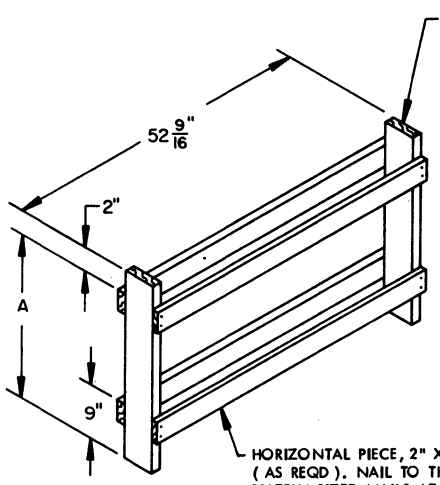
THIS ASSEMBLY IS DESIGNED FOR USE AS LATERAL BRACING IN A TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES.



SPACER ASSEMBLY D

THIS ASSEMBLY IS DESIGNED FOR USE AS LATERAL BRACING OF A SINGLE PALLET UNIT AS SHOWN IN THE LOAD ON PAGE 12.

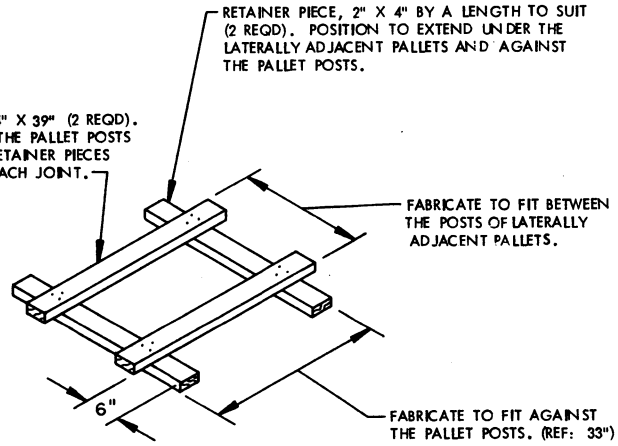
CRIB FILL CHART	
PALLET UNIT TYPE	DIM A
PROTECTIVE COVER METHOD	33"
ROUTED DUNNAGE METHOD	32"
FLAT DUNNAGE METHOD	34"



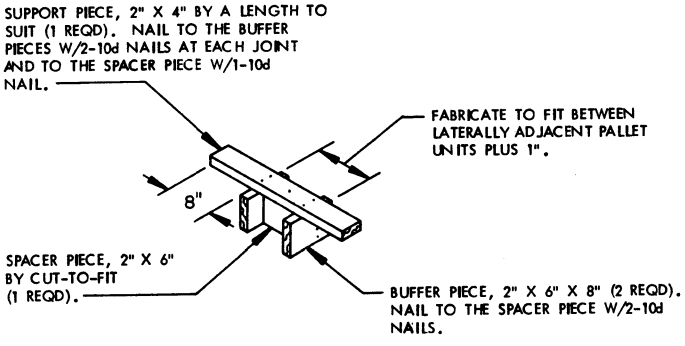
CRIB FILL

NOTE:

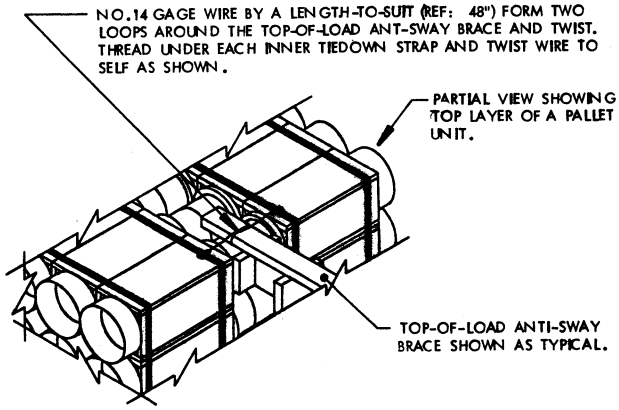
THE CRIB FILL ASSEMBLY CONSISTS OF 1" X 6" AND 2" X 6" MATERIAL, AND IS DESIGNED FOR USE AS SHOWN BY THE TYPICAL SECTION VIEW ON PAGE 5. THE WIDTH OF THE VERTICAL PIECES, AND/OR THE QUANTITY AND THICKNESS OF THE HORIZONTAL PIECES CAN BE ALTERED TO FILL THE LATERAL VOID BETWEEN UNITS. NOTE THAN AN ASSEMBLY NEED NOT BE CONSTRUCTED FOR A TIGHT FIT; UP TO ONE INCH (1") SPACE IS PERMITTED.



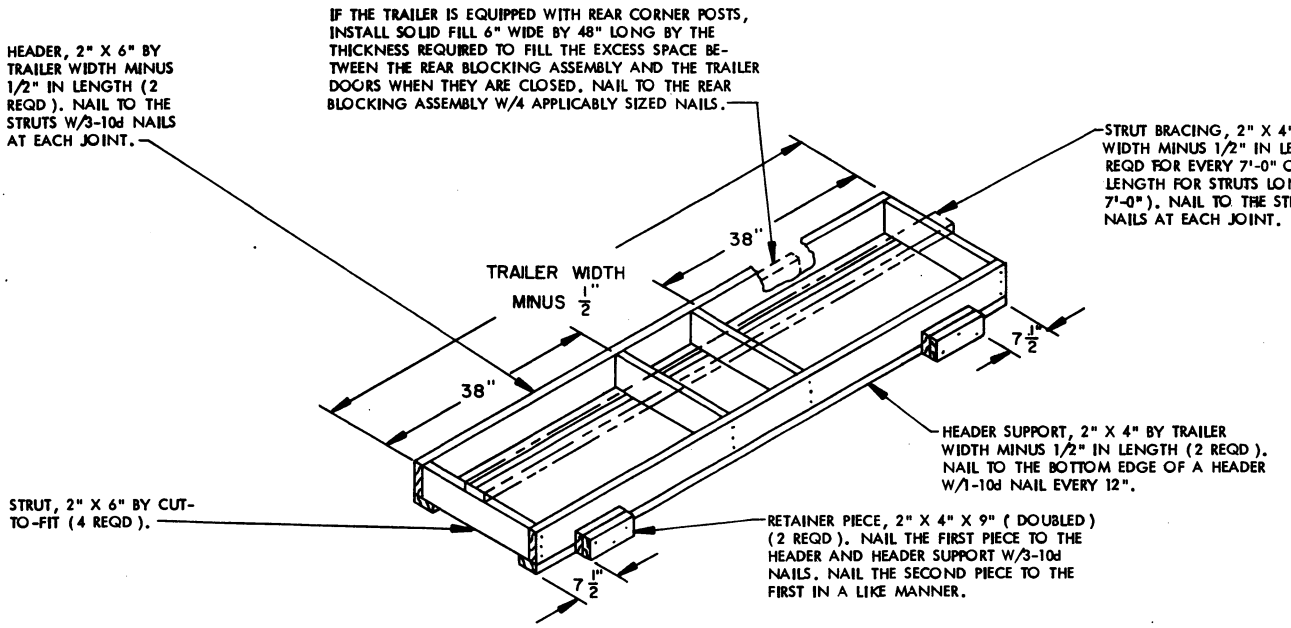
ANTI-SWAY BRACE B



TOP-OF-LOAD ANTI-SWAY BRACE A

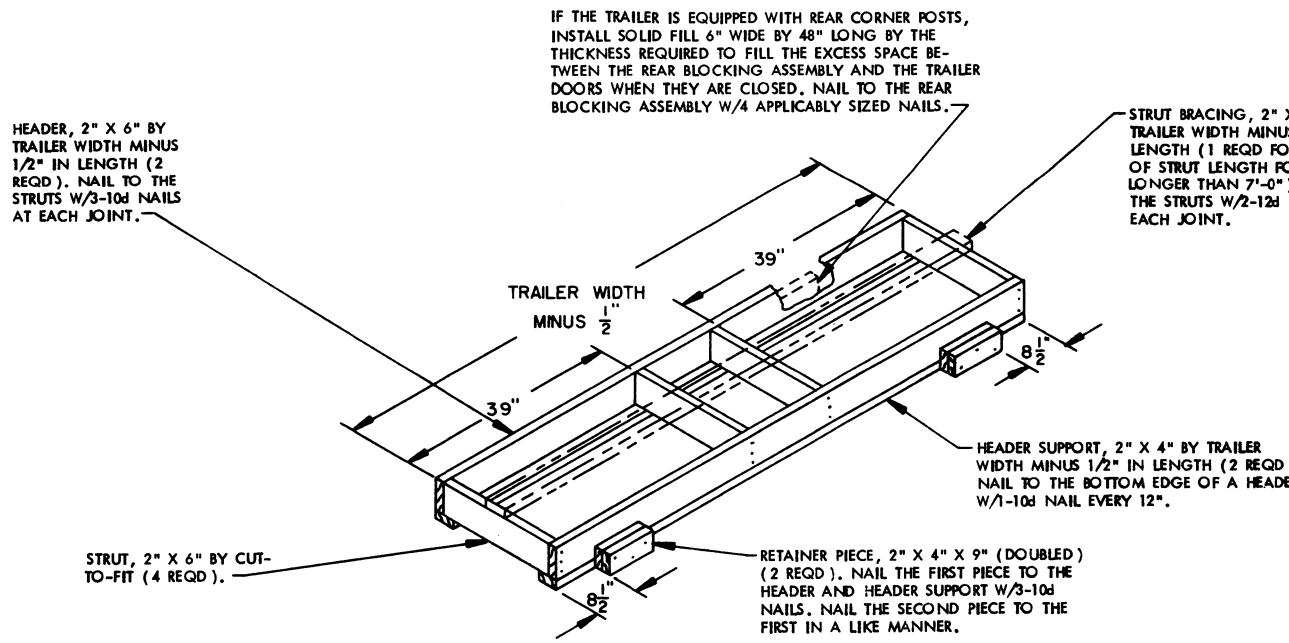


TIE WIRE APPLICATION A



REAR BLOCKING ASSEMBLY A

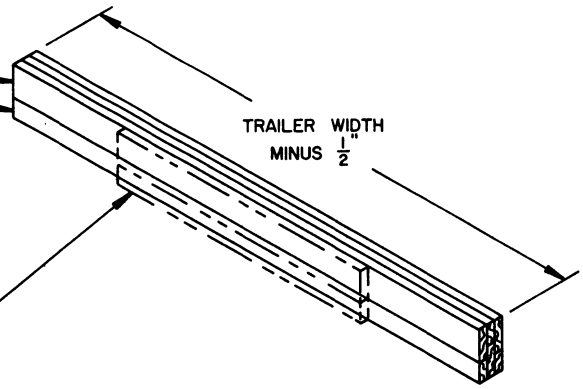
THIS ASSEMBLY IS DESIGNED FOR USE AT THE REAR OF A LOAD OF PROTECTIVE COVER METHOD UNITS, OR ROUTED DUNNAGE METHOD UNITS WHEN THE EXCESS SPACE BETWEEN THE LADING AND THE TRAILER DOORS IS 9" OR GREATER. NOTE THAT THIS VIEW IS ROTATED 90° FROM THE POSITION IN WHICH THE ASSEMBLY WILL BE INSTALLED.



REAR BLOCKING ASSEMBLY B

THIS ASSEMBLY IS DESIGNED FOR USE AT THE REAR OF A LOAD OF FLAT DUNNAGE METHOD UNITS. WHEN THE EXCESS SPACE BETWEEN THE LADING AND THE TRAILER DOORS IS 9" OR GREATER. NOTE THAT THIS VIEW IS ROTATED 90° FROM THE POSITION IN WHICH THE ASSEMBLY WILL BE INSTALLED.

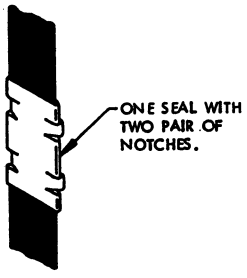
SOLID FILL, 4" AND 6" WIDE MATERIAL BY TRAILER WIDTH MINUS 1/2" IN LENGTH BY THE THICKNESS REQUIRED TO CONTACT REAR CORNER POSTS OR TO CONTACT REAR DOORS OF THE TRAILER WHEN THEY ARE CLOSED. POSITION PIECES ON EDGE, ONE ON TOP OF THE OTHER AS SHOWN, AND LAMINATE W/1-10d NAIL EVERY 12".



IF THE TRAILER IS EQUIPPED WITH REAR CORNER POSTS, INSTALL SOLID FILL, 4" AND 6" WIDE BY 48" LONG BY THE THICKNESS REQUIRED TO FILL THE EXCESS SPACE BETWEEN THE REAR BLOCKING AND THE DOORS ON THE TRAILER WHEN THEY ARE CLOSED. POSITION PIECES ON EDGE, ONE ON TOP OF THE OTHER AS SHOWN, AND NAIL TO THE REAR BLOCKING W/4 APPLICABLY SIZED NAILS.

REAR BLOCKING ASSEMBLY C

THIS REAR BLOCKING IS DESIGNED FOR USE AT THE REAR END OF A LOAD WHEN THE SPACE BETWEEN THE LADING AND THE TRAILER DOORS IS LESS THAN 9".

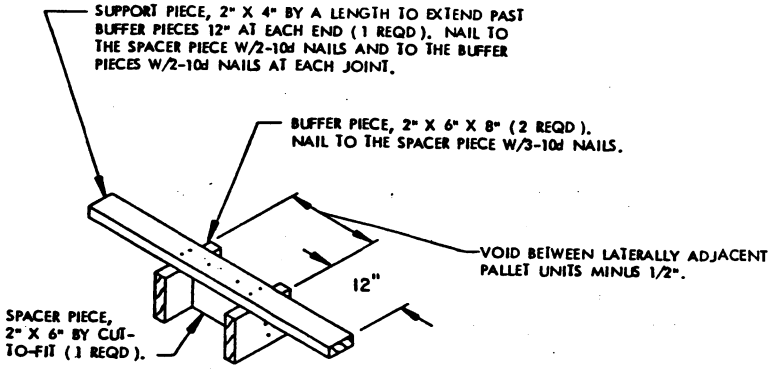


STRAP JOINT A

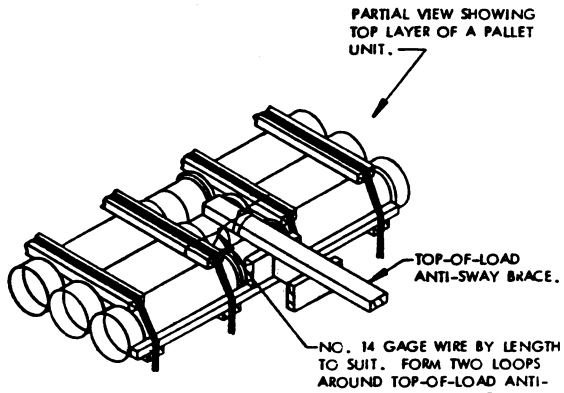
METHOD OF SECURING A STRAP JOINT WHEN USING A NOTCH-TYPE SEALER.

STRAP JOINT B

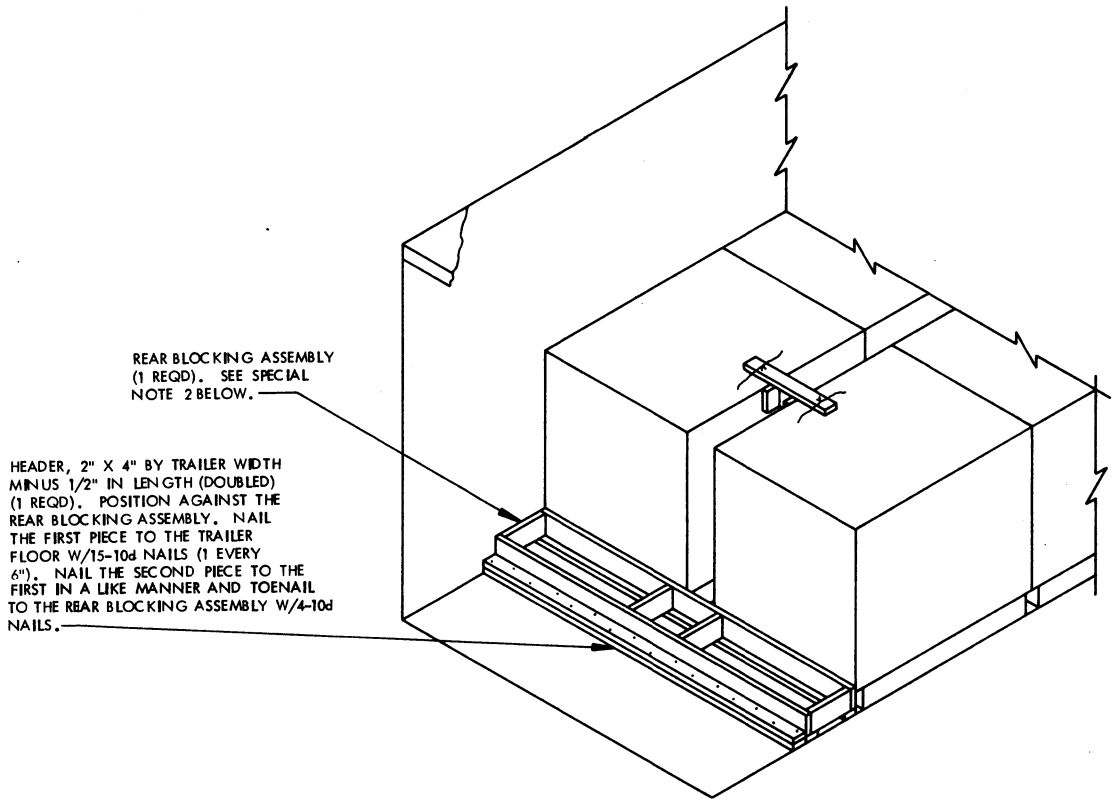
METHOD OF SECURING A STRAP JOINT WHEN USING A CRIMP-TYPE SEALER.



TOP-OF-LOAD ANTI-SWAY BRACE B



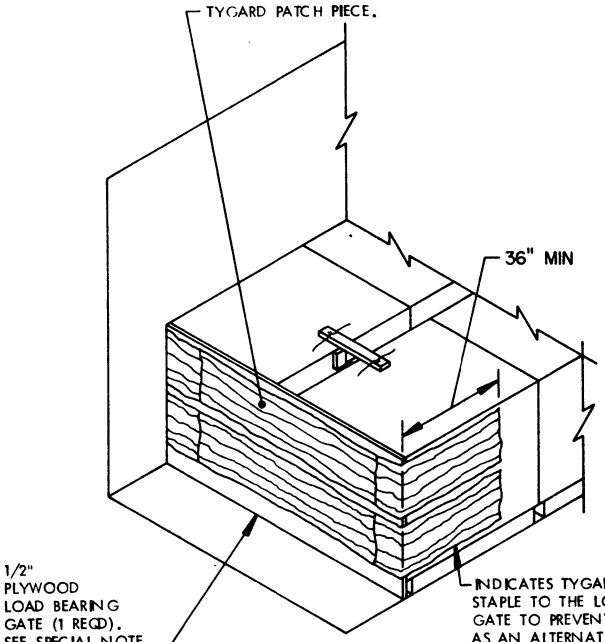
TIRE WIRE APPLICATION B



NAILED-HEADER METHOD

SPECIAL NOTES:

1. THE NAILED-HEADER METHOD OF REAR BLOCKING DEPICTED ABOVE CAN ONLY BE USED IN TRAILERS HAVING A NAILABLE FLOOR AREA BETWEEN THE LADING AND THE METAL THRESHOLD, OR A THRESHOLD PLATE IF THE TRAILER IS SO EQUIPPED, OF AT LEAST FOURTEEN INCHES (14").
2. REAR BLOCKING ASSEMBLY "A" IS SHOWN FOR A TYPICAL INSTALLATION. CONSTRUCT THE ASSEMBLY USING 6" (MINIMUM) LONG STRUTS.
3. THE NAILED-HEADER METHOD OF REAR BLOCKING IS ADEQUATE FOR THE RETENTION OF THE MAXIMUM WEIGHT LOAD.
4. THE NAILED-HEADER METHOD, ALTHOUGH DESIGNED ESPECIALLY FOR TRAILERS HAVING ROLL-UP TYPE DOORS, MAY ALSO BE USED IN TRAILERS EQUIPPED WITH HINGED DOORS.



TYGARD METHOD A

SPECIAL NOTES:

1. THE TYGARD METHOD OF REAR BLOCKING DEPICTED, CAN ONLY BE USED IN TRAILERS WHICH HAVE REASONABLY SMOOTH AND ADEQUATELY SECURED SIDEWALL PANELS IN THE AREA WHERE THE TYGARD MATERIAL IS TO BE APPLIED. NOTE THAT TYGARD MATERIAL MUST BE INSTALLED AT TWO LEVELS ON THE REAR LOAD UNIT.

2. A 48" HIGH PLYWOOD GATE MUST BE INSTALLED AT THE REAR OF THE LOAD TO PROVIDE A SMOOTH SURFACE FOR THE TYGARD MATERIAL TO EXTEND AROUND. IF THE REAR LOAD UNIT IS 2-WIDE, INSTALL A GATE WHICH IS TRAILER WIDTH MINUS 1/2" IN LENGTH AS SHOWN BY THE "TYGARD METHOD A" AT LEFT. IF THE REAR LOAD UNIT IS 1-WIDE, ROTATE THE PALLET, INSTALL ONE (1) PALLET WIDTH GATE, AND ONE (1) TRAILER WIDTH MINUS 1/2" IN LENGTH GATE, AS SHOWN BY THE "TYGARD METHOD B" DETAIL BELOW.

3. THE TYGARD MATERIAL AND THE ADHESIVE FOR ATTACHING IT ARE COMMERICAL PRODUCTS. FOR A SOURCE OF SUPPLY, CONTACT WALNUT INDUSTRIES, INC, 1344 ADAMS ROAD, PO BOX "E", BENSALEM, PA 19020-0860, PHONE 1-800-523-6536. APPLICATION INSTRUCTIONS AND GUIDANCE CAN ALSO BE OBTAINED FROM THAT OFFICE.

4. THE TYGARD METHOD, ALTHOUGH ESPECIALLY FOR TRAILERS HAVING ROLL-UP TYPE DOORS, MAY ALSO BE USED IN TRAILERS EQUIPPED WITH HINGED DOORS.

5. NOTICE: IF THE AREA OF A SIDEWALL WHERE THE TYGARD SHOULD BE ATTACHED IS ROUGH AND/OR BROKEN, THE APPLICABLE PIECES (S) OF TYGARD CAN BE LENGTHENED A SUITABLE AMOUNT AND ATTACHED TO THE SIDEWALL AHEAD OF THE INDICATED PREFERRED LOCATION.

6. TYGARD MATERIAL MUST BE APPLIED TO THE WALL IN SUCH A LONGITUDINAL LOCATION THAT IT WILL HAVE A PALLET UNIT BEARING AGAINST IT. IF A SHIPMENT CONTAINS AN ODD NUMBER OF PALLET UNITS, THE ODD UNIT MUST BE TURNED 90° AND CENTERED ACROSS THE WIDTH OF THE TRAILER AS SHOWN IN THE LOAD ON PAGE 8, AND AS SHOWN BY THE "TYGARD METHOD B" DETAIL BELOW. THE TYGARD MATERIAL WILL BE APPLIED TO DIRECTLY OPPOSITE PORTIONS OF THE TRAILER SIDEWALL. IT MUST BE APPLIED TO EXTEND AT LEAST 36" FORWARD OF THE LAST PALLET UNIT CONTACTING THE SIDEWALL ON EACH SIDE OF THE LOAD.

RECOMMENDED EQUIPMENT/INSTALLATION PROCEDURES

EQUIPMENT REQUIRED

PAINT ROLLER, LATEX
PAINT ROLLER PAN
TENSIONING ROD/TOOL
PRESSURE ROLLER
RATCHET WRENCH (12" TO 15" HANDLE)
OPEN END OR BOX WRENCH (12" TO 15" HANDLE)
SCISSORS OR KNIFE
TYGARD (15" WIDE ROLL)
TYGARD ADHESIVE

BASIC INSTALLATION GUIDANCE

1. CUT TO LENGTH THE REQUIRED NUMBER OF TYGARD PIECES (FROM 2 TO 8 DEPENDING UPON THE LOAD CONFIGURATION) FOR ATTACHMENT TO THE TRAILER SIDEWALL. PIECES WILL BE OF A LENGTH AS REQUIRED TO PROVIDE PROPER BONDING TO THE TRAILER SIDEWALL AND TO EXTEND 60" ACROSS THE REAR OF THE LOAD. ALSO, CUT 72" LONG "PATCH" PIECES OF TYGARD MATERIAL, ONE FOR EACH SET OF TWO PIECES PREVIOUSLY CUT.

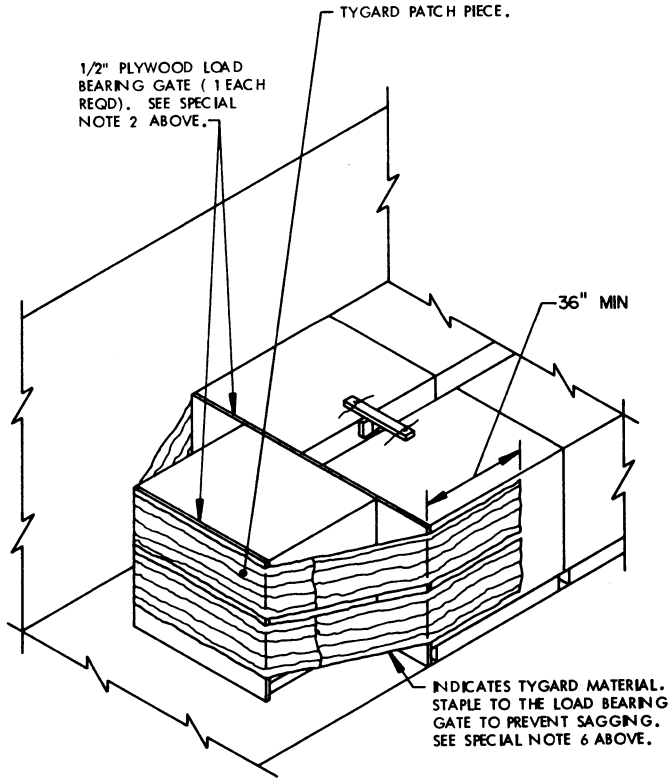
2. PRIOR TO POSITIONING OF THE PALLETS IN THE REARMOST LOAD UNIT, APPLY TYGARD ADHESIVE TO THE PROPER PORTIONS OF THE TRAILER SIDEWALLS AND TO THE CORD SIDE OF A CORRESPONDING LENGTH OF EACH OF THE TYGARD PIECES THAT ARE TO BE ATTACHED TO THE SIDEWALLS OF THE TRAILER. ALLOW TIME FOR THE ADHESIVE TO "CURE" BEFORE PLACING A STRIP OF TYGARD ONTO A SIDEWALL (ADHESIVE WILL FEEL ALMOST DRY WHEN TOUCHED). NOTE: APPLICATION OF TYGARD IS SIMILAR TO THE APPLICATION OF "FORMICA".

3. APPLY THE TYGARD PIECES TO EACH SIDEWALL OF THE TRAILER SO THAT THE PIECES ARE PARALLEL OR NEARLY PARALLEL TO THE FLOOR. ROLL THE TYGARD WITH THE PRESSURE ROLLER TO ENSURE PROPER BONDING IS ACHIEVED. TEMPORARILY SECURE THE LOOSE ENDS TO THE TRAILER SIDEWALL OR TO AN OPEN HINGED TYPE DOOR OR TO THE OUTSIDE WALL, AS APPLICABLE.

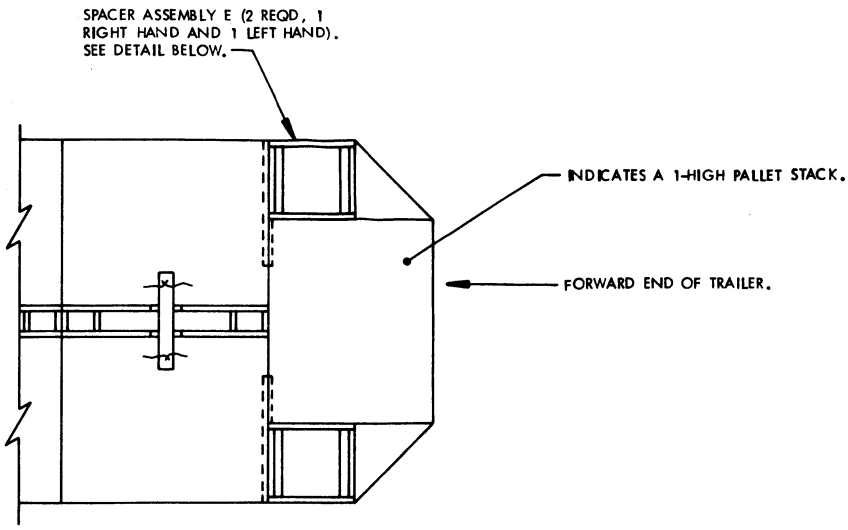
4. POSITION THE PALLETS OF THE REARMOST LOAD UNIT INTO THE TRAILER AND INSTALL THE SPECIFIED ANTI-SWAY BRACES OR CRIB FILL, IF APPLICABLE.

5. UNDO THE PREVIOUSLY SECURED LOOSE ENDS AND BRING A SET OF TWO PIECES TOGETHER ACROSS THE REAR OF THE LOAD. POSITION THE TENSIONING ROD SO THAT THE LOOSE ENDS OF THE TYGARD MATERIAL EXTEND THRU THE SLOT IN ROD. USING THE TWO WRENCHES, ROLL- UP THE TYGARD TO TENSION IT ACROSS REAR OF THE LOAD. POSITION A WRENCH SO AS TO MAINTAIN THE TENSION IN THE TYGARD PIECES. CUT OFF AND DISCARD EXCESS MATERIAL FROM ONE PIECE OF THE TYGARD.

6. APPLY TYGARD ADHESIVE TO THE TENSIONED TYGARD PIECES AND ALSO TO THE CORD SIDE OF THE PREVIOUSLY CUT "PATCH" PIECE. APPLY THE "PATCH" AND ROLL WITH THE PRESSURE ROLLER TO ENSURE PROPER BONDING.



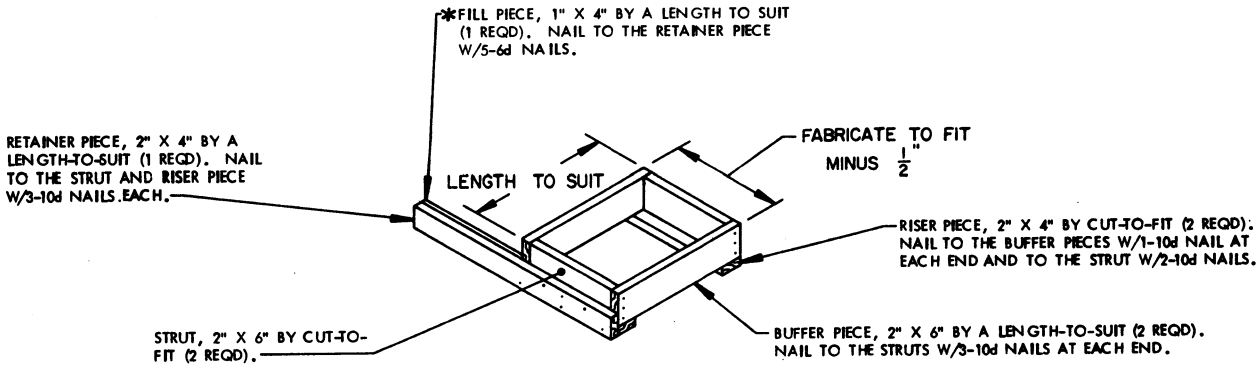
TYGARD METHOD B



ALTERNATIVE FORWARD LOADING PATTERN

THIS PROCEDURE IS APPLICABLE TO THE LOADING OF ONE (1) PALLET UNIT IN THE FORWARD END OF A CONVENTIONAL VAN TRAILER HAVING LARGE ANGLED FRONT CORNERS (REF: 18"). THE PROCEDURES MAY ALSO BE USED IN TRAILERS HAVING SQUARE CORNERS, OR ROUNDED FRONT CORNERS, OR ANGLED CORNERS OF ANOTHER SIZE.

*NOTE THAT THE FILL PIECE WILL BE 2" X 4" MATERIAL WHEN THIS ASSEMBLY IS USED FOR THE FLAT DUNNAGE METHOD UNIT. NAIL TO THE RETAINER PIECE W/3-10d NAILS.



SPACER ASSEMBLY E

THIS ASSEMBLY IS DESIGNED FOR LATERAL BRACING OF A SINGLE PALLET UNIT WHICH IS TURNED 90° FROM THE NORMAL LOADING ORIENTATION AND POSITIONED IN THE FRONT OF AN ANGLED-CORNER CONVENTIONAL VAN TRAILER AS SHOWN IN THE "ALTERNATIVE LOADING PATTERN" VIEW ABOVE. RIGHT HAND AND LEFT HAND SPACER ASSEMBLIES ARE REQUIRED.