

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. THIS DRAWING IS APPLICABLE FOR AMMUNITION ITEMS, OTHER THAN AMMUNITION WITH WHITE PHOSPHOROUS (WP) FILLER, PACKED IN WOODEN OR WIREBOUND BOXES RANGING IN LENGTH FROM TWENTY-SEVEN INCHES (27") TO NINETY-SEVEN INCHES (97"), AND ASSEMBLED ON A SKID BASE.
- C. REFER TO THE APPLICABLE AMC 19-48 SERIES DRAWING FOR TABULAR DATA LISTING OF AMMUNITION ITEMS AND FOR UNITIZATION PROCEDURES.
- D. MATERIAL, DESIGN, AND CONSTRUCTION SPECIFICATIONS FOR THE CURRENT SKID BASES ARE SHOWN IN MIL-S-50786 (AR) TITLED, "SKID BASE, WOOD, FOR STORAGE AND SHIPMENT OF BOXED AMMUNITION", OR REVISIONS THERETO. THE SKIDDED UNITS WHICH ARE DETAILED WITHIN THE OUTLOADING PROCEDURES HEREIN ARE SHOWN AS BEING ASSEMBLED ON THE TYPE I SKID BASE. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR UNITS ASSEMBLED ON THE TYPE IA OR TYPE II BASE, OR FOR UNITS ASSEMBLED ON A SKID BASE CONSTRUCTED IN ACCORDANCE WITH DRAWING D-AMXSV-4163 AND REVISIONS THERETO.
- E. 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. FOR SPECIFIC GUIDANCE PERTAINING TO OUTLOADING IN CONVENTIONAL TYPE VAN TRAILERS, REFER TO THE GENERAL NOTES ON PAGE 4. SPECIFIC GUIDANCE FOR OUTLOADING IN VAN TRAILERS EQUIPPED WITH MECHANICAL BRACING DEVICES IS DELINEATED BY THE GENERAL NOTES ON PAGE 40. SEE GENERAL NOTES "L" AND "M" BELOW.
- F. EXCEPT FOR PLYWOOD, DUNNAGE LUMBER SPECIFIED THROUGHOUT THIS PROCEDURAL DRAWING IS OF NOMINAL SIZE. FOR EXAMPLE, 1" X 4" MATERIAL IS ACTUALLY 3/4" THICK BY 3-1/2" OR 3-5/8" WIDE AND 2" X 4" MATERIAL IS ACTUALLY 1-1/2" THICK BY 3-1/2" WIDE OR 1-5/8" THICK BY 3-5/8" WIDE.
- G. 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.
- H. PORTIONS OF THE TRAILERS, SUCH AS SIDEWALLS, END WALLS, AND ROOFS, HAVE NOT BEEN SHOWN IN THE LOAD VIEWS FOR CLARITY PURPOSES.
- J. WHEN STEEL STRAPPING IS SEALED AT AN END-OVER-END LAP JOINT, A MINIMUM OF TWO (2) SEALS, BUTTED TOGETHER, WITH TWO (2) PAIRS OF CRIMPS PER SEAL MUST BE USED TO SEAL THE JOINT.
- K. WHEN REFERRING TO THE UNIT LENGTH OR UNIT WIDTH, THE LENGTH OF THE BOXES CONSTITUTES THE WIDTH OF THE UNIT. SEE THE TYPICAL UNIT DETAILS ON PAGE 3.
- L. ALL FULL TRAILER LOADS SHOWN HEREIN ARE TYPICAL, HOWEVER, THE PROCEDURES ARE ADAPTABLE TO THE SIZE OF THE UNIT TO BE SHIPPED. THE NUMBER OF UNITS ACROSS THE TRAILER WILL BE AS SHOWN FOR A LOAD, ALTHOUGH THE SIZE MAY VARY. THE NUMBER OF UNITS IN THE LENGTH OF THE TRAILER WILL BE DEPENDENT UPON THE LENGTH OR WIDTH, AS APPLICABLE, OF THE UNIT, AND THE NUMBER OF TIERS WILL BE BASED UPON THE HEIGHT AND/OR WEIGHT OF THE UNIT BEING LOADED. THE QUANTITIES SHOWN IN THE LESS THAN TRAILER LOAD VIEWS ARE ALSO TYPICAL AND MAY BE ADJUSTED TO SUIT.
- M. BECAUSE OF THE FACT THAT ALL THE LOADS SHOWN HEREIN ARE TYPICAL, IT IS MOST LIKELY THAT THE ACTUAL QUANTITY THAT IS TO BE SHIPPED WILL NOT BE DEPICTED IN ANY OF THE LOADING PROCEDURES HEREIN. A LOAD PLAN SHOULD BE DEVELOPED WHICH WILL BE THE MOST EFFICIENT AS TO THE AMOUNT OF DUNNAGE REQUIRED AND THE EASE OF LOADING, FOR THE QUANTITY THAT IS TO BE SHIPPED, USING THE LOAD PLANNING GUIDANCE CHARTS IN CONJUNCTION WITH THE DEPICTED LOADING PROCEDURES. LOAD PLANNING GUIDANCE CHARTS FOR CONVENTIONAL VAN TRAILERS ARE SHOWN ON PAGE 5. CHARTS 1 AND 4 ON PAGE 5, IN CONJUNCTION WITH THE LOAD PLANNING CHARTS ON PAGES 40, 41, 43, 47, AND 51, ARE APPLICABLE FOR TRAILERS EQUIPPED WITH MECHANICAL BRACING DEVICES. IN ORDER TO MAINTAIN SIMILARITY FROM ONE LOAD TO ANOTHER, THOSE INSTALLATIONS WHICH MAKE MULTIPLE SHIPMENTS OF THE SAME

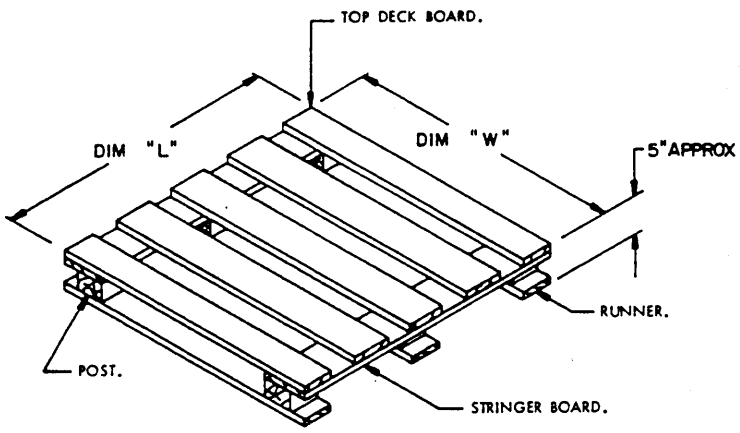
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MATERIAL SPECIFICATIONS

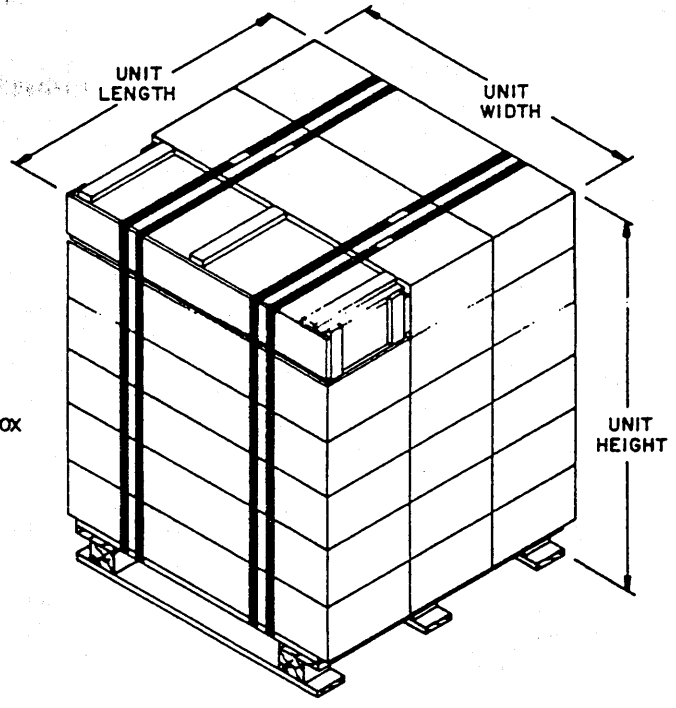
- LUMBER ----- : SEE TM 743-200-1, DUNNAGE LUMBER; FED SPEC MM-L-751.
- NAILS----- : COMMON, CEMENT COATED OR CHEMICALLY ETCHED, FED SPEC FF-N-105.
ALT: ANNULAR-RING TYPE NAIL OF SAME SIZE.
- STRAPPING --- : TYPE I OR II, FINISH A OR B; REF FED SPEC QQ-S-781.
- STRAP SEAL --- : COMMERCIAL GRADE.
- PLYWOOD --- : GROUP B OR C; GRADE C-D (EXTERIOR). FED SPEC NN-P-530.
- WIRE ----- : FED SPEC QQ-W-461.
- * IF SPECIFIED GRADE IS NOT AVAILABLE, A BETTER EXTERIOR GRADE MAY BE SUBSTITUTED.

(GENERAL NOTES CONTINUED)

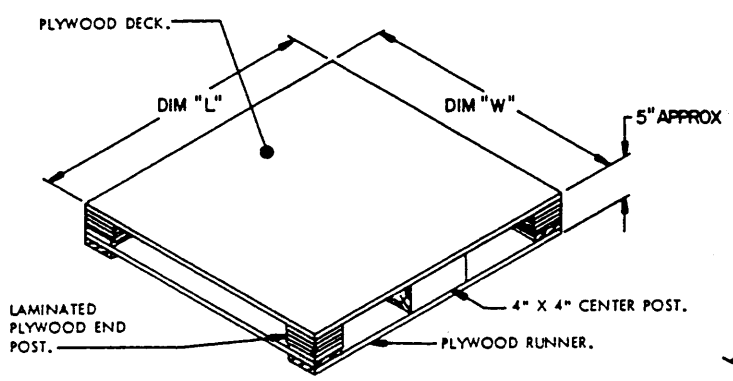
- ITEM IN THE SAME LENGTH TRAILERS HAVING LIKE FEATURES, SHOULD MAKE AN ACTUAL PENCIL SKETCH OF THE LOAD. USING THE VARIOUS LOAD PATTERNS AND OUTLOADING PROCEDURES SHOWN HEREIN AS GUIDANCE, THIS SKETCH WOULD DEPICT A COMBINATION WHICH WOULD BE MOST ADVANTAGEOUS AS FAR AS EASE OF LOADING AND EFFICIENT USE OF DUNNAGE IS CONCERNED FOR THE SPECIFIC ITEM THAT IS TO BE SHIPPED.
- N. 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 HEAVY LOADS, IF IT IS DESIRED TO INCREASE THE LADING WEIGHT. CAUTION: THE TOTAL GROSS WEIGHT OF THE LADING, THE DUNNAGE, AND OF THE TRANSPORTING TRACTOR AND TRAILER EQUIPMENT MUST NOT EXCEED THE ALLOWABLE GROSS WEIGHT FOR THE STATES THRU WHICH THE LOAD WILL BE TRANSPORTED AND FOR THE CLASSES OF ROADS TO BE TRAVELED WITHIN THOSE STATES.



TYPE II SKID BASE

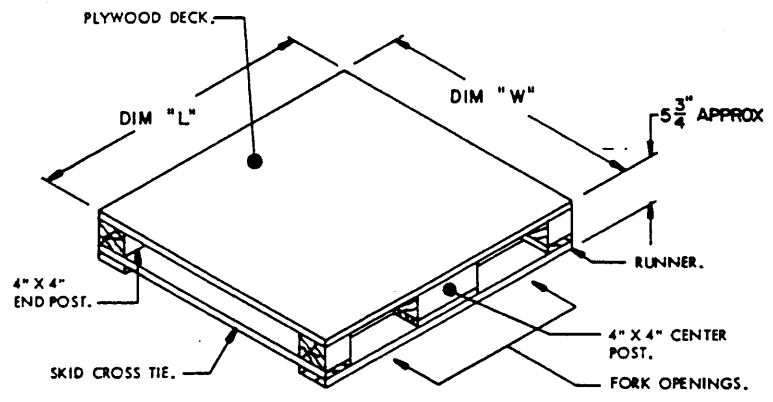


TYPICAL UNIT ON TYPE II BASE

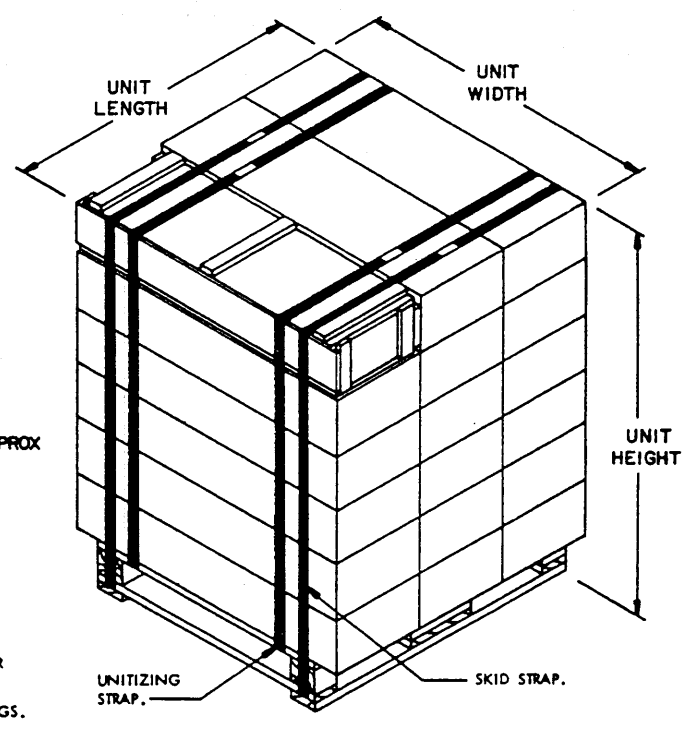


TYPE IA SKID BASE

UNIT IS ASSEMBLED ON THE SKID BASE IN THE SAME MANNER AS FOR THE TYPE I SKID BASE.



TYPE I SKID BASE



TYPICAL UNIT ON TYPE I BASE

GENERAL NOTES

(FOR CONVENTIONAL TYPE VAN TRAILERS)

- A. THE OUTLOADING PROCEDURES SPECIFIED ON PAGES 6 THRU 28 ARE FOR CLOSED OR OPEN TOP CONVENTIONAL TYPE VAN TRAILERS. VAN TRAILERS WHICH ARE 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) WITH WOOD, WOOD AND METAL, OR ALL METAL FLOORS HAVE BEEN SHOWN. HOWEVER, THE PROCEDURES ARE ALSO APPLICABLE FOR TRAILERS WHICH ARE EIGHTY-NINE INCHES (89") THRU NINETY-THREE INCHES (93") IN WIDTH AND FOR TRAILERS OF OTHER LENGTHS, UP TO AND INCLUDING 45'-0" LONG.
- B. 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 ANY AXLES ARE OVERLOADED, OR ANY DOUBT AS TO WHETHER THE TOTAL GROSS WEIGHT EXCEEDS THE MAXIMUM ALLOWED, PROPER WEIGHT DISTRIBUTION SHOULD BE VERIFIED BY ACTUALLY WEIGHING THE LOADED VEHICLE.
- C. THE NUMBER OF LADING UNITS MAY BE ADJUSTED TO SUIT THE CAPACITY OF THE TRAILER BEING LOADED OR THE QUANTITY TO BE SHIPPED. HOWEVER, THE APPROVED METHODS SPECIFIED HEREIN MUST BE FOLLOWED AS CLOSELY AS POSSIBLE FOR BLOCKING, BRACING, AND STAYING OF THE SKIDDED UNITS.
- D. OTHER TYPES OF LADING ITEMS MAY BE LOADED IN TRAILERS WHICH ARE PARTIALLY LOADED WITH SKIDDED UNITS OF AMMUNITION ITEMS, 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.
- E. ALL LOADS ARE SHOWN IN TRAILERS HAVING ROUNDED CORNERS AT THE FORWARD END. IF THE TRAILER BEING USED IS EQUIPPED WITH A SQUARE FRONT OR WITH AN INSTALLED BULKHEAD, OMIT THE FORWARD BLOCKING ASSEMBLY, PIECE MARKED (1) AND POSITION THE SKIDDED UNITS DIRECTLY AGAINST THE FORWARD PORTION OF THE TRAILER.
- F. SKIDDED UNITS WHICH DO NOT CONTAIN A FULL QUANTITY OF BOXES CAN BE TRANSPORTED. A PARTIAL UNIT MAY BE POSITIONED ON TOP OF THE LOAD, TRAILER HEIGHT PERMITTING, AND SECURED TO THE UNIT DIRECTLY BELOW WITH STEEL STRAPPING. REFER TO THE "SHIPMENT OF PARTIAL UNITS" PROCEDURES ON PAGE 38 FOR GUIDANCE. FOR THE TRANSPORTATION OF A QUANTITY OF BOXES INSUFFICIENT TO FORM A PARTIAL UNIT (A PARTIAL UNIT WILL CONSIST OF FULL LAYERS) REFER TO THE "SHIPMENT OF LEFTOVER BOXES" PROCEDURES ON PAGE 39 FOR GUIDANCE.
- G. FOR ADDITIONAL GUIDANCE, ATTENTION IS DIRECTED TO THE "SPECIAL NOTES" SECTIONS WHICH ARE IMMEDIATELY ADJACENT TO THE DEPICTED OUTLOADING METHODS, AND TO THE LOAD PLANNING GUIDANCE "SPECIAL NOTES" AND THE ACCOMPANYING CHARTS ON PAGE 5.

SPECIAL NOTES:

- THE FOLLOWING SPECIAL NOTES AND THE FOUR (4) CHARTS BELOW ARE PRESENTED AS GUIDANCE IN THE SELECTION OF A LOAD PATTERN, AND IN DETERMINING THE QUANTITY OF UNITS WHICH CAN BE LOADED IN A CONVENTIONAL VAN TRAILER, BASED ON THE SIZE AND WEIGHT OF THE SKIDDED UNIT TO BE LOADED.
- CHART NO. 1 MAY BE USED IN SELECTING A LOAD PATTERN, SUCH AS 2-WIDE OR 3-WIDE, FOR THE WIDTH OF THE TRAILER WHICH IS TO BE LOADED. THE LOAD PATTERN WILL BE BASED EITHER ON THE UNIT LENGTH ACROSS THE TRAILER (BOXES LENGTHWISE IN THE TRAILER) OR ON THE UNIT WIDTH ACROSS THE TRAILER (BOXES CROSSWISE IN THE TRAILER), DEPENDENT UPON THE LENGTH OR WIDTH DIMENSIONS OF THE UNIT TO BE LOADED. UNIT SIZE RANGES AND LOAD PATTERNS FOR SEVEN OF THE MOST POPULAR TRAILER WIDTHS ARE GIVEN. TRAILERS OF OTHER WIDTHS MAY BE USED, OF COURSE, AND THE SIZE RANGE OF UNITS WHICH CAN BE LOADED IN THE TWO PATTERNS CAN BE CALCULATED. THE SMALLER FIGURE SHOWN FOR UNIT SIZE RANGE IS BASED ON THE MINIMUM UNIT LENGTH OR WIDTH, AS APPLICABLE, AND THE LARGER FIGURE IS CALCULATED ON THERE BEING AT LEAST ONE INCH (1") EXCESS LATERAL SPACE REMAINING IN THE TRAILER AFTER THE UNITS ARE POSITIONED.

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(SPECIAL NOTES CONTINUED)

- CHART NO. 2 MAY BE USED IN DETERMINING THE QUANTITY OF UNITS WHICH CAN BE POSITIONED WITHIN ONE ROW IN THE LENGTH OF A TRAILER. SEPARATE COLUMNS ARE SHOWN FOR FOUR OF THE MOST POPULAR TRAILER LENGTHS. TRAILERS OF OTHER LENGTHS MAY BE USED, OF COURSE, BUT THE UNIT SIZE RANGE FOR THE NUMBER OF UNITS LONG WILL HAVE TO BE CALCULATED. THE UNIT SIZE RANGE FOR EACH OF THE SPECIFIED TRAILER LENGTHS IS BASED ON THE INSIDE LENGTH OF A TRAILER BEING SIX INCHES (6") SHORTER THAN THE OUTSIDE LENGTH, AND IS ALSO BASED ON THE USE OF A FORWARD BLOCKING ASSEMBLY AT THE FRONT END OF THE LOAD. AT LEAST TWO INCHES (2") IS ALLOWED TO COVER THE VARIANCE IN THE UNIT SIZES.
- CHART NO. 3 MAY BE USED IN DETERMINING THE NUMBER OF TIERS WHICH CAN BE LOADED IN A TRAILER, BASED ONLY UPON THE HEIGHT OF THE UNIT. FIVE DIFFERENT INSIDE HEIGHTS ARE GIVEN FOR GUIDANCE. THE HEIGHT RANGE OF UNITS SPECIFIED UNDER EACH HEIGHT TRAILER ALLOWS APPROXIMATELY ONE INCH (1") CLEARANCE AT THE ROOF. NO ALLOWANCE HAS BEEN MADE FOR DOOR OPENING HEIGHT CLEARANCE. FOR LOADS WHICH ARE OF SUCH A HEIGHT AS TO EXTEND TO WITHIN 4" OR 5" OF THE ROOF, IT WILL NOT BE POSSIBLE TO PLACE THE TOP UNITS IN THE REARMOIST LOAD UNIT, IF THE DISTANCE BETWEEN THAT LOAD UNIT AND THE REAR DOORS IS NOT AT LEAST AS GREAT AS THE DIMENSION OF THE UNIT WHICH IS POSITIONED LENGTHWISE IN THE TRAILER. THE ACTUAL NUMBER OF TIERS WHICH CAN BE LOADED WILL BE BASED ON SEVERAL FACTORS, SUCH AS THE WEIGHT OF THE UNITS AND THE QUANTITY THAT IS TO BE SHIPPED.
- CHART NO. 4 MAY BE USED AS GUIDANCE IN DETERMINING THE QUANTITY OF UNITS WHICH CAN BE LOADED IN A TRAILER, BASED ONLY UPON THE WEIGHT OF THE UNIT. THE "UNIT WEIGHT IN LBS" COLUMN SPECIFIES WEIGHTS RANGING FROM 250 POUNDS, THE APPROXIMATE MINIMUM, TO 2,250 POUNDS, THE APPROXIMATE MAXIMUM, BY ONE-HUNDRED-POUND INCREMENTS. COLUMNS ARE SHOWN FOR FOUR (4) DIFFERENT LOAD WEIGHTS. THE QUANTITY REQUIRED TO MAKE A SPECIFIED LOAD WEIGHT FOR A UNIT WHICH WEIGHS SOMEWHERE BETWEEN THE EVEN FIGURES GIVEN WILL HAVE TO BE INTERPOLATED. FOR EXAMPLE, 29 SKIDDED UNITS WEIGHING 1,350 POUNDS EACH CAN BE LOADED IN A TRAILER FOR A 40,000 POUND LOAD. THE ACTUAL QUANTITY WHICH MAY BE LOADED CAN BE ONE OR MORE UNITS ABOVE THE SPECIFIED QUANTITY PROVIDING THE TOTAL WEIGHT OF THE LADING AND THE DUNNAGE DOES NOT EXCEED THE MAXIMUM WEIGHT ALLOWABLE.

CHART NO. 1

UNITS IN WIDTH OF CONVENTIONAL VAN TRAILER					
VAN WIDTH	LOAD PATTERN	UNIT SIZE RANGE			
		BOXES LENGTHWISE IN TRAILER		BOXES CROSSWISE IN TRAILER	
		UNIT LENGTH	LOAD PAGE	UNIT WIDTH	LOAD PAGE
90"	2-WIDE	25" TO 44-1/2"	14, 16, AND 20	27" TO 44-1/2"	6 AND 8
	3-WIDE	25" TO 29-5/8"	18	27" TO 29-5/8"	10 AND 12
90-1/2"	2-WIDE	25" TO 44-3/4"	14, 16, AND 20	27" TO 44-3/4"	6 AND 8
	3-WIDE	25" TO 29-3/4"	18	27" TO 29-3/4"	10 AND 12
91"	2-WIDE	25" TO 45"	14, 16, AND 20	27" TO 45"	6 AND 8
	3-WIDE	25" TO 30"	18	27" TO 30"	10 AND 12
91-1/2"	2-WIDE	25" TO 45-1/4"	14, 16, AND 20	27" TO 45-1/4"	6 AND 8
	3-WIDE	25" TO 30-1/8"	18	27" TO 30-1/8"	10 AND 12
92"	2-WIDE	25" TO 45-1/2"	14, 16, AND 20	27" TO 45-1/2"	6 AND 8
	3-WIDE	25" TO 30-3/8"	18	27" TO 30-3/8"	10 AND 12
92-1/2"	2-WIDE	25" TO 45-3/4"	14, 16, AND 20	27" TO 45-3/4"	6 AND 8
	3-WIDE	25" TO 30-1/2"	18	27" TO 30-1/2"	10 AND 12
93"	2-WIDE	25" TO 46"	14, 16, AND 20	27" TO 46"	6 AND 8
	3-WIDE	25" TO 30-5/8"	18	27" TO 30-5/8"	10 AND 12

CHART NO. 2

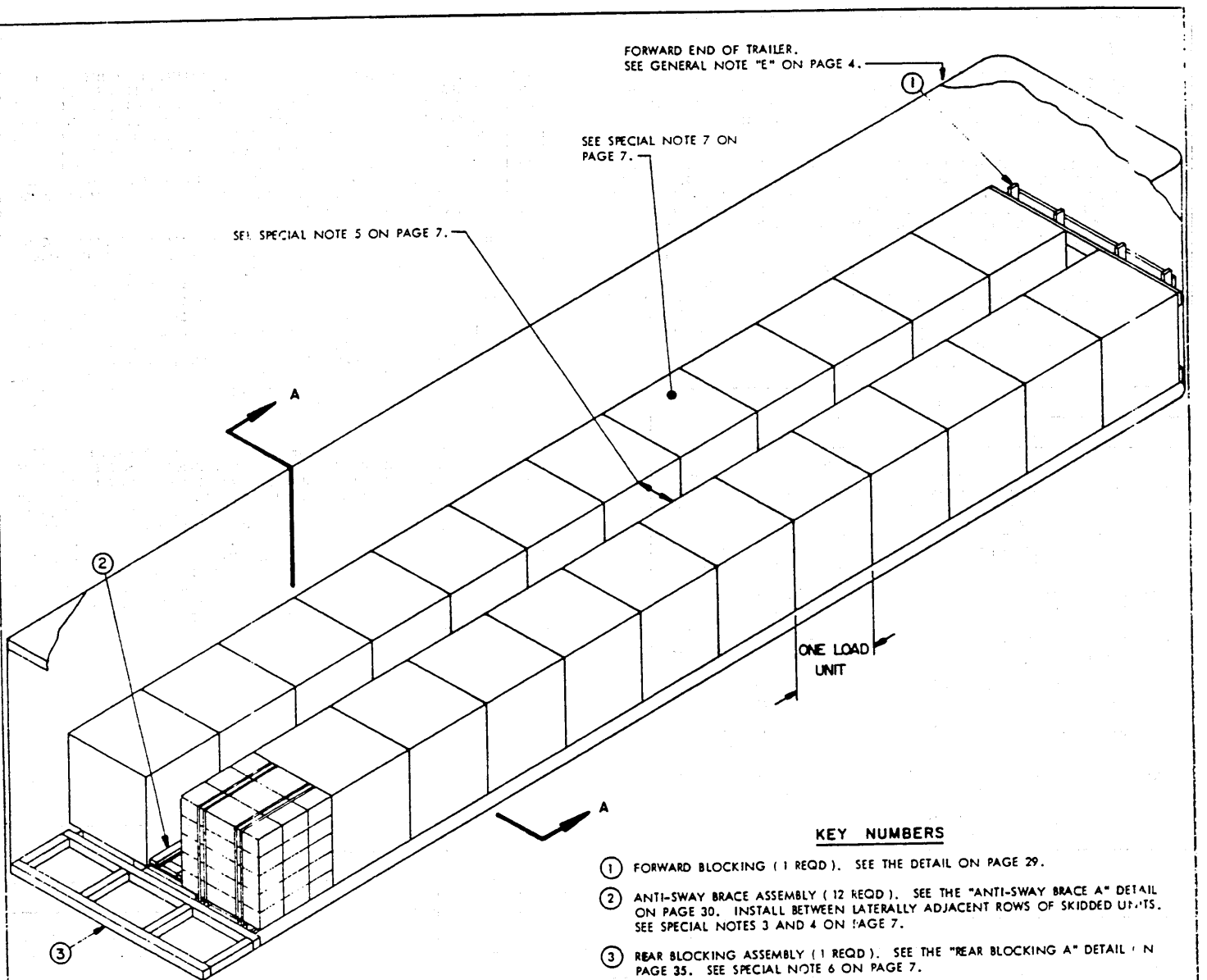
UNITS IN LENGTH OF CONVENTIONAL VAN TRAILER				
NO. UNITS LONG	UNIT SIZE RANGE			
	35' TRAILER	38' TRAILER	40' TRAILER	45' TRAILER
20	---	---	---	25" TO 26-1/8"
19	---	---	---	26-1/4" TO 27-1/2"
18	---	---	---	27-5/8" TO 29-1/8"
17	---	---	---	29-1/4" TO 30-3/4"
16	25" TO 25-1/4"	25" TO 25-7/8"	25-7/8" TO 27-1/4"	30-7/8" TO 32-3/4"
15	25-3/8" TO 26-7/8"	27-5/8" TO 29-3/8"	29-1/8" TO 30-7/8"	32-7/8" TO 34-7/8"
14	27" TO 28-7/8"	29-1/2" TO 31-3/8"	31" TO 33-1/4"	35" TO 37-3/8"
13	29" TO 31-1/8"	31-1/2" TO 33-7/8"	33-3/8" TO 35-5/8"	37-1/2" TO 40-3/8"
12	31-1/4" TO 33-3/4"	34" TO 36-3/4"	35-3/4" TO 38-3/4"	40-1/2" TO 44"
11	33-7/8" TO 36-3/4"	36-7/8" TO 40"	38-7/8" TO 42-1/4"	44-1/8" TO 47-5/8"
10	36-7/8" TO 40-1/2"	40-1/8" TO 44-1/8"	42-3/8" TO 46-1/2"	47-3/4" TO 52-1/2"
9	40-5/8" TO 45"	44-1/4" TO 48-7/8"	46-5/8" TO 51-5/8"	52-5/8" TO 58-3/8"
8	45-1/8" TO 50-5/8"	49" TO 55-1/8"	51-3/4" TO 58-1/8"	58-1/2" TO 65-5/8"
7	50-3/4" TO 57-7/8"	55-1/4" TO 63"	58-1/4" TO 66-1/2"	65-3/4" TO 75"
6	58" TO 67-5/8"	63-1/8" TO 73-5/8"	66-5/8" TO 77-5/8"	75-1/8" TO 87-5/8"
5	67-3/4" TO 81-1/8"	73-3/4" TO 88-3/8"	77-3/4" TO 93-1/8"	87-3/4" AND LONGER
4	81-1/4" AND LONGER	88-1/2" AND LONGER	93-1/4" AND LONGER	---

CHART NO. 3

TIERS IN HEIGHT OF CONVENTIONAL VAN TRAILER					
NO. OF TIERS	UNIT HEIGHT RANGE				
	91" HIGH	94" HIGH	97" HIGH	104" HIGH	107" HIGH
6	15" TO 15-1/8"	15" TO 15-1/2"	15" TO 16"	15" TO 17-1/8"	15" TO 17-5/8"
5	15-1/4" TO 18-1/8"	15-5/8" TO 18-1/2"	16-1/8" TO 19-1/8"	17-1/4" TO 20-1/2"	17-3/4" TO 21-1/8"
4	18-1/4" TO 22-5/8"	18-5/8" TO 23-1/4"	18-5/8" TO 24"	20-5/8" TO 25-3/4"	21-1/4" TO 26-1/2"
3	22-3/4" TO 30-1/4"	23-3/8" TO 31"	24-1/8" TO 32"	25-7/8" TO 34-1/4"	26-5/8" TO 35-1/4"
2	30-3/8" TO 45-1/2"	31-1/8" TO 46"	32-1/8" TO 48"	34-3/8" TO 51-1/2"	35-3/8" TO 53"
1	OVER 45-1/2"	OVER 46"	OVER 48"	OVER 51-1/2"	OVER 53"

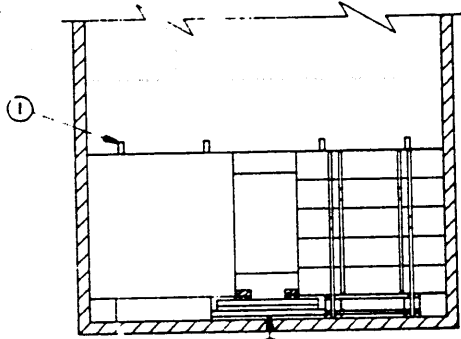
CHART NO. 4

UNIT WEIGHT IN LBS	MAX. NO. OF UNITS PER TRAILER BY WEIGHT			
	NO. OF UNITS			
	40,000 LBS	41,000 LBS	42,000 LBS	43,000 LBS
250	160	164	168	172
300	133	136	140	143
400	100	102	105	107
500	80	82	84	86
600	66	68	70	71
700	57	58	60	61
800	50	51	52	53
900	44	45	46	47
1,000	40	41	42	43
1,100	36	37	38	39
1,200	33	34	35	35
1,300	30	31	32	33
1,400	28	29	30	30
1,500	26	27	28	28
1,600	25	25	26	26
1,700	23	24	24	25
1,800	22	22	23	23
1,900	21	21	22	22
2,000	20	20	21	21
2,100	19	19	20	20
2,200	18	18	19	19
2,250	17	18	18	18

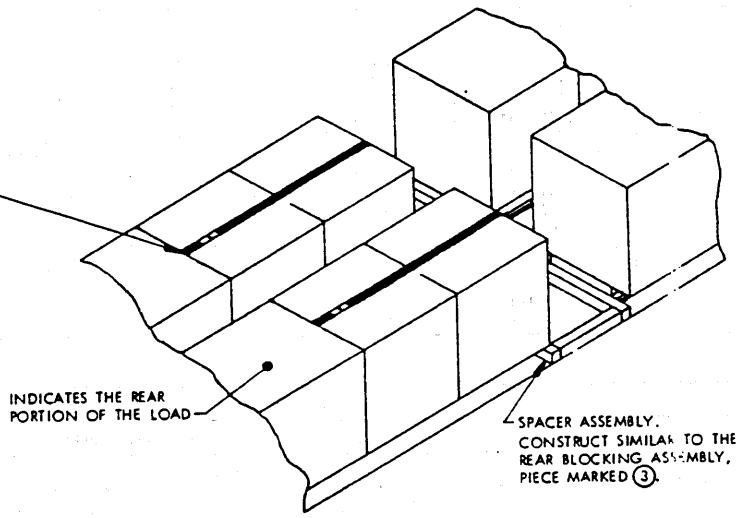


ISOMETRIC VIEW

BUNDLING STRAP, 1-1/4" X .035" BY A LENGTH TO SUIT STEEL STRAPPING (2 REQD). NOTE THAT THE BUNDLING STRAPS ARE ONLY REQUIRED WHEN THE UNITS ARE TALLER THAN THEY ARE LONG.



SECTION A-A



ALT LOADING PATTERN

SEE SPECIAL NOTE 7 ON PAGE 7.

TYPICAL 2-WIDE LOAD (BOXES CROSSWISE)
IN A 40'-0" LONG CONVENTIONAL VAN TRAILER

SPECIAL NOTES:

(SPECIAL NOTES CONTINUED)

1. A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TRAILER IS SHOWN. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. THE SKIDDED UNIT SHOWN IN THE TYPICAL 2-WIDE LOAD ON PAGE 6 HAS OVERALL DIMENSIONS OF 36-1/2" LONG BY 37" WIDE BY 43" HIGH. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR UNITS OF OTHER LENGTHS, AND FOR UNITS HAVING WIDTHS OF FROM 27" THRU 44-1/2" IN A 7'-6" WIDE TRAILER. REFER TO "CHART NO. 1" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM WIDTHS OF UNITS WHICH CAN BE LOADED TWO WIDE IN TRAILERS OF OTHER INSIDE WIDTHS. REFER TO THE "SKIDDED UNIT LENGTH /WIDTH COMBINATIONS" CHART ON PAGE 23 FOR THE COMBINATION OF LENGTHS AND WIDTHS OF UNITS WHICH WOULD BE ACCEPTABLE FOR CHIMNEY-PATTERN LOADS. A 1-TIER LOAD IS SHOWN AS TYPICAL. FOR PROCEDURES APPLICABLE FOR LOADS OF TWO TIERS, REFER TO PAGES 8 AND 9. PROCEDURES APPLICABLE FOR LOADS OF THREE OR MORE TIERS ARE SHOWN ON PAGES 12 AND 13. REFER TO "CHART NO. 3" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM NUMBER OF TIERS WHICH CAN BE LOADED IN VARIOUS HEIGHT VAN TRAILERS BASED ON THE HEIGHT OF THE SKIDDED UNIT TO BE LOADED. THE WEIGHT OF THE DEPICTED UNIT IS 1,730 POUNDS. THE NUMBER OF UNITS MAY NEED TO BE ADJUSTED IF THE UNIT BEING LOADED HAS A DIFFERENT WEIGHT. REFER TO "CHART NO. 4" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM NUMBER OF UNITS WHICH CAN BE LOADED, BASED ON THE WEIGHT OF THE UNIT TO BE SHIPPED.
3. THE ANTI-SWAY BRACE A, SHOWN IN THE LOAD VIEW AS PIECE MARKED ②, IS DESIGNED FOR USE WITHIN LOADS OF CROSSWISE-POSITIONED BOXES WHEN THE UNITS ARE ASSEMBLED ON THE TYPE I OR TYPE IA SKID BASE, OR THE TYPE II SKID BASE WHEN THE BOXES DO NOT HAVE TOP CLEATS, OR THE SKID BASE DEPICTED BY DRAWING D-AMXSV-4163. THE ANTI-SWAY BRACE B WILL BE USED FOR UNITS ASSEMBLED ON THE TYPE II SKID BASE WHEN THE BOXES HAVE TOP CLEATS. SEE PAGE 30 FOR DETAILS OF THE ANTI-SWAY BRACE ASSEMBLIES.
4. THE ANTI-SWAY BRACING MAY BE OMITTED IF THE SPACE BETWEEN LATERALLY ADJACENT UNITS IS NOT MORE THAN THE DISTANCE SPECIFIED IN THE "ANTI-SWAY BRACE REQUIREMENTS" CHART ON PAGE 30, FOR THE TYPE OF SKID BASE BEING LOADED. IF THE EXCESS SPACE EXCEEDS THE MAXIMUM ALLOWABLE, ANTI-SWAY BRACES MUST BE INSTALLED BETWEEN ALL LATERALLY ADJACENT SKIDDED UNITS.
5. TOP-OF-LOAD ANTI-SWAY BRACES MUST BE POSITIONED BETWEEN ALL LATERALLY ADJACENT UNITS WHEN THE UNITS ARE OVER 44" IN HEIGHT. REFER TO PIECE MARKED ④ ON PAGE 8 FOR A TYPICAL INSTALLATION. SEE THE "TOP-OF-LOAD ANTI-SWAY BRACE C" DETAIL ON PAGE 34 FOR CONSTRUCTION GUIDANCE. WIRE TIE TO A SKID STRAP WITH NO. 14 GAGE WIRE AS SHOWN BY THE "TIE WIRE APPLICATION D" DETAIL ON PAGE 34.
6. SOLID FILL TYPE REAR BLOCKING, AS SHOWN BY PIECES MARKED ③ AND ④ ON PAGE 10, WILL BE USED IN LIEU OF THE REAR BLOCKING ASSEMBLY SHOWN IN THE LOAD VIEW, WHEN THE SPACE BETWEEN THE LADING AND THE TRAILER DOORS IS LESS THAN 12".
7. IF THE SIZE AND WEIGHT OF THE UNIT BEING LOADED IS SUCH THAT A FULL TIER CANNOT BE LOADED WITHOUT EXCEEDING WEIGHT LIMITATIONS, IT MAY BE NECESSARY TO PROVIDE A LOAD SEPARATION WITHIN THE LENGTH OF THE LOAD. LOAD SEPARATION SHOULD BE MAINTAINED BY INSTALLING A SPACER ASSEMBLY OF SUFFICIENT SIZE, CONSTRUCTED SIMILAR TO THE REAR BLOCKING ASSEMBLY, PIECE MARKED ③. POSITION THE ASSEMBLY AT A LOCATION WITHIN THE LOAD SO AS TO PROVIDE PROPER WEIGHT DISTRIBUTION. IF THE UNIT BEING LOADED IS TALLER THAN IT IS LONG, INSTALL A BUNDLING STRAP SO AS TO ENIRCLE THE TWO UNITS ADJACENT TO THE SPACER ASSEMBLY ON THE REARWARD SIDE. SEE THE "ALT LOADING PATTERN" VIEW ON PAGE 6 FOR GUIDANCE.
8. THE DEPICTED LOAD CAN BE ADJUSTED TO SUIT THE QUANTITY TO BE SHIPPED, OR TO SUIT THE SIZE AND/OR WEIGHT OF THE UNIT BEING LOADED. A LOAD CAN BE INCREASED OR REDUCED BY A MULTIPLE OF TWO (2) UNITS BY ADDING OR OMITTING ONE OR MORE FULL LOAD UNITS. A LOAD CAN BE REDUCED OR INCREASED BY ONE (1) UNIT BY POSITIONING A FILLER A IN THE VOID SPACE IN THE LOAD UNIT. SEE THE "FILLER A" DETAIL ON PAGE 37. REFER TO PAGE 24 FOR A TYPICAL INSTALLATION.
9. IF A SKIDDED UNIT WHICH DOES NOT CONTAIN A FULL QUANTITY OF BOXES IS TO BE TRANSPORTED, THAT SHORT UNIT SHOULD BE POSITIONED AT THE REAR OF THE LOAD. IF SPACE IS NOT AVAILABLE THERE, IT MAY BE POSITIONED ON TOP OF THE LOAD. REFER TO THE "SHIPMENT OF PARTIAL UNITS" PROCEDURES ON PAGE 38 FOR GUIDANCE.
10. LEFTOVER BOXES, IN AN AMOUNT NOT TO EXCEED THE QUANTITY IN ONE LAYER OF A UNIT, MAY BE SECURED TO THE TOP OF A FULL SKIDDED UNIT FOR SHIPMENT. REFER TO THE "SHIPMENT OF LEFTOVER BOXES" PROCEDURES ON PAGE 39 FOR GUIDANCE.

(CONTINUED AT RIGHT)

BILL OF MATERIAL (TYPICAL)		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	121	41
2" X 4"	213	142
2" X 6"	28	28
4" X 4"	23	31
NAILS	NO. REQD	POUNDS
10d (3")	32	1/2
12d (3-1/4")	48	1
16d (3-1/2")	16	1/2
20d (4")	96	3-1/2

LOAD AS SHOWN (TYPICAL)

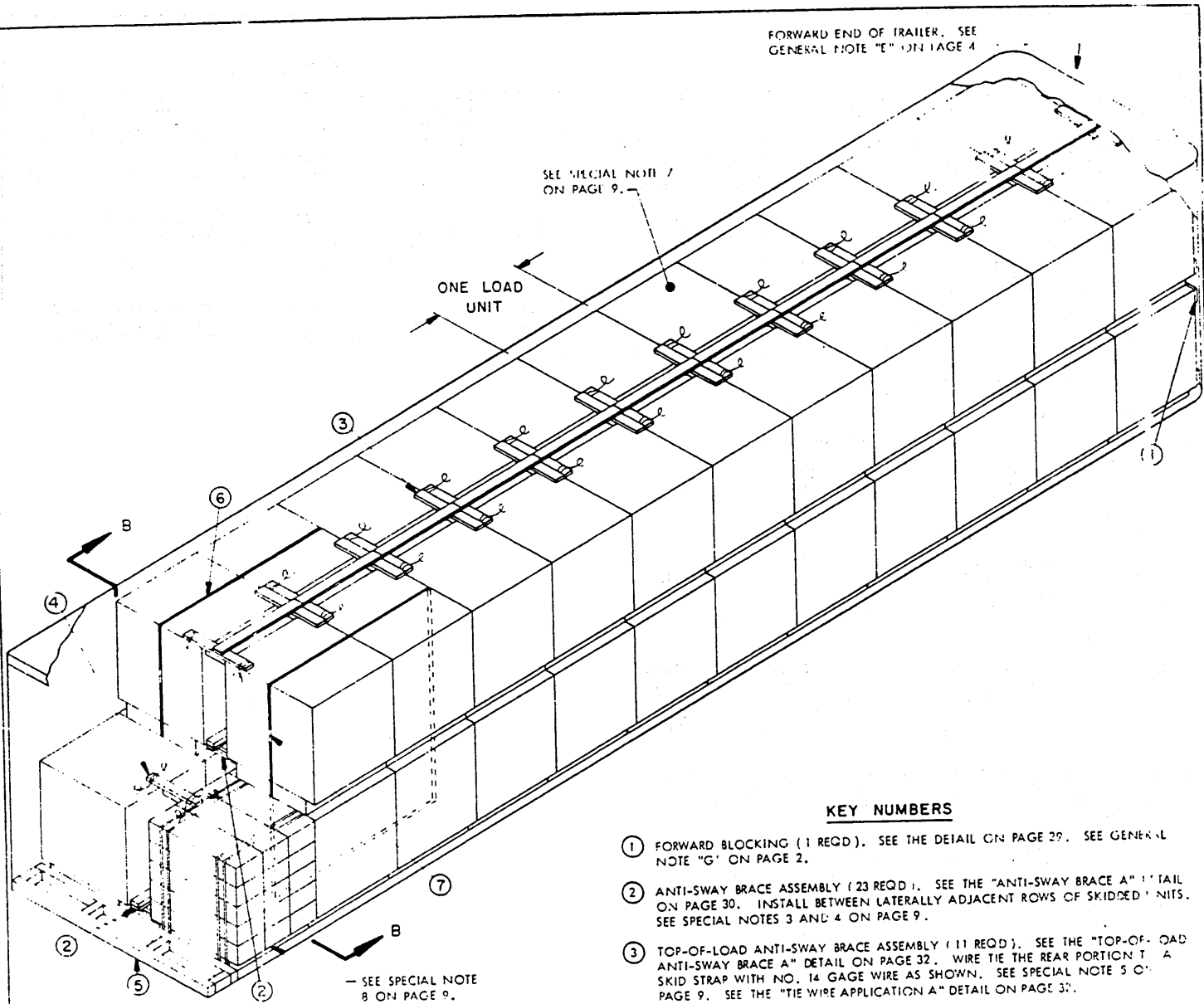
ITEM	QUANTITY	WEIGHT (APPROX)
SKIDDED UNIT -----	24 -----	41,520 LBS
DUNNAGE-----	-----	611 LBS
TOTAL WEIGHT-----		42,131 LBS

**TYPICAL 2-WIDE LOAD (BOXES CROSSWISE)
IN A 40'-0" LONG CONVENTIONAL VAN TRAILER**

FORWARD END OF TRAILER. SEE
GENERAL NOTE "E" ON PAGE 4

SEE SPECIAL NOTE 7
ON PAGE 9.

ONE LOAD
UNIT

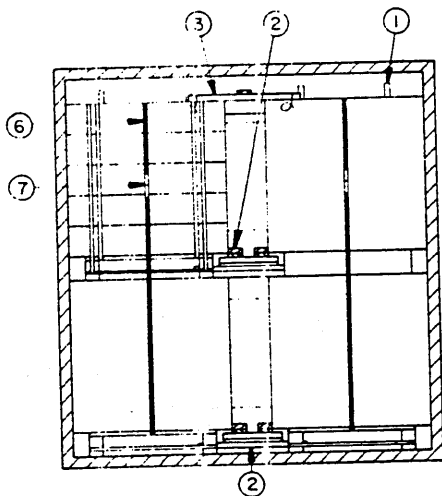


ISOMETRIC VIEW

SEE SPECIAL NOTE
8 ON PAGE 9.

KEY NUMBERS

- ① FORWARD BLOCKING (1 REQD.). SEE THE DETAIL ON PAGE 29. SEE GENERAL NOTE "G" ON PAGE 2.
- ② ANTI-SWAY BRACE ASSEMBLY (23 REQD.). SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 30. INSTALL BETWEEN LATERALLY ADJACENT ROWS OF SKIDDED UNITS. SEE SPECIAL NOTES 3 AND 4 ON PAGE 9.
- ③ TOP-OF-LOAD ANTI-SWAY BRACE ASSEMBLY (11 REQD.). SEE THE "TOP-OF-LOAD ANTI-SWAY BRACE A" DETAIL ON PAGE 32. WIRE TIE THE REAR PORTION TO A SKID STRAP WITH NO. 14 GAGE WIRE AS SHOWN. SEE SPECIAL NOTE 5 ON PAGE 9. SEE THE "TIE WIRE APPLICATION A" DETAIL ON PAGE 32.
- ④ TOP-OF-LOAD ANTI-SWAY BRACE ASSEMBLY (11 REQD.). SEE THE "TOP-OF-LOAD ANTI-SWAY BRACE C" DETAIL ON PAGE 34. WIRE TIE TO A SKID STRAP WITH NO. 14 GAGE WIRE AS SHOWN BY THE "TIE WIRE APPLICATION D" DETAIL ON THAT PAGE. SEE SPECIAL NOTE 5 ON PAGE 9.
- ⑤ REAR BLOCKING ASSEMBLY (1 REQD.). SEE THE "REAR BLOCKING A" DETAIL ON PAGE 35. SEE SPECIAL NOTE 6 ON PAGE 9.
- ⑥ BUNDLING STRAP, 1-1/4" X .035" X 29'-0" LONG (REF) STEEL STRAPPING (2 REQD.). PRE-POSITION AND INSTALL SO AS TO ENCIRCLE TWO (2) SKIDDED UNIT STACKS AS SHOWN. SEE SPECIAL NOTES 7 THRU 9 ON PAGE 9.
- ⑦ SEAL FOR 1-1/4" STRAPPING (4 REQD., 2 PER STRAP). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "J" OF PAGE 2.



SECTION B-B

TYPICAL 2-WIDE LOAD (BOXES CROSSWISE)
IN A 40'-0" LONG CONVENTIONAL VAN TRAILER

SPECIAL NOTES:

1. A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TRAILER IS SHOWN. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. THE SKIDDED UNIT SHOWN IN THE TYPICAL 2-WIDE LOAD ON PAGE 8 HAS OVERALL DIMENSIONS OF 37-3/4" LONG BY 40" WIDE BY 45" HIGH. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR UNITS OF OTHER LENGTHS, AND FOR UNITS HAVING WIDTHS OF FROM 27" THRU 44-1/2" IN A 7'-6" WIDE TRAILER. REFER TO "CHART NO. 1" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM WIDTHS OF UNITS WHICH CAN BE LOADED TWO WIDE IN TRAILERS OF OTHER INSIDE WIDTHS. A 2-TIER LOAD IS SHOWN AS TYPICAL. REFER TO "CHART NO. 3" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM NUMBER OF TIERS WHICH CAN BE LOADED IN VARIOUS HEIGHT VAN TRAILERS BASED ON THE HEIGHT OF THE SKIDDED UNIT TO BE LOADED. THE WEIGHT OF THE DEPICTED UNIT IS 890 POUNDS. THE NUMBER OF UNITS MAY NEED TO BE ADJUSTED IF THE UNIT BEING LOADED HAS A DIFFERENT WEIGHT. REFER TO "CHART NO. 4" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM NUMBER OF UNITS WHICH CAN BE LOADED, BASED ON THE WEIGHT OF THE UNIT TO BE SHIPPED.
3. THE ANTI-SWAY BRACE A, SHOWN IN THE LOAD VIEW AS PIECE MARKED ②, IS DESIGNED FOR USE WITHIN LOADS OF CROSSWISE-POSITIONED BOXES WHEN THE UNITS ARE ASSEMBLED ON THE TYPE I OR TYPE IA SKID BASE, OR THE TYPE II SKID BASE WHEN THE BOXES DO NOT HAVE TOP CLEATS, OR THE SKID BASE DEPICTED BY DRAWING D-AMXSV-4163. THE ANTI-SWAY BRACE B WILL BE USED FOR UNITS ASSEMBLED ON THE TYPE II SKID BASE WHEN THE BOXES HAVE TOP CLEATS. SEE PAGE 30 FOR DETAILS OF THE ANTI-SWAY BRACE ASSEMBLIES.
4. THE ANTI-SWAY BRACING MAY BE OMITTED IF THE SPACE BETWEEN LATERALLY ADJACENT UNITS IS NOT MORE THAN THE DISTANCE SPECIFIED IN THE "ANTI-SWAY BRACE REQUIREMENTS" CHART ON PAGE 30, FOR THE TYPE OF SKID BASE BEING LOADED. IF THE EXCESS SPACE EXCEEDS THE MAXIMUM ALLOWABLE, ANTI-SWAY BRACES MUST BE INSTALLED BETWEEN ALL LATERALLY ADJACENT SKIDDED UNITS.
5. TOP-OF-LOAD ANTI-SWAY BRACES, SHOWN IN THE LOAD VIEW AS PIECES MARKED ③, ARE TO BE POSITIONED BETWEEN ALL LATERALLY ADJACENT SECOND-TIER SKIDDED UNITS WHEN THE UNITS ARE OVER 44" IN HEIGHT. THE TOP-OF-LOAD ANTI-SWAY BRACE, SHOWN IN THE LOAD VIEW AS PIECE MARKED ④, IS FOR USE IN THE 1-TIER PORTION OF A LOAD BETWEEN FIRST-TIER UNITS WHICH ARE MORE THAN 44" HIGH. IF DESIRED, A PIECE MARKED ③ MAY BE USED IN LIEU OF THE PIECE MARKED ④. NOTE THAT TOP-OF-LOAD ANTI-SWAY BRACES ARE NOT REQUIRED IF THE TOTAL EXCESS SPACE ACROSS THE TRAILER IS LESS THAN 6".
6. SOLID FILL TYPE REAR BLOCKING, AS SHOWN BY PIECES MARKED ③ AND ④ ON PAGE 10, WILL BE USED IN LIEU OF THE REAR BLOCKING ASSEMBLY SHOWN IN THE LOAD VIEW, WHEN THE SPACE BETWEEN THE LADING AND THE TRAILER DOORS IS LESS THAN 12".
7. IF THE CENTER PORTION OF THE LENGTH OF THE TOP TIER IS NOT COMPLETE, SIMILAR TO THE LOAD SHOWN ON PAGE 10, A STACK UNITIZING STRAP, SHOWN AS PIECE MARKED ⑤ ON THAT PAGE, WILL BE APPLIED AROUND THE REARMOST COMPLETE STACK AND AROUND THE MOST FORWARD COMPLETE STACK IN EACH ROW WHERE THE NUMBER OF TIERS (LAYERS IN THE LOAD) CHANGES BY ONE. NOTE THAT FOR LOADS CONSISTING OF MORE THAN TWO TIERS, THE STACK UNITIZING STRAPS NEED TO ENCIRCLE ONLY THE TOP TWO (2) TIERS.
8. IF A STACK IN THE LOAD UNIT AT THE REAR OF THE TRAILER IS MORE THAN ONE UNIT HIGH, THE BUNDLING STRAPS, PIECES MARKED ⑥, MUST BE INSTALLED SO AS TO ENCIRCLE THE REARMOST TWO (2) STACKS IN EACH APPLICABLE ROW, IN LIEU OF AT THE LOCATION SHOWN IN THE LOAD VIEW. IF THE HEIGHT OF A STACK IS GREATER THAN THE LENGTH OF TWO STACKS, THE BUNDLING STRAP MUST ENCIRCLE THREE (3) STACKS.

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(SPECIAL NOTES CONTINUED)

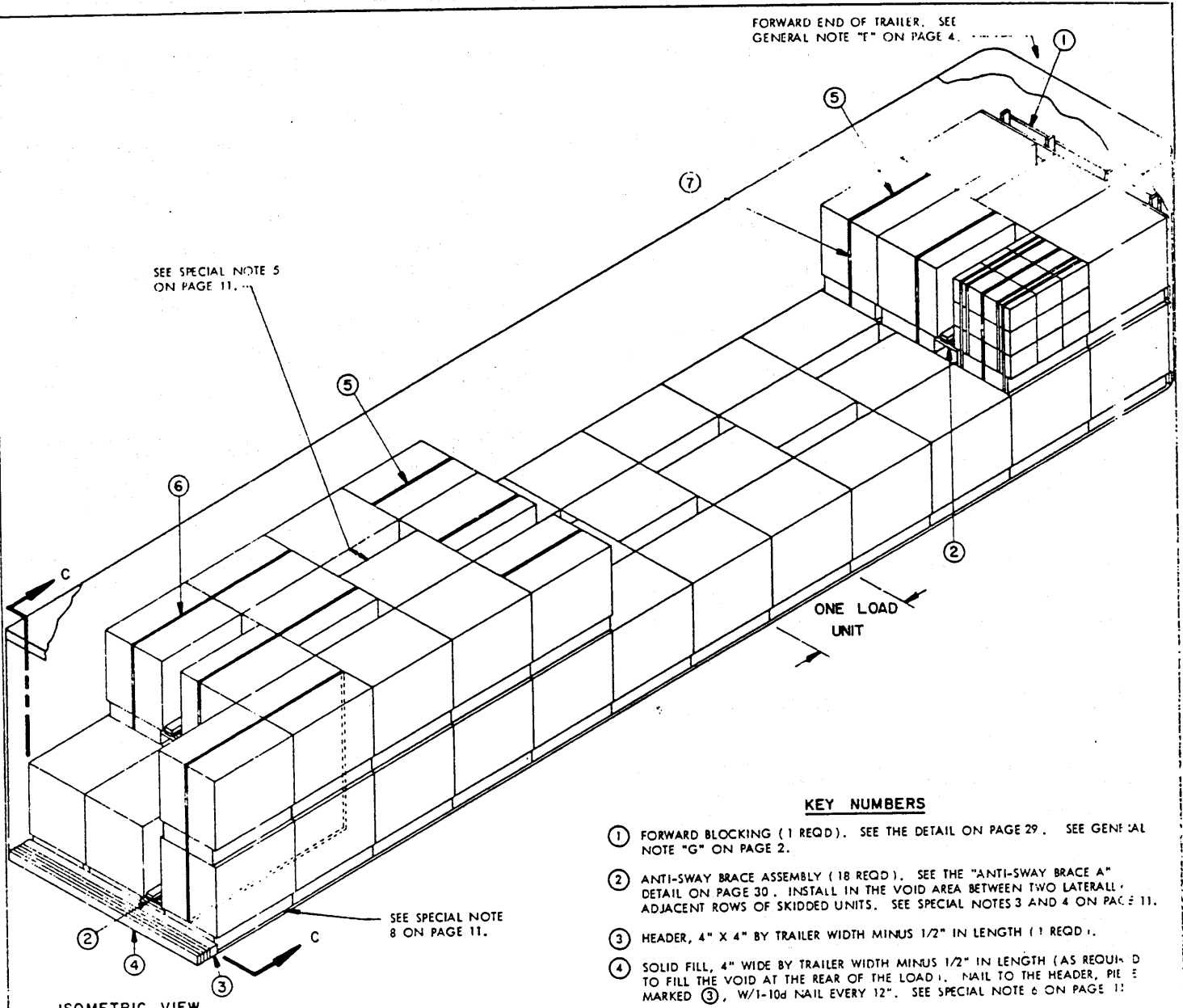
9. AT ANY LOCATION WHERE A LOAD UNIT CONSISTS OF THREE UNITS, THE STACK CONTAINING THE ODD UNIT MUST BE SECURED TO THE STACK IMMEDIATELY FORWARD (OR REARWARD) WITH A BUNDLING STRAP, TO PROVIDE LATERAL STABILITY FOR THE ODD UNIT. NOTE THAT LOADS SHOULD BE PLANNED SO THAT THERE WILL NOT BE A LONE UNIT IN A TOP TIER.
10. IF THE SIZE AND/OR WEIGHT OF THE SKIDDED UNITS TO BE TRANSPORTED IS SUCH THAT MORE THAN TWO TIERS ARE NECESSARY IN ORDER TO OBTAIN THE DESIRED LOAD QUANTITIES AND/OR WEIGHT, AND THE HEIGHT OF THE UNITS AND THE INSIDE HEIGHT OF THE TRAILER PERMIT, THE PRINCIPLES EMPLOYED IN THE LOADING PROCEDURES DEPICTED ON PAGES 12 AND 13 WILL BE USED AS GUIDANCE IN THE DEVELOPMENT OF A FULL OR PARTIAL 3-TIER LOAD.
11. THE DEPICTED LOAD CAN BE ADJUSTED TO SUIT THE QUANTITY TO BE SHIPPED, OR TO SUIT THE SIZE AND/OR WEIGHT OF THE UNIT BEING LOADED. A 2-TIER LOAD CAN BE REDUCED BY A MULTIPLE OF FOUR (4) UNITS BY OMITTING ONE OR MORE FULL LOAD UNITS FROM THE LOAD; OR, THE ENTIRE TOP TIER CAN BE LEFT OFF; OR, ONE OR MORE UNITS CAN BE ADDED TO OR OMITTED FROM THE TOP TIER. SEE SPECIAL NOTE 9 ABOVE.
12. AS APPLICABLE, IT IS TO BE NOTED THAT UNITS WHICH ARE 29-5/8" OR LESS IN WIDTH FOR A 7'-6" WIDE TRAILER, OR PROPORTIONATELY WIDER UNITS IN WIDER TRAILERS, CAN BE LOADED IN LARGER QUANTITIES IF 3-WIDE LOADING PROCEDURES ARE EMPLOYED. SEE THE LOADING PROCEDURES DEPICTED ON PAGES 10 AND 11 OR ON PAGES 12 AND 13 FOR GUIDANCE.
13. IF A SKIDDED UNIT WHICH DOES NOT CONTAIN A FULL QUANTITY OF BOXES IS TO BE TRANSPORTED, THAT SHORT UNIT SHOULD BE POSITIONED EITHER WITHIN THE 1-HIGH LOAD UNIT AT THE REAR OF THE TRAILER OR AT THE REAR OF THE 2-HIGH PORTION OF THE LOAD. IN LIEU OF EITHER OF THOSE, THE SHORT UNIT MAY BE POSITIONED ON TOP OF THE LOAD (TRAILER HEIGHT PERMITTING). REFER TO THE "SHIPMENT OF PARTIAL UNITS" PROCEDURES ON PAGE 38 FOR GUIDANCE IN SECUREMENT OF UNITS POSITIONED IN AN UPPER TIER.
14. LEFTOVER BOXES, IN AN AMOUNT NOT TO EXCEED THE QUANTITY IN ONE LAYER OF A UNIT, MAY BE SECURED TO THE TOP OF A FULL SKIDDED UNIT FOR SHIPMENT. REFER TO THE "SHIPMENT OF LEFTOVER BOXES" PROCEDURES ON PAGE 39 FOR GUIDANCE.

BILL OF MATERIAL (TYPICAL)		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	232	78
2" X 4"	403	269
2" X 6"	55	55
4" X 4"	18	24
NAILS	NO. REQD	POUNDS
6d (2")	32	1/4
10d (3")	120	2
12d (3-1/4")	138	2-1/2
16d (3-1/2")	16	1/2
20d (4")	184	6-3/4
STEEL STRAPPING, 1-1/4" X .035" ----- 58' REQD ----- 9 LBS		
SEAL FOR 1-1/4" STRAPPING ----- 4 REQD ----- NIL		

LOAD AS SHOWN (TYPICAL)

ITEM	QUANTITY	WEIGHT (APPROX)
SKIDDED UNIT -----	46	40,940 LBS
DUNNAGE -----		1,079 LBS
TOTAL WEIGHT -----		42,019 LBS

**TYPICAL 2-WIDE LOAD (BOXES CROSSWISE)
IN A 40'-0" LONG CONVENTIONAL VAN TRAILER**



FORWARD END OF TRAILER. SEE GENERAL NOTE "T" ON PAGE 4.

SEE SPECIAL NOTE 5 ON PAGE 11.

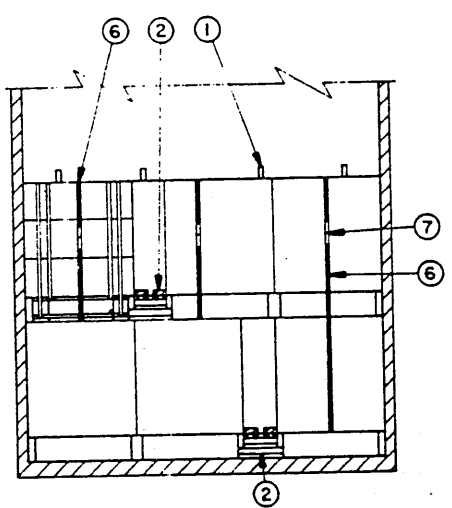
SEE SPECIAL NOTE 8 ON PAGE 11.

ONE LOAD UNIT

KEY NUMBERS

- ① FORWARD BLOCKING (1 REQD). SEE THE DETAIL ON PAGE 29. SEE GENERAL NOTE "G" ON PAGE 2.
- ② ANTI-SWAY BRACE ASSEMBLY (18 REQD). SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 30. INSTALL IN THE VOID AREA BETWEEN TWO LATERAL ADJACENT ROWS OF SKIDDED UNITS. SEE SPECIAL NOTES 3 AND 4 ON PAGE 11.
- ③ HEADER, 4" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (1 REQD).
- ④ SOLID FILL, 4" WIDE BY TRAILER WIDTH MINUS 1/2" IN LENGTH (AS REQUIRED TO FILL THE VOID AT THE REAR OF THE LOAD). NAIL TO THE HEADER, PIECE MARKED ③, W/1-10d NAIL EVERY 12". SEE SPECIAL NOTE 6 ON PAGE 11.
- ⑤ STACK UNITIZING STRAP, 1-1/4" X .035" X 19'-0" LONG (REF) STEEL STRAPPING (6 REQD). INSTALL SO AS TO ENCIRCLE A TOP-LAYER SKIDDED UNIT AND THE UNIT DIRECTLY BELOW. SEE SPECIAL NOTE 7 ON PAGE 11.
- ⑥ BUNDLING STRAP, 1-1/4" X .035" X 26'-0" LONG (REF) STEEL STRAPPING (3 REQD). INSTALL SO AS TO ENCIRCLE TWO (2) COMPLETE STACKS. SEE SPECIAL NOTES 8 AND 9 ON PAGE 11.
- ⑦ SEAL FOR 1-1/4" STRAPPING (18 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "J" ON PAGE 2.

ISOMETRIC VIEW



SECTION C-C

TYPICAL 3-WIDE LOAD (BOXES CROSSWISE) IN A 40'-0" LONG CONVENTIONAL VAN TRAILER

SPECIAL NOTES:

(SPECIAL NOTES CONTINUED)

1. A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TRAILER IS SHOWN. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. THE SKIDDED UNIT SHOWN IN THE TYPICAL 3-WIDE LOAD ON PAGE 10 HAS OVERALL DIMENSIONS OF 38-1/4" LONG BY 27-1/4" WIDE BY 35-3/4" HIGH. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR UNITS OF OTHER LENGTHS, AND FOR UNITS HAVING WIDTHS OF FROM 27" THRU 29-5/8" IN A 7'-6" WIDE TRAILER. REFER TO "CHART NO. 1" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM WIDTHS OF UNITS WHICH CAN BE LOADED THREE WIDE IN TRAILERS OF OTHER INSIDE WIDTHS. A 2-TIER LOAD IS SHOWN AS TYPICAL. REFER TO "CHART NO. 3" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM NUMBER OF TIERS WHICH CAN BE LOADED IN VARIOUS HEIGHT VAN TRAILERS BASED ON THE HEIGHT OF THE SKIDDED UNIT BEING LOADED. THE WEIGHT OF THE DEPICTED UNIT IS 760 POUNDS. THE NUMBER OF UNITS MAY NEED TO BE ADJUSTED IF THE UNIT BEING LOADED HAS A DIFFERENT WEIGHT. REFER TO "CHART NO. 4" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM NUMBER OF UNITS WHICH CAN BE LOADED, BASED ON THE WEIGHT OF THE UNIT TO BE SHIPPED.
3. THE ANTI-SWAY BRACE A, SHOWN IN THE LOAD VIEW AS PIECE MARKED ②, IS DESIGNED FOR USE WITHIN LOADS OF CROSSWISE-POSITIONED BOXES WHEN THE UNITS ARE ASSEMBLED ON THE TYPE I OR TYPE JA SKID BASE, OR THE TYPE II SKID BASE WHEN THE BOXES DO NOT HAVE TOP CLEATS, OR THE SKID BASE DEPICTED BY DRAWING D-AMXSV-4163. THE ANTI-SWAY BRACE B WILL BE USED FOR UNITS ASSEMBLED ON THE TYPE II SKID BASE WHEN THE BOXES HAVE TOP CLEATS. SEE PAGE 30 FOR DETAILS OF THE ANTI-SWAY BRACE ASSEMBLIES.
4. THE ANTI-SWAY BRACING MAY BE OMITTED IF THE TOTAL EXCESS SPACE ACROSS THE TRAILER IS NOT MORE THAN THE DISTANCE SPECIFIED IN THE "ANTI-SWAY BRACE REQUIREMENTS" CHART ON PAGE 30, FOR THE TYPE OF SKID BASE BEING LOADED. IF THE EXCESS SPACE EXCEEDS THE MAXIMUM ALLOWABLE, ANTI-SWAY BRACES MUST BE POSITIONED IN THE VOID AREA BETWEEN TWO ROWS OF LATERALLY ADJACENT SKIDDED UNITS AT ALL LOCATIONS.
5. TOP-OF-LOAD ANTI-SWAY BRACES, SHOWN IN THE LOAD VIEW ON PAGE 8 AS PIECES MARKED ③, MUST BE POSITIONED IN THE VOID AREAS BETWEEN TWO LATERALLY ADJACENT ROWS OF SECOND-TIER SKIDDED UNITS IF THE UNITS ARE OVER 44" IN HEIGHT. TOP-OF-LOAD ANTI-SWAY BRACES, SHOWN IN THE LOAD VIEW ON PAGE 8 AS PIECE MARKED ④, MUST BE POSITIONED IN THE VOID AREAS BETWEEN TWO ROWS OF ALL FIRST-TIER SKIDDED UNITS IN THE 1-TIER PORTION OF A LOAD IF THE UNITS ARE OVER 44" HIGH. IF DESIRED, PIECES MARKED ③ ON PAGE 8 MAY BE USED BETWEEN THE FIRST-TIER UNITS IN LIEU OF PIECES MARKED ④. NOTE THAT TOP-OF-LOAD ANTI-SWAY BRACES ARE NOT REQUIRED IF THE TOTAL EXCESS SPACE ACROSS THE TRAILER IS LESS THAN 6".
6. STRUT TYPE REAR BLOCKING, AS SHOWN BY PIECE MARKED ⑤ ON PAGE 8, WILL BE USED IN LIEU OF THE REAR BLOCKING SHOWN IN THE LOAD VIEW, WHEN THE SPACE BETWEEN THE LADING AND THE TRAILER DOORS IS 12" OR MORE.
7. A STACK UNITIZING STRAP, PIECE MARKED ⑥, WILL BE APPLIED AROUND THE REARMOST COMPLETE STACK AND AROUND THE MOST FORWARD COMPLETE STACK IN EACH ROW WHERE THE NUMBER OF TIERS (LAYERS IN THE LOAD) CHANGES BY ONE. AN EXAMPLE OF THIS SITUATION IS SHOWN IN THE LOAD VIEW ON PAGE 10 WHERE THE TOP TIER IS NOT COMPLETE. NOTE THAT FOR LOADS CONSISTING OF MORE THAN TWO TIERS, THE STACK UNITIZING STRAPS NEED TO ENCIRCLE ONLY THE TOP TWO (2) TIERS. SEE SPECIAL NOTE 8.
8. IF A STACK IN THE LOAD UNIT AT THE REAR OF THE TRAILER IS MORE THAN ONE UNIT HIGH, SUCH AS IS THE CASE WITH THE RIGHT-HAND ROW IN THE DEPICTED LOAD, A BUNDLING STRAP, SHOWN AS PIECE MARKED ⑦, MUST BE INSTALLED SO AS TO ENCIRCLE THE REARMOST TWO (2) STACKS IN EACH APPLICABLE ROW. IF THE HEIGHT OF A STACK IS GREATER THAN THE LENGTH OF TWO STACKS, THE BUNDLING STRAP MUST ENCIRCLE THREE (3) STACKS.
9. AT ANY LOCATION WHERE A LOAD UNIT CONSISTS OF FOUR UNITS, THE STACK CONTAINING AN ODD UNIT MUST BE SECURED TO THE STACK IMMEDIATELY FORWARD (OR REARWARD) WITH A BUNDLING STRAP, TO PROVIDE LATERAL STABILITY FOR THE ODD UNIT. NOTE THAT LOADS SHOULD BE PLANNED SO THAT THERE WILL NOT BE A LONE UNIT IN A TOP TIER. IF A LOAD UNIT CONSISTS OF FIVE UNITS, OMIT THE CENTER UNIT FROM THE TOP TIER AND INCREASE THE WIDTH OF THE ANTI-SWAY BRACE.
10. IF THE SIZE AND/OR WEIGHT OF THE SKIDDED UNITS TO BE TRANSPORTED IS SUCH THAT MORE THAN TWO TIERS ARE NECESSARY IN ORDER TO OBTAIN THE DESIRED LOAD QUANTITIES AND/OR WEIGHT, AND THE HEIGHT OF THE UNITS AND THE INSIDE HEIGHT OF THE TRAILER PERMIT, THE PRINCIPLES EMPLOYED IN THE LOADING PROCEDURES DEPICTED ON PAGES 12 AND 13 WILL BE USED AS GUIDANCE IN THE DEVELOPMENT OF A FULL OR PARTIAL 3-TIER LOAD.
11. THE DEPICTED LOAD CAN BE ADJUSTED TO SUIT THE QUANTITY TO BE SHIPPED, OR TO SUIT THE SIZE AND/OR WEIGHT OF THE UNIT BEING LOADED. A 2-TIER LOAD CAN BE REDUCED OR INCREASED BY A MULTIPLE OF SIX (6) UNITS BY OMITTING OR ADDING ONE OR MORE FULL LOAD UNITS; OR, THE REMAINDER OF THE TOP TIER CAN BE FILLED OR THE ENTIRE TOP TIER CAN BE LEFT OFF; OR, ONE OR MORE UNITS CAN BE ADDED TO OR OMITTED FROM THE TOP TIER, APPLYING EITHER THE PROCEDURES SHOWN OR THE PROCEDURES SPECIFIED ABOVE.
12. IF A SKIDDED UNIT WHICH DOES NOT CONTAIN A FULL QUANTITY OF BOXES IS TO BE TRANSPORTED, THAT SHORT UNIT SHOULD BE POSITIONED AT THE REAR OF ONE OF THE 2-HIGH PORTIONS OF THE LOAD, OR ON TOP OF THE LOAD (TRAILER HEIGHT PERMITTING). REFER TO THE "SHIPMENT OF PARTIAL UNITS" PROCEDURES ON PAGE 38 FOR GUIDANCE.
13. LEFTOVER BOXES, IN AN AMOUNT NOT TO EXCEED THE QUANTITY IN ONE LAYER OF A UNIT, MAY BE SECURED TO THE TOP OF A FULL SKIDDED UNIT FOR SHIPMENT. REFER TO THE "SHIPMENT OF LEFTOVER BOXES" PROCEDURES ON PAGE 39 FOR GUIDANCE.

(CONTINUED AT RIGHT)

BILL OF MATERIAL (TYPICAL)		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	140	47
2" X 4"	258	172
2" X 6"	114	114
4" X 4"	8	11
NAILS	NO. REQD	POUNDS
10d (3")	97	1-1/2
12d (3-1/4")	72	1-1/4
20d (4")	144	5-1/4
STEEL STRAPPING, 1-1/4" X .035" ---- 192' REQD ----- 28 LBS		
SEAL FOR 1-1/4" STRAPPING ----- 18 REQD ----- NIL		

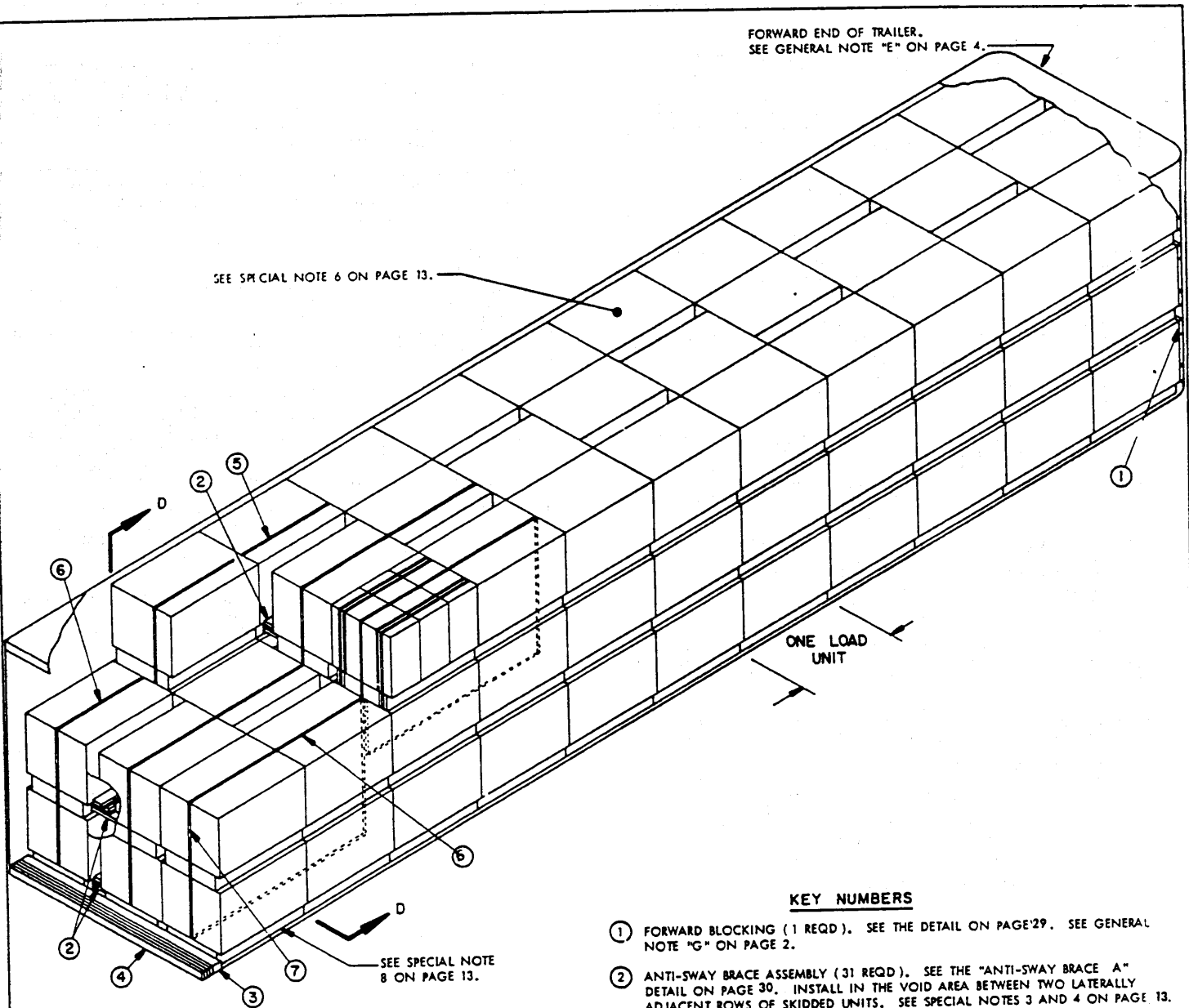
LOAD AS SHOWN (TYPICAL)

ITEM	QUANTITY	WEIGHT (APPROX)
SKIDDED UNIT	55	41,800 LBS
DUNNAGE		868 LBS
TOTAL WEIGHT		42,668 LBS

**TYPICAL 3-WIDE LOAD (BOXES CROSSWISE)
IN A 40'-0" LONG CONVENTIONAL VAN TRAILER**

FORWARD END OF TRAILER.
SEE GENERAL NOTE "E" ON PAGE 4.

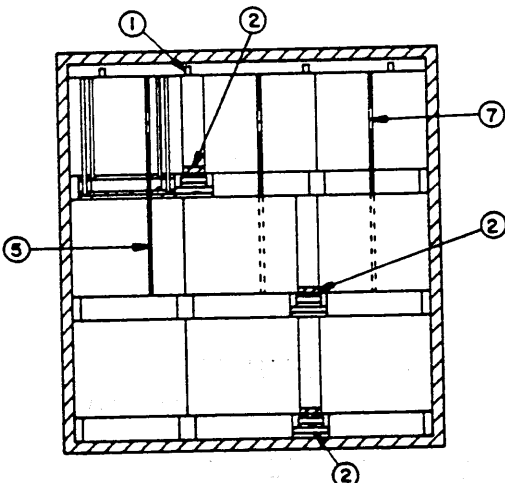
SEE SPECIAL NOTE 6 ON PAGE 13.



ISOMETRIC VIEW

KEY NUMBERS

- ① FORWARD BLOCKING (1 REQD). SEE THE DETAIL ON PAGE 29. SEE GENERAL NOTE "G" ON PAGE 2.
- ② ANTI-SWAY BRACE ASSEMBLY (31 REQD). SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 30. INSTALL IN THE VOID AREA BETWEEN TWO LATERALLY ADJACENT ROWS OF SKIDDED UNITS. SEE SPECIAL NOTES 3 AND 4 ON PAGE 13.
- ③ HEADER, 4" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (1 REQD).
- ④ SOLID FILL, 4" WIDE BY TRAILER WIDTH MINUS 1/2" IN LENGTH (AS REQUIRED TO FILL THE VOID AT THE REAR OF THE LOAD). NAIL TO THE HEADER, PIECE MARKED ③, W/1-10d NAIL EVERY 12". SEE SPECIAL NOTE 5 ON PAGE 13.
- ⑤ BUNDLING STRAP, 1-1/4" X .035" X 26'-0" LONG (REF) STEEL STRAPPING (3 REQD). INSTALL SO AS TO ENCIRCLE TWO (2) TOP-TIER SKIDDED UNITS AND THE UNITS DIRECTLY BELOW. SEE SPECIAL NOTES 6 AND 7 ON PAGE 13.
- ⑥ BUNDLING STRAP, 1-1/4" X .035" X 26'-0" LONG (REF) STEEL STRAPPING (3 REQD). INSTALL SO AS TO ENCIRCLE TWO (2) SKIDDED UNIT STACKS AS SHOWN. SEE SPECIAL NOTE 8 ON PAGE 13.
- ⑦ SEAL FOR 1-1/4" STRAPPING (12 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "J" ON PAGE 2.



SECTION D-D

TYPICAL 3-WIDE MULTI-TIER LOAD (BOXES CROSSWISE)
IN A 40'-0" LONG CONVENTIONAL VAN TRAILER

SPECIAL NOTES:

1. A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TRAILER IS SHOWN. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. THE SKIDDED UNIT SHOWN IN THE TYPICAL 3-WIDE LOAD ON PAGE 12 HAS OVERALL DIMENSIONS OF 41'-5/8" LONG BY 28'-1/4" WIDE BY 31" HIGH. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR UNITS OF OTHER LENGTHS, AND FOR UNITS HAVING WIDTHS OF FROM 27" THRU 29'-5/8" IN A 7'-6" WIDE TRAILER. REFER TO "CHART NO. 1" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM WIDTHS OF UNITS WHICH CAN BE LOADED THREE WIDE IN TRAILERS OF OTHER INSIDE WIDTHS. A 3-TIER LOAD IS SHOWN AS TYPICAL. REFER TO "CHART NO. 3" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM NUMBER OF TIERS WHICH CAN BE LOADED IN VARIOUS HEIGHT VAN TRAILERS BASED ON THE HEIGHT OF THE SKIDDED UNIT BEING LOADED. THE WEIGHT OF THE DEPICTED UNIT IS 253 POUNDS. THE NUMBER OF UNITS MAY NEED TO BE ADJUSTED IF THE UNIT BEING LOADED HAS A DIFFERENT WEIGHT. REFER TO "CHART NO. 4" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM NUMBER OF UNITS WHICH CAN BE LOADED, BASED ON THE WEIGHT OF THE UNIT TO BE SHIPPED.
3. THE ANTI-SWAY BRACE A, SHOWN IN THE LOAD VIEW AS PIECE MARKED ②, IS DESIGNED FOR USE WITHIN LOADS OF CROSSWISE-POSITIONED BOXES WHEN THE UNITS ARE ASSEMBLED ON THE TYPE I OR TYPE IA SKID BASE, OR THE TYPE II SKID BASE WHEN THE BOXES DO NOT HAVE TOP CLEATS, OR THE SKID BASE DEPICTED BY DRAWING D-AMXSV-4163. THE ANTI-SWAY BRACE B WILL BE USED FOR UNITS ASSEMBLED ON THE TYPE II SKID BASE WHEN THE BOXES HAVE TOP CLEATS. SEE PAGE 30 FOR DETAILS OF THE ANTI-SWAY BRACE ASSEMBLIES.
4. THE ANTI-SWAY BRACING MAY BE OMITTED IF THE TOTAL EXCESS SPACE ACROSS THE TRAILER IS NOT MORE THAN THE DISTANCE SPECIFIED IN THE "ANTI-SWAY BRACE REQUIREMENTS" CHART ON PAGE 30, FOR THE TYPE OF SKID BASE BEING LOADED. IF THE EXCESS SPACE EXCEEDS THE MAXIMUM ALLOWABLE, ANTI-SWAY BRACES MUST BE POSITIONED IN THE VOID AREA BETWEEN TWO ROWS OF LATERALLY ADJACENT SKIDDED UNITS AT ALL LOCATIONS.
5. STRUT TYPE REAR BLOCKING, AS SHOWN BY PIECE MARKED ⑤ ON PAGE 8, WILL BE USED IN LIEU OF THE REAR BLOCKING SHOWN IN THE LOAD VIEW, WHEN THE SPACE BETWEEN THE LADING AND THE TRAILER DOORS IS 12" OR MORE.
6. IF THE CENTER PORTION OF THE LENGTH OF THE TOP TIER IS NOT COMPLETE, SIMILAR TO THE LOAD SHOWN ON PAGE 10, STACK UNITIZING STRAPS, SHOWN AS PIECES MARKED ③ ON THAT PAGE, WILL BE APPLIED. INSTALL AROUND THE TOP TWO TIERS OF THE REARMOST COMPLETE STACK AND AROUND THE TOP TWO TIERS OF THE MOST FORWARD COMPLETE STACK IN EACH ROW WHERE THE NUMBER OF TIERS (LAYERS IN A LOAD) CHANGES BY ONE.
7. AT ANY LOCATION, OTHER THAN AT THE REARMOST LOAD UNIT, WHERE A LOAD UNIT DOES NOT CONSIST OF A FULL QUANTITY OF UNITS (9 UNITS IN A 3-TIER LOAD, OR 12 UNITS IN A 4-TIER LOAD), THE TOP TWO (2) TIERS OF EACH STACK CONTAINING AN ODD UNIT MUST BE SECURED TO THE TOP TWO TIERS OF A COMPLETE STACK IMMEDIATELY FORWARD (OR REARWARD) WITH A BUNDLING STRAP, TO PROVIDE LATERAL STABILITY FOR THE ODD UNIT. NOTE THAT LOADS SHOULD BE PLANNED SO THAT THERE WILL NOT BE A LONE UNIT IN A TOP TIER.
8. FOR LOADS OF MORE THAN TWO TIERS, WHEN THE STACKS IN THE LOAD UNIT AT THE REAR OF THE TRAILER CONTAIN LESS TIERS THAN THE LOAD UNITS FURTHER FORWARD IN THE LOAD, AS SHOWN IN THE LOAD ON PAGE 12, TWO (2) BUNDLING STRAPS MUST BE APPLIED FOR EACH APPLICABLE ROW. ONE MUST BE INSTALLED TO ENCIRCLE THE TOP TWO TIERS OF THE REARMOST COMPLETE STACK IN A ROW AND THE TOP TWO TIERS OF THE STACK IMMEDIATELY FORWARD, AS SHOWN BY PIECES MARKED ⑤. THE OTHER BUNDLING STRAP MUST BE INSTALLED TO ENCIRCLE THE REARMOST STACK IN A ROW AND THE SAME QUANTITY OF TIERS IN THE STACK IMMEDIATELY FORWARD, AS SHOWN BY PIECES MARKED ⑥. PIECES MARKED ⑤ WILL NOT BE REQUIRED IF THE TOP TIER EXTENDS TO THE REAR OF THE LOAD.

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(SPECIAL NOTES CONTINUED)

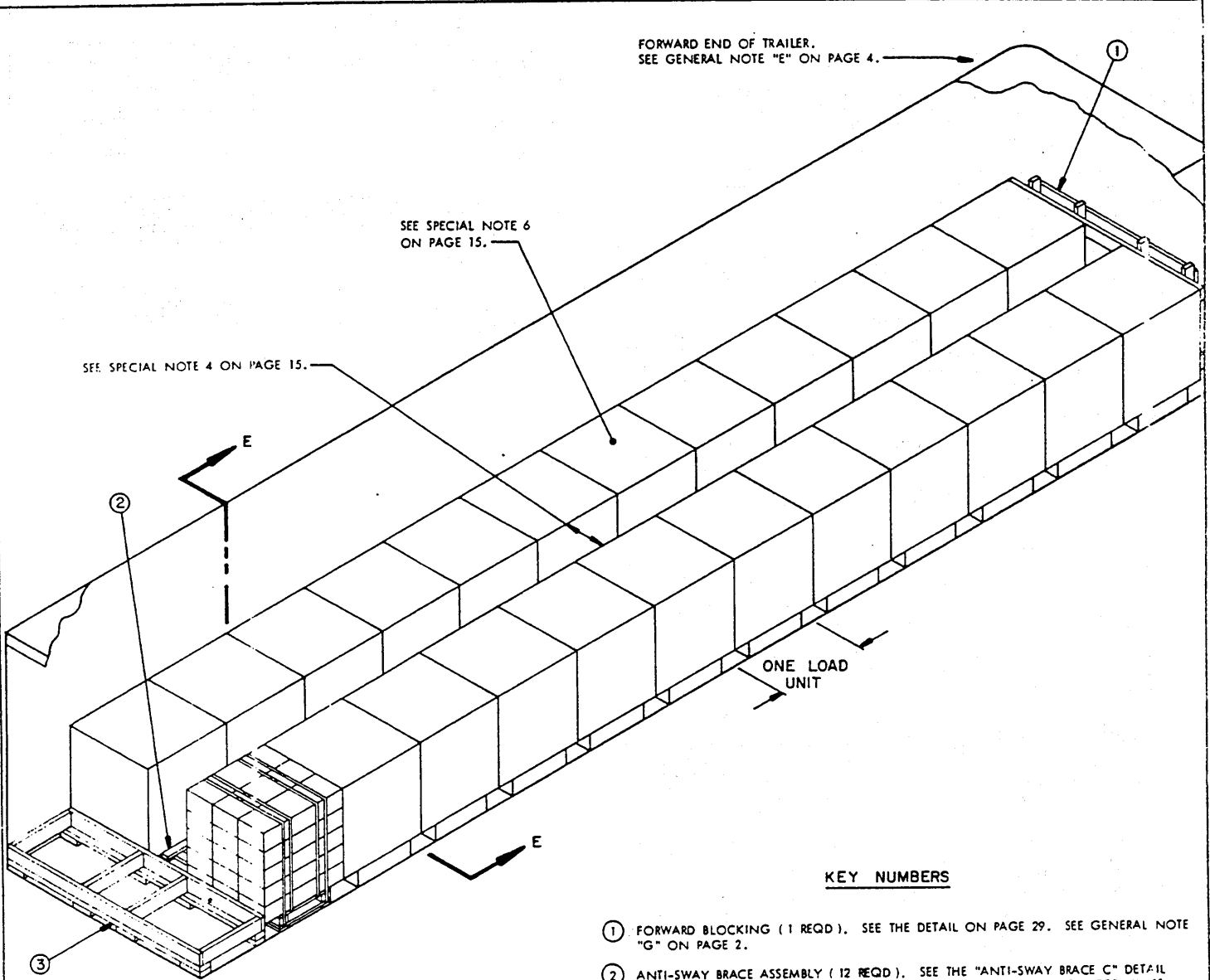
9. THE DEPICTED LOAD CAN BE ADJUSTED TO SUIT THE QUANTITY TO BE SHIPPED, OR TO SUIT THE SIZE AND/OR WEIGHT OF THE UNIT BEING LOADED. A 3-TIER LOAD CAN BE REDUCED OR INCREASED BY A MULTIPLE OF NINE (9) UNITS OR A 4-TIER LOAD CAN BE REDUCED OR INCREASED BY A MULTIPLE OF TWELVE (12) UNITS BY OMITTING OR ADDING ONE OR MORE FULL LOAD UNITS; OR, THE REMAINDER OF THE TOP TIER CAN BE FILLED OR THE ENTIRE TOP TIER CAN BE LEFT OFF; OR, ONE OR MORE UNITS CAN BE ADDED TO OR OMITTED FROM THE TOP TIER, APPLYING EITHER THE PROCEDURES SHOWN OR THE PROCEDURES SPECIFIED AT LEFT.
10. IF A SKIDDED UNIT WHICH DOES NOT CONTAIN A FULL QUANTITY OF BOXES IS TO BE TRANSPORTED, THAT SHORT UNIT SHOULD BE POSITIONED AT THE REAR OF THE TOP TIER OF THE LOAD, OR ON TOP OF THE LOAD (TRAILER HEIGHT PERMITTING). REFER TO THE "SHIPMENT OF PARTIAL UNITS" PROCEDURES ON PAGE 38 FOR GUIDANCE.
11. LEFTOVER BOXES, IN AN AMOUNT NOT TO EXCEED THE QUANTITY IN ONE LAYER OF A UNIT, MAY BE SECURED TO THE TOP OF A FULL SKIDDED UNIT FOR SHIPMENT. REFER TO THE "SHIPMENT OF LEFTOVER BOXES" PROCEDURES ON PAGE 39 FOR GUIDANCE.

BILL OF MATERIAL (TYPICAL)		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	34	12
1" X 6"	103	52
2" X 4"	162	108
2" X 6"	184	184
4" X 4"	38	51
NAILS	NO. REQD	POUNDS
10d (3")	124	2
12d (3-1/4")	124	2-1/4
20d (4")	124	4-1/2
STEEL STRAPPING, 1-1/4" X .035" ----- 156' REQD ----- 23 LBS		
SEAL FOR 1-1/4" STRAPPING ----- 12 REQD ----- NIL		

LOAD AS SHOWN (TYPICAL)

ITEM	QUANTITY	WEIGHT (APPROX)
SKIDDED UNIT -----	94 -----	23,782 LBS
DUNNAGE -----	-----	1,050 LBS
TOTAL WEIGHT -----		24,832 LBS

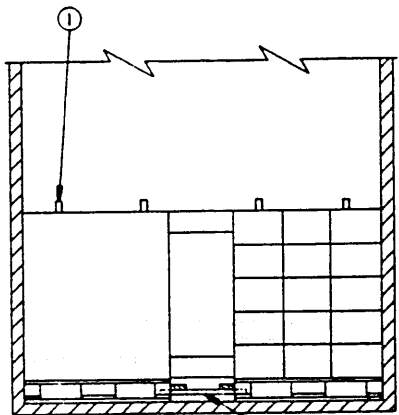
**TYPICAL 3-WIDE MULTI-TIER LOAD (BOXES CROSSWISE)
IN A 40'-0" LONG CONVENTIONAL VAN TRAILER**



ISOMETRIC VIEW

KEY NUMBERS

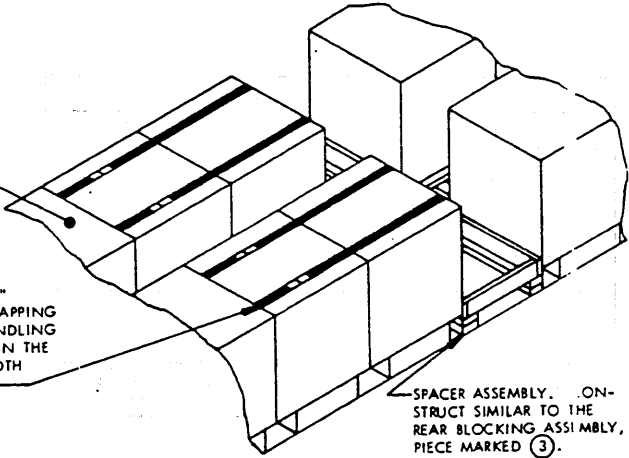
- ① FORWARD BLOCKING (1 REQD). SEE THE DETAIL ON PAGE 29. SEE GENERAL NOTE "G" ON PAGE 2.
- ② ANTI-SWAY BRACE ASSEMBLY (12 REQD). SEE THE "ANTI-SWAY BRACE C" DETAIL ON PAGE 31. INSTALL BETWEEN LATERALLY ADJACENT ROWS OF SKIDDED UNITS. SEE SPECIAL NOTE 3 ON PAGE 15.
- ③ REAR BLOCKING ASSEMBLY (1 REQD). SEE THE "REAR BLOCKING B" DETAIL ON PAGE 35. SEE SPECIAL NOTE 5 ON PAGE 15.



SECTION E-E

INDICATES THE REAR PORTION OF THE LOAD.

BUNDLING STRAP, 1-1/4" X .035" BY A LENGTH TO SUIT STEEL STRAPPING (4 REQD). NOTE THAT THE BUNDLING STRAPS ARE ONLY REQUIRED WHEN THE UNITS ARE TALLER THAN THE WIDTH OF THE SKID BASE.



ALT LOADING PATTERN

SEE SPECIAL NOTE 6 ON PAGE 15.

TYPICAL 2-WIDE LOAD (BOXES LENGTHWISE)
IN A 40'-0" LONG CONVENTIONAL VAN TRAILER

SPECIAL NOTES:

1. A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TRAILER IS SHOWN. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. THE SKIDDED UNIT SHOWN IN THE TYPICAL 2-WIDE LOAD ON PAGE 14 HAS OVERALL DIMENSIONS OF 36-1/2" LONG BY 37" WIDE BY 43" HIGH. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR UNITS OF OTHER WIDTHS, AND FOR UNITS HAVING LENGTHS OF FROM 25" THRU 44-1/2" IN A 7'-6" WIDE TRAILER. REFER TO "CHART NO. 1" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM LENGTHS OF UNITS WHICH CAN BE LOADED TWO WIDE IN TRAILERS OF OTHER WIDTHS. REFER TO THE "SKIDDED UNIT LENGTH/WIDTH COMBINATIONS" CHART ON PAGE 23 FOR COMBINATIONS OF LENGTHS AND WIDTHS OF UNITS WHICH WOULD BE ACCEPTABLE FOR CHIMNEY-PATTERN LOADS. A 1-TIER LOAD IS SHOWN AS TYPICAL. FOR PROCEDURES APPLICABLE FOR LOADS OF TWO TIERS, REFER TO PAGES 16 THRU 19. PROCEDURES APPLICABLE FOR LOADS OF THREE OR MORE TIERS ARE SHOWN ON PAGES 20 AND 21. REFER TO "CHART NO. 3" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM NUMBER OF TIERS WHICH CAN BE LOADED IN VARIOUS HEIGHT VAN TRAILERS BASED ON THE HEIGHT OF THE SKIDDED UNIT TO BE LOADED. THE WEIGHT OF THE DEPICTED UNIT IS 1,730 POUNDS. THE NUMBER OF UNITS MAY NEED TO BE ADJUSTED IF THE UNIT BEING LOADED HAS A DIFFERENT WEIGHT. REFER TO "CHART NO. 4" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM NUMBER OF UNITS WHICH CAN BE LOADED, BASED ON THE WEIGHT OF THE UNIT TO BE SHIPPED.
3. THE ANTI-SWAY BRACING MAY BE OMITTED IF THE TOTAL LATERAL EXCESS SPACE IS LESS THAN 2-1/4". IF THE EXCESS SPACE IS 2-1/4" OR MORE, ANTI-SWAY BRACES MUST BE INSTALLED BETWEEN ALL LATERALLY ADJACENT UNITS.
4. TOP-OF-LOAD ANTI-SWAY BRACES MUST BE POSITIONED BETWEEN ALL LATERALLY ADJACENT UNITS WHEN THE UNITS ARE OVER 44" IN HEIGHT. REFER TO PIECE MARKED ③ ON PAGE 26 FOR A TYPICAL INSTALLATION. SEE THE "TOP-OF-LOAD ANTI-SWAY BRACE C" DETAIL ON PAGE 34 FOR CONSTRUCTION GUIDANCE. WIRE TIE TO A UNITIZING STRAP WITH NO. 14 GAGE WIRE AS SHOWN BY THE "TIE WIRE APPLICATION C" DETAIL ON PAGE 34.
5. IF THE SPACE BETWEEN THE LADING AND THE TRAILER DOORS IS LESS THAN 9", SOLID FILL TYPE REAR BLOCKING WILL BE USED IN LIEU OF THE DEPICTED REAR BLOCKING ASSEMBLY. SEE THE "REAR BLOCKING D" DETAIL ON PAGE 36 FOR GUIDANCE.
6. IF THE SIZE AND WEIGHT OF THE UNIT BEING LOADED IS SUCH THAT A FULL TIER CANNOT BE LOADED WITHOUT EXCEEDING WEIGHT LIMITATIONS, IT MAY BE NECESSARY TO PROVIDE A LOAD SEPARATION WITHIN THE LENGTH OF THE LOAD. LOAD SEPARATION SHOULD BE MAINTAINED BY INSTALLING A SPACER ASSEMBLY OF SUFFICIENT SIZE, CONSTRUCTED SIMILAR TO THE REAR BLOCKING ASSEMBLY, PIECE MARKED ③. POSITION THE ASSEMBLY AT A LOCATION WITHIN THE LOAD SO AS TO PROVIDE PROPER WEIGHT DISTRIBUTION. IF THE UNIT BEING LOADED IS TALLER THAN IT IS LONG, INSTALL TWO (2) BUNDLING STRAPS SO AS TO ENCIRCLE TWO UNITS ADJACENT TO THE SPACER ASSEMBLY ON THE REARWARD SIDE. SEE THE "ALT LOADING PATTERN" VIEW ON PAGE 14 FOR GUIDANCE.
7. THE DEPICTED LOAD CAN BE ADJUSTED TO SUIT THE QUANTITY TO BE SHIPPED, OR TO SUIT THE SIZE AND/OR WEIGHT OF THE UNIT BEING LOADED. A LOAD CAN BE INCREASED OR REDUCED BY A MULTIPLE OF TWO (2) UNITS BY ADDING OR OMITTING ONE OR MORE FULL LOAD UNITS. A LOAD CAN BE INCREASED OR REDUCED BY ONE (1) UNIT BY POSITIONING A FILLER B (OR FILLER C, AS APPLICABLE) IN THE PLACE OF A UNIT OMITTED FROM A LOAD UNIT. SEE THE "FILLER B" OR "FILLER C" DETAIL ON PAGE 37. REFER TO PIECE MARKED ④ ON PAGE 26 FOR A TYPICAL INSTALLATION.
8. IF A SKIDDED UNIT WHICH DOES NOT CONTAIN A FULL QUANTITY OF BOXES IS TO BE TRANSPORTED, THAT SHORT UNIT SHOULD BE POSITIONED AT THE REAR OF THE LOAD. IF SPACE IS NOT AVAILABLE THERE, IT MAY BE POSITIONED ON TOP OF THE LOAD. REFER TO THE "SHIPMENT OF PARTIAL UNITS" PROCEDURES ON PAGE 38 FOR GUIDANCE.
9. LEFTOVER BOXES, IN AN AMOUNT NOT TO EXCEED THE QUANTITY IN ONE LAYER OF A UNIT, MAY BE SECURED TO THE TOP OF A FULL SKIDDED UNIT FOR SHIPMENT. REFER TO THE "SHIPMENT OF LEFTOVER BOXES" PROCEDURES ON PAGE 39 FOR GUIDANCE.

BILL OF MATERIAL (TYPICAL)

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	144	96
2" X 6"	51	51
NAILS	NO. REQD	POUNDS
10d (3")	278	4-1/2

LOAD AS SHOWN (TYPICAL)

ITEM	QUANTITY	WEIGHT (APPROX)
SKIDDED UNIT	24	41,520 LBS
DUNNAGE		372 LBS
TOTAL WEIGHT		41,892 LBS

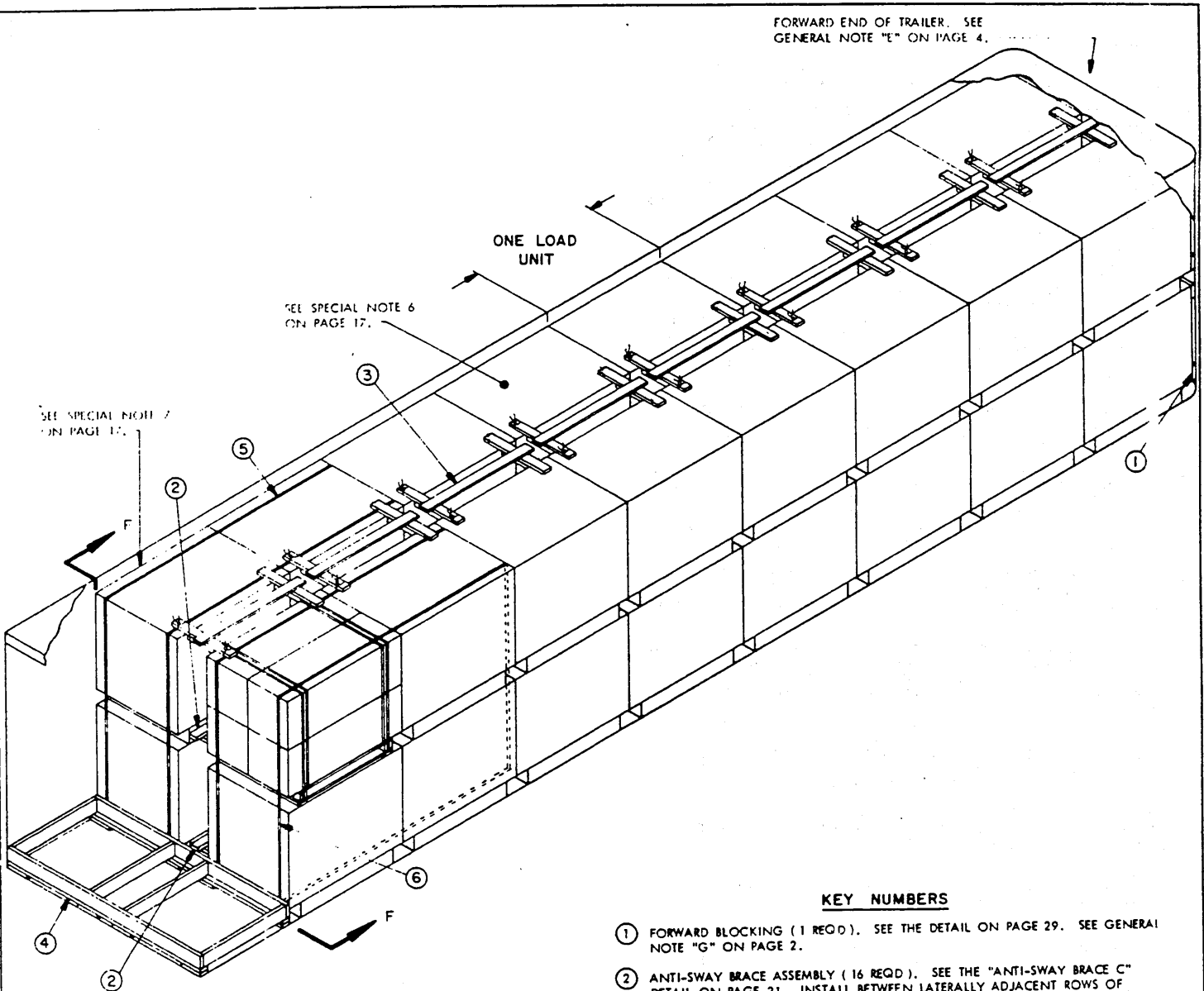
TYPICAL 2-WIDE LOAD (BOXES LENGTHWISE)
IN A 40'-0" LONG CONVENTIONAL TRAILER

FORWARD END OF TRAILER. SEE
GENERAL NOTE "E" ON PAGE 4.

ONE LOAD
UNIT

SEE SPECIAL NOTE 6
ON PAGE 17.

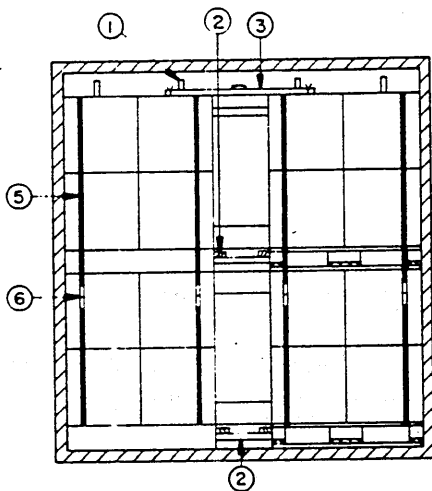
SEE SPECIAL NOTE 7
ON PAGE 17.



ISOMETRIC VIEW

KEY NUMBERS

- ① FORWARD BLOCKING (1 REQD). SEE THE DETAIL ON PAGE 29. SEE GENERAL NOTE "G" ON PAGE 2.
- ② ANTI-SWAY BRACE ASSEMBLY (16 REQD). SEE THE "ANTI-SWAY BRACE C" DETAIL ON PAGE 31. INSTALL BETWEEN LATERALLY ADJACENT ROWS OF SKIDDED UNITS. SEE SPECIAL NOTE 3 ON PAGE 17.
- ③ TOP-OF-LOAD ANTI-SWAY BRACE ASSEMBLY (8 REQD). SEE THE "TOP-OF-LOAD ANTI-SWAY BRACE B" DETAIL ON PAGE 33. WIRE TIE THE REAR PORTION TO A SKID STRAP WITH NO. 14 GAGE WIRE AS SHOWN BY THE "TIE WIRE APPLICATION B" DETAIL ON THAT PAGE. SEE SPECIAL NOTE 4 ON PAGE 17.
- ④ REAR BLOCKING ASSEMBLY (1 REQD). SEE THE "REAR BLOCKING B" DETAIL ON PAGE 35. SEE SPECIAL NOTE 5 ON PAGE 17.
- ⑤ BUNDLING STRAP, 1-1/4" X .035" X 35'-0" LONG (REF) STEEL STRAPPING (4 REQD). PRE-POSITION AND INSTALL SO AS TO ENCIRCLE TWO (2) SKIDDED UNIT STACKS, AS SHOWN. SEE SPECIAL NOTES 6 THRU 8 ON PAGE 17.
- ⑥ SEAL FOR 1-1/4" STRAPPING (8 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "J" ON PAGE 2.



SECTION F-F

TYPICAL 2-WIDE LOAD (BOXES LENGTHWISE)
IN A 40'-0" LONG CONVENTIONAL VAN TRAILER

SPECIAL NOTES:

(SPECIAL NOTES CONTINUED)

1. A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TRAILER IS SHOWN. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. THE SKIDDED UNIT SHOWN IN THE TYPICAL 2-WIDE LOAD ON PAGE 16 HAS OVERALL DIMENSIONS OF 38" LONG BY 53" WIDE BY 45" HIGH. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR UNITS OF OTHER WIDTHS, AND FOR UNITS HAVING LENGTHS OF FROM 25" THRU 44-1/2" IN A 7'-6" WIDE TRAILER. REFER TO "CHART NO. 1" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM LENGTHS OF UNITS WHICH CAN BE LOADED TWO WIDE IN TRAILERS OF OTHER WIDTHS. A 2-TIER LOAD IS SHOWN AS TYPICAL. REFER TO "CHART NO. 3" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM NUMBER OF TIERS WHICH CAN BE LOADED IN VARIOUS HEIGHT VAN TRAILERS BASED ON THE HEIGHT OF THE SKIDDED UNIT TO BE LOADED. THE WEIGHT OF THE DEPICTED UNIT IS 1,280 POUNDS. THE NUMBER OF UNITS MAY NEED TO BE ADJUSTED IF THE UNIT BEING LOADED HAS A DIFFERENT WEIGHT. REFER TO "CHART NO. 4" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM NUMBER OF UNITS WHICH CAN BE LOADED, BASED ON THE WEIGHT OF THE UNIT TO BE SHIPPED.
3. THE ANTI-SWAY BRACING MAY BE OMITTED IF THE TOTAL LATERAL EXCESS SPACE IS LESS THAN 2-1/4". IF THE EXCESS SPACE IS 2-1/4" OR MORE, ANTI-SWAY BRACES MUST BE INSTALLED BETWEEN ALL LATERALLY ADJACENT UNITS.
4. TOP-OF-LOAD ANTI-SWAY BRACES, SHOWN IN THE LOAD VIEW AS PIECES MARKED (3), ARE TO BE POSITIONED BETWEEN ALL LATERALLY ADJACENT SECOND-TIER SKIDDED UNITS WHEN THE UNITS ARE OVER 44" IN HEIGHT. TOP-OF-LOAD ANTI-SWAY BRACES ARE ALSO REQUIRED BETWEEN FIRST-TIER UNITS IN THE 1-TIER PORTION OF A LOAD WHEN THE UNITS ARE OVER 44" HIGH. EITHER THE TOP-OF-LOAD ANTI-SWAY BRACE SHOWN AS PIECE MARKED (4) ON PAGE 8 OR THE TOP-OF-LOAD ANTI-SWAY BRACE IN THE DEPICTED LOAD MAY BE USED. NOTE THAT TOP-OF-LOAD ANTI-SWAY BRACES ARE NOT REQUIRED IF THE TOTAL EXCESS SPACE ACROSS THE TRAILER IS LESS THAN 6".
5. IF THE SPACE BETWEEN THE LADING AND THE TRAILER DOORS IS LESS THAN 9", SOLID FILL TYPE REAR BLOCKING WILL BE USED IN LIEU OF THE DEPICTED REAR BLOCKING ASSEMBLY. SEE THE "REAR BLOCKING D" DETAIL ON PAGE 36 FOR GUIDANCE.
6. IF THE CENTER PORTION OF THE LENGTH OF THE TOP TIER IS NOT COMPLETE, SIMILAR TO THE LOAD SHOWN ON PAGE 10, OR IF THE TOP TIER HAS UNITS ONLY IN THE FRONT OR ONLY IN THE REAR PORTION, A STACK UNITIZING STRAP, SHOWN AS PIECE MARKED (4) ON PAGE 18, WILL BE APPLIED AROUND THE REARMOST COMPLETE STACK AND/OR AROUND THE MOST FORWARD COMPLETE STACK IN EACH ROW WHERE THE NUMBER OF TIERS (LAYERS IN THE LOAD) CHANGES BY ONE. NOTE THAT FOR LOADS CONSISTING OF MORE THAN TWO TIERS, THE STACK UNITIZING STRAPS NEED TO ENCIRCLE ONLY THE TOP TWO (2) TIERS.
7. IF A STACK IN THE LOAD UNIT AT THE REAR OF THE TRAILER IS ONLY ONE UNIT HIGH, THE BUNDLING STRAPS, PIECES MARKED (5), MUST BE INSTALLED SO AS TO ENCIRCLE THE REARMOST TWO (2) 2-HIGH STACKS. IF THE HEIGHT OF A STACK IS GREATER THAN THE LENGTH OF TWO STACK WIDTHS, THE BUNDLING STRAPS MUST ENCIRCLE THREE (3) STACKS.
8. AT ANY LOCATION WHERE LOAD UNIT CONSISTS OF THREE UNITS, THE STACK CONTAINING THE ODD UNIT MUST BE SECURED TO THE STACK IMMEDIATELY FORWARD (OR REARWARD) WITH TWO (2) BUNDLING STRAPS TO PROVIDE LATERAL STABILITY FOR THE ODD UNIT. NOTE THAT LOADS SHOULD BE PLANNED SO THAT THERE WILL NOT BE A LONE UNIT IN A TOP TIER.
9. IF THE SIZE AND/OR WEIGHT OF THE SKIDDED UNITS TO BE TRANSPORTED IS SUCH THAT MORE THAN TWO TIERS ARE NECESSARY IN ORDER TO OBTAIN THE DESIRED LOAD QUANTITY AND/OR WEIGHT, AND THE HEIGHT OF THE UNITS AND THE INSIDE HEIGHT OF THE TRAILER PERMITS, THE PROCEDURES DEPICTED ON PAGES 20 AND 21 WILL BE EMPLOYED.
10. THE DEPICTED LOAD CAN BE ADJUSTED TO SUIT THE QUANTITY TO BE SHIPPED, OR TO SUIT THE SIZE AND/OR WEIGHT OF THE UNIT BEING LOADED. A 2-TIER LOAD CAN BE REDUCED BY A MULTIPLE OF FOUR (4) UNITS BY OMITTING ONE OR MORE FULL LOAD UNITS FROM THE LOAD; OR, THE ENTIRE TOP TIER CAN BE LEFT OFF; OR ONE OR MORE UNITS CAN BE OMITTED FROM THE TOP TIER. SEE SPECIAL NOTE 8 ABOVE.
11. AS APPLICABLE, IT IS TO BE NOTED THAT UNITS WHICH ARE 29-5/8" OR LESS IN LENGTH FOR A 7'-6" WIDE TRAILER, OR PROPORTIONATELY LONGER UNITS IN WIDER TRAILERS, CAN BE LOADED IN LARGER QUANTITIES IF THE 3-WIDE LOADING PROCEDURES SHOWN ON PAGE 18 AND 19 ARE EMPLOYED.
12. IF A SKIDDED UNIT WHICH DOES NOT CONTAIN A FULL QUANTITY OF BOXES IS TO BE TRANSPORTED, THAT SHORT UNIT SHOULD BE POSITIONED AT THE REAR OF THE 2-HIGH PORTION OF THE LOAD, OR ON TOP OF THE LOAD (TRAILER HEIGHT PERMITTING). REFER TO THE "SHIPMENT OF PARTIAL UNITS" PROCEDURES ON PAGE 38 FOR GUIDANCE.
13. LEFTOVER BOXES, IN AN AMOUNT NOT TO EXCEED THE QUANTITY IN ONE LAYER OF A UNIT, MAY BE SECURED TO THE TOP OF A FULL SKIDDED UNIT FOR SHIPMENT. REFER TO THE "SHIPMENT OF LEFTOVER BOXES" PROCEDURES ON PAGE 39 FOR GUIDANCE.

(CONTINUED AT RIGHT)

BILL OF MATERIAL (TYPICAL)		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	33	11
2" X 4"	290	194
2" X 6"	83	83
NAILS	NO. REQD	POUNDS
10d (3")	410	6-1/2
12d (3-1/4")	32	3/4
STEEL STRAPPING, 1-1/4" X .035" ----- 140' REQD ----- 20 LBS		
SEAL FOR 1-1/4" STRAPPING ----- 8 REQD ----- NIL		

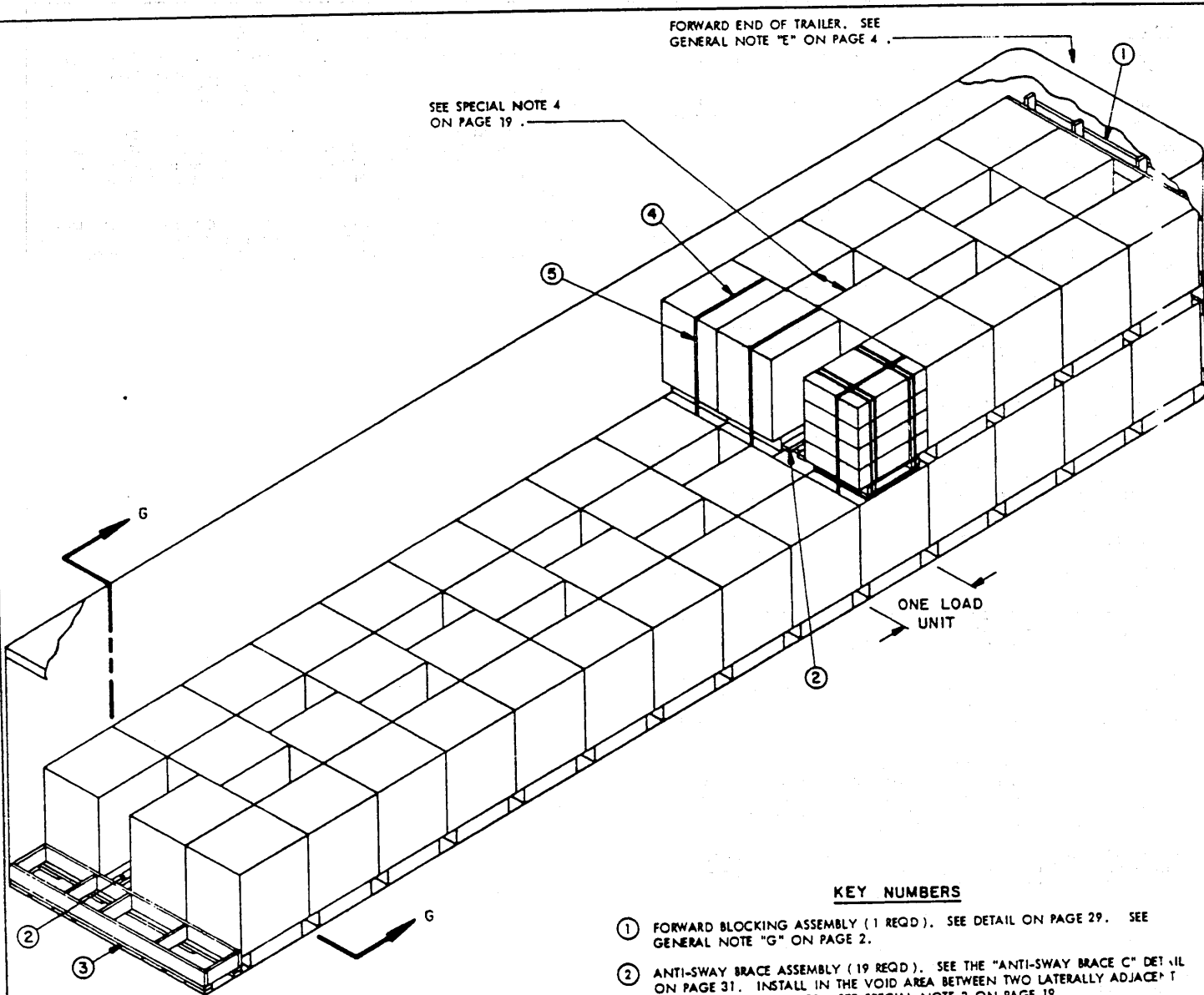
LOAD AS SHOWN (TYPICAL)

ITEM	QUANTITY	WEIGHT (APPROX)
SKIDDED UNIT -----	32 -----	40,960 LBS
DUNNAGE -----	-----	727 LBS
TOTAL WEIGHT -----		41,687 LBS

TYPICAL 2-WIDE LOAD (BOXES LENGTHWISE)
IN A 40'-0" LONG CONVENTIONAL VAN TRAILER

FORWARD END OF TRAILER. SEE
GENERAL NOTE "E" ON PAGE 4.

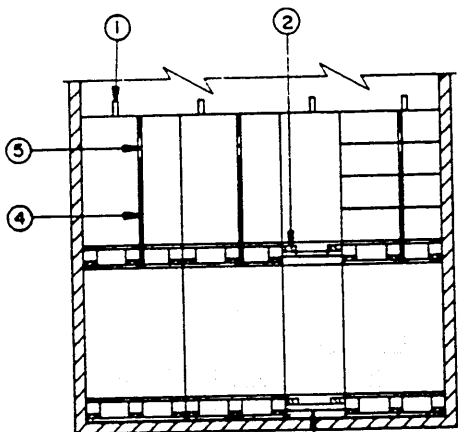
SEE SPECIAL NOTE 4
ON PAGE 19.



ISOMETRIC VIEW

KEY NUMBERS

- ① FORWARD BLOCKING ASSEMBLY (1 REQD). SEE DETAIL ON PAGE 29. SEE GENERAL NOTE "G" ON PAGE 2.
- ② ANTI-SWAY BRACE ASSEMBLY (19 REQD). SEE THE "ANTI-SWAY BRACE C" DETAIL ON PAGE 31. INSTALL IN THE VOID AREA BETWEEN TWO LATERALLY ADJACENT ROWS OF SKIDDED UNITS. SEE SPECIAL NOTE 3 ON PAGE 19.
- ③ REAR BLOCKING ASSEMBLY (1 REQD). SEE THE "REAR BLOCKING B" DETAIL ON PAGE 35. SEE SPECIAL NOTE 5 ON PAGE 19.
- ④ STACK UNITIZING STRAP, 1-1/4" X .035" X 20'-6" LONG (REF) STEEL STRAPPING (3 REQD). PRE-POSITION AND INSTALL SO AS TO ENCIRCLE ONE SKIDDED UNIT STACK. SEE SPECIAL NOTES 6 THRU 8 ON PAGE 19.
- ⑤ SEAL FOR 1-1/4" STRAPPING (6 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "J" ON PAGE 2.



SECTION G-G

TYPICAL 3-WIDE LOAD (BOXES LENGTHWISE)
IN A 40'-0" LONG CONVENTIONAL VAN TRAILER

SPECIAL NOTES:

(SPECIAL NOTES CONTINUED)

1. A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TRAILER IS SHOWN. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. THE SKIDDED UNIT SHOWN IN THE TYPICAL 3-WIDE LOAD ON PAGE 18 HAS OVERALL DIMENSIONS OF 25" LONG BY 32" WIDE BY 29" HIGH. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR UNITS OF OTHER WIDTHS, AND FOR UNITS HAVING LENGTHS OF FROM 25" THRU 29'-5/8" IN A 7'-6" WIDE TRAILER. REFER TO "CHART NO. 1" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM LENGTHS OF UNITS WHICH CAN BE LOADED THREE WIDE IN TRAILERS OF OTHER INSIDE WIDTHS. A 2-TIER LOAD IS SHOWN AS TYPICAL. REFER TO "CHART NO. 3" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM NUMBER OF TIERS WHICH CAN BE LOADED IN VARIOUS HEIGHT VAN TRAILERS BASED ON THE HEIGHT OF THE SKIDDED UNIT BEING LOADED. THE WEIGHT OF THE DEPICTED UNIT IS 720 POUNDS. THE NUMBER OF UNITS MAY NEED TO BE ADJUSTED IF THE UNIT BEING LOADED HAS A DIFFERENT WEIGHT. REFER TO "CHART NO. 4" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM NUMBER OF UNITS WHICH CAN BE LOADED, BASED ON THE WEIGHT OF THE UNIT TO BE SHIPPED.
3. THE ANTI-SWAY BRACING MAY BE OMITTED IF THE TOTAL LATERAL EXCESS SPACE IS LESS THAN 2-1/4". IF THE EXCESS SPACE IS 2-1/4" OR MORE, ANTI-SWAY BRACES MUST BE INSTALLED IN THE VOID AREA BETWEEN TWO ROWS OF LATERALLY ADJACENT SKIDDED UNITS AT ALL LOCATIONS.
4. TOP-OF-LOAD ANTI-SWAY BRACES, SHOWN IN THE LOAD VIEW ON PAGE 16 AS PIECES MARKED ③, MUST BE POSITIONED IN THE VOID AREAS BETWEEN TWO LATERALLY ADJACENT ROWS OF SECOND-TIER SKIDDED UNITS IF THE UNITS ARE OVER 44" IN HEIGHT. TOP-OF-LOAD ANTI-SWAY BRACES, SHOWN IN THE LOAD VIEW ON PAGE 8 AS PIECE MARKED ④, MUST BE POSITIONED IN THE VOID AREAS BETWEEN TWO ROWS OF ALL FIRST-TIER SKIDDED UNITS IN THE 1-TIER PORTION OF A LOAD IF THE UNITS ARE OVER 44" HIGH. IF DESIRED, PIECES MARKED ③ ON PAGE 16 MAY BE USED BETWEEN THE FIRST-TIER UNITS IN LIEU OF PIECES MARKED ④ ON PAGE 8. NOTE THAT TOP-OF-LOAD ANTI-SWAY BRACES ARE NOT REQUIRED IF THE TOTAL EXCESS SPACE ACROSS THE TRAILER IS LESS THAN 6".
5. IF THE SPACE BETWEEN THE LADING AND THE TRAILER DOORS IS LESS THAN 9", SOLID FILL TYPE REAR BLOCKING WILL BE USED IN LIEU OF THE DEPICTED REAR BLOCKING ASSEMBLY. SEE THE "REAR BLOCKING D" DETAIL ON PAGE 36 FOR GUIDANCE.
6. A STACK UNITIZING STRAP, PIECE MARKED ④, WILL BE APPLIED AROUND THE REARMOST COMPLETE STACK, AND AROUND THE MOST FORWARD COMPLETE STACK IF THE PARTIAL TOP TIER CONTAINS UNITS NEAR THE REAR PORTION, IN EACH ROW WHERE THE NUMBER OF TIERS (LAYERS IN A LOAD) CHANGES BY ONE. NOTE THAT FOR LOADS CONSISTING OF MORE THAN TWO TIERS, THE STACK UNITIZING STRAPS NEED TO ENCIRCLE ONLY THE TOP TWO (2) TIERS.
7. IF A STACK IN THE LOAD UNIT AT THE REAR OF THE TRAILER IS MORE THAN ONE UNIT HIGH, TWO (2) BUNDLING STRAPS, SHOWN AS PIECES MARKED ③ ON PAGE 16, MUST BE INSTALLED SO AS TO ENCIRCLE THE REARMOST TWO (2) STACKS IN EACH APPLICABLE ROW. IF THE HEIGHT OF A STACK IS GREATER THAN THE LENGTH OF TWO STACK WIDTHS, THE BUNDLING STRAPS MUST ENCIRCLE THREE (3) STACKS.
8. AT ANY LOCATION WHERE A LOAD UNIT CONSISTS OF FOUR UNITS, THE STACK CONTAINING AN ODD UNIT MUST BE SECURED TO THE COMPLETE STACK IMMEDIATELY FORWARD (OR REARWARD) WITH TWO (2) BUNDLING STRAPS, TO PROVIDE LATERAL STABILITY FOR THE ODD UNIT. NOTE THAT LOADS SHOULD BE PLANNED SO THAT THERE WILL NOT BE A LONE UNIT IN A TOP TIER. IF A LOAD UNIT CONSISTS OF FIVE UNITS, OMIT THE CENTER UNIT FROM THE TOP TIER AND INCREASE THE WIDTH OF THE ANTI-SWAY BRACE.
9. IF THE SIZE AND/OR WEIGHT OF THE SKIDDED UNITS TO BE TRANSPORTED IS SUCH THAT A 3-WIDE LOAD CONSISTING OF MORE THAN TWO TIERS IS NECESSARY IN ORDER TO OBTAIN THE DESIRED LOAD QUANTITY AND/OR WEIGHT, AND THE HEIGHT OF THE UNITS AND THE INSIDE HEIGHT OF THE TRAILER PERMIT, THE PRINCIPLES EMPLOYED IN THE LOADING PROCEDURES DEPICTED ON PAGES 20 AND 21 WILL BE USED AS GUIDANCE.
10. THE DEPICTED LOAD CAN BE ADJUSTED TO SUIT THE QUANTITY TO BE SHIPPED, OR TO SUIT THE SIZE AND/OR WEIGHT OF THE UNIT BEING LOADED. A 2-TIER LOAD CAN BE REDUCED OR INCREASED BY A MULTIPLE OF SIX (6) UNITS BY OMITTING OR ADDING ONE OR MORE FULL LOAD UNITS; OR, THE REMAINDER OF THE TOP TIER CAN BE FILLED OR THE ENTIRE TOP TIER CAN BE LEFT OFF; OR, ONE OR MORE UNITS CAN BE ADDED TO OR OMITTED FROM THE TOP TIER, APPLYING EITHER THE PROCEDURES SHOWN OR THE PROCEDURES SPECIFIED ABOVE.
11. IF A SKIDDED UNIT WHICH DOES NOT CONTAIN A FULL QUANTITY OF BOXES IS TO BE TRANSPORTED, THAT SHORT UNIT SHOULD BE POSITIONED EITHER WITHIN THE 1-HIGH LOAD UNIT AT THE REAR OF THE TRAILER OR AT THE REAR OF THE 2-HIGH PORTION OF THE LOAD. REFER TO THE "SHIPMENT OF PARTIAL UNITS" PROCEDURES ON PAGE 38 FOR GUIDANCE IN SECUREMENT OF UNITS POSITIONED IN AN UPPER TIER.
12. LEFTOVER BOXES, IN AN AMOUNT NOT TO EXCEED THE QUANTITY IN ONE LAYER OF A UNIT, MAY BE SECURED TO THE TOP OF A FULL SKIDDED UNIT FOR SHIPMENT. REFER TO THE "SHIPMENT OF LEFTOVER BOXES" PROCEDURES ON PAGE 39 FOR GUIDANCE.

(CONTINUED AT RIGHT)

BILL OF MATERIAL (TYPICAL)		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	191	128
2" X 6"	77	77
NAILS	NO. REQD	POUNDS
10d (3")	336	-1/4
STEEL STRAPPI G, 1/4" X .035" ----- 62' REQD ----- 9 LBS		
SEALS FOR 1/4" STRAPPING ----- 6 REQD ----- NIL		

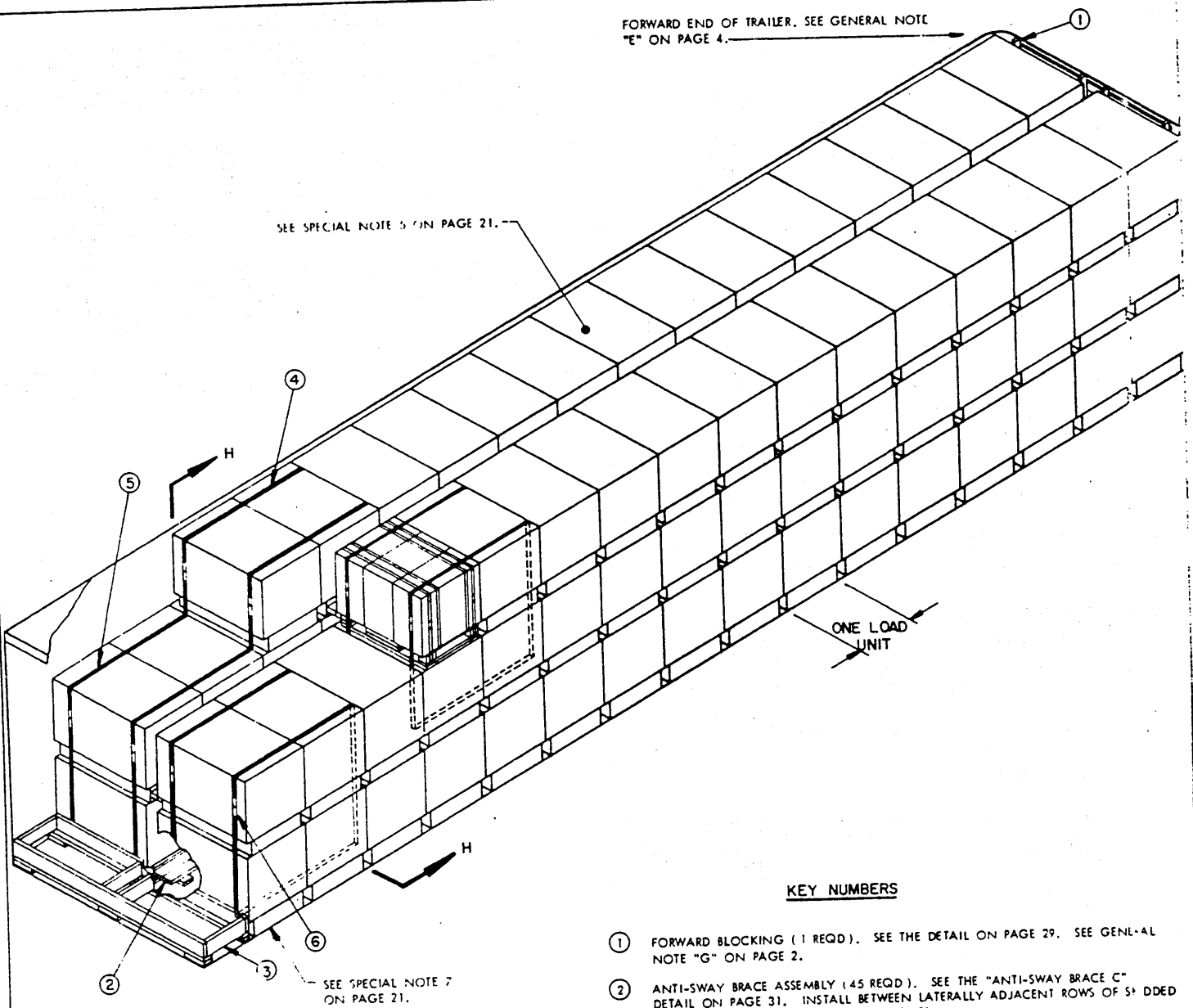
LOAD AS SHOWN (TYPICAL)

ITEM	QUANTITY	WEIGHT (APPROX)
SKIDDED UNIT -----	57 -----	41,040 LBS
DUNNAGE -----	-----	517 LBS
TOTAL WEIGHT -----		41,557 LBS

TYPICAL 3-WIDE LOAD (BOXES LENGTHWISE)
IN A 40'-0" LONG CONVENTIONAL VAN TRAILER

FORWARD END OF TRAILER, SEE GENERAL NOTE "E" ON PAGE 4.

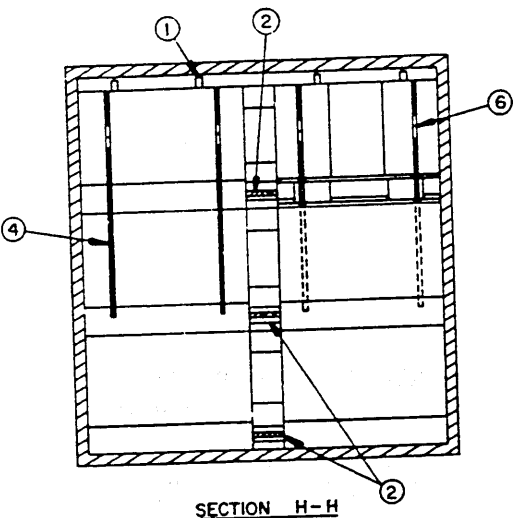
SEE SPECIAL NOTE 5 ON PAGE 21.



ISOMETRIC VIEW

KEY NUMBERS

- ① FORWARD BLOCKING (1 REQD). SEE THE DETAIL ON PAGE 29. SEE GENERAL NOTE "G" ON PAGE 2.
- ② ANTI-SWAY BRACE ASSEMBLY (45 REQD). SEE THE "ANTI-SWAY BRACE C" DETAIL ON PAGE 31. INSTALL BETWEEN LATERALLY ADJACENT ROWS OF SKIDDED UNITS. SEE SPECIAL NOTE 3 ON PAGE 21.
- ③ REAR BLOCKING ASSEMBLY (1 REQD). SEE THE "REAR BLOCKING B" DETAIL ON PAGE 35. SEE SPECIAL NOTE 4 ON PAGE 21.
- ④ BUNDLING STRAP, 1-1/4" X .035" X 21'-0" LONG (REF) STEEL STRAPPING (4 REQD). INSTALL SO AS TO ENCIRCLE TWO (2) TOP-TIER SKIDDED UNITS AND THE UNITS DIRECTLY BELOW. SEE SPECIAL NOTES 5 AND 6 ON PAGE 21.
- ⑤ BUNDLING STRAP, 1-1/4" X .035" X 21'-0" LONG (REF) STEEL STRAPPING (4 REQD). INSTALL SO AS TO ENCIRCLE TWO (2) SKIDDED UNIT STACKS AS SHOWN. SEE SPECIAL NOTE 7 ON PAGE 21.
- ⑥ SEAL FOR 1-1/4" STRAPPING (16 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "J" ON PAGE 2.



SECTION H-H

TYPICAL 2-WIDE MULTI-TIER LOAD (BOXES LENGTHWISE) IN A 40'-0" LONG CONVENTIONAL VAN TRAILER

SPECIAL NOTES-

(SPECIAL NOTES CONTINUED)

1. A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TRAILER IS SHOWN. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. THE SKIDDED UNIT SHOWN IN THE TYPICAL 2-WIDE LOAD ON PAGE 20 HAS OVER-ALL DIMENSIONS OF 41-5/8" LONG BY 28-1/4" WIDE BY 31" HIGH. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR UNITS OF OTHER WIDTHS, AND FOR UNITS HAVING LENGTHS OF FROM 25" THRU 44-1/2" IN A 7'-6" WIDE TRAILER. NOTE THAT SKIDDED UNITS WHICH ARE LESS THAN 29-3/4" LONG SHOULD BE LOADED IN TWO (2) 3-WIDE TIERS RATHER THAN IN THREE (3) 2-WIDE TIERS. REFER TO "CHART NO. 1" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM LENGTHS OF UNITS WHICH CAN BE LOADED TWO WIDE IN TRAILERS OF OTHER INSIDE WIDTHS. THAT CHART WILL ALSO INDICATE WHICH LENGTH UNITS SHOULD BE LOADED IN A 3-WIDE CONFIGURATION IN WIDER TRAILERS. A 3-TIER LOAD IS SHOWN AS TYPICAL; ADDITIONAL TIERS MAY BE LOADED USING THE PROCEDURES DELINEATED ON PAGE 20. REFER TO "CHART NO. 3" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM NUMBER OF TIERS WHICH CAN BE LOADED IN VARIOUS HEIGHT VAN TRAILERS BASED ON THE HEIGHT OF THE SKIDDED UNIT TO BE LOADED. THE WEIGHT OF THE DEPICTED UNIT IS 253 POUNDS. THE NUMBER OF UNITS MAY NEED TO BE ADJUSTED IF THE UNIT BEING LOADED HAS A DIFFERENT WEIGHT. REFER TO "CHART NO. 4" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM NUMBER OF UNITS WHICH CAN BE LOADED, BASED ON THE WEIGHT OF THE UNIT TO BE SHIPPED.
3. THE ANTI-SWAY BRACING MAY BE OMITTED IF THE TOTAL LATERAL EXCESS SPACE IS LESS THAN 2-1/4". IF THE EXCESS SPACE IS 2-1/4" OR MORE, ANTI-SWAY BRACES MUST BE INSTALLED IN THE VOID AREA BETWEEN TWO ROWS OF LATERALLY ADJACENT SKIDDED UNITS AT ALL LOCATIONS.
4. IF THE SPACE BETWEEN THE LADING AND THE TRAILER DOORS IS LESS THAN 9", SOLID FILL TYPE REAR BLOCKING WILL BE USED IN LIEU OF THE DEPICTED REAR BLOCKING ASSEMBLY. SEE THE "REAR BLOCKING D" DETAIL ON PAGE 36 FOR GUIDANCE.
5. IF THE CENTER PORTION OF THE LENGTH OF THE TOP TIER IS NOT COMPLETE, SIMILAR TO THE LOAD SHOWN ON PAGE 10, OR IF THE TOP TIER HAS UNITS ONLY IN THE FRONT OR ONLY IN THE REAR PORTION, A STACK UNITIZING STRAP, SHOWN AS PIECE MARKED (4) ON PAGE 18, WILL BE APPLIED AROUND THE REARMOST COMPLETE STACK OF THE FRONT PORTION AND/OR AROUND THE MOST FORWARD COMPLETE STACK IN THE REAR PORTION IN EACH ROW WHERE THE NUMBER OF TIERS (LAYERS IN A LOAD) CHANGES BY ONE. NOTE THAT THE STACK UNITIZING STRAPS NEED TO ENCIRCLE ONLY THE TOP TWO (2) TIERS.
6. AT ANY LOCATION WHERE A LOAD UNIT CONSISTS OF FIVE UNITS IN A 3-TIER LOAD, SEVEN UNITS IN A 4-TIER LOAD, ETC., THE TOP TWO (2) TIERS OF THE STACK CONTAINING THE ODD UNIT MUST BE SECURED TO THE TOP TWO TIERS OF THE COMPLETE STACK IMMEDIATELY FORWARD (OR REARWARD) WITH TWO (2) BUNDLING STRAPS, TO PROVIDE LATERAL STABILITY FOR THE ODD UNIT. NOTE THAT LOADS SHOULD BE PLANNED SO THAT THERE WILL NOT BE A LONE UNIT IN A TOP TIER.
7. FOR LOADS OF MORE THAN TWO TIERS, WHEN THE STACKS IN THE LOAD UNITS AT THE REAR OF THE TRAILER CONTAIN LESS TIERS THAN THE LOAD UNITS FURTHER FORWARD IN THE LOAD, AS SHOWN IN THE LOAD ON PAGE 20, FOUR (4) BUNDLING STRAPS MUST BE APPLIED FOR EACH APPLICABLE ROW. TWO STRAPS MUST BE INSTALLED TO ENCIRCLE THE TOP TWO TIERS OF THE REARMOST COMPLETE STACK IN A ROW AND THE TOP TWO TIERS OF THE STACK IMMEDIATELY FORWARD, AS SHOWN BY PIECES MARKED (4). THE OTHER TWO BUNDLING STRAPS MUST BE INSTALLED TO ENCIRCLE THE REARMOST STACK IN A ROW AND THE SAME QUANTITY OF TIERS IN THE STACK IMMEDIATELY FORWARD, AS SHOWN BY PIECES MARKED (3). PIECES MARKED (4) WILL NOT BE REQUIRED IF THE TOP TIER EXTENDS TO THE REAR OF THE LOAD.
8. IF A SKIDDED UNIT WHICH DOES NOT CONTAIN A FULL QUANTITY OF BOXES IS TO BE TRANSPORTED, THAT SHORT UNIT SHOULD BE POSITIONED AT THE REAR OF THE TOP TIER OF THE LOAD. REFER TO THE "SHIPMENT OF PARTIAL UNITS" PROCEDURES ON PAGE 38 FOR GUIDANCE.
9. LEFTOVER BOXES, IN AN AMOUNT NOT TO EXCEED THE QUANTITY IN ONE LAYER OF A UNIT, MAY BE SECURED TO THE TOP OF A FULL SKIDDED UNIT FOR SHIPMENT. REFER TO THE "SHIPMENT OF LEFTOVER BOXES" PROCEDURES ON PAGE 39 FOR GUIDANCE.
10. THE DEPICTED LOAD CAN BE ADJUSTED TO SUIT THE QUANTITY TO BE SHIPPED, OR TO SUIT THE SIZE AND/OR WEIGHT OF THE UNIT BEING LOADED. A 3-TIER LOAD CAN BE REDUCED OR INCREASED BY A MULTIPLE OF SIX (6) UNITS OR A 4-TIER LOAD CAN BE REDUCED OR INCREASED BY A MULTIPLE OF EIGHT (8) UNITS BY OMITTING OR ADDING ONE OR MORE FULL LOAD UNITS; OR THE REMAINDER OF THE TOP TIER CAN BE FILLED OR THE ENTIRE TOP TIER CAN BE LEFT OFF; OR ONE OR MORE UNITS CAN BE ADDED TO OR OMITTED FROM THE TOP TIER, APPLYING EITHER THE PROCEDURES SHOWN OR THE PROCEDURES SPECIFIED AT LEFT.

(CONTINUED AT RIGHT)

BILL OF MATERIAL (TYPICAL)		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	343	229
2" X 6"	104	104
NAILS	NO. REQD	POUNDS
10d (3")	686	10-3/4
STEEL STRAPPING, 1-1/4" X .035" -----	168' REQD -----	24 LBS
SEALS FOR 1-1/4" STRAPPING -----	16 REQD -----	1 LB

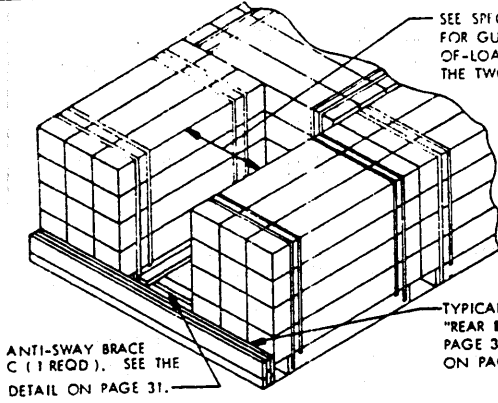
LOAD AS SHOWN (TYPICAL)

ITEM	QUANTITY	WEIGHT (APPROX)
SKIDDED UNIT -----	91 -----	23,023 LBS
DUNNAGE -----	-----	679 LBS
TOTAL WEIGHT -----		23,702 LBS

TYPICAL 2-WIDE MULTI-TIER LOAD (BOXES LENGTHWISE) IN A
40'-0" LONG CONVENTIONAL VAN TRAILER

FORWARD END OF TRAILER. SEE GENERAL NOTE "E" ON PAGE 4.

SEE SPECIAL NOTE 4 ON PAGE 15 FOR GUIDANCE RELATIVE TO TOP-OF-LOAD ANTI-SWAY BRACING BETWEEN THE TWO REARMOST UNITS.

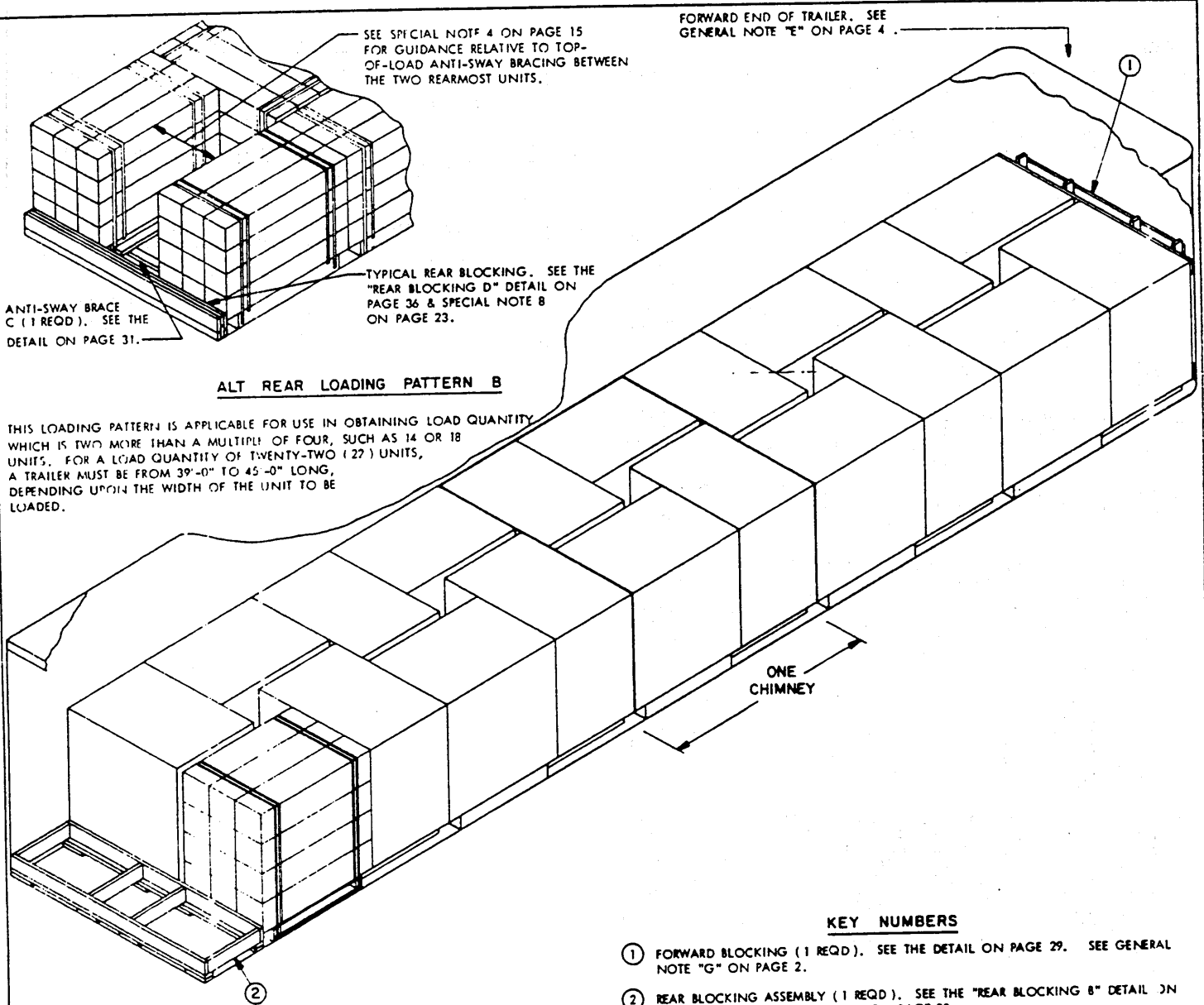


ANTI-SWAY BRACE C (1 REQD.). SEE THE DETAIL ON PAGE 31.

TYPICAL REAR BLOCKING. SEE THE "REAR BLOCKING D" DETAIL ON PAGE 36 & SPECIAL NOTE 8 ON PAGE 23.

ALT REAR LOADING PATTERN B

THIS LOADING PATTERN IS APPLICABLE FOR USE IN OBTAINING A LOAD QUANTITY WHICH IS TWO MORE THAN A MULTIPLE OF FOUR, SUCH AS 14 OR 18 UNITS. FOR A LOAD QUANTITY OF TWENTY-TWO (22) UNITS, A TRAILER MUST BE FROM 39'-0" TO 45'-0" LONG, DEPENDING UPON THE WIDTH OF THE UNIT TO BE LOADED.



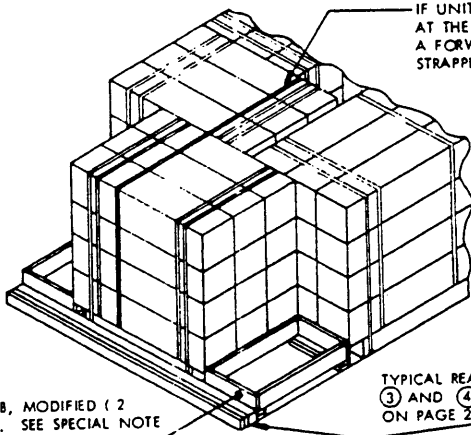
ONE CHIMNEY

KEY NUMBERS

- ① FORWARD BLOCKING (1 REQD.). SEE THE DETAIL ON PAGE 29. SEE GENERAL NOTE "G" ON PAGE 2.
- ② REAR BLOCKING ASSEMBLY (1 REQD.). SEE THE "REAR BLOCKING B" DETAIL ON PAGE 35. SEE SPECIAL NOTE 4 ON PAGE 23.

ISOMETRIC VIEW

IF UNITS ARE TALLER THAN 44", THE LONE UNIT AT THE REAR OF THE LOAD MUST BE BUNDLED TO A FORWARD UNIT WITH 1-1/4" X .035" STEEL STRAPPING OF A LENGTH TO SUIT.

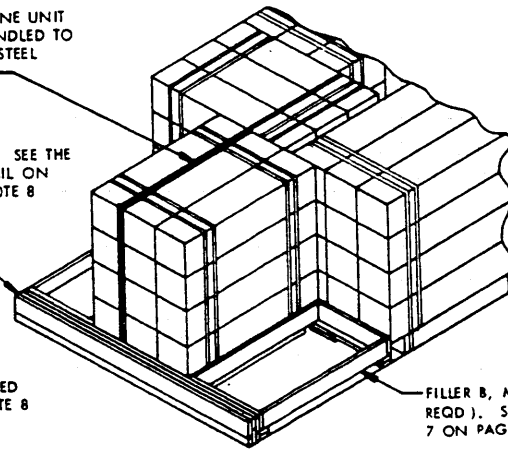


FILLER B, MODIFIED (2 REQD.). SEE SPECIAL NOTE 7 ON PAGE 23.

TYPICAL REAR BLOCKING. SEE PIECES MARKED ③ AND ④ ON PAGE 12. SEE SPECIAL NOTE 8 ON PAGE 23.

ALT REAR LOADING PATTERN C

THIS LOADING PATTERN IS APPLICABLE FOR USE IN OBTAINING A LOAD QUANTITY WHICH IS ONE MORE THAN A MULTIPLE OF FOUR, SUCH AS 13 OR 17 UNITS. FOR A LOAD QUANTITY OF TWENTY-ONE (21) UNITS, A TRAILER MUST BE FROM 39'-0" TO 44'-0" LONG, DEPENDING UPON THE LENGTH OF THE UNIT TO BE LOADED.



FILLER B, MODIFIED (2 REQD.). SEE SPECIAL NOTE 7 ON PAGE 23.

ALT REAR LOADING PATTERN D

THIS LOADING PATTERN IS APPLICABLE FOR USE IN OBTAINING A LOAD QUANTITY WHICH IS ONE MORE THAN A MULTIPLE OF FOUR, SUCH AS 13 OR 17 UNITS. FOR A LOAD QUANTITY OF TWENTY-ONE (21) UNITS, A TRAILER MUST BE FROM 39'-0" TO 45'-0" LONG, DEPENDING UPON THE WIDTH OF THE UNIT TO BE LOADED.

TYPICAL CHIMNEY-PATTERN LOAD IN A 40'-0" LONG CONVENTIONAL VAN TRAILER

SPECIAL NOTES:

1. A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TRAILER IS SHOWN. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. THE SKIDDED UNIT SHOWN IN THE TYPICAL CHIMNEY-PATTERN LOAD HAS OVERALL DIMENSIONS OF 36" LENGTH BY 31" WIDE BY 54" HIGH. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR UNITS OF OTHER LENGTHS AND WIDTHS, PROVIDING THE TOTAL OF THE LENGTH AND THE WIDTH IS LESS THAN THE INSIDE WIDTH OF THE TRAILER BY AT LEAST ONE-HALF INCH (1/2") BUT BY NOT MORE THAN SIX INCHES (6") LESS. SEE THE "SKIDDED UNIT LENGTH/WIDTH COMBINATIONS" CHART AT RIGHT FOR GUIDANCE AS TO THE COMBINATIONS OF LENGTHS AND WIDTHS WHICH ARE ACCEPTABLE FOR CHIMNEY-PATTERN LOADS. THE WEIGHT OF THE DEPICTED UNIT IS 2,100 POUNDS. THE NUMBER OF UNITS MAY NEED TO BE ADJUSTED OR A DIFFERENT LOADING PATTERN MAY NEED TO BE USED IF THE UNIT BEING LOADED HAS A DIFFERENT WEIGHT. REFER TO "CHART NO. 4" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM NUMBER OF UNITS WHICH CAN BE LOADED, BASED ON THE WEIGHT OF THE UNIT TO BE SHIPPED.
3. CHIMNEY-PATTERN TYPE LOADS ARE LIMITED TO ONE (1) TIER IN HEIGHT. SKIDDED UNITS MUST NOT BE STACKED FOR A CHIMNEY-PATTERN LOAD. IF IT IS NECESSARY TO SHIP MORE THAN TWENTY UNITS, THE LARGEST QUANTITY OF UNITS THAT CAN BE LOADED IN A 40'-0" LONG TRAILER USING THE CHIMNEY PATTERN, ONE OF THE PROCEDURES DEPICTED ON PAGES 6, 8, 14, 16, AND 20 WILL BE SELECTED FOR USE. NOTE THAT A LARGER LOAD QUANTITY IS ONLY POSSIBLE IF THE UNIT CAN BE LOADED IN MORE THAN ONE TIER. IF THE LENGTH OF THE TRAILER TO BE LOADED IS AT LEAST 44'-0", SIX (6) CHIMNEYS OF SOME UNITS CAN BE LOADED, DEPENDING UPON THE LENGTH AND WIDTH OF THE UNIT TO BE SHIPPED.
4. IF THE LENGTH OF THE TRAILER IS SUCH THAT THE SPACE BETWEEN THE LADING AND THE TRAILER DOORS IS LESS THAN 9", SOLID FILL TYPE REAR BLOCKING WILL BE USED IN LIEU OF THE DEPICTED REAR BLOCKING ASSEMBLY. SEE THE "REAR BLOCKING D" DETAIL ON PAGE 36 FOR GUIDANCE.
5. THE DEPICTED LOAD CAN BE ADJUSTED TO SUIT THE QUANTITY TO BE SHIPPED. A LOAD CAN BE REDUCED BY A MULTIPLE OF FOUR (4) UNITS BY OMITTING ONE OR MORE CHIMNEYS AND INCREASING THE LENGTH OF THE REAR BLOCKING ASSEMBLY, PIECE MARKED ②. FOR A REDUCTION IN LOAD QUANTITY OF ONE (1) UNIT, INSTALL EITHER A FILLER A IN THE PLACE OF A UNIT HAVING THE BOXES LENGTHWISE OR A FILLER B IN THE PLACE OF A UNIT HAVING THE BOXES CROSSWISE. SEE THE APPLICABLE DETAIL ON PAGE 37. TWO (2) UNITS CAN BE LOADED IN THE PLACE OF ONE CHIMNEY BY USING EITHER THE "ALT REAR LOADING PATTERN A" SHOWN AT THE RIGHT OR THE "ALT REAR LOADING PATTERN B" SHOWN ON PAGE 22. ONE (1) UNIT CAN BE POSITIONED AT THE REAR OF A LOAD BY USING EITHER THE "ALT REAR LOADING PATTERN C" OR THE "ALT REAR LOADING PATTERN D" SHOWN ON PAGE 22. IF THE QUANTITY TO BE TRANSPORTED IS GREATER THAN THE NUMBER THAT CAN BE LOADED IN A ONE-TIER CHIMNEY-PATTERN LOAD, ONE OF THE OTHER OUTLOADING PROCEDURES MUST BE USED.
6. IF A SKIDDED UNIT WHICH DOES NOT CONTAIN A FULL QUANTITY OF BOXES IS TO BE TRANSPORTED, THAT SHORT UNIT SHOULD BE POSITIONED AT THE REAR OF THE LAST CHIMNEY IN THE LOAD. IF SPACE IS NOT AVAILABLE THERE, THE SHORT UNIT CAN BE POSITIONED ON TOP OF THE LOAD. REFER TO THE "SHIPMENT OF PARTIAL UNITS" PROCEDURES ON PAGE 38 FOR GUIDANCE.
7. FOR THE LONE SKIDDED UNIT AT THE REAR OF A CHIMNEY-PATTERN LOAD, AS SHOWN IN THE "ALT REAR LOADING PATTERN C" AND "ALT LOADING PATTERN D" VIEWS ON PAGE 22, LATERAL BRACING IS PROVIDED BY INSTALLING A MODIFIED

(CONTINUED BELOW)

BILL OF MATERIAL (TYPICAL)		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	41	28
2" X 6"	70	70
NAILS	NO. REQD	POUNDS
10d (3")	102	1-3/4

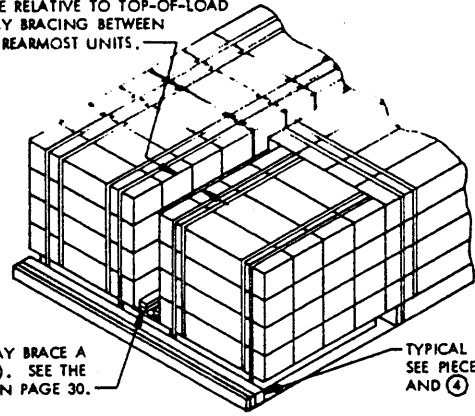
(SPECIAL NOTES CONTINUED)

FILLER ON EACH SIDE OF THE UNIT. USE A "FILLER B" FOR UNITS ASSEMBLED ON TYPE I A OR TYPE II SKID BASES. SEE THE DETAILS ON PAGE 37 FOR CONSTRUCTION GUIDANCE. FOR USE WITH THE "ALT REAR LOADING PATTERN C" PROCEDURE, CONSTRUCT THE FILLER TO BE UNIT LENGTH IN LENGTH IN LIEU OF UNIT WIDTH IN LENGTH, AND OF A WIDTH TO FILL THE SPACE BETWEEN THE UNIT AND THE TRAILER SIDEWALL. FOR USE WITH THE "ALT REAR LOADING PATTERN D" PROCEDURE, CONSTRUCT THE FILLER TO BE UNIT WIDTH IN LENGTH AND OF A WIDTH TO FILL THE SPACE BETWEEN THE UNIT AND THE TRAILER SIDEWALL.

8. SOLID FILL TYPE REAR BLOCKING IS SHOWN FOR ALL THE "ALT REAR LOADING PATTERN" VIEWS ON PAGES 22 AND 23. HOWEVER, STRUT TYPE REAR BLOCKING MAY BE REQUIRED, DEPENDING UPON THE LENGTH OF THE TRAILER WHICH IS FURNISHED FOR LOADING AND UPON THE SIZE AND NUMBER OF UNITS TO BE SHIPPED. STRUT TYPE REAR BLOCKING FOR USE WITH "ALT REAR LOADING PATTERN A" AND "ALT REAR LOADING PATTERN C" IS SHOWN BY THE "REAR BLOCKING A" DETAIL ON PAGE 35. STRUT TYPE REAR BLOCKING FOR USE WITH "ALT REAR LOADING PATTERN B" AND "ALT REAR LOADING PATTERN D" IS SHOWN BY THE "REAR BLOCKING B" DETAIL ON PAGE 35 FOR THE TYPE I SKID BASE OR THE "REAR BLOCKING C" DETAIL ON PAGE 36 FOR THE TYPE I A SKID BASE.

9. LEFTOVER BOXES, IN AN AMOUNT NOT TO EXCEED THE QUANTITY IN ONE LAYER OF A UNIT, MAY BE SECURED TO THE TOP OF A FULL SKIDDED UNIT FOR SHIPMENT. REFER TO THE "SHIPMENT OF LEFTOVER BOXES" PROCEDURES ON PAGE 39 FOR GUIDANCE.

SEE SPECIAL NOTE 5 ON PAGE 7 FOR GUIDANCE RELATIVE TO TOP-OF-LOAD ANTI-SWAY BRACING BETWEEN THE TWO REAR MOST UNITS.



ANTI-SWAY BRACE A (1 REQD). SEE THE DETAIL ON PAGE 30.

TYPICAL REAR BLOCKING. SEE PIECES MARKED ③ AND ④ ON PAGE 12.

ALT REAR LOADING PATTERN A

THIS LOADING PATTERN IS APPLICABLE FOR USE IN OBTAINING A LOAD QUANTITY WHICH IS TWO MORE THAN A MULTIPLE OF FOUR, SUCH AS 14 OR 18 UNITS. FOR A LOAD QUANTITY OF TWENTY-TWO (22) UNITS, A TRAILER MUST BE FROM 39'-0" TO 44'-0" LONG, DEPENDING UPON THE LENGTH OF THE UNIT TO BE LOADED. NOTE THAT THIS LOADING PATTERN CANNOT BE USED UNLESS THE WIDTH OF THE UNIT BEING LOADED IS LESS THAN ONE-HALF THE TRAILER WIDTH BY AT LEAST ONE-QUARTER INCH (1/4").

SKIDDED UNIT LENGTH/WIDTH COMBINATIONS				
UNIT LENGTH	MINIMUM TO MAXIMUM UNIT WIDTH			
	TRAILER WIDTH (INSIDE DIMENSION)			
	90"	91"	92"	93"
46"	38" TO 43"	39" TO 44"	40" TO 45"	41" TO 46"
45"	39" TO 44"	40" TO 45"	41" TO 46"	42" TO 47"
44"	40" TO 45"	41" TO 46"	42" TO 47"	43" TO 48"
43"	41" TO 46"	42" TO 47"	43" TO 48"	44" TO 49"
42" *	42" TO 47"	43" TO 48"	44" TO 49"	45" TO 50"
41" *	43" TO 48"	44" TO 49"	45" TO 50"	46" TO 51"
40" *	44" TO 49"	45" TO 50"	46" TO 51"	47" TO 52"
39"	45" TO 50"	46" TO 51"	47" TO 52"	48" TO 53"
38"	46" TO 51"	47" TO 52"	48" TO 53"	49" TO 54"
37"	47" TO 52"	48" TO 53"	49" TO 54"	50" TO 55"
36"	48" TO 53"	49" TO 54"	50" TO 55"	51" TO 56"
35"	49" TO 54"	50" TO 55"	51" TO 56"	52" TO 57"
34"	50" TO 55"	51" TO 56"	52" TO 57"	53" TO 58"
33"	51" TO 56"	52" TO 57"	53" TO 58"	54" TO 59"
32"	52" TO 57"	53" TO 58"	54" TO 59"	55" TO 60"
31"	53" TO 58"	54" TO 59"	55" TO 60"	56" TO 61"

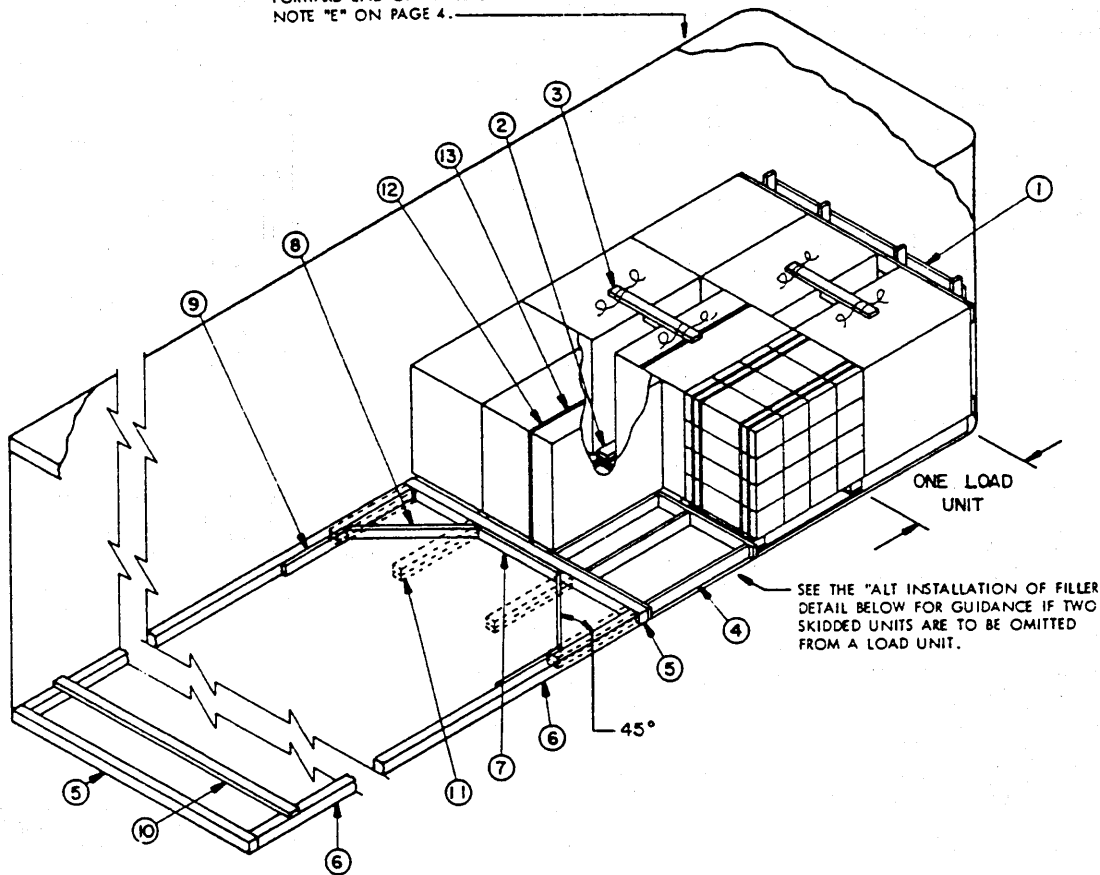
* TWENTY-TWO (22) SKIDDED UNITS CAN BE LOADED BY EMPLOYING THE 2-WIDE (BOXES CROSSWISE) PROCEDURES SHOWN ON PAGES 6 AND 7, IF THE UNITS ARE FROM 40" TO 42" LONG AND CAN BE LOADED TWO UNITS WIDE (44-1/2" MAXIMUM WIDTH IN A 90" WIDE TRAILER).

LOAD AS SHOWN (TYPICAL)

ITEM	QUANTITY	WEIGHT (APPROX)
SKIDDED UNIT	20	42,000 LBS
DUNNAGE		247 LBS
TOTAL WEIGHT		42,247 LBS

**TYPICAL CHIMNEY-PATTERN LOAD
IN A 40'-0" LONG CONVENTIONAL VAN TRAILER**

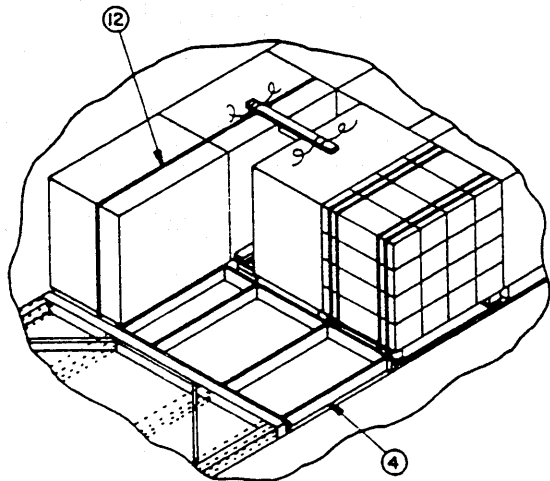
FORWARD END OF TRAILER. SEE GENERAL NOTE "E" ON PAGE 4.



ISOMETRIC VIEW

KEY NUMBERS

- ① FORWARD BLOCKING (1 REQD). SEE THE DETAIL ON PAGE 29. SEE GENERAL NOTE "G" ON PAGE 2.
- ② ANTI-SWAY BRACE ASSEMBLY (2 REQD). SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 30. INSTALL IN THE VOID AREA BETWEEN TWO LATERALLY ADJACENT ROWS OF SKIDDED UNITS. SEE SPECIAL NOTES 3 AND 4 ON PAGE 25.
- ③ TOP-OF-LOAD ANTI-SWAY BRACE ASSEMBLY (2 REQD). SEE THE "TOP-OF-LOAD ANTI-SWAY BRACE C" DETAIL ON PAGE 34. WIRE TIE TO A SKID STRAP WITH NO. 14 GAGE WIRE AS SHOWN BY THE "TIE WIRE APPLICATION D" DETAIL ON THAT PAGE. SEE SPECIAL NOTE 5 ON PAGE 25.
- ④ FILLER ASSEMBLY (1 REQD). SEE THE "FILLER A" DETAIL ON PAGE 37. NAIL TO A HEADER, PIECE MARKED ⑤, W/2-10d NAILS. SEE SPECIAL NOTE 6 ON PAGE 25.
- ⑤ HEADER, 4" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (2 REQD).
- ⑥ SIDE STRUT, 4" X 4" BY CUT TO FIT BETWEEN THE FORWARD AND REAR HEADERS, PIECES MARKED ⑤ (2 REQD). TOENAIL TO THE HEADERS W/2-16d NAILS AT EACH END. SEE SPECIAL NOTE 14 ON PAGE 25.
- ⑦ CENTER CLEAT, 2" X 4" X 30" (1 REQD). NAIL TO A HEADER, PIECE MARKED ⑤, W/7-10d NAILS.
- ⑧ DIAGONAL BRACE, 2" X 4" BY CUT TO FIT (2 REQD). DOUBLE BEVEL EACH END WITH 45° CUTS. INSTALL AT A 45° ANGLE AS SHOWN AND TOENAIL TO A HEADER AND A SIDE STRUT, PIECES MARKED ⑤ AND ⑥, W/2-16d NAILS AT EACH END.
- ⑨ SIDE CLEAT, 2" X 4" X 24" (2 REQD). NAIL TO A SIDE STRUT, PIECE MARKED ⑥, W/8-10d NAILS.
- ⑩ STRUT BRACE, 2" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (MINIMUM OF ONE REQUIRED). POSITION NEAR REAR OF TRAILER AND NAIL TO THE SIDE STRUTS, PIECES MARKED ⑥, W/2-12d NAILS AT EACH END. SEE SPECIAL NOTE 7 ON PAGE 25.
- ⑪ BACK-UP CLEAT, 2" X 4" X 30" (DOUBLED) (4 REQD). POSITION AS SHOWN. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/7-12d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER. TOENAIL THE TOP PIECE TO A HEADER, PIECE MARKED ⑤, W/2-12d NAILS. SEE SPECIAL NOTE 8 ON PAGE 25.
- ⑫ BUNDLING STRAP, 1-1/4" X .035" X 22'-0" LONG (REF) STEEL STRAPPING (1 REQD). PRE-POSITION AND INSTALL SO AS TO ENCIRCLE TWO (2) SKIDDED UNITS, AS SHOWN. SEE SPECIAL NOTE 9 ON PAGE 25.
- ⑬ SEAL FOR 1-1/4" STRAPPING (2 REQD). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "J" ON PAGE 2.



ALT INSTALLATION OF FILLER

THIS VIEW DEPICTS A "FILLER A" ASSEMBLY PROPERLY INSTALLED IN THE PLACE OF TWO SKIDDED UNITS OMITTED FROM A 3-WIDE LOAD UNIT. NOTE THE RELOCATION OF THE BUNDLING STRAP, PIECE MARKED ⑫.

SPECIAL NOTES:

1. A 7'-6" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TRAILER IS SHOWN. TRAILERS OF OTHER WIDTHS CAN BE USED.
2. THE SKIDDED UNIT SHOWN IN THE TYPICAL LTL LOAD HAS OVERALL DIMENSIONS OF 42" LONG BY 27" WIDE BY 45" HIGH. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR UNITS OF OTHER LENGTHS, AND FOR UNITS HAVING WIDTHS OF FROM 27" THRU 29-5/8" IN A 7'-6" WIDE TRAILER. SKIDDED UNITS HAVING WIDTHS OF FROM 27" THRU 44-1/2" CAN BE LOADED IN TWO ROWS USING THESE PROCEDURES. REFER TO "CHART NO. 1" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM WIDTHS OF UNITS WHICH CAN BE LOADED, WITH THE BOXES CROSSWISE, IN TRAILERS OF OTHER WIDTHS.
3. THE ANTI-SWAY BRACE A, SHOWN IN THE LOAD VIEW AS PIECE MARKED ②, IS DESIGNED FOR USE WITHIN LOADS OF CROSSWISE-POSITIONED BOXES WHEN THE UNITS ARE ASSEMBLED ON THE TYPE I OR TYPE IA SKID BASE, OR THE TYPE II SKID BASE WHEN THE BOXES DO NOT HAVE TOP CLEATS, OR THE SKID BASE DEPICTED BY DRAWING D-AMXSV-4163. THE ANTI-SWAY BRACE B WILL BE USED FOR UNITS ASSEMBLED ON THE TYPE III SKID BASE WHEN THE BOXES HAVE TOP CLEATS. SEE PAGE 30 FOR DETAILS OF THE ANTI-SWAY BRACE ASSEMBLIES.
4. THE ANTI-SWAY BRACING MAY BE OMITTED IF THE TOTAL EXCESS SPACE ACROSS THE TRAILER IS NOT MORE THAN THE DISTANCE SPECIFIED IN THE "ANTI-SWAY BRACE REQUIREMENTS" CHART ON PAGE 30, FOR THE TYPE OF SKID BASE BEING LOADED. IF THE EXCESS SPACE EXCEEDS THE MAXIMUM ALLOWABLE, ANTI-SWAY BRACES MUST BE POSITIONED IN THE VOID AREA BETWEEN TWO ROWS OF LATERALLY ADJACENT SKIDDED UNITS AT ALL LOCATIONS.
5. TOP-OF-LOAD ANTI-SWAY BRACES, SHOWN IN THE LOAD VIEW AS PIECES MARKED ③, MUST BE POSITIONED IN THE VOID AREA BETWEEN TWO LATERALLY ADJACENT ROWS OF SKIDDED UNITS IF THE UNITS ARE OVER 44" IN HEIGHT. NOTE THAT TOP-OF-LOAD ANTI-SWAY BRACES ARE NOT REQUIRED IF THE TOTAL EXCESS SPACE ACROSS THE TRAILER IS LESS THAN 6".
6. A FILLER ASSEMBLY, PIECE MARKED ④, IS SHOWN ONLY TO DEPICT A TYPICAL INSTALLATION. A FILLER ASSEMBLY MAY OR MAY NOT BE REQUIRED, DEPENDING UPON THE QUANTITY OF SKIDDED UNITS TO BE SHIPPED.
7. ALL LTL LOADS, REGARDLESS OF THEIR SIZE, REQUIRE ONE STRUT BRACE POSITIONED NEAR THE REAR OF THE TRAILER AND NAILED TO THE SIDE STRUTS. IF THE SIDE STRUTS, PIECES MARKED ⑥, ARE LONGER THAN 7'-0", AN ADDITIONAL STRUT BRACE, PIECE MARKED ⑩, MUST BE APPLIED FOR EVERY 7'-0" OF SIDE STRUT LENGTH.
8. BACK-UP CLEATS, PIECES MARKED ⑪, ARE ONLY FOR USE IN TRAILERS WHICH HAVE NAILABLE FLOORS. THEY MAY BE USED IF DESIRED IN LIEU OF REAR PIECE MARKED ⑤ AND PIECES MARKED ⑥ THRU ⑩ WHICH APPLY TO TRAILERS HAVING NON-NAILABLE FLOORS. FOUR (4) BACK-UP CLEATS ARE ADEQUATE FOR RETAINING AN LTL LOAD OF 15,600 POUNDS. SEE THE "MAX WEIGHT OF UNITS PER LTL" CHART AT RIGHT FOR GUIDANCE AS TO THE LARGEST QUANTITY OF SKIDDED UNITS WHICH CAN BE LOADED, BASED ON THE WEIGHT OF THE UNIT THAT IS TO BE SHIPPED.
9. A BUNDLING STRAP, PIECE MARKED ⑫, PROVIDES TOP-OF-LOAD ANTI-SWAY FOR THE LESS-THAN-FULL LOAD UNIT AT THE REAR OF THE LOAD. THIS STRAP IS ONLY REQUIRED FOR SKIDDED UNITS WHICH ARE OVER 44" IN HEIGHT, AND ONLY WHEN THE REARMOIST LOAD UNIT IS NOT COMPLETE.
10. THE "K-BRACE" BLOCKING, SHOWN AS PIECES MARKED ⑬ THRU ⑰, IS ADEQUATE FOR RETAINING A MAXIMUM LTL LOAD OF 26,000 POUNDS. SEE THE "MAX WEIGHT OF UNITS PER LTL" CHART AT RIGHT FOR GUIDANCE AS TO THE LARGEST QUANTITY OF SKIDDED UNITS WHICH CAN BE LOADED, BASED ON THE WEIGHT OF THE UNIT THAT IS TO BE SHIPPED.
11. EIGHT (8) SKIDDED UNITS ARE SHOWN AS A TYPICAL LTL LOAD. THE NUMBER OF UNITS CAN BE ADJUSTED TO SUIT THE QUANTITY THAT IS TO BE SHIPPED. THE TYPICAL "BILL OF MATERIAL" AND THE TYPICAL "LOAD AS SHOWN" ARE BASED ON THE SHIPMENT OF THOSE EIGHT UNITS IN A 40' LONG TRAILER.

(CONTINUED AT RIGHT)

(SPECIAL NOTES CONTINUED)

12. IF A SKIDDED UNIT WHICH DOES NOT CONTAIN A FULL QUANTITY OF BOXES IS TO BE TRANSPORTED, THAT SHORT UNIT SHOULD BE POSITIONED WITHIN THE REARMOIST LOAD UNIT, OR ON TOP OF THE LOAD. REFER TO THE "SHIPMENT OF PARTIAL UNITS" PROCEDURES ON PAGE 38 FOR GUIDANCE IN SECUREMENT OF UNITS POSITIONED IN AN UPPER TIER.
13. LEFTOVER BOXES, IN AN AMOUNT NOT TO EXCEED THE QUANTITY IN ONE LAYER OF A UNIT, MAY BE SECURED TO THE TOP OF A FULL SKIDDED UNIT FOR SHIPMENT. REFER TO THE "SHIPMENT OF LEFTOVER BOXES" PROCEDURES ON PAGE 39 FOR GUIDANCE.
14. DEPENDING ON THE NUMBER OF UNITS BEING LOADED, EACH OF THE SIDE STRUTS, PIECES MARKED ⑥, 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 4" X 24" PIECE ON TOP OF THE JOINT OF THE SIDE STRUTS AND NAILING IT TO THE SIDE STRUTS W/4-10d NAILS AT EACH END.

MAX WEIGHT OF UNITS PER LTL					
NO. OF UNITS	UNIT WEIGHT IN POUNDS		NO. OF UNITS	UNIT WEIGHT IN POUNDS	
	USING K-BRACE	USING PC ⑪		USING K-BRACE	USING PC ⑪
11	2,181	1,417	23	1,043	678
12	2,000	1,300	24	1,000	650
13	1,846	1,200	25	960	624
14	1,714	1,114	26	923	600
15	1,600	1,040	27	888	577
16	1,500	975	28	857	557
17	1,411	917	29	827	537
18	1,333	866	30	800	520
19	1,263	821	31	774	503
20	1,200	780	32	750	487
21	1,142	742	33	727	472
22	1,090	709	34	705	458

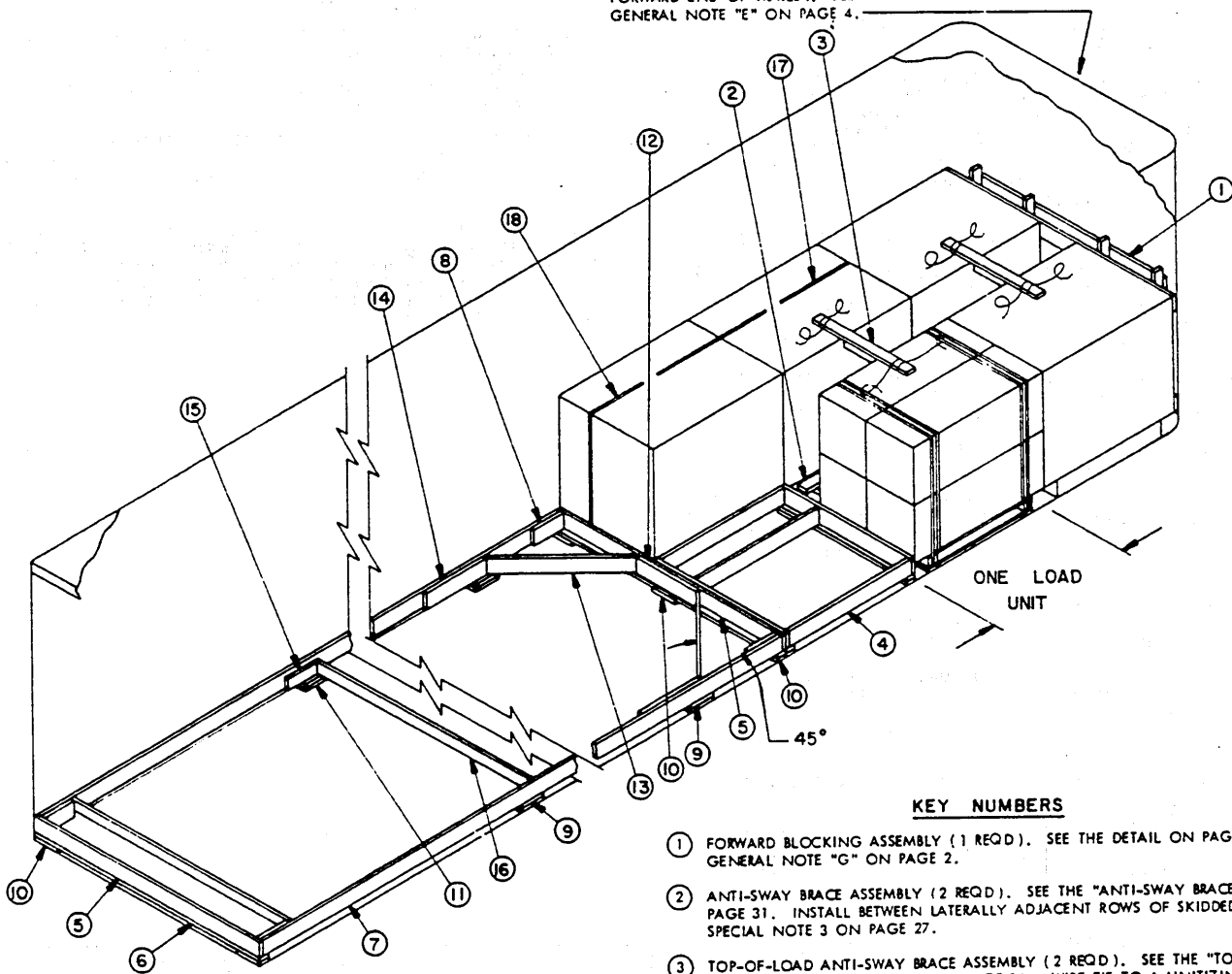
BILL OF MATERIAL (TYPICAL)		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	17	6
2" X 4"	118	79
2" X 6"	28	28
4" X 4"	72	96
NAILS	NO. REQD	POUNDS
10d (3")	69	1-1/4
12d (3-1/4")	87	1-1/2
16d (3-1/2")	16	1/2
20d (4")	16	3/4
STEEL STRAPPING, 1-1/4" X .035" ----- 22' REQD ----- 4 LBS		
SEAL FOR 1-1/4" STRAPPING ----- 2 REQD ----- NIL		

LOAD AS SHOWN (TYPICAL)

ITEM	QUANTITY	WEIGHT (APPROX)
SKIDDED UNIT	8	17,600 LBS
DUNNAGE		527 LBS
TOTAL WEIGHT		18,127 LBS

TYPICAL LTL (BOXES CROSSWISE) IN A CONVENTIONAL VAN TRAILER

FORWARD END OF TRAILER. SEE
GENERAL NOTE "E" ON PAGE 4.



ISOMETRIC VIEW

(KEY NUMBERS CONTINUED)

- 15 STRUT BRACE RETAINING CLEAT, 2" X 4" X 12" (AS REQD.). NAIL TO A SIDE STRUT, PIECE MARKED 7, W/3-10d NAILS. TOENAIL TO A FILLER PIECE, PIECE MARKED 9, W/2-12d NAILS. SEE SPECIAL NOTE 7 ON PAGE 27.
- 16 STRUT BRACE, 2" X 4" BY TRAILER WIDTH MINUS 3" IN LENGTH (MINIMUM OF ONE REQUIRED). NAIL TO THE POCKET CLEATS, PIECES MARKED 8, AND/OR TO THE STRUT RETAINING CLEATS, PIECES MARKED 15, W/2-12d NAILS AT EACH END. SEE SPECIAL NOTE 7 ON PAGE 27.
- 17 BUNDLING STRAP, 1-1/4" X .035" X 25'-0" LONG (REF) STEEL STRAPPING (1 REQD.). PRE-POSITION AND INSTALL SO AS TO ENCIRCLE TWO (2) SKIDDED UNITS, AS SHOWN. SEE SPECIAL NOTE 8 ON PAGE 27.
- 18 SEAL FOR 1-1/4" STRAPPING (2 REQD.). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "J" ON PAGE 2.

KEY NUMBERS

- 1 FORWARD BLOCKING ASSEMBLY (1 REQD.). SEE THE DETAIL ON PAGE 29. SEE GENERAL NOTE "G" ON PAGE 2.
- 2 ANTI-SWAY BRACE ASSEMBLY (2 REQD.). SEE THE "ANTI-SWAY BRACE C" DETAIL ON PAGE 31. INSTALL BETWEEN LATERALLY ADJACENT ROWS OF SKIDDED UNITS. SEE SPECIAL NOTE 3 ON PAGE 27.
- 3 TOP-OF-LOAD ANTI-SWAY BRACE ASSEMBLY (2 REQD.). SEE THE "TOP-OF-LOAD ANTI-SWAY BRACE C" DETAIL ON PAGE 34. WIRE TIE TO A UNITIZING STRAP WITH NO. 14 GAGE WIRE AS SHOWN BY THE "TIE WIRE APPLICATION C" DETAIL ON THAT PAGE. SEE SPECIAL NOTE 4 ON PAGE 27.
- 4 FILLER ASSEMBLY (1 REQD.). SEE THE "FILLER B" DETAIL ON PAGE 37. NAIL TO A HEADER, PIECE MARKED 5, W/2-10d NAILS. SEE SPECIAL NOTE 5 ON PAGE 27.
- 5 HEADER, 2" X 6" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (2 REQD.).
- 6 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". NAIL TO A RISER PIECE, PIECE MARKED 10, W/2-10d NAILS, IF APPLICABLE. SEE SPECIAL NOTE 6 ON PAGE 27.
- 7 SIDE STRUT, 2" X 6" BY CUT TO FIT BETWEEN THE FORWARD AND REAR HEADER, PIECES MARKED 5 (2 REQD.). SEE SPECIAL NOTE 13 ON PAGE 27.
- 8 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/3-12d NAILS.
- 9 FILLER PIECE, 2" X 4" X 9" (AS REQD.). POSITION SO AS TO BE CENTERED UNDER THE JOINT OF A DIAGONAL BRACE AND A SIDE CLEAT, PIECES MARKED 13 AND 14 AND/OR UNDER THE JOINT OF THE STRUT BRACE AND THE STRUT BRACE RETAINING CLEAT, PIECES MARKED 16 AND 15. NAIL TO A SIDE STRUT, PIECE MARKED 7, W/2-10d NAILS. NAIL TO A RISER PIECE, PIECE MARKED 11, W/2-10d NAILS, IF APPLICABLE. SEE SPECIAL NOTES 6 AND 7 ON PAGE 27.
- 10 RISER PIECE, 2" X 4" X 9" (5 REQD.). POSITION ONE UNDER EACH END OF BOTH SIDE STRUT SUPPORT PIECES AND ONE UNDER THE CENTER OF THE MOST FORWARD SIDE STRUT SUPPORT PIECE, PIECE MARKED 6. SEE SPECIAL NOTE 6 ON PAGE 27.
- 11 RISER PIECE, 2" X 4" X 9" (AS REQD.). POSITION UNDER FILLER PIECE, PIECE MARKED 9. SEE SPECIAL NOTE 6 ON PAGE 27.
- 12 CENTER CLEAT, 2" X 6" X 24" (1 REQD.). NAIL TO A HEADER, PIECE MARKED 5, W/6-10d NAILS.
- 13 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.
- 14 SIDE CLEAT, 2" X 6" X 24" (2 REQD.). NAIL TO A SIDE STRUT, PIECE MARKED 7, W/8-10d NAILS. TOENAIL TO A FILLER PIECE, PIECE MARKED 9, W/2-12d NAILS.

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SPECIAL NOTES:

(SPECIAL NOTES CONTINUED)

1. A 7'-6" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TRAILER IS SHOWN. TRAILERS OF OTHER WIDTHS CAN BE USED.
2. THE SKIDDED UNIT SHOWN IN THE TYPICAL LTL LOAD HAS OVERALL DIMENSIONS OF 37" LONG BY 52" WIDE BY 46-1/2" HIGH. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR UNITS OF OTHER WIDTHS, AND FOR UNITS HAVING LENGTHS OF FROM 25" THRU 44-1/2" IN A 7'-6" WIDE TRAILER. SKIDDED UNITS HAVING LENGTHS OF FROM 25" THRU 29-5/8" CAN BE LOADED IN THREE ROWS USING THESE PROCEDURES. REFER TO "CHART NO. 1" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM LENGTHS OF UNITS WHICH CAN BE LOADED, WITH THE BOXES LENGTHWISE, IN TRAILERS OF OTHER WIDTHS.
3. THE ANTI-SWAY BRACING MAY BE OMITTED IF THE TOTAL EXCESS LATERAL SPACE IS LESS THAN 2-1/4". IF THE EXCESS SPACE IS 2-1/4" OR MORE, ANTI-SWAY BRACES MUST BE INSTALLED IN THE VOID AREA BETWEEN TWO ROWS OF LATERALLY ADJACENT SKIDDED UNITS AT ALL LOCATIONS.
4. TOP-OF-LOAD ANTI-SWAY BRACES, SHOWN IN THE LOAD VIEW ON PAGE 26 AS PIECES MARKED ③, MUST BE POSITIONED IN THE VOID AREA BETWEEN TWO LATERALLY ADJACENT ROWS OF SKIDDED UNITS IF THE UNITS ARE OVER 44" IN HEIGHT. NOTE THAT TOP-OF-LOAD ANTI-SWAY BRACES ARE NOT REQUIRED IF THE TOTAL EXCESS SPACE ACROSS THE TRAILER IS LESS THAN 6".
5. A FILLER ASSEMBLY, PIECE MARKED ④, IS SHOWN ONLY TO DEPICT A TYPICAL INSTALLATION. A FILLER B WILL BE USED IN THE PLACE OF AN OMITTED SKIDDED UNIT IF THE ADJACENT UNITS ARE ASSEMBLED ON TYPE I SKID BASES. IF THE ADJACENT UNITS ARE ASSEMBLED ON TYPE IA OR TYPE II SKID BASES, A FILLER C WILL BE USED. A FILLER ASSEMBLY MAY OR MAY NOT BE REQUIRED, DEPENDING UPON THE QUANTITY OF SKIDDED UNITS TO BE SHIPPED.
6. THE RISER PIECES, PIECES MARKED ⑩ AND ⑪, ARE ONLY REQUIRED WHEN SHIPPING SKIDDED UNITS WHICH ARE ASSEMBLED ON TYPE I SKID BASES; THEY WILL BE OMITTED IF THE UNITS ARE ASSEMBLED ON TYPE IA OR TYPE II SKID BASES.
7. ALL LTL LOADS, REGARDLESS OF THEIR SIZE, REQUIRE ONE STRUT BRACE POSITIONED AT THE REAR OF THE TRAILER AND NAILED TO PIECE MARKED ⑥. IF THE SIDE STRUTS, PIECES MARKED ⑦, ARE LONGER THAN 7'-0", AN ADDITIONAL STRUT BRACE, PIECE MARKED ⑫, AND TWO (2) STRUT BRACE RETAINING CLEATS, PIECES MARKED ⑬, AND TWO (2) FILLER PIECES, PIECES MARKED ⑨, MUST BE APPLIED FOR EVERY 7'-0" OF SIDE STRUT LENGTH.
8. A BUNDLING STRAP, PIECE MARKED ⑰, PROVIDES TOP-OF-LOAD ANTI-SWAY FOR THE LESS-THAN-FULL LOAD UNIT AT THE REAR OF THE LOAD. THIS STRAP IS ONLY REQUIRED FOR SKIDDED UNITS WHICH ARE OVER 44" IN HEIGHT, AND ONLY WHEN THE REAR MOST LOAD UNIT IS NOT COMPLETE.
9. THE "K-BRACE" BLOCKING, SHOWN AS PIECES MARKED ⑤ THRU ⑭, IS ADEQUATE FOR RETAINING A MAXIMUM LTL LOAD OF 20,000 POUNDS. SEE THE "MAX WEIGHT OF UNITS PER LTL" CHART AT RIGHT FOR GUIDANCE AS TO THE LARGEST QUANTITY OF SKIDDED UNITS WHICH CAN BE LOADED, BASED ON THE WEIGHT OF THE UNIT THAT IS TO BE SHIPPED.
10. FIVE (5) SKIDDED UNITS ARE SHOWN AS A TYPICAL LTL LOAD. THE NUMBER OF UNITS CAN BE ADJUSTED TO SUIT THE QUANTITY THAT IS TO BE SHIPPED. THE TYPICAL "BILL OF MATERIAL" AND THE TYPICAL "LOAD AS SHOWN" ARE BASED ON THE SHIPMENT OF THOSE FIVE UNITS IN A 40'-0" LONG TRAILER.
11. IF A SKIDDED UNIT WHICH DOES NOT CONTAIN A FULL QUANTITY OF BOXES IS TO BE TRANSPORTED, THAT SHORT UNIT SHOULD BE POSITIONED WITHIN THE REAR MOST LOAD UNIT, OR ON TOP OF THE LOAD. REFER TO THE "SHIPMENT OF PARTIAL UNITS" PROCEDURES ON PAGE 38 FOR GUIDANCE IN SECUREMENT OF UNITS POSITIONED IN AN UPPER TIER.

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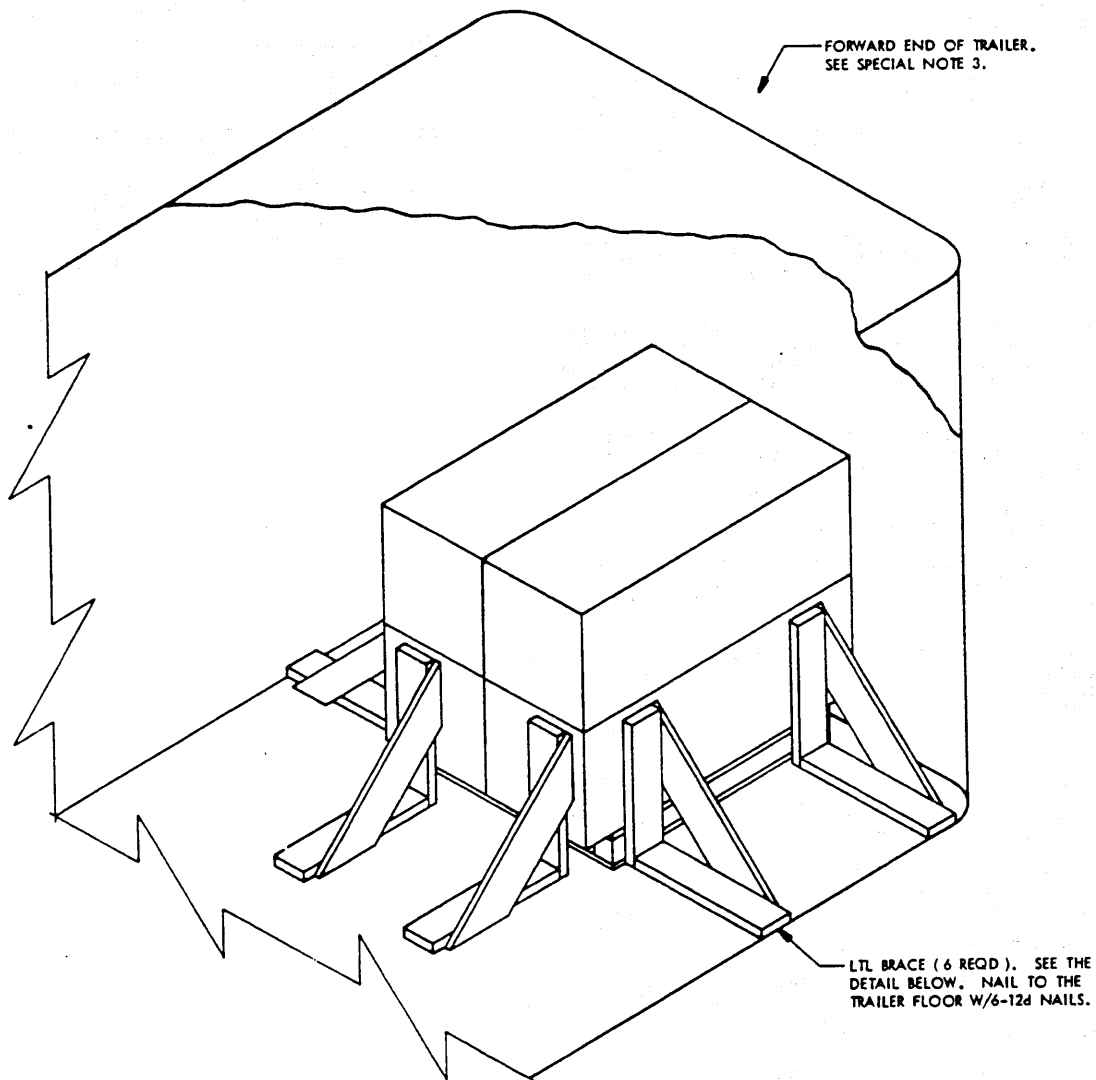
MAX WEIGHT OF UNITS PER LTL					
NO. OF UNITS	UNIT WEIGHT IN POUNDS	NO. OF UNITS	UNIT WEIGHT IN POUNDS	NO. OF UNITS	UNIT WEIGHT IN POUNDS
8	2,500	16	1,250	24	833
9	2,222	17	1,176	25	800
10	2,000	18	1,111	26	769
11	1,818	19	1,052	27	740
12	1,666	20	1,000	28	714
13	1,576	21	952	29	689
14	1,428	22	909	30	666
15	1,333	23	869	31	645

BILL OF MATERIAL (TYPICAL)		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	106	71
2" X 6"	134	134
NAILS	NO. REQD	POUNDS
10d (3")	170	2-3/4
12d (3-1/4")	32	1/2
16d (3-1/2")	8	1/4
STEEL STRAPPING, 1-1/4" X .035" ----- 25' REQD ----- 4 LBS		
SEAL FOR 1-1/4" STRAPPING ----- 2 REQD ----- NIL		

LOAD AS SHOWN (TYPICAL)

ITEM	QUANTITY	WEIGHT (APPROX)
SKIDDED UNIT	5	11,000 LBS
DUNNAGE		520 LBS
TOTAL WEIGHT		11,520 LBS

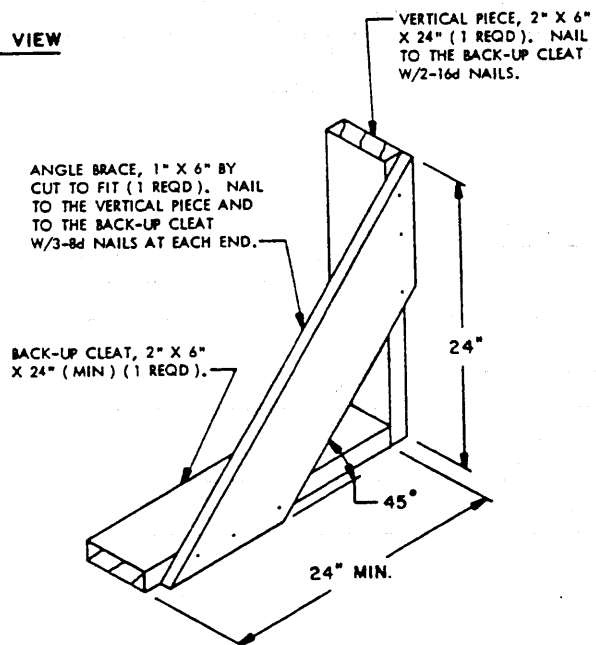
TYPICAL LTL (BOXES LENGTHWISE) IN A CONVENTIONAL VAN TRAILER



ISOMETRIC VIEW

SPECIAL NOTES:

1. A 7'-6" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TRAILER WHICH HAS A NAILABLE FLOOR IS SHOWN. TRAILERS OF OTHER WIDTHS CAN BE USED.
2. THE SKIDDED UNIT SHOWN IN THE TYPICAL LTL LOAD HAS OVERALL DIMENSIONS OF 38" LONG BY 52" WIDE BY 45" HIGH. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR UNITS OF OTHER SIZES. SEE SPECIAL NOTE 3.
3. THE POSITIONING OF A UNIT IS OPTIONAL. HOWEVER, SKIDDED UNITS WHICH ARE MORE THAN 39" LONG OR WIDE MUST BE LOCATED IN THE CORNER OF THE TRAILER IN LIEU OF AT THE CENTER AS SHOWN, BECAUSE OF INSUFFICIENT SPACE FOR INSTALLATION OF THE LTL BRACES. IF THE TRAILER DOES NOT HAVE SQUARE FRONT CORNERS, A FORWARD BLOCKING ASSEMBLY MUST BE INSTALLED. SEE THE DETAIL ON PAGE 29.
4. MORE THAN ONE SKIDDED 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. THE PROPER ANTI-SWAY BRACES, IF REQUIRED, WILL BE INSTALLED BETWEEN THE LATERALLY ADJACENT UNITS. SEE THE DETAILS ON PAGES 30 AND 31. IF THE UNITS BEING SHIPPED ARE MORE THAN 44" HIGH, TOP-OF-LOAD ANTI-SWAY BRACE C MUST BE INSTALLED BETWEEN THE TOPS OF LATERALLY ADJACENT UNITS. SEE THE DETAIL OF THE ASSEMBLY ON PAGE 34 AND THE PROPER TIE WIRE APPLICATION DETAIL ON THAT PAGE FOR SECUREMENT OF THE BRACE.
5. 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 SKIDDED UNIT ACROSS THE WIDTH OF THE TRAILER.

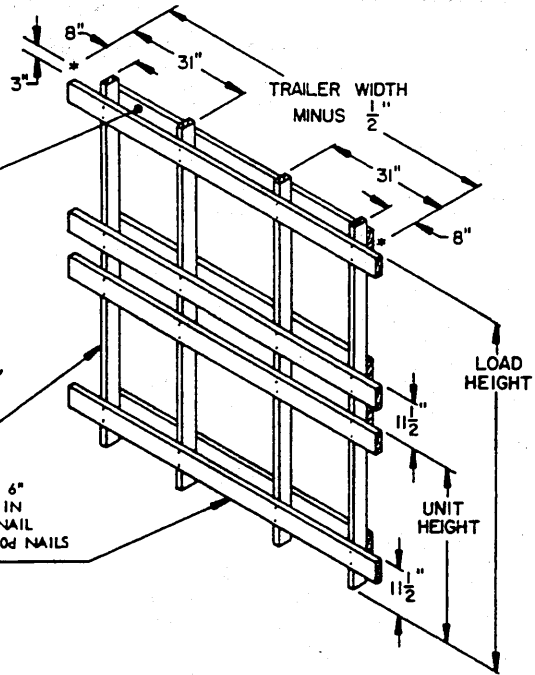


LTL BRACE

FRONT HORIZONTAL PIECE, 2" X 6" BY CUT TO FIT (2 REQD PER TIER). POSITION AT SAME HEIGHT AS A REAR HORIZONTAL AND NAIL TO THE VERTICAL PIECES W/2-10d NAILS AT EACH JOINT.

VERTICAL PIECE, 2" X 4" BY LOAD HEIGHT PLUS 3" (4 REQD). NOTE THAT FOR LOADS WHICH EXTEND TO A HEIGHT OF LESS THAN 4" FROM THE TRAILER ROOF, THE VERTICAL PIECES MUST BE CUT OFF SUFFICIENTLY TO PROVIDE AT LEAST ONE INCH (1") CLEARANCE. ADDITIONALLY, THE VERTICAL PIECES MUST BE 2" X 6" MATERIAL IN LIEU OF 2" X 4" IF THE TRAILER TO BE LOADED HAS ROUNDED FRONT CORNERS WITH A RADIUS GREATER THAN 6".

REAR HORIZONTAL PIECE, 2" X 6" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (2 REQD PER TIER). NAIL TO THE VERTICAL PIECES W/2-10d NAILS AT EACH JOINT.

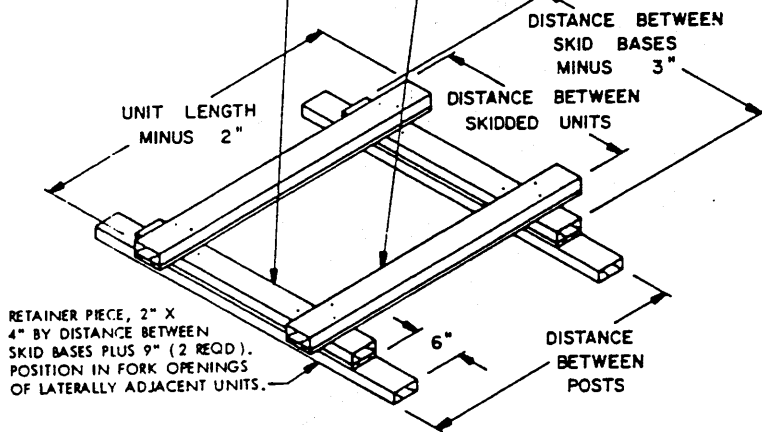


FORWARD BLOCKING

THE FORWARD BLOCKING SHOWN IS APPLICABLE FOR A 2-TIER LOAD OF UNITS WHICH HAVE 2 OR MORE LAYERS OF BOXES; ADD TWO (2) HORIZONTAL PIECES ON EACH SIDE FOR EACH ADDED TIER IN THE LOAD. FOR LOADS OF UNITS HAVING ONLY 1 LAYER OF BOXES, ONE (1) HORIZONTAL PIECE AT THE TOP OF EACH TIER WITH A HORIZONTAL PIECE ON THE FRONT SIDE, DIRECTLY OPPOSITE, IS ADEQUATE. NOTE THAT IF THE TRAILER TO BE LOADED HAS SQUARE CORNERS AT THE FRONT END OF THE INSIDE, THE FORWARD BLOCKING MAY BE OMITTED AND THE UNITS POSITIONED DIRECTLY AGAINST THE FRONT WALL.

LATERAL PIECES, 1" X 4" BY A LENGTH TO SUIT WITH A 2" X 4" BY A LENGTH TO SUIT ON TOP (2 EACH REQ'D). NAIL THRU BOTH PIECES INTO A RETAINER PIECE W/1-12d NAIL NEAR EACH END, AFTER SKIDDED UNITS ARE POSITIONED. NOTE THAT 3" X 4" MATERIAL MAY BE SUBSTITUTED, WITHOUT ANY CHANGE TO THE NAILING.

BLOCKING PIECES, 1" X 4" BY UNIT LENGTH MINUS 2" WITH A 2" X 4" BY UNIT LENGTH MINUS 2" ON TOP (2 EACH REQ'D). NAIL THRU BOTH PIECES INTO THE LATERAL PIECES W/2-20d NAILS AT EACH JOINT. NOTE THAT 3" X 4" MATERIAL MAY BE SUBSTITUTED, WITHOUT ANY CHANGE TO THE NAILING. FOR A DISTANCE BETWEEN UNITS OF 3-1/2" TO 7", USE ONE PIECE OF 2" X 4" OR 2" X 6" MATERIAL, OR RIP PIECES AS NECESSARY.

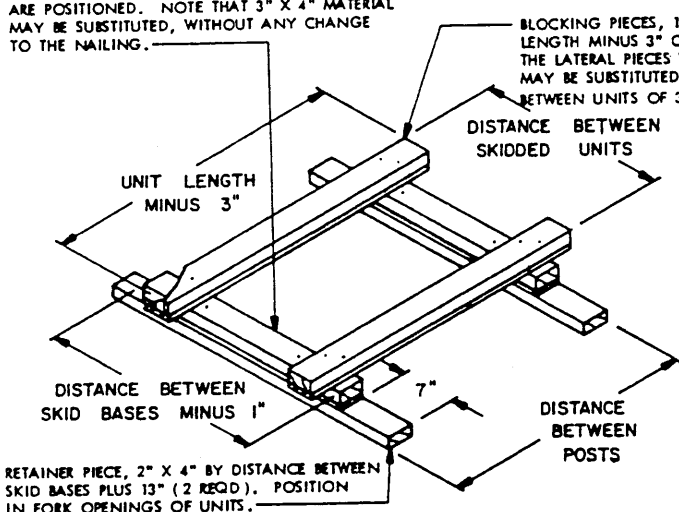


ANTI-SWAY BRACE A

FOR USE BETWEEN ENDS OF BOXES ON UNITS ASSEMBLED ON THE TYPE I OR TYPE IA SKID BASES OR THE TYPE II SKID BASE WHEN THE BOXES DO NOT HAVE TOP CLEATS. THE ANTI-SWAY BRACE IS ALSO APPLICABLE FOR USE WITH THE SKID BASE DEPICTED BY DRAWING D-AMXSV-4163 AND THE REVISIONS THERETO. SEE THE CHART AT THE RIGHT FOR ADDITIONAL GUIDANCE. THIS ANTI-SWAY BRACE MAY BE PRE-ASSEMBLED, EXCEPT FOR THE "BLOCKING PIECES" WHICH MUST BE INSTALLED IN PLACE.

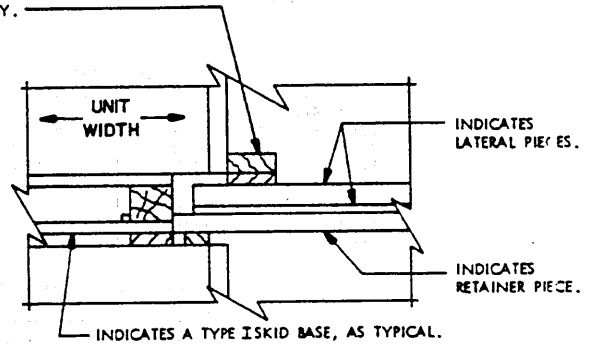
* THE MAXIMUM TOTAL LATERAL VOIDS SPECIFIED IN THE CHART AT RIGHT ARE APPLICABLE ONLY FOR THE UPPER TIERS OF A LOAD. FOR A FULL OR PARTIAL 1-TIER LOAD, OR FOR THE 1-HIGH PORTION OF A LOAD CONTAINING A PARTIAL SECOND TIER, A SIX INCH (6") TOTAL LATERAL VOID IS PERMISSIBLE.

LATERAL PIECES, 1" X 4" BY A LENGTH TO SUIT WITH A 2" X 4" BY LENGTH TO SUIT ON TOP (2 EACH REQ'D). NAIL THRU BOTH PIECES INTO A RETAINER PIECE W/1-12d NAIL NEAR EACH END, AFTER SKIDDED UNITS ARE POSITIONED. NOTE THAT 3" X 4" MATERIAL MAY BE SUBSTITUTED, WITHOUT ANY CHANGE TO THE NAILING.



ANTI-SWAY BRACE B

FOR USE BETWEEN ENDS OF BOXES ON UNITS ASSEMBLED ON THE TYPE II SKID BASE WHEN THE BOXES HAVE TOP CLEATS. SEE THE CHART ABOVE AT THE RIGHT FOR ADDITIONAL GUIDANCE. NOTE THAT THIS ANTI-SWAY BRACE MUST BE ASSEMBLED IN PLACE.

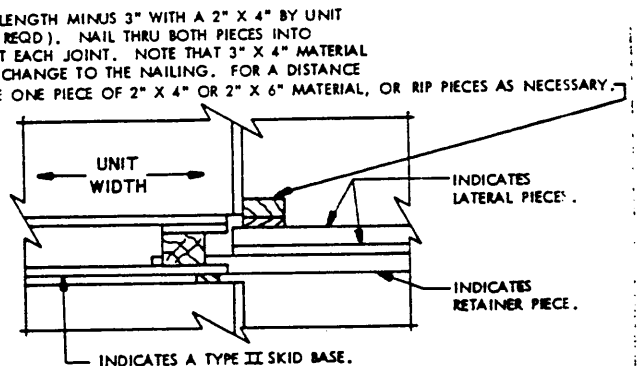


INSTALLATION VIEW

THIS VIEW DEPICTS AN ANTI-SWAY BRACE A AS INSTALLED BETWEEN LATERALLY ADJACENT UNITS IN AN UPPER TIER. THE ASSEMBLY IS ALSO USED BETWEEN FIRST-TIER UNITS.

ANTI-SWAY BRACE REQUIREMENTS

UNIT WIDTH ACROSS TRAILER	MAXIMUM TOTAL LATERAL VOID ALLOWED WITHOUT USING ANTI-SWAY BRACING *		
	TYPE II W/O TOP CLEATS, TYPE I AND TYPE IA, AND DWG D-AMXSV-4163, REV D	TYPE II FOR BOXES W/TOP CLEATS	BASIC DRAWING D-AMXSV-4163 AND REV A
27"	3-1/2"	5"	4-1/2"
28"	4"	5"	4-3/4"
29"	4-1/2"	5"	4-3/4"
30"	5"	5"	5"
31"	5-1/2"	5"	5"
32"	6"	5"	5-1/4"
33"	6"	5"	5-1/4"
34"	6"	5"	5-1/2"
35"	6"	5"	5-1/2"
36"	6"	5"	5-1/2"
37"	6"	5"	5-3/4"
38"	6"	5"	5-3/4"
39" AND WIDER	6"	5"	6"

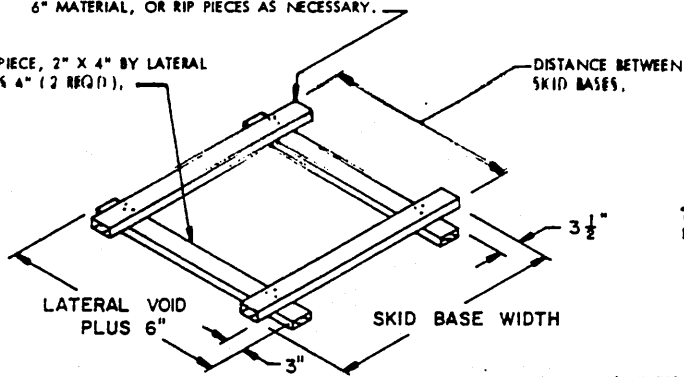


INSTALLATION VIEW

THIS VIEW DEPICTS AN ANTI-SWAY BRACE B AS INSTALLED BETWEEN LATERALLY ADJACENT UNITS IN AN UPPER TIER. THE ASSEMBLY IS ALSO USED BETWEEN FIRST-TIER UNITS.

BLOCKING PIECE, 2" X 4" BY SKID BASE WIDTH 1" LENGTH (2 REQD.). NAIL TO THE SUPPORT PIECES W/3-10d NAILS AT EACH JOINT. FOR A SPACE OF 3-1/2" TO 7" USE ONE PIECE OF 2" X 4" OR 2" X 6" MATERIAL, OR RIP PIECES AS NECESSARY.

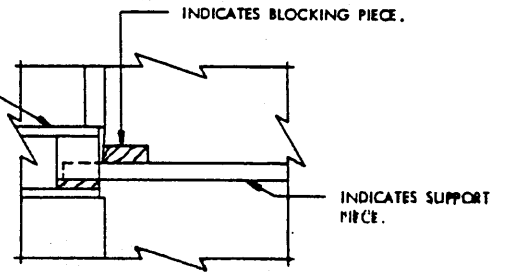
SUPPORT PIECE, 2" X 4" BY LATERAL VOID PLUS 4" (2 REQD.).



ANTI-SWAY BRACE C

FOR USE BETWEEN SIDES OF BOXES ON UNITS ASSEMBLED ON ANY TYPE OF SKID BASE. THIS ANTI-SWAY BRACE MUST BE ASSEMBLED IN PLACE. FOR A LATERAL VOID SPACE OF LESS THAN 4" THE ANTI-SWAY BRACE D SHOWN BELOW MAY BE USED. NOTE THAT THE MAXIMUM TOTAL LATERAL VOID ALLOWED WITHOUT USING ANTI-SWAY BRACING IS 2-1/4".

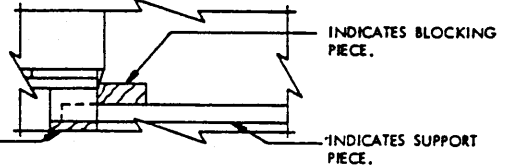
INDICATES A TYPE I SKID BASE.



INSTALLATION VIEW

THIS VIEW DEPICTS AN ANTI-SWAY BRACE C AS INSTALLED BETWEEN LATERALLY ADJACENT UNITS ASSEMBLED ON TYPE I SKID BASES.

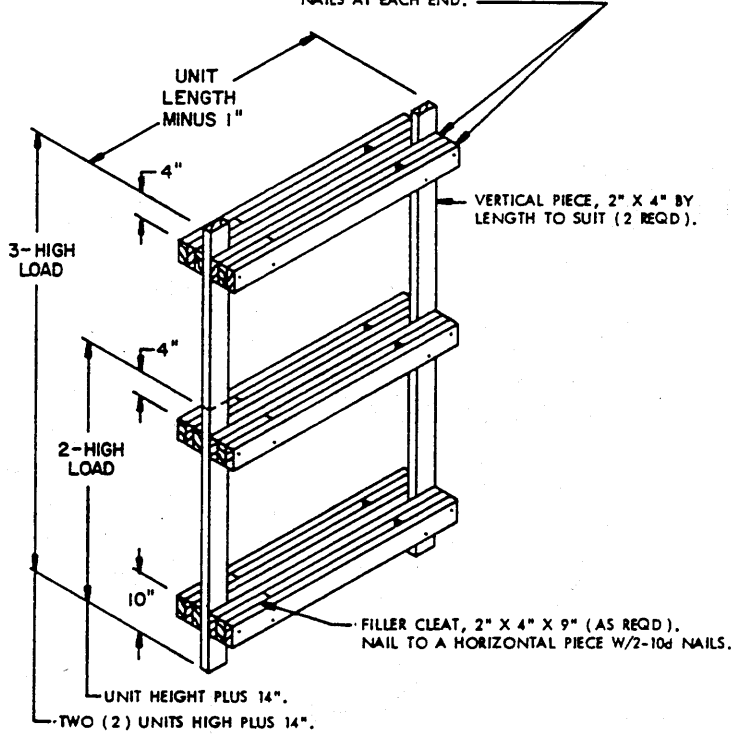
INDICATES A TYPE II SKID BASE.



INSTALLATION VIEW

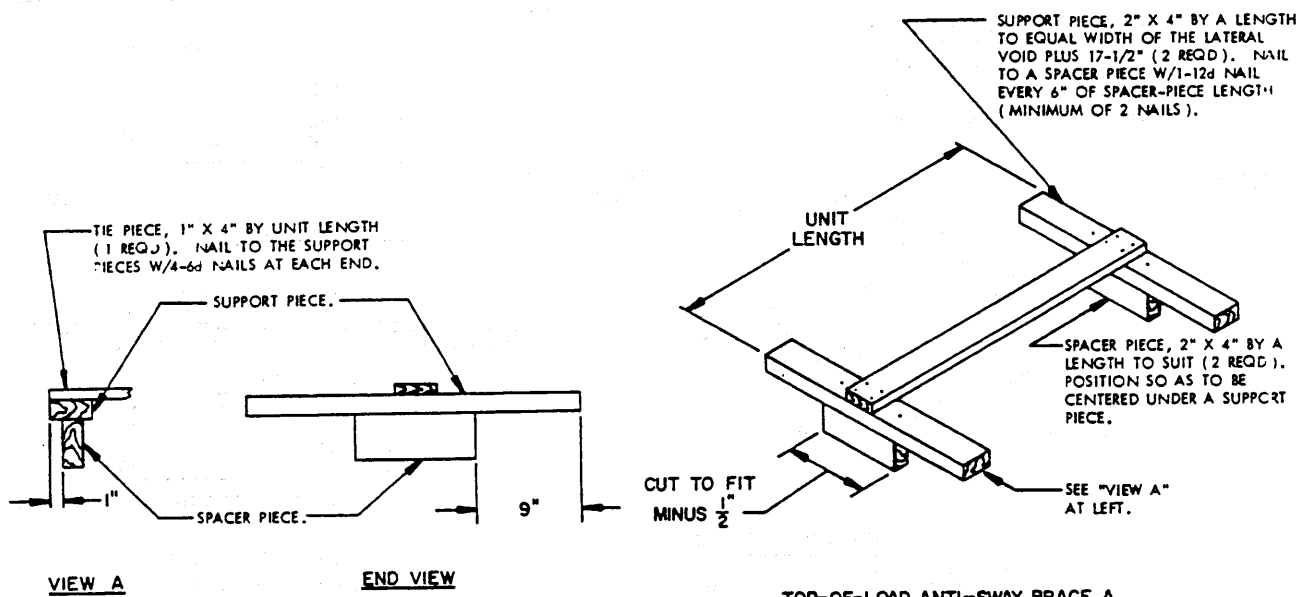
THIS VIEW DEPICTS AN ANTI-SWAY BRACE C AS INSTALLED BETWEEN LATERALLY ADJACENT UNITS ASSEMBLED ON TYPE II SKID BASES.

HORIZONTAL PIECE, 2" X 4" BY UNIT LENGTH MINUS 1" (AS REQD.). NAIL TO THE VERTICAL PIECES AND/OR TO THE FILLER CLEATS W/2-10d NAILS AT EACH END.



ANTI-SWAY BRACE D

THIS ASSEMBLY MAY BE USED IN LIEU OF ANTI-SWAY BRACE A, B, OR C. FOR A LATERAL SPACE BETWEEN UNITS OF LESS THAN 4", OMIT THE OUTER HORIZONTAL PIECES AND THE FILLER CLEATS, AND ADJUST THE THICKNESS OF THE VERTICAL PIECES AND THE REMAINING HORIZONTAL PIECES, AS NECESSARY. NOTE THAT THIS ASSEMBLY IS APPLICABLE ONLY FOR LOADS OF TWO (2) OR MORE TIERS.



TOP-OF-LOAD ANTI-SWAY BRACE A

THIS ASSEMBLY IS DESIGNED FOR USE BETWEEN THE TOPS OF LATERALLY ADJACENT UNITS OF CROSSWISE-POSITIONED BOXES.

INDICATES A TIE WIRE. THREAD ONE END OF WIRE UNDER A SKID STRAP ON THE TOP OF THE UNIT, AND THEN BRING BOTH ENDS OVER A SUPPORT PIECE. THREAD ONE OF THESE ENDS UNDER THE SKID STRAP ON THE SIDE OF THE UNIT, BRING BOTH ENDS TOGETHER AND TWIST.

INDICATES A SKID STRAP.

INDICATES A UNITIZING STRAP ON A SKIDDED UNIT.

INDICATES TOP-OF-LOAD ANTI-SWAY BRACE A.

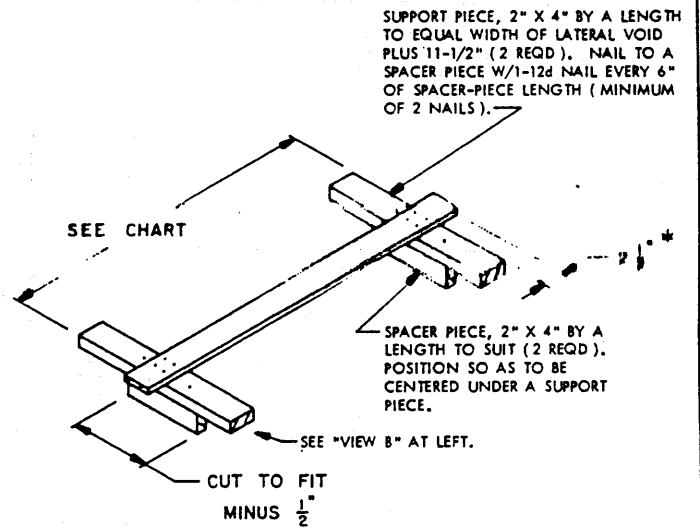
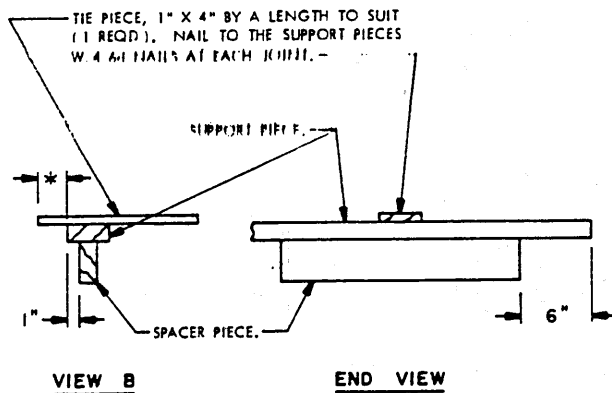
UNIT LENGTH

TIE WIRE APPLICATION A

THIS VIEW DEPICTS THE SECUREMENT OF A TOP-OF-LOAD ANTI-SWAY BRACE A TO THE TOPS OF SKIDDED UNITS BY WIRE TYING TO THE SKID STRAPS WITH NO. 14 GAGE WIRE. THIS PROCEDURE IS APPLICABLE ONLY FOR UNITS POSITIONED WITH THE BOXES CROSSWISE IN THE TRAILER.

TOP-OF-LOAD ANTI-SWAY BRACE A

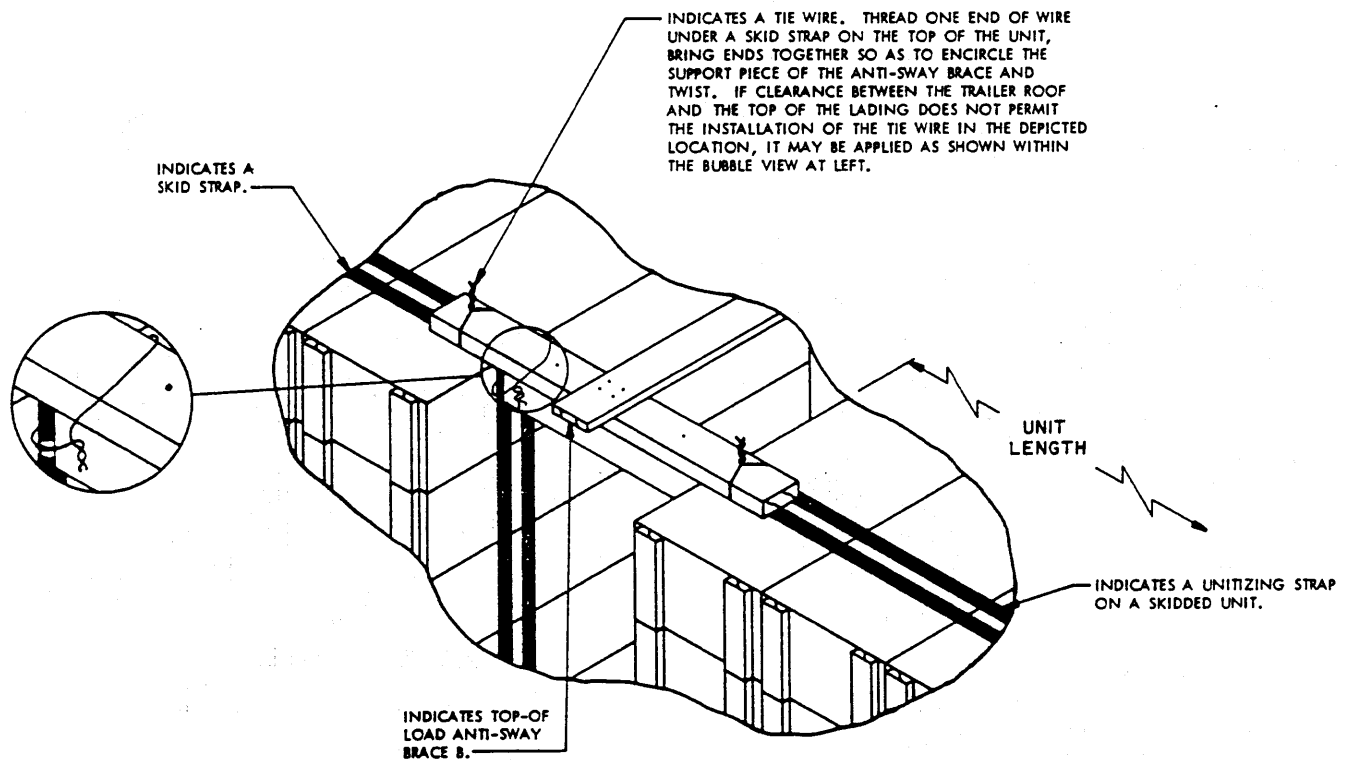
* THIS DIMENSION WILL BE 1-1/2" FOR LOADS OF SKIDDED UNITS OF BOXES 30" OR LESS IN LENGTH (UNIT WIDTH) WHICH DO NOT HAVE TOP CLEATS, AND WHEN ASSEMBLED ON TYPE I OR TYPE IA SKID BASES.



TOP-OF-LOAD ANTI-SWAY BRACE B

THIS ASSEMBLY IS DESIGNED FOR USE BETWEEN THE TOPS OF LATERALLY ADJACENT UNITS OF LENGTHWISE-POSITIONED BOXES.

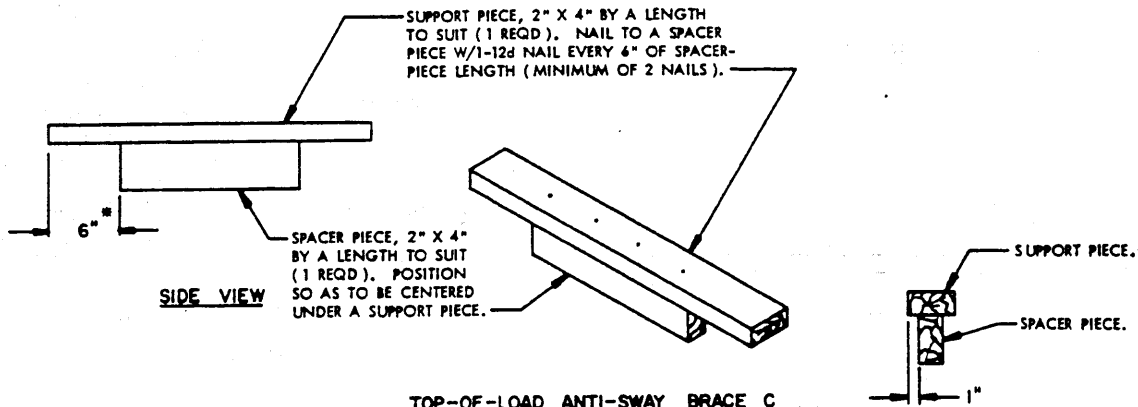
SUPPORT PIECE SPACING		
SKID BASE TYPE	BOXES W/TOP CLEATS	BOXES W/O TOP CLEATS
TYPE I OR IA	UNIT WIDTH MINUS 9-1/2"	24" FOR UNITS FROM 27" THRU 38" WIDE 4/5 UNIT WIDTH FOR UNITS OVER 38" WIDE
TYPE II	UNIT WIDTH MINUS 12"	4/5 UNIT WIDTH MINUS 9"



TIE WIRE APPLICATION B

THIS VIEW DEPICTS THE SECUREMENT OF A TOP-OF-LOAD ANTI-SWAY BRACE B TO THE TOPS OF SKIDDED UNITS BY WIRE TYING TO THE SKID STRAPS WITH NO. 14 GAGE WIRE. THIS PROCEDURE IS APPLICABLE ONLY FOR UNITS POSITIONED WITH THE BOXES LENGTHWISE IN THE TRAILER.

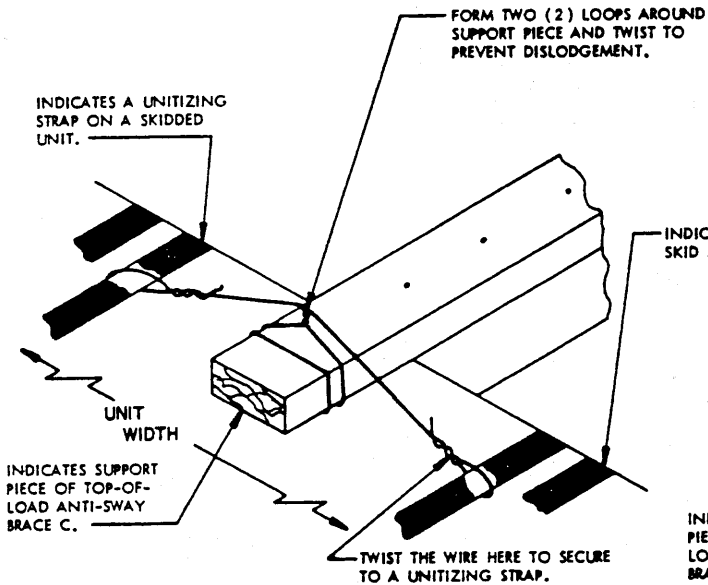
* THIS DIMENSION WILL BE 6", AS SHOWN, FOR BRACES TO BE USED WITHIN LOADS OF LENGTHWISE-POSITIONED BOXES, AND 12" FOR LOADS OF CROSSWISE-POSITIONED BOXES.



TOP-OF-LOAD ANTI-SWAY BRACE C

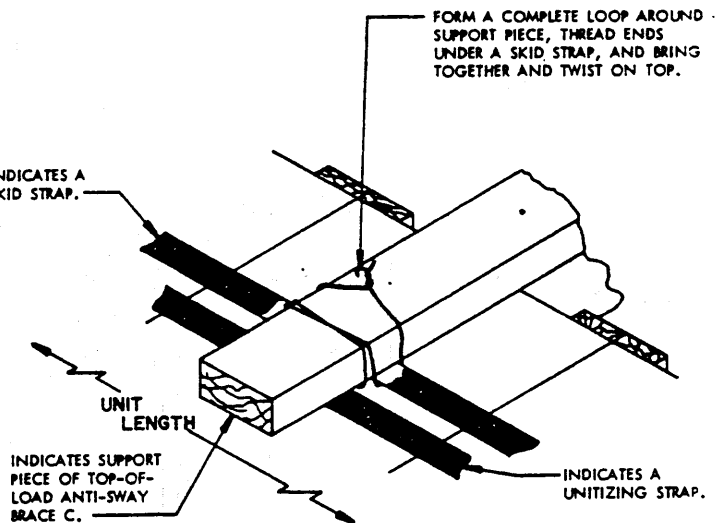
THIS ASSEMBLY IS DESIGNED FOR USE IN 1-TIER LOADS OR IN THE 1-TIER PORTION OF 2-TIER LOADS BETWEEN THE TOPS OF LATERALLY ADJACENT SKIDDED UNITS OVER 44" HIGH TO PREVENT THE UNITS FROM TOPPLING INTO THE VOID AREA. THE ASSEMBLY WILL BE WIRE TIED TO UNIT STRAPS TO PREVENT DISPLACEMENT.

END VIEW



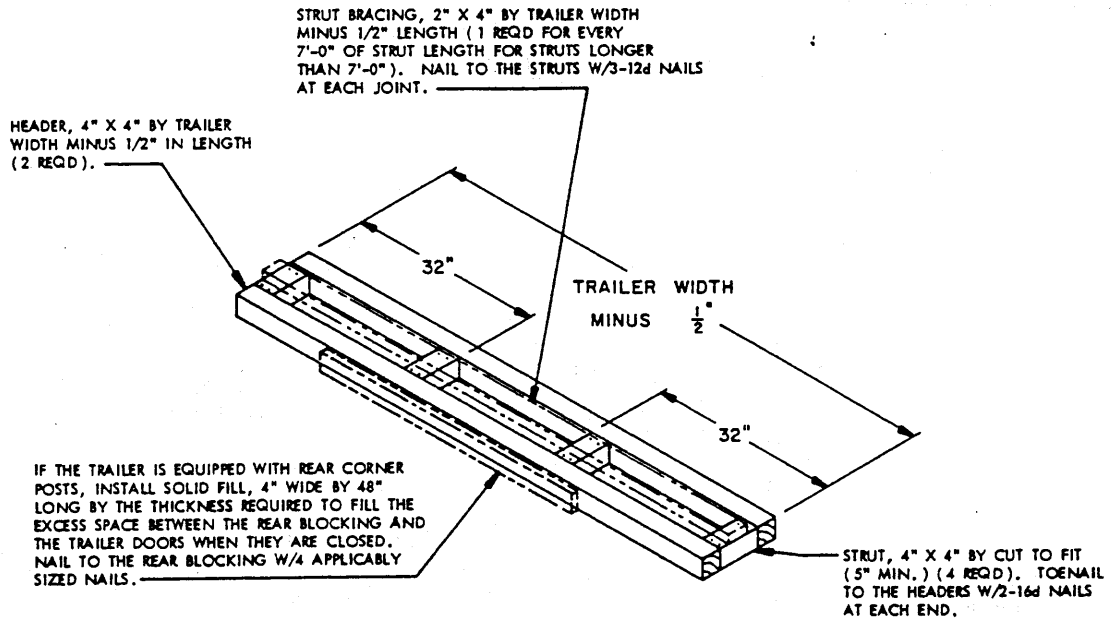
TIE WIRE APPLICATION C

THIS VIEW DEPICTS THE SECUREMENT OF A TOP-OF-LOAD ANTI-SWAY BRACE C TO THE TOP OF A SKIDDED UNIT BY WIRE TYING TO THE UNITIZING STRAPS WITH NO. 14 GAGE WIRE. THIS PROCEDURE IS APPLICABLE FOR UNITS POSITIONED WITH THE BOXES LENGTHWISE IN THE TRAILER.



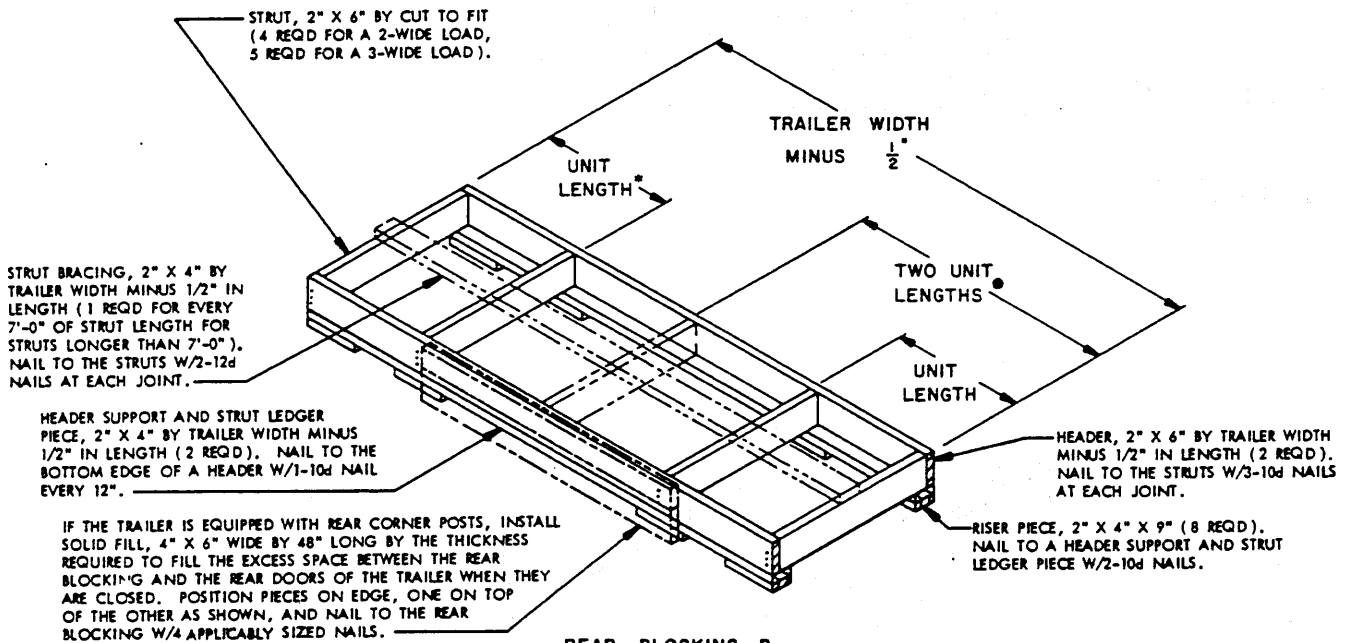
TIE WIRE APPLICATION D

THIS VIEW DEPICTS THE SECUREMENT OF A TOP-OF-LOAD ANTI-SWAY BRACE C TO THE TOP OF A SKIDDED UNIT BY WIRE TYING TO A SKID STRAP WITH NO. 14 GAGE WIRE. THIS PROCEDURE IS APPLICABLE FOR UNITS POSITIONED WITH THE BOXES CROSSWISE IN THE TRAILER.



REAR BLOCKING A

THIS REAR BLOCKING IS DESIGNED FOR USE AT THE REAR END OF THE BOXES-CROSSWISE LOADS SHOWN ON PAGES 6 THRU 12, WHEN THE SPACE BETWEEN THE LADING AND THE TRAILER DOORS IS 12" OR GREATER. THIS BLOCKING IS APPLICABLE FOR SKIDDED UNITS WHICH ARE ASSEMBLED ON ANY OF THE DIFFERENT SKID BASES DEPICTED HEREIN. NOTE THAT THIS ASSEMBLY WILL ALSO BE USED AT THE REAR OF THE LOADS DEPICTED BY THE "ALT REAR LOADING PATTERN A" VIEW ON PAGE 23 AND THE "ALT REAR LOADING PATTERN C" VIEW ON PAGE 22 WHEN THE SPACE TO BE BLOCKED IS 12" OR GREATER.

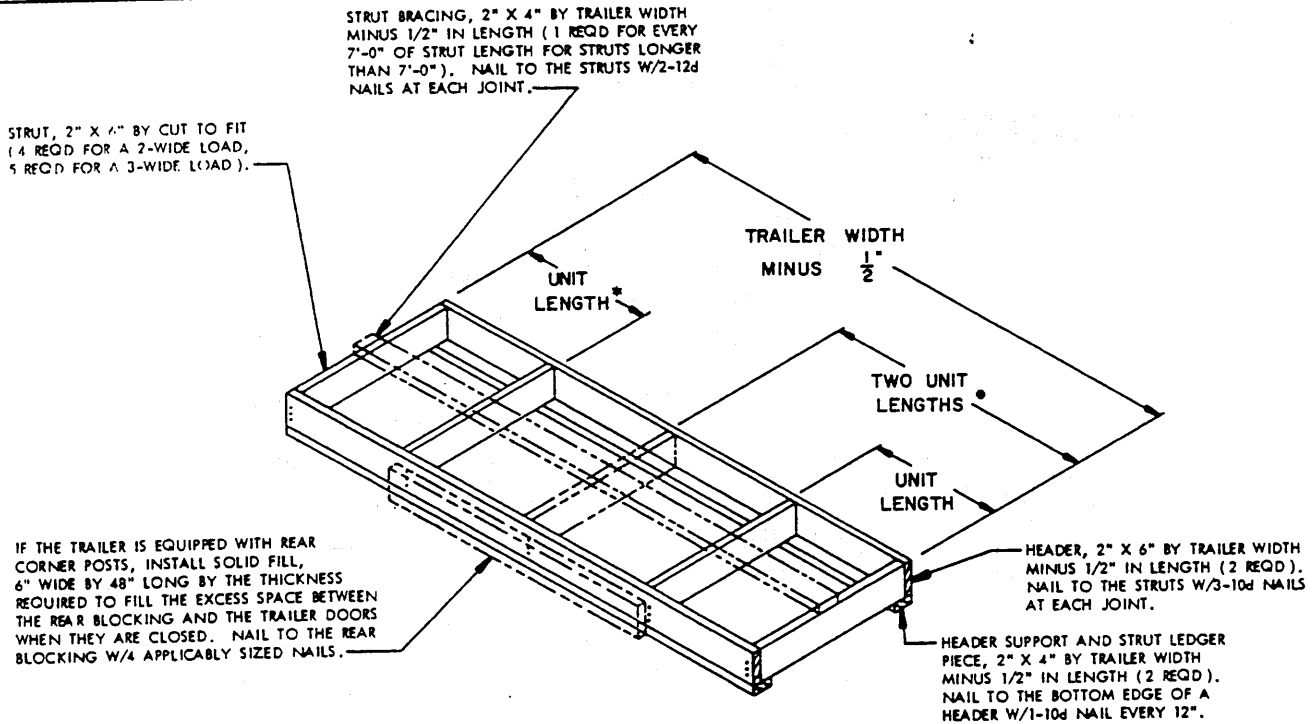


REAR BLOCKING B

THIS REAR BLOCKING IS DESIGNED FOR USE AT THE REAR END OF THE BOXES-LENGTHWISE LOADS SHOWN ON PAGES 14 THRU 20 AND AT THE REAR END OF THE CHIMNEY-PATTERN LOAD SHOWN ON PAGE 22, WHEN THE SPACE BETWEEN THE LADING AND THE TRAILER DOORS IS 9" OR GREATER. THIS BLOCKING IS APPLICABLE FOR SKIDDED UNITS WHICH ARE ASSEMBLED ON THE TYPE "A" SKID BASE OR ON THE SKID BASE DEPICTED BY DRAWING D-AMXSV-4163. NOTE THAT THIS ASSEMBLY WILL ALSO BE USED AT THE REAR OF THE LOADS DEPICTED BY THE "ALT REAR LOADING PATTERN B" AND "ALT REAR LOADING PATTERN D" VIEWS ON PAGE 22 WHEN THE SPACE TO BE BLOCKED IS 9" OR GREATER.

*THIS DIMENSION WILL BE UNIT WIDTH MINUS 6" FOR CHIMNEY-PATTERN LOADS.

●A STRUT AT THIS LOCATION IS APPLICABLE ONLY FOR 3-WIDE LOADS.

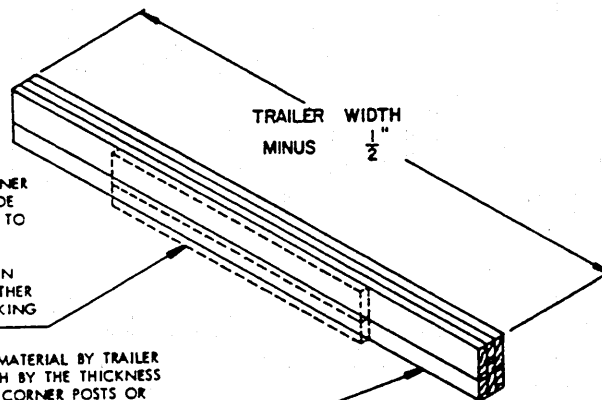


REAR BLOCKING C

THIS REAR BLOCKING IS DESIGNED FOR USE AT THE REAR END OF THE BOXES-LENGTHWISE LOADS SHOWN ON PAGES 14 THRU 20 AND AT THE REAR END OF THE CHIMNEY-PATTERN LOAD SHOWN ON PAGE 22, WHEN THE SPACE BETWEEN THE LADING AND THE TRAILER DOORS IS 9" OR GREATER. THIS BLOCKING IS APPLICABLE FOR SKIDDED UNITS WHICH ARE ASSEMBLED ON THE TYPE IA AND TYPE II SKID BASES. NOTE THAT THIS ASSEMBLY WILL ALSO BE USED AT THE REAR OF THE LOADS DEPICTED BY THE "ALT REAR LOADING PATTERN B" AND "ALT REAR LOADING PATTERN D" VIEWS ON PAGE 22 WHEN THE SPACE TO BE BLOCKED IS 9" OR GREATER.

* THIS DIMENSION WILL BE UNIT WIDTH MINUS 6" FOR CHIMNEY-PATTERN LOADS.

● A STRUT AT THIS LOCATION IS APPLICABLE ONLY FOR 3-WIDE LOADS.



REAR BLOCKING D

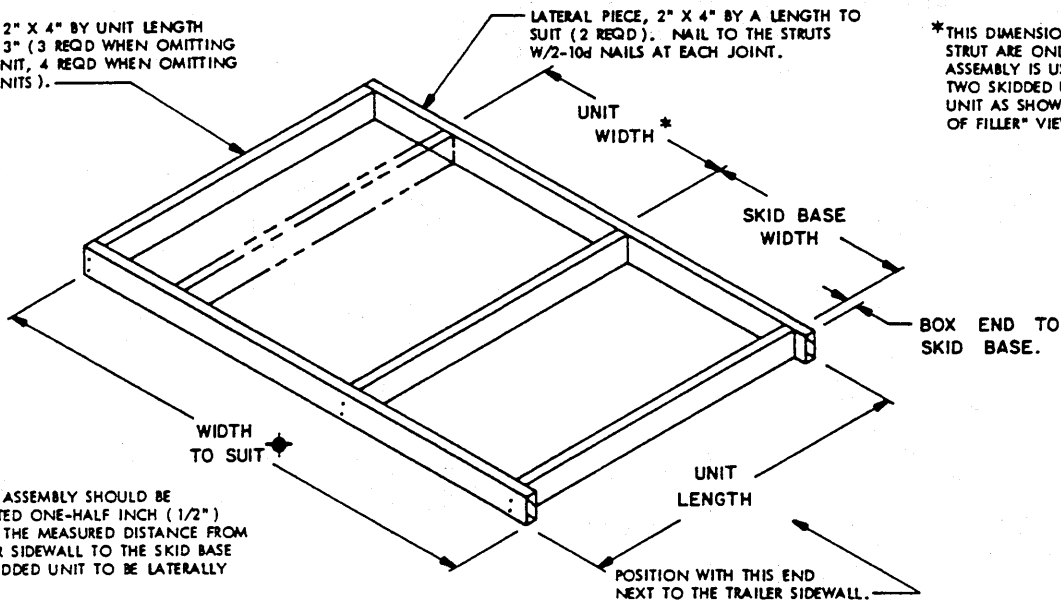
THIS REAR BLOCKING IS DESIGNED FOR USE AT THE REAR END OF THE BOXES-LENGTHWISE LOADS SHOWN ON PAGES 14 THRU 20 AND AT THE REAR END OF THE CHIMNEY-PATTERN LOAD SHOWN ON PAGE 22, WHEN THE SPACE BETWEEN THE LADING AND THE TRAILER DOORS IS LESS THAN 9". NOTE THAT THIS ASSEMBLY WILL ALSO BE USED AT THE REAR OF THE LOADS DEPICTED BY THE "ALT REAR LOADING PATTERN B" AND "ALT REAR LOADING PATTERN D" VIEWS ON PAGE 22 WHEN THE SPACE TO BE BLOCKED IS LESS THAN 9".

REAR BLOCKING

STRUT, 2" X 4" BY UNIT LENGTH MINUS 3" (3 REQD WHEN OMITTING ONE UNIT, 4 REQD WHEN OMITTING TWO UNITS).

LATERAL PIECE, 2" X 4" BY A LENGTH TO SUIT (2 REQD). NAIL TO THE STRUTS W/2-10d NAILS AT EACH JOINT.

*THIS DIMENSION AND THE PHANTOMED STRUT ARE ONLY APPLICABLE WHEN THE ASSEMBLY IS USED FOR THE OMISSION OF TWO SKIDDED UNITS FROM A 3-WIDE LOAD UNIT AS SHOWN BY THE "ALT INSTALLATION OF FILLER" VIEW ON PAGE 24.



A FILLER A ASSEMBLY SHOULD BE CONSTRUCTED ONE-HALF INCH (1/2") LESS THAN THE MEASURED DISTANCE FROM THE TRAILER SIDEWALL TO THE SKID BASE OF THE SKIDDED UNIT TO BE LATERALLY BRACED.

FILLER A

FOR USE IN THE PLACE OF 1 OR 2 SKIDDED UNITS OMITTED FROM A LOAD UNIT OF CROSSWISE-POSITIONED BOXES.

*THIS DIMENSION AND THE PHANTOMED STRUT ARE ONLY APPLICABLE WHEN THE ASSEMBLY IS USED FOR THE OMISSION OF TWO SKIDDED UNITS FROM A 3-WIDE LOAD UNIT.

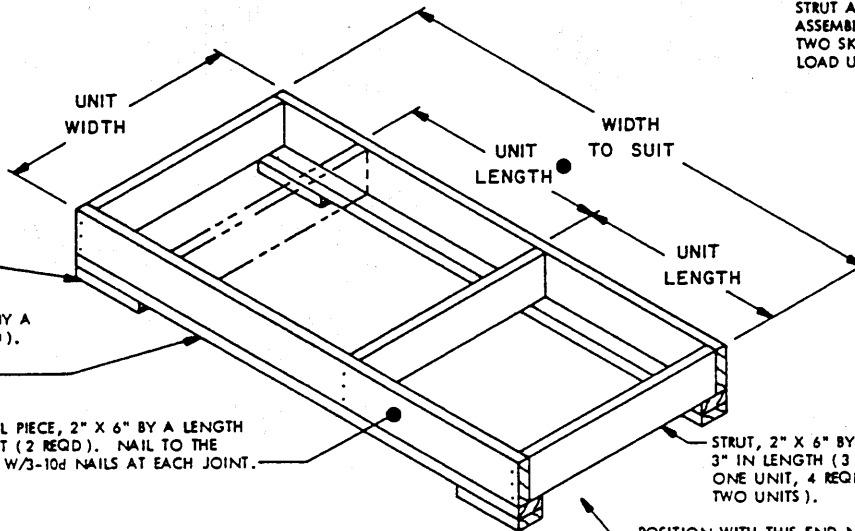
RISER PIECE, 2" X 4" X 9" (4 REQD). NAIL TO A STRUT SUPPORT W/2-10d NAILS.

STRUT SUPPORT, 2" X 4" BY A LENGTH TO SUIT (2 REQD). NAIL TO A LATERAL PIECE W/1-10d NAIL EVERY 8".

LATERAL PIECE, 2" X 6" BY A LENGTH TO SUIT (2 REQD). NAIL TO THE STRUTS W/3-10d NAILS AT EACH JOINT.

STRUT, 2" X 6" BY UNIT WIDTH MINUS 3" IN LENGTH (3 REQD WHEN OMITTING ONE UNIT, 4 REQD WHEN OMITTING TWO UNITS).

POSITION WITH THIS END NEXT TO THE TRAILER SIDEWALL.



FILLER B

FOR USE IN THE PLACE OF 1 OR 2 SKIDDED UNITS OMITTED FROM A LOAD UNIT OF LENGTHWISE-POSITIONED BOXES ASSEMBLED ON TYPE I BASES. SEE SPECIAL NOTE 7 ON PAGE 23.

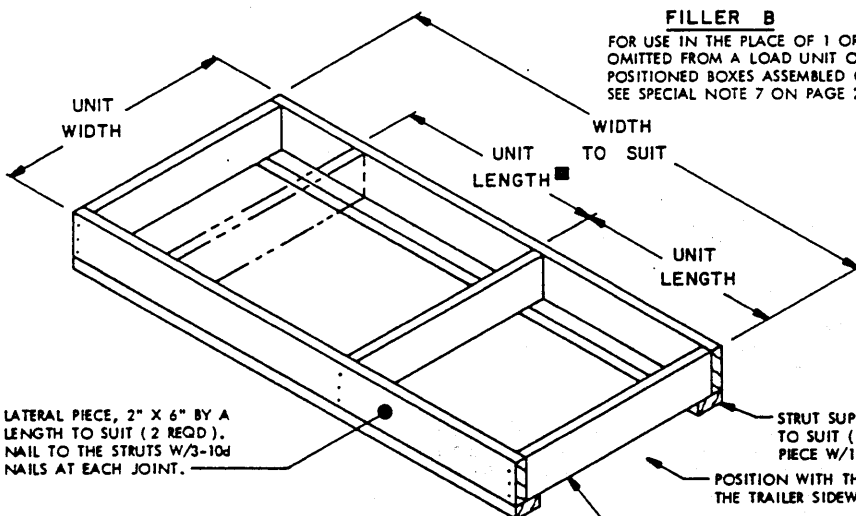
*THIS DIMENSION AND THE PHANTOMED STRUT ARE ONLY APPLICABLE WHEN THE ASSEMBLY IS USED FOR THE OMISSION OF TWO SKIDDED UNITS FROM A 3-WIDE LOAD UNIT.

LATERAL PIECE, 2" X 6" BY A LENGTH TO SUIT (2 REQD). NAIL TO THE STRUTS W/3-10d NAILS AT EACH JOINT.

STRUT SUPPORT, 2" X 4" BY A LENGTH TO SUIT (2 REQD). NAIL TO A LATERAL PIECE W/1-10d NAIL EVERY 8".

POSITION WITH THIS END NEXT TO THE TRAILER SIDEWALL.

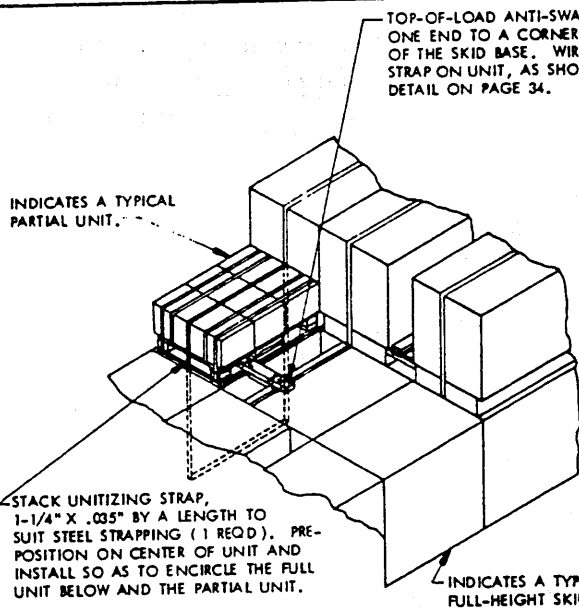
STRUT, 2" X 6" BY UNIT WIDTH MINUS 3" IN LENGTH (3 REQD WHEN OMITTING ONE UNIT, 4 REQD WHEN OMITTING TWO UNITS).



FILLER C

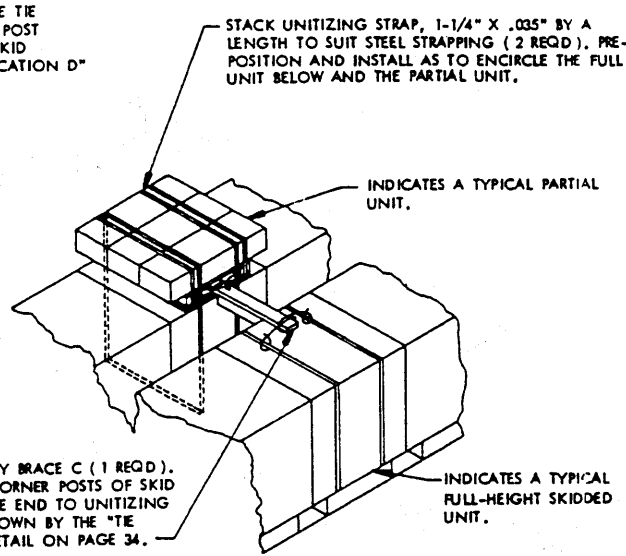
FOR USE IN THE PLACE OF 1 OR 2 SKIDDED UNITS OMITTED FROM A LOAD UNIT OF LENGTHWISE-POSITIONED BOXES ASSEMBLED ON TYPE IA OR TYPE II SKID BASES. SEE SPECIAL NOTE 7 ON PAGE 23.

FILLER ASSEMBLIES



**SECUREMENT OF PARTIAL UNIT
(BOXES CROSSWISE) WITHIN A LOAD**

THIS PROCEDURE IS APPLICABLE ONLY FOR THE SECUREMENT OF A PARTIAL UNIT IN A LOAD IN WHICH THE BOXES ON THE UNITS ARE CROSSWISE IN THE TRAILER. THE PARTIAL UNIT CAN BE PLACED ANYWHERE WITHIN THE LOAD EXCEPT IN THE REARMOST LOAD UNIT, AND DOES NOT NEED TO BE ADJACENT TO A FULL-HEIGHT UNIT AS SHOWN. THE PROCEDURES SHOWN BELOW WILL APPLY FOR A PARTIAL UNIT IN THE REARMOST LOAD UNIT. REFER TO THE VIEW AT THE RIGHT FOR GUIDANCE IF THE BOXES ARE LENGTHWISE ON A UNIT POSITIONED WITHIN A LOAD.

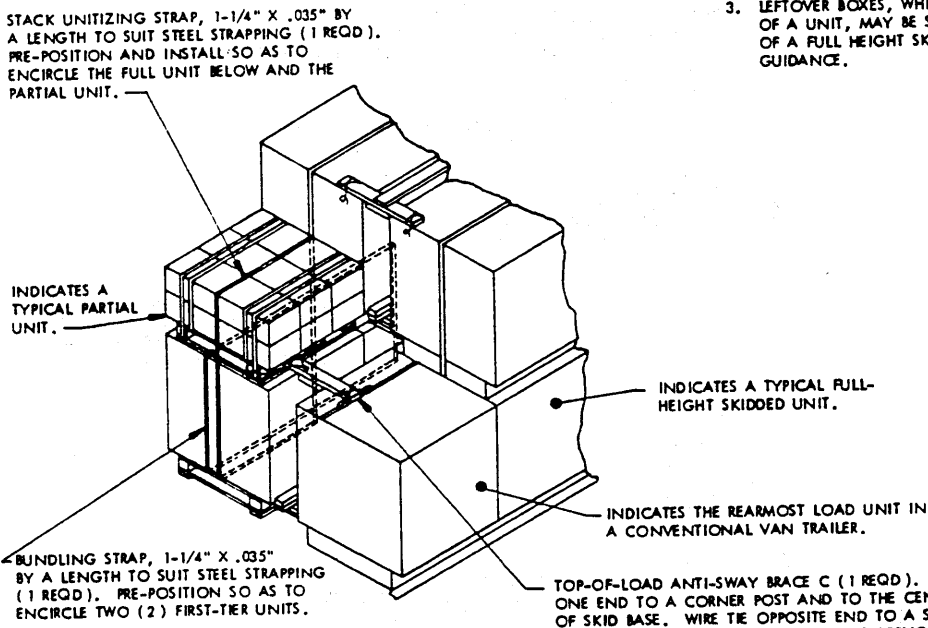


**SECUREMENT OF PARTIAL UNIT
(BOXES LENGTHWISE) WITHIN A LOAD**

THIS PROCEDURE IS APPLICABLE ONLY FOR THE SECUREMENT OF A PARTIAL UNIT IN A LOAD IN WHICH THE BOXES ON THE UNITS ARE LENGTHWISE IN THE TRAILER. THE PARTIAL UNIT CAN BE PLACED ANYWHERE WITHIN THE LOAD EXCEPT IN THE REARMOST LOAD UNIT. THE PROCEDURES BELOW WILL APPLY FOR A PARTIAL UNIT IN THE REARMOST LOAD UNIT. REFER TO THE VIEW AT LEFT FOR GUIDANCE IF THE BOXES ARE CROSSWISE ON A UNIT POSITIONED WITHIN A LOAD.

SPECIAL NOTES:

1. THE "SHIPMENT OF PARTIAL UNITS" PROCEDURES ON THIS PAGE ARE APPLICABLE FOR THE POSITIONING AND SECUREMENT OF PARTIAL UNITS WHICH CONTAIN FULL LAYERS, BUT A LESSER NUMBER OF LAYERS THAN THE UNITS IN THE BALANCE OF THE LOAD.
2. THE TWO VIEWS ABOVE ARE FOR USE IN LOADS IN EITHER CONVENTIONAL VAN TRAILERS OR IN TRAILERS EQUIPPED WITH MECHANICAL BRACING DEVICES. THE VIEW AT LEFT APPLIES ONLY TO THE REAR LOAD UNIT OF A SHIPMENT IN A CONVENTIONAL VAN TRAILER.
3. LEFTOVER BOXES, WHICH IS A QUANTITY OF BOXES TOO FEW TO FORM A LAYER OF A UNIT, MAY BE SECURED TO THE TOP OF A PARTIAL UNIT OR TO THE TOP OF A FULL HEIGHT SKIDDED UNIT FOR SHIPMENT. REFER TO PAGE 39 FOR GUIDANCE.

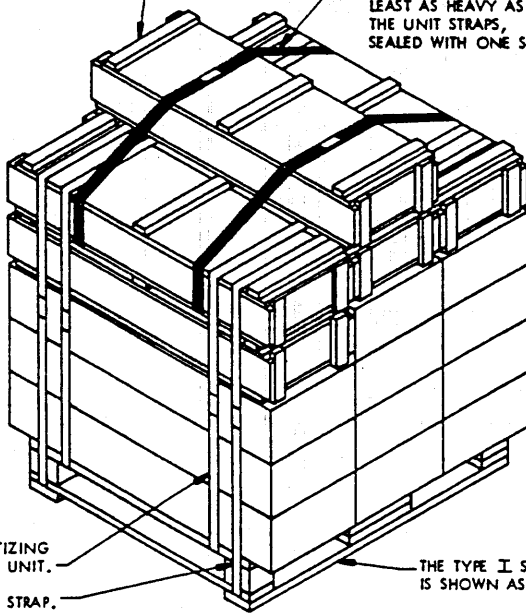


**SECUREMENT OF PARTIAL UNIT
IN REAR LOAD UNIT**

THIS PROCEDURE IS APPLICABLE ONLY FOR THE SECUREMENT OF A PARTIAL UNIT IN THE REARMOST LOAD UNIT IN A TRAILER. THE UNIT MAY BE POSITIONED WITH THE BOXES ON THE UNIT EITHER CROSSWISE OR LENGTHWISE. ELSEWHERE WITHIN A LOAD, ONE OF THE ABOVE METHODS WILL BE APPLIED.

INDICATES ONE (1) LEFTOVER BOX AS A TYPICAL QUANTITY.

INDICATES UNITIZING STRAP OF A SIZE AT LEAST AS HEAVY AS THE UNIT STRAPS, SEALED WITH ONE SEAL.



INDICATES UNITIZING STRAP OF BASIC UNIT.
INDICATES SKID STRAP.

THE TYPE I SKID BASE IS SHOWN AS TYPICAL.

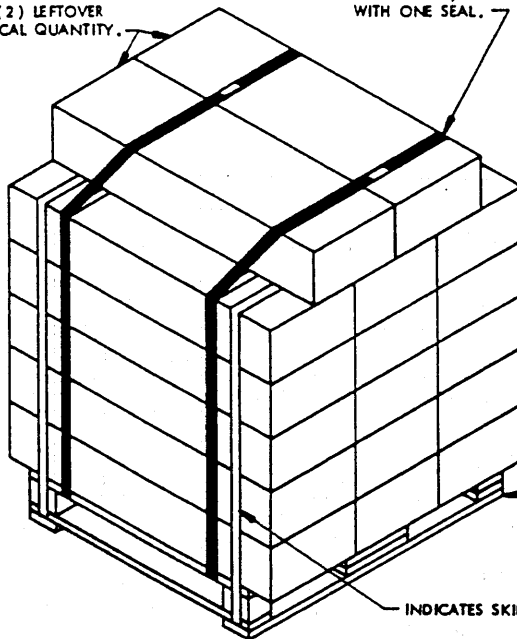
SECUREMENT OF TOP-CLEATED BOXES

SPECIAL NOTES:

1. SHIPMENTS OF SKIDDED UNITS OF AMMUNITION AND/OR COMPONENTS SHOULD CONSIST OF FULL-HEIGHT 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 BOXES. LEFTOVER BOXES ARE DESCRIBED AS A QUANTITY OF BOXES WHICH IS INSUFFICIENT TO FORM A FULL-LAYERED PARTIAL UNIT FOR SHIPMENT EITHER ON TOP OF A LOAD OR WITHIN A TIER AS SHOWN ON PAGE 38. THEY ARE USUALLY BOXES OF THE SAME AMMUNITION ITEM AS THE BALANCE OF THE LOAD ALTHOUGH THEY MAY BE ANY OTHER COMPATIBLE ITEM.
2. SHIPMENT OF LEFTOVER BOXES IS APPLICABLE FOR CONUS AND OCONUS MOTOR CARRIER SHIPMENTS FROM DEPOT OR FROM DEPOTS 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 BOXES 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. THE PROCEDURES ON THIS PAGE ARE PRESENTED AS GUIDANCE IN THE SECUREMENT OF LEFTOVER BOXES FOR SHIPMENT. THE VIEW AT TOP LEFT DEPICTS ONE LEFTOVER BOX SECURED TO A FULL-HEIGHT UNIT WHEN THE BOXES ON THE UNIT HAVE TOP CLEATS. THE VIEW AT LEFT BELOW DEPICTS TWO LEFTOVER BOXES SECURED TO A FULL-HEIGHT UNIT WHEN THE BOXES ON THE UNIT DO NOT HAVE TOP CLEATS. THE QUANTITIES SHOWN ARE TYPICAL. THE PROCEDURES ARE ALSO APPLICABLE FOR SECUREMENT OF LEFTOVER BOXES TO PARTIAL UNITS FOR SHIPMENT ON TOP OF A LOAD.
4. THE QUANTITY OF LEFTOVER BOXES WHICH CAN BE SECURED TO FULL OR PARTIAL UNITS MAY VARY FROM ONE TO NOT MORE THAN THE QUANTITY IN ONE LAYER ON THE UNIT. IN OTHER WORDS, NOT MORE THAN THREE BOXES CAN BE STRAPPED TO A 3-BOX LONG UNIT. LEFTOVER BOXES MUST NOT BE STACKED. IF THE QUANTITY OF LEFTOVER BOXES TO BE SHIPPED IS MORE THAN THE QUANTITY IN ONE FULL LAYER, BOXES MUST BE STRAPPED TO MORE THAN ONE UNIT.
5. LEFTOVER BOXES MUST BE SECURED TO A FULL OR PARTIAL UNIT WITH A MINIMUM OF TWO (2) PIECES OF STEEL STRAPPING (SEPARATE FROM UNIT STRAPS) OF A SIZE AT LEAST AS HEAVY AS THE STRAPPING USED TO SECURE THE BOXES ON THE SKIDDED UNIT UNDERNEATH THE LEFTOVER BOXES TO THE SKID BASE. THE "SECUREMENT OF TOP-CLEATED BOXES" DETAIL ABOVE DEPICTS A TYPICAL STRAP APPLICATION FOR BOXES HAVING TOP CLEATS. THREAD A STRAP UNDER THE TOP LAYER OF BOXES, AS NEAR AS PRACTICAL TO THE ADJACENT UNIT STRAP, ENCIRCLE THE LEFTOVER BOXES, TENSION, AND SEAL THE JOINT WITH ONE DOUBLE CRIMPED SEAL. THE "SECUREMENT OF NON-TOP-CLEATED BOXES" DETAIL AT LEFT DEPICTS A TYPICAL STRAP APPLICATION FOR BOXES WHICH DO NOT HAVE TOP CLEATS. THREAD A STRAP UNDER THE PLYWOOD DECK OR TOP DECK BOARDS (AS APPLICABLE) AS NEAR AS PRACTICAL TO A SKID BASE POST, COMPLETELY ENCIRCLE THE SKIDDED UNIT AND THE LEFTOVER BOXES, TENSION, AND SEAL THE JOINT WITH ONE DOUBLE CRIMPED SEAL.

INDICATES TWO (2) LEFTOVER BOXES AS A TYPICAL QUANTITY.

INDICATES UNITIZING STRAP OF A SIZE AT LEAST AS HEAVY AS THE UNIT STRAPS, SEALED WITH ONE SEAL.



THE TYPE I SKID BASE IS SHOWN AS TYPICAL.

INDICATES SKID STRAP.

SECUREMENT OF NON-TOP-CLEATED BOXES

GENERAL NOTES

(FOR VAN TRAILERS EQUIPPED WITH MECHANICAL BRACING DEVICES)

- A. THE OUTLOADING PROCEDURES SPECIFIED ON PAGES 42 THROUGH 52 ARE FOR TRAILERS EQUIPPED WITH VARIOUS TYPES OF SELF CONTAINED MECHANICAL BRACING DEVICES, AND 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. SEE GENERAL NOTE "G" AT RIGHT.
 - 1. SKIDDED 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.
- B. 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 ANY AXLES ARE OVERLOADED, OR ANY DOUBT AS TO WHETHER THE TOTAL GROSS WEIGHT EXCEEDS THE MAXIMUM ALLOWED, PROPER WEIGHT DISTRIBUTION SHOULD BE VERIFIED BY ACTUALLY WEIGHING THE LOADED VEHICLE.
- C. THE NUMBER OF LADING UNITS MAY BE ADJUSTED TO FIT THE CAPACITY OF THE TRAILER BEING LOADED OR THE QUANTITY TO BE SHIPPED. HOWEVER, THE APPROVED METHODS SPECIFIED HEREIN MUST BE FOLLOWED AS CLOSELY AS POSSIBLE FOR BLOCKING, BRACING, AND STAYING OF THE SKIDDED UNITS.
- D. OTHER TYPES OF LADING ITEMS MAY BE LOADED INTO TRAILERS WHICH ARE PARTIALLY LOADED WITH SKIDDED UNITS OF AMMUNITION ITEMS, 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.

(CONTINUED AT RIGHT)

(GENERAL NOTES CONTINUED)

- E. SKIDDED UNITS WHICH DO NOT CONTAIN A FULL QUANTITY OF BOXES CAN BE TRANSPORTED. A PARTIAL UNIT MAY BE POSITIONED ON TOP OF THE LOAD, TRAILER HEIGHT PERMITTING, AND SECURED TO THE UNIT DIRECTLY BELOW WITH STEEL STRAPPING. REFER TO THE "SECUREMENT OF PARTIAL UNIT (BOXES LENGTHWISE) WITHIN A LOAD" VIEW ON PAGE 38 FOR GUIDANCE. THAT VIEW AND THE "SECUREMENT OF PARTIAL UNIT (BOXES CROSSWISE) WITHIN A LOAD" VIEW ON THE SAME PAGE CAN BE USED AS GUIDANCE FOR THE POSITIONING OF A PARTIAL UNIT WITHIN THE TOP TIER OF A LOAD. NOTE THAT CROSS MEMBERS MUST BE INSTALLED FOR THE BRACING OF A PARTIAL TOP TIER OF A LOAD; A PARTIAL UNIT MUST NOT BE RELIED UPON TO RETAIN ADJACENT UNITS FROM MOVEMENT. FOR THE TRANSPORTATION OF A QUANTITY OF BOXES INSUFFICIENT TO FORM A PARTIAL UNIT (A PARTIAL UNIT WILL CONSIST OF FULL LAYERS) REFER TO THE "SHIPMENT OF LEFTOVER BOXES" PROCEDURES ON PAGE 39 FOR GUIDANCE.
- F. FOR ADDITIONAL GUIDANCE, ATTENTION IS DIRECTED TO THE "SPECIAL NOTES" SECTIONS WHICH ARE IMMEDIATELY ADJACENT TO THE DEPICTED OUTLOADING METHODS, AND TO THE LOAD PLANNING GUIDANCE "SPECIAL NOTES" ON PAGE 41 AND THE ACCOMPANYING CHARTS.
- G. THE HEIGHT LOCATIONS OF CROSS MEMBERS FOR THE LOADS HEREIN ARE SPECIFIED AT EXACTLY 4", 16", 28", 38", 48", AND/OR 60" ABOVE THE TRAILER FLOOR. HOWEVER, A SMALL PLUS OR MINUS TOLERANCE IS PERMISSIBLE. IF ANY OF THE CROSS MEMBER HEIGHTS ARE OTHER THAN THE DIMENSIONS SHOWN, THE "UNIT HEIGHT" DIMENSION WITHIN CHARTS 7 THRU 11 MAY NEED TO BE ADJUSTED SLIGHTLY. **CAUTION:** AN INSTALLED CROSS MEMBER MUST CONTACT THE LADING WITH AT LEAST ONE-HALF OF ITS HEIGHT. THIS CAN BE EITHER THE TOP HALF OF THE CROSS MEMBER BEARING AGAINST THE LOWER PORTION OF A SKIDDED UNIT OR THE LOWER HALF OF THE CROSS MEMBER BEARING AGAINST THE UPPER PORTION OF A SKIDDED UNIT, AS APPLICABLE.

CHART NO. 5

UNITS IN LENGTH OF MECHANICAL VAN TRAILER

NO. UNITS LONG	UNIT SIZE/RANGE				
	35' TRAILER	38' TRAILER	40' TRAILER	42' TRAILER	45' TRAILER
20	-	-	-	-	25" TO 25-3/4"
19	-	-	-	25"	25-7/8" TO 27-1/8"
18	-	-	25" TO 25-1/4"	25-3/8" TO 26-5/8"	27-1/4" TO 28-5/8"
17	-	25"	25-1/2" TO 27"	26-3/4" TO 28-1/2"	28-3/4" TO 30-1/4"
16	-	25-1/2" TO 27"	27-1/8" TO 28-3/4"	26-7/8" TO 28-1/2"	30-3/8" TO 32-1/4"
15	25" TO 26-3/8"	27-1/8" TO 28-3/4"	28-5/8" TO 30-3/8"	28-1/4" TO 30"	32-3/8" TO 34-3/8"
14	26-1/2" TO 28-1/4"	28-7/8" TO 30-3/4"	30-1/2" TO 32-1/2"	30-1/8" TO 32"	34-1/2" TO 36-3/4"
13	28-3/8" TO 30-3/8"	30-7/8" TO 33-1/8"	32-5/8" TO 35"	32-1/8" TO 34-1/4"	36-7/8" TO 39-5/8"
12	30-1/2" TO 33"	33-1/4" TO 36"	35-1/8" TO 38"	34-3/8" TO 36-7/8"	39-3/4" TO 43"
11	33-1/8" TO 36"	36-1/8" TO 39-1/4"	38-1/8" TO 41-3/8"	37" TO 40"	43-1/8" TO 46-7/8"
10	36-1/8" TO 39-1/2"	39-3/8" TO 43-1/8"	41-1/2" TO 45-1/2"	40-1/8" TO 43-5/8"	47" TO 51-1/2"
9	39-5/8" TO 44"	43-1/4" TO 48"	45-5/8" TO 50-5/8"	43-3/4" TO 48"	51-5/8" TO 57-1/4"
8	44-1/8" TO 49-1/2"	48-1/8" TO 54"	50-3/4" TO 57"	48-1/8" TO 53-1/4"	57-3/8" TO 64-1/2"
7	49-5/8" TO 56-1/2"	54-1/8" TO 61-5/8"	57-1/8" TO 65-1/8"	53-3/8" TO 60"	64-5/8" TO 73-5/8"
6	56-5/8" TO 66"	61-3/4" TO 72"	65-1/4" TO 76"	60-1/8" TO 68-3/8"	73-3/4" TO 86"
5	66-1/8" TO 79-1/8"	72-1/8" TO 86-3/8"	76-1/8" TO 91-1/8"	68-1/2" TO 80"	86-1/8" AND LONGER
4	79-1/4" AND LONGER	86-1/2" AND LONGER	91-1/4" AND LONGER	80-1/8" TO 96"	-
				96-1/8" AND LONGER	

SPECIAL NOTES:

(SPECIAL NOTES CONTINUED)

1. THE FOLLOWING SPECIAL NOTES AND THE FOUR (4) CHARTS BELOW AND/OR ON PAGE 40, IN CONJUNCTION WITH CHART NO. 1 AND CHART NO. 4 ON PAGE 5, CHART NO. 9 ON PAGE 43, CHART NO. 10 ON PAGE 47, AND CHART NO. 11 ON PAGE 51, ARE PRESENTED AS GUIDANCE IN THE SELECTION OF A LOAD PATTERN, IN DETERMINING THE QUANTITY OF UNITS WHICH CAN BE LOADED, AND THE SELECTION OF PROPER CROSS MEMBER LOCATION HEIGHTS IN A TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES, BASED ON THE SIZE AND WEIGHT OF THE SKIDDED UNIT TO BE LOADED.
2. FOR GUIDANCE IN THE SELECTION OF A LOAD PATTERN, REFER TO "CHART NO. 1" AND SPECIAL NOTE 2 ON PAGE 5.
3. FOR GUIDANCE IN DETERMINING THE QUANTITY OF UNITS WHICH CAN BE LOADED IN A TRAILER, BASED ONLY UPON THE WEIGHT OF THE UNIT, REFER TO "CHART NO. 4" AND SPECIAL NOTE 5 ON PAGE 5.
4. CHART NO. 5 ON PAGE 40 MAY BE USED IN DETERMINING THE QUANTITY OF UNITS WHICH CAN BE POSITIONED WITHIN ONE ROW IN THE LENGTH OF A TRAILER. SEPARATE COLUMNS ARE SHOWN FOR FIVE OF THE MOST POPULAR TRAILER LENGTHS. TRAILERS OF OTHER LENGTHS MAY BE USED, OF COURSE, BUT THE UNIT SIZE RANGE FOR THE NUMBER OF UNITS LONG WILL HAVE TO BE CALCULATED. THE UNIT SIZE RANGE FOR EACH OF THE SPECIFIED TRAILER LENGTHS IS BASED ON THE LENGTH OF THE MECHANICAL BRACING SYSTEM IN A TRAILER BEING EIGHTEEN INCHES (18") SHORTER THAN THE OUTSIDE LENGTH. AT LEAST THREE INCHES (3") IS ALLOWED TO COVER THE VARIANCE IN UNIT SIZES.
5. CHART NO. 6 BELOW MAY BE USED IN DETERMINING THE MAXIMUM NUMBER OF UNITS WHICH CAN BE LOADED IN ONE TIER OR IN ONE BAY OF A TIER, BASED UPON THE WEIGHT OF THE UNIT AND THE NUMBER OF CROSS MEMBERS WHICH ARE POSITIONED AGAINST A TIER AT EACH BLOCKING STATION. THE "UNIT WEIGHT IN LBS" COLUMN SPECIFIES WEIGHTS RANGING FROM 250 POUNDS, THE APPROXIMATE MINIMUM, TO 2,250 POUNDS, THE APPROXIMATE MAXIMUM, BY ONE-HUNDRED-POUND INCREMENTS. COLUMNS ARE SHOWN FOR LOADS HAVING ONE THRU FIVE CROSS MEMBERS PER TIER. THE FIGURES IN EACH COLUMN REPRESENT THE MAXIMUM NUMBER OF UNITS OF THE SPECIFIED WEIGHT WHICH CAN BE LOADED IN ONE BAY THAT IS BRACED WITH THE STATED NUMBER OF CROSS MEMBERS.
6. CHART NO. 7 WILL BE USED IN DETERMINING THE PROPER HEIGHT LOCATIONS FOR THE PLACEMENT OF CROSS MEMBERS FOR THE BRACING OF A 2-TIER LOAD, BASED ON THE HEIGHT OF THE UNIT BEING LOADED. COLUMNS ARE ALSO SHOWN WITHIN THE CHART STATING THE MAXIMUM WEIGHT PERMISSIBLE FOR EACH BAY OF A TIER. NOTE THAT THE SECOND-TIER UNITS TALLER THAN 37-1/2" AND ADJACENT TO A CROSS MEMBER BLOCKING STATION MUST BE UNITIZED TO THE FIRST-TIER UNITS DIRECTLY BELOW. ADDITIONALLY, NOTE THAT WHEN SHIPPING LOADS OF UNITS 27-1/2" OR LESS IN HEIGHT, A CROSS MEMBER CAN ALSO BE INSTALLED AT THE 4" HEIGHT OF EACH BLOCKING STATION TO PROVIDE THE CAPABILITY FOR RETAINING UP TO 20,000 POUNDS IN EACH BAY OF THE BOTTOM TIER, IF NECESSARY.
7. CHART NO. 8 WILL BE USED IN DETERMINING THE PROPER HEIGHT LOCATIONS FOR THE PLACEMENT OF CROSS MEMBERS FOR THE BRACING OF A 3-TIER LOAD, BASED ON THE HEIGHT OF THE UNIT BEING LOADED. EACH BAY OF EACH TIER IS LIMITED TO 10,000 POUNDS. NOTE THAT ALL THIRD-TIER UNITS ADJACENT TO A CROSS MEMBER BLOCKING STATION MUST BE UNITIZED TO A SECOND-TIER UNIT DIRECTLY BELOW.
8. CHART NO. 9 ON PAGE 43 WILL BE USED IN DETERMINING THE PROPER HEIGHT LOCATIONS FOR THE PLACEMENT OF CROSS MEMBERS FOR THE BRACING OF A 1-TIER LOAD WHEN THE BOXES ON THE UNITS ARE CROSSWISE IN THE TRAILER. THE MAXIMUM WEIGHT PER BAY IS ALSO SPECIFIED IN THE CHART.
9. CHART NO. 10 ON PAGE 47 WILL BE USED IN DETERMINING THE PROPER HEIGHT LOCATIONS FOR THE PLACEMENT OF CROSS MEMBERS FOR THE BRACING OF A 1-TIER LOAD WHEN THE BOXES ON THE UNITS ARE LENGTHWISE IN THE TRAILER. THE MAXIMUM WEIGHT PER BAY IS ALSO SPECIFIED IN THE CHART.
10. CHART NO. 11 ON PAGE 51 WILL BE USED IN DETERMINING THE PROPER HEIGHT LOCATIONS FOR THE PLACEMENT OF CROSS MEMBERS FOR THE BRACING OF A CHIMNEY-PATTERN LOAD, AND IN DETERMINING THE MAXIMUM WEIGHT PERMISSIBLE PER BAY.

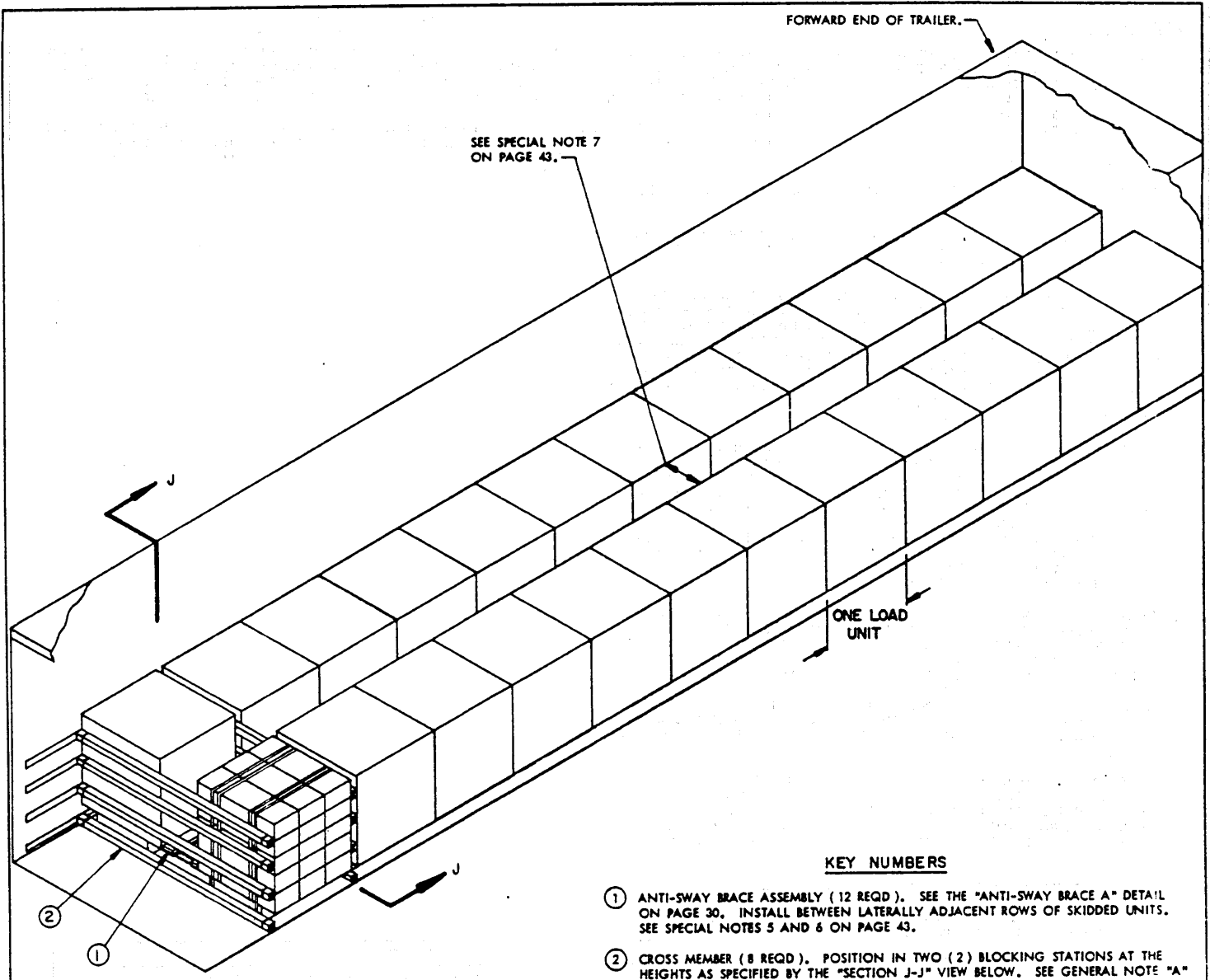
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CHART NO. 6					
MAXIMUM NUMBER OF UNITS PER TIER/BAY					
UNIT WEIGHT IN LBS	NUMBER OF CROSS MEMBERS USED				
	1 CM/TIER	2 CM/TIER	3 CM/TIER	4 CM/TIER	5 CM/TIER
250	40	60	60	60	60
300	33	60	60	60	60
400	25	50	60	60	60
500	20	40	60	60	60
600	16	33	50	60	60
700	14	28	42	57	60
800	12	25	37	50	60
900	11	22	33	44	55
1,000	10	20	30	40	50
1,100	9	18	27	36	45
1,200	8	16	25	33	41
1,300	7	15	23	30	38
1,400	7	14	21	28	35
1,500	6	13	20	26	33
1,600	6	12	18	25	31
1,700	5	11	17	23	29
1,800	5	11	16	22	27
1,900	5	10	15	21	26
2,000	5	10	15	20	25
2,100	4	9	14	19	23
2,200	4	9	13	18	22
2,250	4	8	13	17	22

CHART NO. 7				
2-TIER LOAD WITH BOXES CROSSWISE OR LENGTHWISE				
UNIT HEIGHT	CROSS MEMBER LOCATION(S)		MAXIMUM WEIGHT	
	1ST TIER	2ND TIER	1ST TIER/BAY	2ND TIER/BAY
14-7/8" TO 20-5/8"	16". SEE SPECIAL NOTE 6.	28"	10,000 LBS	10,000 LBS
20-3/4" TO 23-3/8"	16". SEE SPECIAL NOTE 6.	38"	10,000 LBS	10,000 LBS
23-1/2" TO 27-1/2"	16". SEE SPECIAL NOTE 6.	48"	10,000 LBS	10,000 LBS
27-5/8" TO 29-7/8"	16" AND 28"	38" AND 48"	20,000 LBS	20,000 LBS
30" TO 30-5/8"	16" AND 28"	38" AND 60"	20,000 LBS	20,000 LBS
30-3/4" TO 37-1/2"	16" AND 28"	48" AND 60"	20,000 LBS	20,000 LBS
37-5/8" TO 40-5/8"	16", 28", AND 38".	48" & 60"*	30,000 LBS	20,000 LBS
40-3/4" TO 47-3/4"	16", 28", AND 38".	60"*	30,000 LBS	10,000 LBS
47-7/8" TO 52-5/8"	16", 28", 38", AND 48".	60"*	40,000 LBS	10,000 LBS

CHART NO. 8				
3-TIER LOAD WITH BOXES CROSSWISE OR LENGTHWISE				
UNIT HEIGHT	CROSS MEMBER LOCATION(S)			MAXIMUM WEIGHT PER TIER/BAY
	1ST TIER	2ND TIER	3RD TIER	
14-7/8" TO 16-1/4"	16"	28"	38" *	10,000 LBS
16-3/8" TO 20-1/4"	16"	28"	48" *	10,000 LBS
20-3/8" TO 24"	16"	38"	60" *	10,000 LBS
24-1/8" TO 26-1/2"	16"	48"	60" *	10,000 LBS

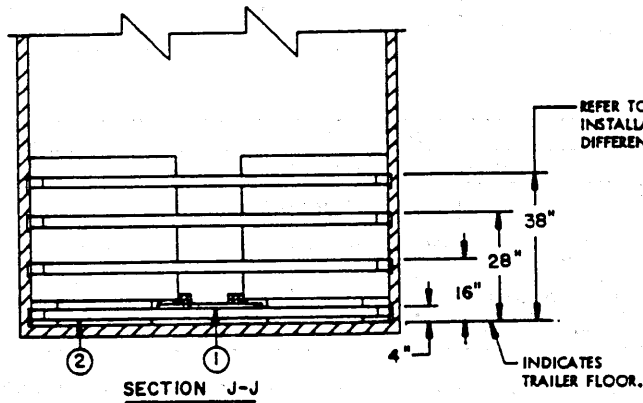
* TOP-TIER UNITS WHICH ARE ADJACENT TO AN INDICATED CROSS MEMBER BLOCKING STATION MUST BE UNITIZED TO A SKIDDED UNIT DIRECTLY BELOW.



ISOMETRIC VIEW

KEY NUMBERS

- ① ANTI-SWAY BRACE ASSEMBLY (12 REQD). SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 30. INSTALL BETWEEN LATERALLY ADJACENT ROWS OF SKIDDED UNITS. SEE SPECIAL NOTES 5 AND 6 ON PAGE 43.
- ② CROSS MEMBER (8 REQD). POSITION IN TWO (2) BLOCKING STATIONS AT THE HEIGHTS AS SPECIFIED BY THE "SECTION J-J" VIEW BELOW. SEE GENERAL NOTE "A" ON PAGE 40.



REFER TO "CHART NO. 9" ON PAGE 43 FOR PROPER CROSS MEMBER INSTALLATION LOCATIONS APPLICABLE FOR UNITS HAVING A DIFFERENT HEIGHT THAN THE UNITS SHOWN.

SECTION J-J

TYPICAL 2-WIDE LOAD (BOXES CROSSWISE) IN A 40'-0" LONG TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES

SPECIAL NOTES:

1. A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) VAN TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES IS SHOWN. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. THE SKIDDED UNIT SHOWN IN THE TYPICAL 2-WIDE LOAD ON PAGE 42 HAS OVERALL DIMENSIONS OF 36-1/2" LONG BY 31" WIDE BY 43" HIGH. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR UNITS OF OTHER LENGTHS, AND FOR UNITS HAVING WIDTHS OF FROM 27" THRU 44-1/2" IN A 7'-6" WIDE TRAILER. REFER TO "CHART NO. 1" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM WIDTHS OF UNITS WHICH CAN BE LOADED TWO WIDE IN TRAILERS OF OTHER INSIDE WIDTHS. REFER TO THE "SKIDDED UNIT LENGTH/WIDTH COMBINATIONS" CHART ON PAGE 51 FOR THE COMBINATIONS OF LENGTHS AND WIDTHS OF UNITS WHICH WOULD BE ACCEPTABLE FOR CHIMNEY-PATTERN LOADS.
3. A 1-TIER LOAD IS SHOWN AS TYPICAL. REFER TO "CHART NO. 9" AT RIGHT FOR GUIDANCE AS TO THE PROPER CROSS MEMBER INSTALLATION LOCATIONS TO BE USED, BASED ON THE HEIGHT OF THE UNIT BEING LOADED. FOR PROCEDURES APPLICABLE FOR LOADS OF TWO OR THREE TIERS, REFER TO PAGES 44 AND 45.
4. THE WEIGHT OF THE DEPICTED UNIT IS 1,730 POUNDS. THE NUMBER OF UNITS MAY NEED TO BE ADJUSTED IF THE UNIT BEING LOADED HAS A DIFFERENT WEIGHT. REFER TO "CHART NO. 4" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM NUMBER OF UNITS WHICH CAN BE LOADED, BASED ON THE WEIGHT OF THE UNIT TO BE SHIPPED. A CROSS MEMBER MUST BE USED FOR EACH 10,000 POUNDS OF LADING. THEREFORE, IF THE TWENTY-TWO UNITS IN THE FRONT PORTION OF THE LOAD WEIGH MORE THAN 1,818 POUNDS EACH, THE CROSS MEMBERS MUST BE INSTALLED FURTHER FORWARD, FAR ENOUGH SO THAT THE FRONT PORTION OF THE LOAD WEIGHS LESS THAN 40,000 POUNDS. SEE "CHART NO. 6" ON PAGE 41 AND "CHART NO. 9" AT RIGHT FOR GUIDANCE.
5. THE ANTI-SWAY BRACE A, SHOWN IN THE LOAD VIEW AS PIECE MARKED ①, IS DESIGNED FOR USE WITHIN LOADS OF CROSSWISE-POSITIONED BOXES WHEN THE UNITS ARE ASSEMBLED ON THE TYPE I OR TYPE II SKID BASE, OR THE TYPE II SKID BASE WHEN THE BOXES DO NOT HAVE TOP CLEATS, OR THE SKID BASE DEPICTED BY DRAWING D-AMXSV-4163. THE ANTI-SWAY BRACE B WILL BE USED FOR UNITS ASSEMBLED ON THE TYPE II SKID BASE WHEN THE BOXES HAVE TOP CLEATS. SEE PAGE 30 FOR DETAILS OF THE ANTI-SWAY BRACE ASSEMBLIES.
6. THE ANTI-SWAY BRACING MAY BE OMITTED IF THE TOTAL EXCESS SPACE ACROSS THE TRAILER IS NOT MORE THAN SIX INCHES (6"). IF THE EXCESS SPACE EXCEEDS 6", ANTI-SWAY BRACES MUST BE POSITIONED IN THE VOID AREA BETWEEN TWO ROWS OF LATERALLY ADJACENT SKIDDED UNITS AT ALL LOCATIONS.
7. TOP-OF-LOAD ANTI-SWAY BRACES, SHOWN IN THE LOAD VIEW ON PAGE 44 AS PIECE MARKED ③, MUST BE POSITIONED IN THE VOID AREA BETWEEN LATERALLY ADJACENT ROWS IF THE UNITS ARE OVER 44" HIGH. NOTE THAT TOP-OF-LOAD ANTI-SWAY BRACES ARE NOT REQUIRED IF THE TOTAL EXCESS SPACE ACROSS THE TRAILER IS LESS THAN 6".
8. AS APPLICABLE, IT IS TO BE NOTED THAT UNITS WHICH ARE 29-5/8" OR LESS IN WIDTH FOR A 7'-6" WIDE TRAILER, OR PROPORTIONATELY WIDER UNITS IN WIDER TRAILERS, CAN BE LOADED IN LARGER QUANTITIES IF 3-WIDE LOADING PROCEDURES ARE EMPLOYED. THE CRITERIA OF SPECIAL NOTES 5 THRU 7 ABOVE WILL ALSO APPLY TO 3-WIDE LOADS.
9. IF THE SIZE AND/OR WEIGHT OF THE SKIDDED UNITS TO BE TRANSPORTED IS SUCH THAT MORE THAN ONE TIER IS NECESSARY IN ORDER TO OBTAIN THE DESIRED LOAD QUANTITY AND/OR WEIGHT, AND THE HEIGHT OF THE UNIT PERMITS, THE LOADING PROCEDURES DEPICTED ON PAGES 44 AND 45 WILL BE USED.
10. THE DEPICTED LOAD CAN BE ADJUSTED TO SUIT THE QUANTITY TO BE SHIPPED, OR TO SUIT THE SIZE AND/OR WEIGHT OF THE UNIT BEING LOADED. A LOAD CAN BE INCREASED OR REDUCED BY A MULTIPLE OF TWO (2) UNITS BY ADDING OR OMITTING ONE OR MORE FULL LOAD UNITS. IF A LOAD QUANTITY CONSISTS OF AN UNEVEN NUMBER OF UNITS, THE LTL PROCEDURES SHOWN ON PAGE 52 WILL BE APPLIED.

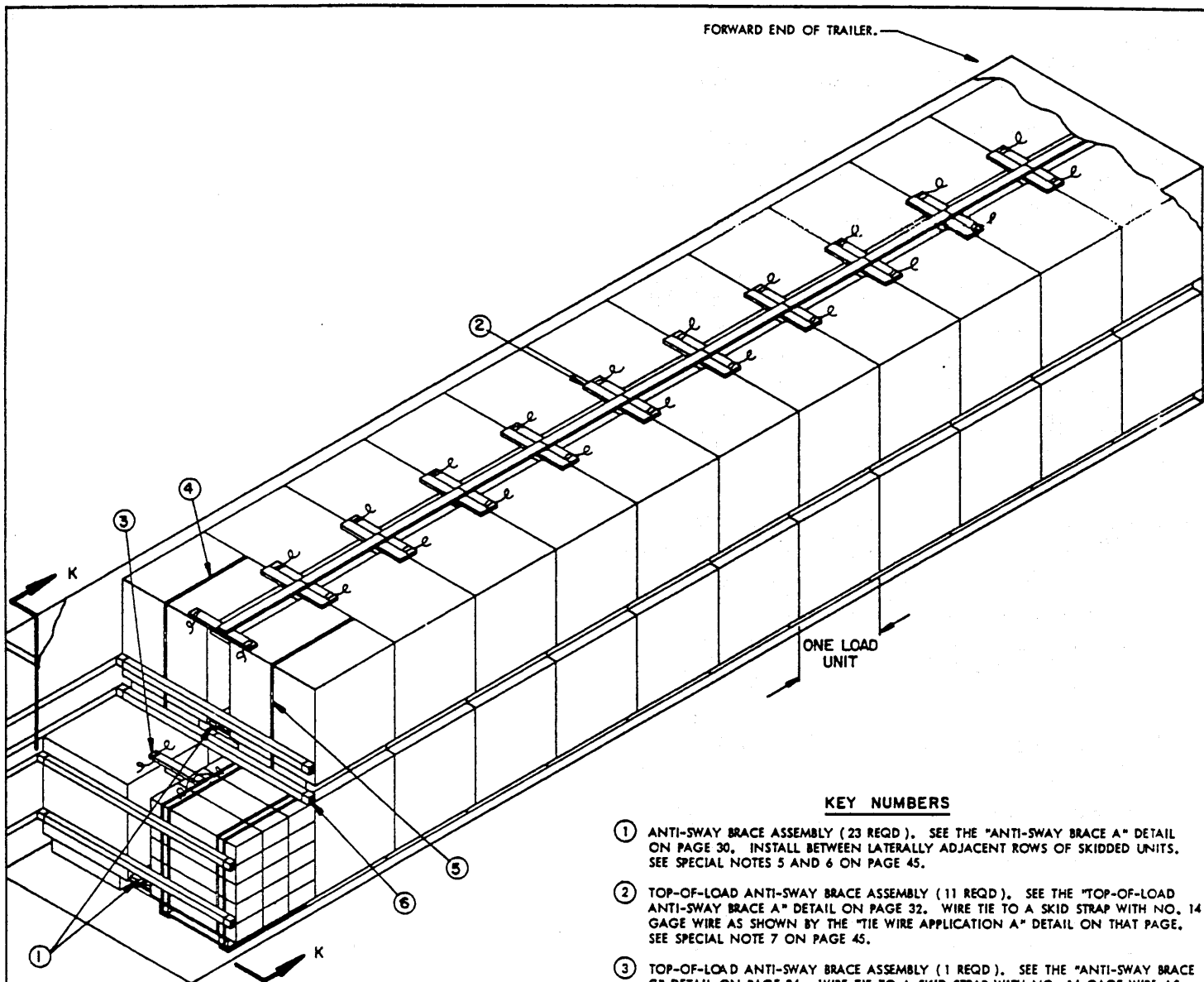
BILL OF MATERIAL (TYPICAL)		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	132	44
2" X 4"	212	142
NAILS	NO. REQD	POUNDS
12d (3-1/4")	52	3/4
20d (4")	94	3-1/2

CHART NO. 9		
UNIT HEIGHT	CROSS MEMBER LOCATIONS	MAXIMUM WEIGHT PER BAY
TO 26-7/8"	4" AND 16"	20,000 LBS
27" TO 36-7/8"	4", 16", AND 28"	30,000 LBS
37" TO 46-7/8"	4", 16", 28", AND 38"	40,000 LBS
47" TO 56"	4", 16", 28", 38", AND 48"	50,000 LBS

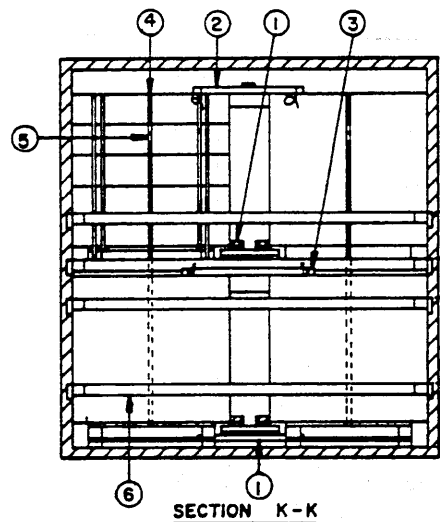
LOAD AS SHOWN (TYPICAL)

ITEM	QUANTITY	WEIGHT (APPROX)
SKIDDED UNIT	24	41,520 LBS
DUNNAGE		470 LBS
TOTAL WEIGHT		41,990 LBS

TYPICAL 2-WIDE LOAD (BOXES CROSSWISE) IN A 40'-0" LONG TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES



ISOMETRIC VIEW



SECTION K-K

REFER TO "CHART NO. 7" ON PAGE 41 FOR PROPER CROSS MEMBER INSTALLATION LOCATIONS APPLICABLE FOR A 2-TIER LOAD OF UNITS HAVING A DIFFERENT HEIGHT THAN THE UNITS SHOWN. REFER TO "CHART NO. 8" ON PAGE 41 IF SHIPPING A 3-TIER LOAD.

SEE SPECIAL NOTE 8 ON PAGE 45.

INDICATES TRAILER FLOOR.

TYPICAL 2-WIDE LOAD (BOXES CROSSWISE) IN A 40'-0" LONG TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES

KEY NUMBERS

- ① ANTI-SWAY BRACE ASSEMBLY (23 REQD). SEE THE "ANTI-SWAY BRACE A" DETAIL ON PAGE 30. INSTALL BETWEEN LATERALLY ADJACENT ROWS OF SKIDDED UNITS. SEE SPECIAL NOTES 5 AND 6 ON PAGE 45.
- ② TOP-OF-LOAD ANTI-SWAY BRACE ASSEMBLY (11 REQD). SEE THE "TOP-OF-LOAD ANTI-SWAY BRACE A" DETAIL ON PAGE 32. WIRE TIE TO A SKID STRAP WITH NO. 14 GAGE WIRE AS SHOWN BY THE "TIE WIRE APPLICATION A" DETAIL ON THAT PAGE. SEE SPECIAL NOTE 7 ON PAGE 45.
- ③ TOP-OF-LOAD ANTI-SWAY BRACE ASSEMBLY (1 REQD). SEE THE "ANTI-SWAY BRACE C" DETAIL ON PAGE 34. WIRE TIE TO A SKID STRAP WITH NO. 14 GAGE WIRE AS SHOWN BY THE "TIE WIRE APPLICATION D" DETAIL ON THAT PAGE. SEE SPECIAL NOTE 7 ON PAGE 45.
- ④ STACK UNITIZING STRAP, 1-1/4" X .035" X 22'-0" LONG (REF) STEEL STRAPPING (2 REQD). PRE-POSITION AND INSTALL SO AS TO ENCLOSE ONE (1) SKIDDED UNIT STACK, AS SHOWN. SEE SPECIAL NOTE 9 ON PAGE 45.
- ⑤ SEAL FOR 1-1/4" STRAPPING (4 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "J" ON PAGE 2.
- ⑥ CROSS MEMBER (4 REQD). POSITION AT THE HEIGHTS AS SPECIFIED BY THE "SECTION K-K" VIEW AT LEFT. SEE GENERAL NOTE "A" ON PAGE 40. SEE SPECIAL NOTE 8 ON PAGE 45.

SPECIAL NOTES:

(SPECIAL NOTES CONTINUED)

1. A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) VAN TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES IS SHOWN. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. THE SKIDDED UNIT SHOWN IN THE TYPICAL 2-WIDE LOAD ON PAGE 44 HAS OVER-ALL DIMENSIONS OF 38" LONG BY 40" WIDE BY 45" HIGH. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR UNITS OF OTHER LENGTHS, AND FOR UNITS HAVING WIDTHS OF FROM 27" THRU 44-1/2" IN A 7'-6" WIDE TRAILER. REFER TO "CHART NO. 1" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM WIDTHS OF UNITS WHICH CAN BE LOADED TWO WIDE IN TRAILERS OF OTHER INSIDE WIDTHS.
3. A 2-TIER LOAD IS SHOWN AS TYPICAL. REFER TO "CHART NO. 7" ON PAGE 41 FOR GUIDANCE AS TO THE PROPER CROSS MEMBER INSTALLATION LOCATIONS TO BE USED, BASED ON THE HEIGHT OF THE UNIT BEING LOADED. SOME SKIDDED UNITS MAY REQUIRE A PARTIAL THIRD TIER IN ORDER TO OBTAIN THE DESIRED LOAD QUANTITY AND/OR WEIGHT. REFER TO "CHART NO. 8" ON PAGE 41 FOR GUIDANCE AS TO PROPER CROSS MEMBER INSTALLATION LOCATIONS TO BE USED.
4. THE WEIGHT OF THE DEPICTED UNIT IS 833 POUNDS. THE NUMBER OF UNITS MAY NEED TO BE ADJUSTED IF THE UNIT BEING LOADED HAS A DIFFERENT WEIGHT. A CROSS MEMBER MUST BE USED FOR EACH 10,000 POUNDS OF LADING. THEREFORE, IF THE BOTTOM TIER OF THE LOAD WEIGHS MORE THAN 20,000 POUNDS, TWO (2) CROSS MEMBERS MUST BE INSTALLED AGAINST EACH TIER AT A POINT WITHIN THE LOAD FAR ENOUGH FORWARD SO THAT ALL PORTIONS OF THE TIERS WEIGH LESS THAN 20,000 POUNDS. SEE "CHART NO. 6" AND "CHART NO. 7" ON PAGE 41 FOR GUIDANCE.
5. THE ANTI-SWAY BRACE A, SHOWN IN THE LOAD VIEW AS PIECE MARKED ① IS DESIGNED FOR USE WITHIN LOADS OF CROSSWISE-POSITIONED BOXES WHEN THE UNITS ARE ASSEMBLED ON THE TYPE I OR TYPE IA SKID BASE, OR THE TYPE II SKID BASE WHEN THE BOXES DO NOT HAVE TOP CLEATS, OR THE SKID BASE DEPICTED BY DRAWING D-AMXSV-4163. THE ANTI-SWAY BRACE B WILL BE USED FOR UNITS ASSEMBLED ON THE TYPE II SKID BASE WHEN THE BOXES HAVE TOP CLEATS. SEE PAGE 30 FOR DETAILS OF THE ANTI-SWAY BRACE ASSEMBLIES.
6. THE ANTI-SWAY BRACING MAY BE OMITTED IF THE TOTAL EXCESS SPACE ACROSS THE TRAILER IS NOT MORE THAN SIX INCHES (6"). IF THE EXCESS SPACE EXCEEDS 6", ANTI-SWAY BRACES MUST BE POSITIONED IN THE VOID AREA BETWEEN TWO ROWS OF LATERALLY ADJACENT SKIDDED UNITS AT ALL LOCATIONS.
7. TOP-OF-LOAD ANTI-SWAY BRACES, SHOWN IN THE LOAD VIEW AS PIECES MARKED ②, ARE TO BE POSITIONED BETWEEN ALL LATERALLY ADJACENT SECOND-TIER SKIDDED UNITS WHEN THE UNITS ARE OVER 44" IN HEIGHT. THE TOP-OF-LOAD ANTI-SWAY BRACE, SHOWN IN THE LOAD VIEW AS PIECE MARKED ③, MUST BE USED IN THE 1-TIER PORTION OF A LOAD BETWEEN FIRST-TIER UNITS WHICH ARE OVER 44" HIGH. NOTE THAT TOP-OF-LOAD ANTI-SWAY BRACES ARE NOT REQUIRED IF THE TOTAL EXCESS SPACE ACROSS THE TRAILER IS LESS THAN 6".
8. IN SOME CASES THE LOWER CROSS MEMBER FOR THE BRACING OF THE PARTIAL TOP TIER WILL NOT CLEAR THE TOP OF THE BOTTOM UNIT, SUCH AS FOR UNITS TALLER THAN 45" WHEN THE LOWER CROSS MEMBER FOR THE TOP TIER IS AT 48". IT WILL THEN BE NECESSARY TO INSTALL CROSS MEMBERS WITHIN THE BOTTOM TIER AT THE SAME LENGTHWISE LOCATIONS.
9. STACK UNITIZING STRAPS, PIECES MARKED ④, PROVIDE LONGITUDINAL STABILITY FOR THE UNITS ADJACENT TO THE CROSS MEMBERS IN THE SECOND TIER, FOR ALL SKIDDED UNITS WHICH ARE TALLER THAN 37-1/2". THE STACK UNITIZING STRAPS MAY BE OMITTED WHEN SHIPPING 2-TIER LOADS OF UNITS 37-1/2" OR LESS IN HEIGHT WHEN CROSS MEMBERS ARE POSITIONED AS SPECIFIED BY "CHART NO. 7" ON PAGE 41. FOR 3-TIER LOADS, ALL UNITS ADJACENT TO THE CROSS MEMBER IN THE THIRD TIER MUST BE SECURED TO THE UNITS IMMEDIATELY BELOW WITH STACK UNITIZING STRAPS.
10. THE DEPICTED LOAD CAN BE ADJUSTED TO SUIT THE QUANTITY TO BE SHIPPED, OR TO SUIT THE SIZE AND/OR WEIGHT OF THE UNIT BEING LOADED. A 2-TIER LOAD CAN BE INCREASED OR REDUCED BY A MULTIPLE OF FOUR (4) UNITS BY ADDING OR OMITTING ONE OR MORE FULL LOAD UNITS. IF A LOAD QUANTITY CONSISTS OF AN UNEVEN NUMBER OF UNITS, THE LTL PROCEDURES SHOWN ON PAGE 52 WILL BE APPLIED.

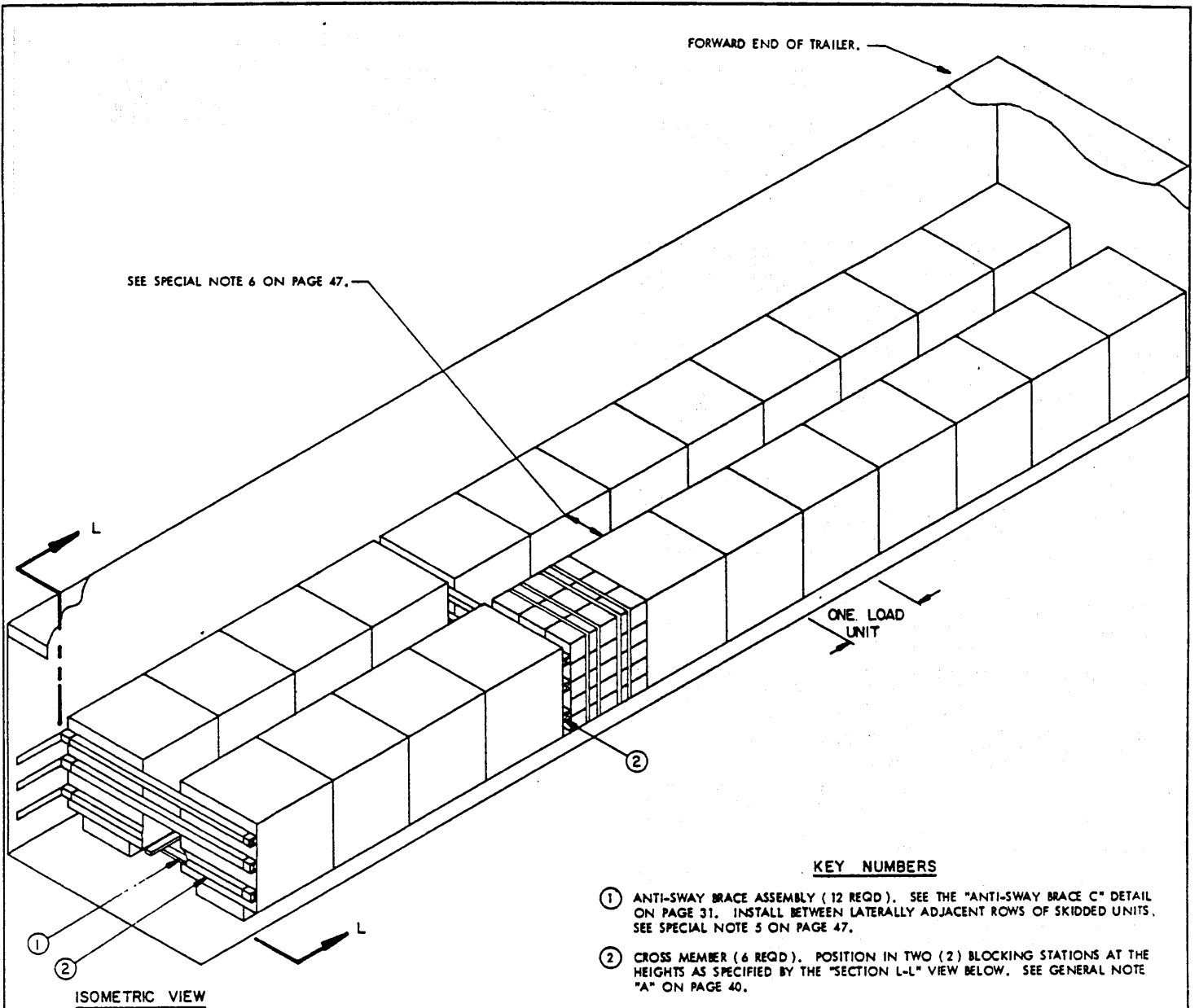
(CONTINUED AT RIGHT)

BILL OF MATERIAL (TYPICAL)		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	232	78
2" X 4"	368	244
NAILS	NO. REQD	POUNDS
10d (3")	88	1-1/2
12d (3-1/4")	138	2-1/2
20d (4")	184	6-3/4
STEEL STRAPPING, 1-1/4" X .035" --- 44' REQD ----- 7 LBS		
SEAL FOR 1-1/4" STRAPPING ----- 4 REQD ----- NIL		
CROSS MEMBER ----- 4 REQD		

LOAD AS SHOWN (TYPICAL)

ITEM	QUANTITY	WEIGHT (APPROX)
SKIDDED UNIT	46	38,318 LBS
DUNNAGE		816 LBS
TOTAL WEIGHT		39,134 LBS

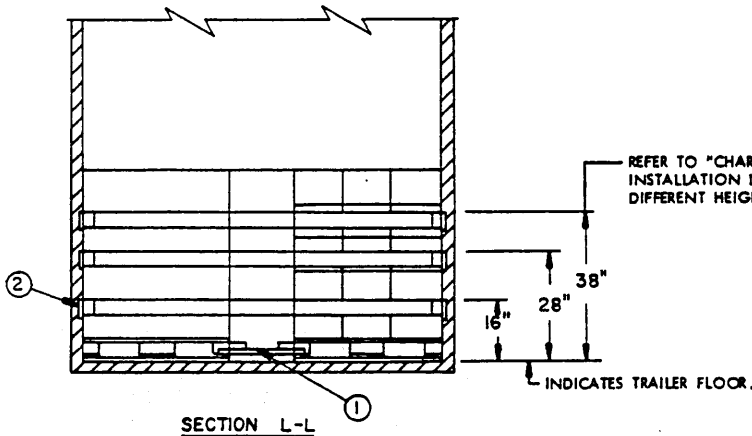
TYPICAL 2-WIDE MULTI-TIER LOAD (BOXES LENGTHWISE) IN A 40'-0" LONG TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES



ISOMETRIC VIEW

KEY NUMBERS

- ① ANTI-SWAY BRACE ASSEMBLY (12 REQD). SEE THE "ANTI-SWAY BRACE C" DETAIL ON PAGE 31. INSTALL BETWEEN LATERALLY ADJACENT ROWS OF SKIDDED UNITS. SEE SPECIAL NOTE 5 ON PAGE 47.
- ② CROSS MEMBER (6 REQD). POSITION IN TWO (2) BLOCKING STATIONS AT THE HEIGHTS AS SPECIFIED BY THE "SECTION L-L" VIEW BELOW. SEE GENERAL NOTE "A" ON PAGE 40.



SECTION L-L

TYPICAL 2-WIDE LOAD (BOXES LENGTHWISE) IN A 40'-0"
LONG TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES

SPECIAL NOTES:

1. A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) VAN TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES IS SHOWN. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. THE SKIDDED UNIT SHOWN IN THE TYPICAL 2-WIDE LOAD ON PAGE 46 HAS OVERALL DIMENSIONS OF 36-1/2" LONG BY 37" WIDE BY 43" HIGH. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR UNITS OF OTHER WIDTHS, AND FOR UNITS HAVING LENGTHS OF FROM 25" THRU 44-1/2" IN A 7'-6" WIDE TRAILER. REFER TO "CHART NO. 1" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM LENGTHS OF UNITS WHICH CAN BE LOADED TWO WIDE IN TRAILERS OF OTHER WIDTHS. REFER TO THE "SKIDDED UNIT LENGTH/WIDTH COMBINATIONS" CHART ON PAGE 51 FOR THE COMBINATIONS OF LENGTHS AND WIDTHS OF UNITS WHICH WOULD BE ACCEPTABLE FOR CHIMNEY-PATTERN LOADS.
3. A 1-TIER LOAD IS SHOWN AS TYPICAL. REFER TO "CHART NO. 10" AT RIGHT FOR GUIDANCE AS TO THE PROPER CROSS MEMBER INSTALLATION LOCATIONS TO BE USED, BASED ON THE HEIGHT OF THE UNIT BEING LOADED. FOR PROCEDURES APPLICABLE FOR LOADS OF TWO OR THREE TIERS, REFER TO PAGES 48 AND 49.
4. THE WEIGHT OF THE DEPICTED UNIT IS 1,730 POUNDS. THE NUMBER OF UNITS MAY NEED TO BE ADJUSTED IF THE UNIT BEING LOADED HAS A DIFFERENT WEIGHT. REFER TO "CHART NO. 4" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM NUMBER OF UNITS WHICH CAN BE LOADED, BASED ON THE WEIGHT OF THE UNIT TO BE SHIPPED. A CROSS MEMBER MUST BE USED FOR EACH 10,000 POUNDS OF LADING. THEREFORE, IF THE SIXTEEN UNITS IN THE FRONT PORTION OF THE LOAD WEIGH MORE THAN 1,875 POUNDS EACH, THE CROSS MEMBERS LOCATED BETWEEN LOAD UNITS 8 AND 9 MUST BE INSTALLED FAR ENOUGH FORWARD SO THAT THE FRONT AND REAR PORTIONS OF THE LOAD WEIGH LESS THAN 30,000 POUNDS. SEE "CHART NO. 6" ON PAGE 41 AND "CHART NO. 10" AT RIGHT FOR GUIDANCE.
5. THE ANTI-SWAY BRACING MAY BE OMITTED IF THE TOTAL LATERAL EXCESS SPACE IS LESS THAN 2-1/4". IF THE EXCESS SPACE IS 2-1/4" OR MORE, ANTI-SWAY BRACES MUST BE INSTALLED IN THE VOID AREA BETWEEN ROWS OF LATERALLY ADJACENT SKIDDED UNITS AT ALL LOCATIONS.
6. TOP-OF-LOAD ANTI-SWAY BRACES, SHOWN IN THE LOAD VIEW ON PAGE 26 AS PIECE MARKED (3), MUST BE POSITIONED IN THE VOID AREA BETWEEN LATERALLY ADJACENT ROWS IF THE UNITS ARE OVER 44" HIGH. NOTE THAT TOP-OF-LOAD ANTI-SWAY BRACES ARE NOT REQUIRED IF THE TOTAL EXCESS SPACE ACROSS THE TRAILER IS LESS THAN 6".
7. AS APPLICABLE, IT IS TO BE NOTED THAT UNITS WHICH ARE 29-5/8" OR LESS IN LENGTH FOR A 7'-6" WIDE TRAILER OR PROPORTIONATELY LONGER UNITS IN WIDER TRAILERS, CAN BE LOADED IN LARGER QUANTITIES IF 3-WIDE LOADING PROCEDURES ARE EMPLOYED. THE CRITERIA OF SPECIAL NOTES 5 AND 6 ABOVE WILL ALSO APPLY TO 3-WIDE LOADS.
8. IF THE SIZE AND/OR WEIGHT OF THE SKIDDED UNITS TO BE TRANSPORTED IS SUCH THAT MORE THAN ONE TIER IS NECESSARY IN ORDER TO OBTAIN THE DESIRED LOAD QUANTITY AND/OR WEIGHT, AND THE HEIGHT OF THE UNIT PERMITS, THE LOADING PROCEDURES DEPICTED ON PAGES 48 AND 49 WILL BE EMPLOYED.
9. WHEN SHIPPING A 1-TIER LOAD OF SKIDDED UNITS WHICH ARE 27-1/2" OR LESS IN HEIGHT, IN ORDER TO PROVIDE PROPER BEARING OF THE CROSS MEMBERS FOR THE RETENTION OF 20,000 POUNDS IN A BAY, IT WILL BE NECESSARY TO POSITION 1/2" OR THICKER PLYWOOD BETWEEN THE LADING AND THE CROSS MEMBER. THE PLYWOOD SHOULD BE TRAILER WIDTH MINUS 1/2" IN LENGTH AND AT LEAST 16" WIDE. IF CROSS MEMBERS CAN BE POSITIONED FREQUENTLY ENOUGH THAT A BAY WILL NOT BE MORE THAN 10,000 POUNDS, THE CROSS MEMBERS AT THE 4" HEIGHT AND THE PLYWOOD WILL NOT BE REQUIRED.
10. THE DEPICTED LOAD CAN BE ADJUSTED TO SUIT THE QUANTITY TO BE SHIPPED, OR TO SUIT THE SIZE AND/OR WEIGHT OF THE UNIT BEING LOADED. A LOAD CAN BE INCREASED OR REDUCED BY A MULTIPLE OF TWO (2) UNITS BY ADDING OR OMITTING ONE OR MORE FULL LOAD UNITS. IF A LOAD QUANTITY CONSISTS OF AN UNEVEN NUMBER OF UNITS, THE LTL PROCEDURES SHOWN ON PAGE 52 WILL BE APPLIED.

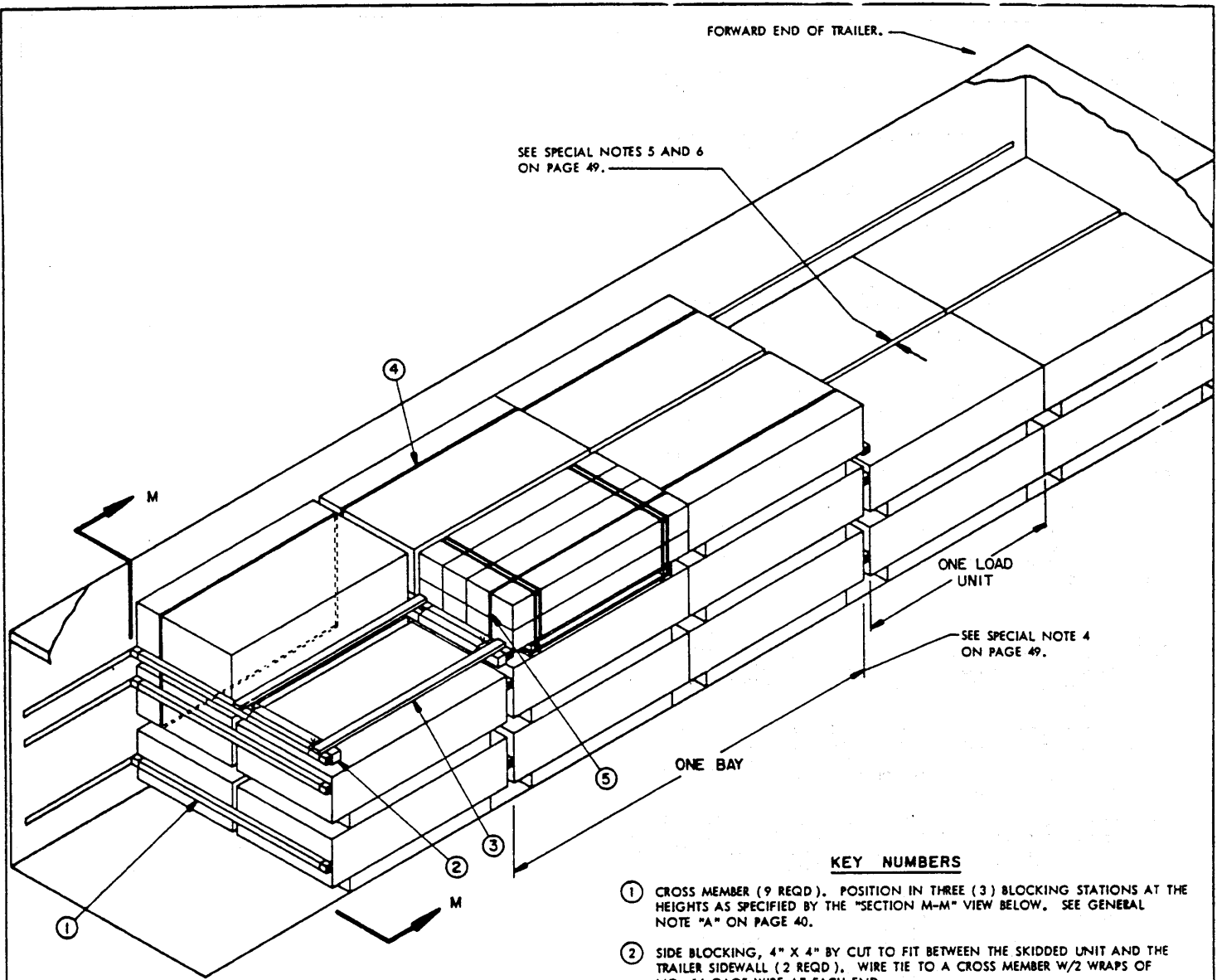
BILL OF MATERIAL (TYPICAL)		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	94	63
NAILS	NO. REQD	POUNDS
10d (3")	144	2-1/4
CROSS MEMBERS -----		6 REQD

CHART NO. 10		
UNIT HEIGHT	CROSS MEMBER LOCATIONS	MAXIMUM WEIGHT PER BAY
TO 15-1/2"	4" AND 16". SEE SPECIAL NOTE 9.	20,000 LBS
15-5/8" TO 27-1/2"	4" AND 16". SEE SPECIAL NOTE 9.	20,000 LBS
27-5/8" TO 37-1/2"	16" AND 28".	20,000 LBS
37-5/8" TO 47-1/2"	16", 28", AND 38".	30,000 LBS
47-5/8" TO 55"	16", 28", 38", AND 48".	40,000 LBS

LOAD AS SHOWN (TYPICAL)

ITEM	QUANTITY	WEIGHT (APPROX)
SKIDDED UNIT -----	24 -----	41,520 LBS
DUNNAGE -----	-----	158 LBS
TOTAL WEIGHT -----		41,678 LBS

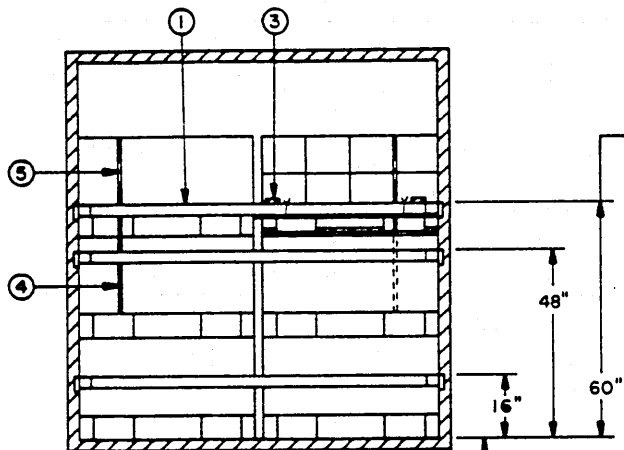
TYPICAL 2-WIDE LOAD (BOXES LENGTHWISE) IN A 40'-0" LONG TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES



ISOMETRIC VIEW

KEY NUMBERS

- ① CROSS MEMBER (9 REQD). POSITION IN THREE (3) BLOCKING STATIONS AT THE HEIGHTS AS SPECIFIED BY THE "SECTION M-M" VIEW BELOW. SEE GENERAL NOTE "A" ON PAGE 40.
- ② SIDE BLOCKING, 4" X 4" BY CUT TO FIT BETWEEN THE SKIDDED UNIT AND THE TRAILER SIDEWALL (2 REQD). WIRE TIE TO A CROSS MEMBER W/2 WRAPS OF NO. 14 GAGE WIRE AT EACH END.
- ③ SUPPORT PIECE, 2" X 4" BY UNIT WIDTH PLUS 5-1/2" (2 REQD). NAIL TO PIECES MARKED ② W/3-12d NAILS AT EACH JOINT.
- ④ STACK INITIATING STRAP, 1-1/4" X .035" X 24'-0" LONG (REF) STEEL STRAPPING (5 REQD). PRE-POSITION AND INSTALL SO AS TO ENCIRCLE THE TWO (2) TOP TIERS OF SKIDDED UNITS OF A STACK, AS SHOWN. SEE SPECIAL NOTE 7 ON PAGE 49.
- ⑤ SEAL FOR 1-1/4" STRAPPING (10 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "J" ON PAGE 2.



SECTION M-M

REFER TO "CHART NO. 8" ON PAGE 41 FOR PROPER CROSS MEMBER INSTALLATION LOCATIONS APPLICABLE FOR A 3-TIER LOAD OF UNITS HAVING A DIFFERENT HEIGHT THAN THE UNITS SHOWN. REFER TO "CHART NO. 7" ON PAGE 41 IF SHIPPING A 2-TIER LOAD.

INDICATES TRAILER FLOOR.

TYPICAL 2'-WIDE MULTI-TIER LOAD (BOXES LENGTHWISE) IN A 40'-0" LONG TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES

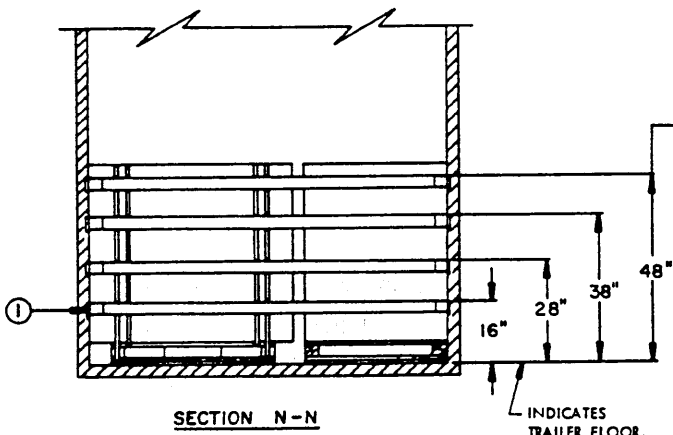
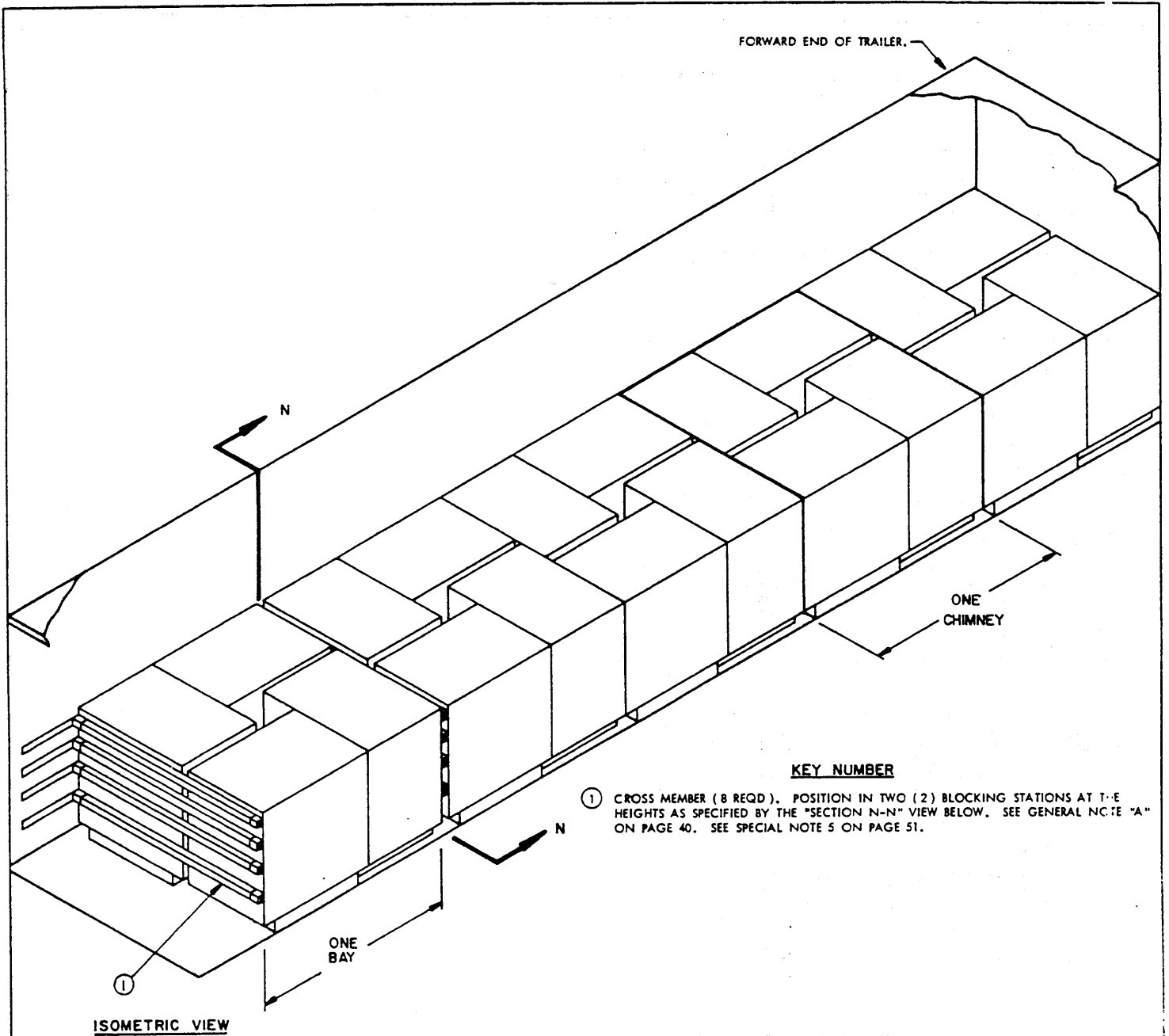
SPECIAL NOTES:

1. A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) VAN TRAILER EQUIPPED WITH AN INTERNAL BRACING DEVICE IS SHOWN. TRAILERS OF OTHER DIMENSIONS MUST BE USED.
2. THE SKIDDED UNIT SHOWN IN THE TYPICAL 2-WIDE LOAD ON PAGE 48 HAS OVERALL DIMENSIONS OF 44" LONG BY 6'-9-1/2" WIDE BY 25-1/4" HIGH. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR UNITS OF OTHER WIDTHS, AND FOR UNITS HAVING LENGTHS OF FROM 25" THRU 44-1/2" IN A 7'-6" WIDE TRAILER. REFER TO "CHART NO. 1" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM LENGTHS OF UNITS WHICH CAN BE LOADED TWO WIDE IN TRAILERS OF OTHER WIDTHS.
3. A 3-TIER LOAD IS SHOWN AS TYPICAL. REFER TO "CHART NO. 8" ON PAGE 41 FOR GUIDANCE AS TO THE PROPER CROSS MEMBER INSTALLATION LOCATIONS TO BE USED, BASED ON THE HEIGHT OF THE UNIT BEING LOADED. FOR LOADS WHICH CONSIST OF ONLY TWO TIERS, REFER TO "CHART NO. 7" ON PAGE 41 FOR PROPER CROSS MEMBER INSTALLATION GUIDANCE.
4. THE WEIGHT OF THE DEPICTED UNIT IS 1,680 POUNDS. THE NUMBER OF UNITS MAY NEED TO BE ADJUSTED IF THE UNIT BEING LOADED HAS A DIFFERENT WEIGHT. REFER TO "CHART NO. 4" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM NUMBER OF UNITS WHICH CAN BE LOADED, BASED ON THE WEIGHT OF THE UNIT TO BE SHIPPED. A CROSS MEMBER MUST BE USED FOR EACH 10,000 POUNDS OF LADING. THEREFORE, THE FOUR UNITS BEING BRACED WITH ONE CROSS MEMBER MUST NOT WEIGH MORE THAN 2,500 POUNDS EACH. NOTE THAT THE NUMBER OF UNITS LONG PER BAY MAY BE INCREASED AS LONG AS THE TOTAL WEIGHT BEING RETAINED BY EACH CROSS MEMBER DOES NOT EXCEED 10,000 POUNDS. SEE "CHART NO. 6" ON PAGE 41 FOR GUIDANCE.
5. ANTI-SWAY BRACES, SHOWN IN THE LOAD VIEW ON PAGE 46 AS PIECE MARKED (1), MUST BE POSITIONED IN THE VOID AREA BETWEEN ROWS OF LATERALLY ADJACENT SKIDDED UNITS AT ALL LOCATIONS IF THE TOTAL LATERAL EXCESS SPACE IS 2'-1/4" OR MORE.
6. FOR LOADS WHICH CONSIST OF TWO TIERS OF UNITS OVER 44" HIGH, TOP-OF-LOAD ANTI-SWAY BRACES MUST BE USED. TOP-OF-LOAD ANTI-SWAY BRACES, SHOWN AS PIECES MARKED (3) ON PAGE 16, WILL BE POSITIONED IN THE VOID AREA BETWEEN LATERALLY ADJACENT ROWS IN THE TOP TIER. TOP-OF-LOAD ANTI-SWAY BRACES, SHOWN AS PIECES MARKED (3) ON PAGE 26, WILL BE POSITIONED IN THE VOID AREA BETWEEN LATERALLY ADJACENT ROWS IN THE BOTTOM TIER. NOTE THAT TOP-OF-LOAD ANTI-SWAY BRACES ARE NOT REQUIRED IN EITHER TIER IF THE TOTAL EXCESS SPACE ACROSS THE TRAILER IS LESS THAN 6".
7. STACK UNITIZING STRAPS, PIECES MARKED (4), PROVIDE LONGITUDINAL STABILITY FOR THE UNITS ADJACENT TO THE CROSS MEMBER IN THE THIRD TIER, AND ARE REQUIRED REGARDLESS OF THE UNIT HEIGHT. FOR 2-TIER LOADS, SKIDDED UNITS WHICH ARE TALLER THAN 37-1/2" MUST HAVE STACK UNITIZING STRAPS APPLIED AROUND ALL STACKS WHICH ARE ADJACENT TO CROSS MEMBERS. THE STACK UNITIZING STRAPS ARE NOT REQUIRED WHEN SHIPPING 2-TIER LOADS OF UNITS 37-1/2" OR LESS IN HEIGHT WHEN CROSS MEMBERS ARE POSITIONED AS SPECIFIED BY "CHART NO. 7" ON PAGE 41.
8. THE DEPICTED LOAD CAN BE ADJUSTED TO SUIT THE QUANTITY TO BE SHIPPED, OR TO SUIT THE SIZE AND/OR WEIGHT OF THE UNIT BEING LOADED. A 3-TIER LOAD CAN BE INCREASED OR REDUCED BY A MULTIPLE OF SIX (6) UNITS OR A 2-TIER LOAD CAN BE INCREASED OR REDUCED BY A MULTIPLE OF FOUR (4) UNITS BY ADDING OR OMITTING ONE OR MORE FULL LOAD UNITS. A UNIT CAN BE ADDED IN THE PLACE OF PIECES MARKED (2) AND (3) WHICH ARE SHOWN ONLY TO DEPICT A TYPICAL INSTALLATION, OR THE PIECES MARKED (2) AND (3) AND THE THIRD-TIER UNIT BEING BRACED MAY BE OMITTED. ALSO, MULTIPLES OF TWO (2) UNITS CAN BE OMITTED FROM THE REARMOST BAY.

BILL OF MATERIAL (TYPICAL)		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	15	10
4" X 4"	8	11
NAILS	NO. REQD	POUNDS
10d (3")	12	1/4
STEEL STRAPPING, 1-1/4" X .035" -----	120' REQD -----	18 LBS
SEAL FOR 1-1/4" STRAPPING -----	10 REQD -----	NIL
CROSS MEMBER -----		9 REQD

LOAD AS SHOWN (TYPICAL)		
ITEM	QUANTITY	WEIGHT (APPROX)
SKIDDED UNIT -----	25 -----	42,000 LBS
DUNNAGE -----		71 LBS
TOTAL WEIGHT -----		42,071 LBS

TYPICAL 2-WIDE MULTI-TIER LOAD (BOXES LENGTHWISE) IN A
40'-0" LONG TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES



REFER TO "CHART NO. 11" ON PAGE 51 FOR PROPER CROSS MEMBER INSTALLATION LOCATIONS APPLICABLE FOR UNITS HAVING A DIFFERENT HEIGHT THAN THE UNITS SHOWN.

TYPICAL CHIMNEY-PATTERN LOAD IN A 40'-0" LONG TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES

SPECIAL NOTES:

1. A 40'-0" LONG, BY 7'-6" WIDE (INSIDE DIMENSION) VAN TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES IS SHOWN. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. THE SKIDDED UNIT SHOWN IN THE TYPICAL CHIMNEY-PATTERN LOAD ON PAGE 50 HAS OVERALL DIMENSIONS OF 36" LONG BY 51" WIDE BY 54" HIGH. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR UNITS OF OTHER LENGTHS AND WIDTHS, PROVIDING THE TOTAL OF THE LENGTH AND THE WIDTH IS LESS THAN THE INSIDE WIDTH OF THE TRAILER BY AT LEAST ONE-HALF INCH (1/2") BUT NOT MORE THAN 6" LESS. SEE THE "SKIDDED UNIT LENGTH/WIDTH COMBINATIONS" CHART AT RIGHT FOR GUIDANCE AS TO THE COMBINATIONS OF LENGTHS AND WIDTHS WHICH ARE ACCEPTABLE FOR CHIMNEY-PATTERN LOADS.
3. THE WEIGHT OF THE DEPICTED UNIT IS 2,100 POUNDS. THE NUMBER OF UNITS MAY NEED TO BE ADJUSTED OR A DIFFERENT LOADING PATTERN MAY NEED TO BE USED IF THE UNIT BEING LOADED HAS A DIFFERENT WEIGHT. REFER TO "CHART NO. 4" ON PAGE 5 FOR GUIDANCE AS TO THE MAXIMUM NUMBER OF UNITS WHICH CAN BE LOADED, BASED ON THE WEIGHT OF THE UNIT TO BE SHIPPED. REFER TO "CHART NO. 11" BELOW FOR GUIDANCE AS TO THE MAXIMUM WEIGHT PERMISSIBLE IN A BAY, BASED ON THE HEIGHT OF THE UNIT BEING SHIPPED.
4. CHIMNEY-PATTERN LOADS ARE LIMITED TO ONE (1) TIER IN HEIGHT. SKIDDED UNITS MUST NOT BE STACKED FOR A CHIMNEY-PATTERN LOAD. IF IT IS NECESSARY TO SHIP MORE THAN TWENTY UNITS, THE LARGEST QUANTITY OF UNITS THAT CAN BE LOADED IN A 40'-0" LONG TRAILER USING THE CHIMNEY PATTERN, ONE OF THE PROCEDURES DEPICTED ON PAGE 42 THRU 48 WILL BE SELECTED FOR USE. NOTE THAT A LARGER LOAD QUANTITY IS ONLY POSSIBLE IF THE UNIT CAN BE LOADED IN MORE THAN ONE TIER. IF THE TRAILER FURNISHED FOR LOADING IS 45'-0" LONG, SIX (6) CHIMNEYS OF SOME UNITS CAN BE LOADED, DEPENDING UPON THE LENGTH AND WIDTH OF THE UNIT TO BE SHIPPED.
5. THE QUANTITY OF CROSS MEMBERS TO BE INSTALLED AT EACH BLOCKING STATION IS DEPENDENT UPON THE HEIGHT OF THE UNIT BEING SHIPPED. THE USE OF FOUR (4) CROSS MEMBERS AT A BLOCKING STATION AS SHOWN IS ONLY APPLICABLE FOR SKIDDED UNITS WHICH ARE AT LEAST 47-5/8" TALL. THE LOCATION AND THE NUMBER OF BLOCKING STATIONS NEEDED IS BASED ON A COMBINATION OF UNIT HEIGHT AND WEIGHT. SEE "CHART NO. 11" BELOW FOR GUIDANCE.
6. THE DEPICTED LOAD CAN BE ADJUSTED TO SUIT THE QUANTITY TO BE SHIPPED. A LOAD CAN BE REDUCED BY A MULTIPLE OF FOUR (4) UNITS BY OMITTING ONE OR MORE CHIMNEYS AND INSTALLING CROSS MEMBERS AT THE REAR OF THE LAST CHIMNEY. FOR A LOAD QUANTITY OF ONE MORE UNIT THAN A MULTIPLE OF FOUR, FORM A 1-UNIT BAY IN LIEU OF THE 4-UNIT CHIMNEY BAY. SEE PAGE 52 FOR GUIDANCE. NOTE THAT CROSS MEMBERS MUST BE USED AT BOTH ENDS OF THE 1-UNIT BAY. FOR A LOAD QUANTITY OF TWO MORE UNITS THAN A MULTIPLE OF FOUR, FORM A 2-UNIT BAY IN LIEU OF THE 4-UNIT CHIMNEY BAY. POSITION THE TWO UNITS EITHER WITH THE BOXES CROSSWISE OR WITH THE BOXES LENGTHWISE, AS BEST SUITS. INSTALL THE PROPER ANTI-SWAY BRACE ASSEMBLY IF THE SPACE BETWEEN THE LATERALLY ADJACENT UNITS IS MORE THAN SIX INCHES (6"). FOR A LOAD QUANTITY OF THREE MORE UNITS THAN A MULTIPLE OF FOUR, FORM BOTH A 1-UNIT BAY AND A 2-UNIT BAY.

BILL OF MATERIAL (TYPICAL)	
CROSS MEMBER -----	8 REQ'D

CHART NO. II		
UNIT HEIGHT	CROSS MEMBER LOCATIONS	MAXIMUM WEIGHT PER BAY
25-5/8" TO 37-1/2"	16" AND 28"	20,000 LBS
37-5/8" TO 47-1/2"	16", 28", AND 38"	30,000 LBS
47-5/8" TO 56"	16", 28", 38" AND 48"	40,000 LBS

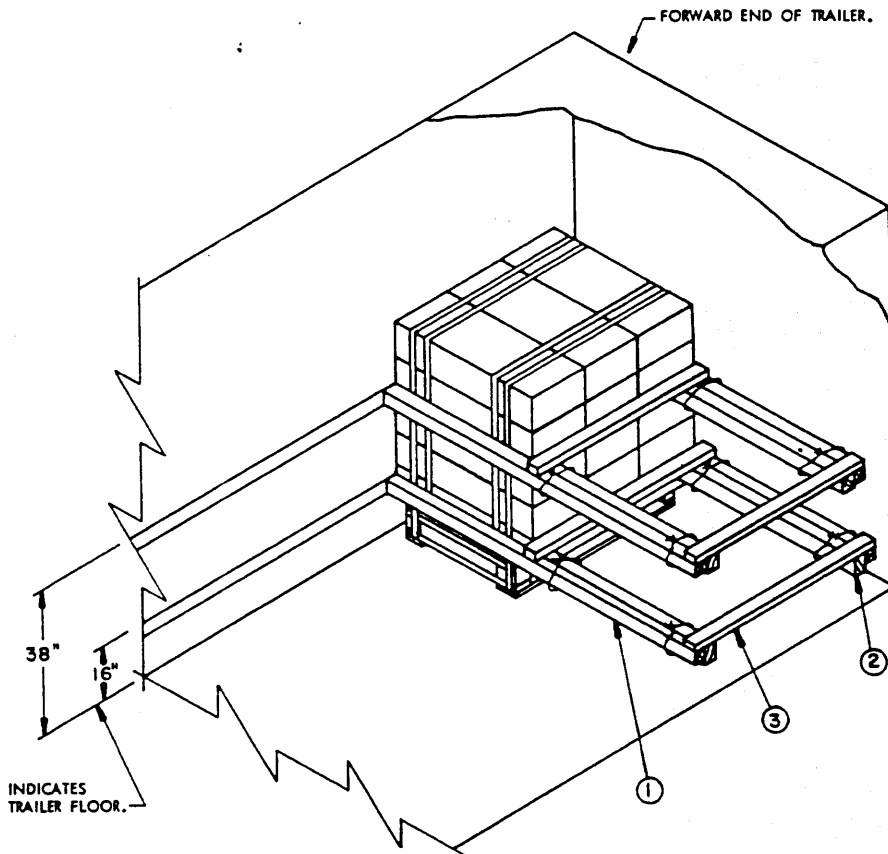
SKIDDED UNIT LENGTH / WIDTH COMBINATIONS				
UNIT LENGTH	MINIMUM TO MAXIMUM UNIT WIDTH			
	TRAILER WIDTH (INSIDE DIMENSION)			
	90"	91"	92"	93"
46"	38" TO 43"	39" TO 44"	40" TO 45"	41" TO 46"
45"	39" TO 44"	40" TO 45"	41" TO 46"	42" TO 47"
44"	40" TO 45"	41" TO 46"	42" TO 47"	43" TO 48"
43"	41" TO 46"	42" TO 47"	43" TO 48"	44" TO 49"
42"	42" TO 47"	43" TO 48"	44" TO 49"	45" TO 50"
41" *	43" TO 48"	44" TO 49"	45" TO 50"	46" TO 51"
40" *	44" TO 49"	45" TO 50"	46" TO 51"	47" TO 52"
39"	45" TO 50"	46" TO 51"	47" TO 52"	48" TO 53"
38"	46" TO 51"	47" TO 52"	48" TO 53"	49" TO 54"
37"	47" TO 52"	48" TO 53"	49" TO 54"	50" TO 55"
36"	48" TO 53"	49" TO 54"	50" TO 55"	51" TO 56"
35"	49" TO 54"	50" TO 55"	51" TO 56"	52" TO 57"
34"	50" TO 55"	51" TO 56"	52" TO 57"	53" TO 58"
33"	51" TO 56"	52" TO 57"	53" TO 58"	54" TO 59"
32"	52" TO 57"	53" TO 58"	54" TO 59"	55" TO 60"
31"	53" TO 58"	54" TO 59"	55" TO 60"	56" TO 61"

* TWENTY-TWO (22) SKIDDED UNITS CAN BE LOADED IN ONE TIER BY EMPLOYING THE 2-WIDE (BOXES CROSSWISE) PROCEDURES SHOWN ON PAGES 42 AND 43, IF THE UNITS ARE FROM 40" TO 41-1/2" LONG AND CAN BE LOADED TWO UNITS WIDE (44-1/2" MAXIMUM WIDTH IN A 90" WIDE TRAILER).

LOAD AS SHOWN (TYPICAL)

ITEM	QUANTITY	WEIGHT (APPROX)
SKIDDED UNIT -----	20	42,000 LBS
DUNNAGE -----		0 LBS
TOTAL WEIGHT -----		42,000 LBS

TYPICAL CHIMNEY-PATTERN LOAD IN A 40'-0" LONG TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES



ISOMETRIC VIEW

SPECIAL NOTES:

1. A 7'-6" WIDE (INSIDE DIMENSION) VAN TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES IS SHOWN. TRAILERS OF OTHER WIDTHS CAN BE USED.
2. THE SKIDDED UNIT SHOWN IN THE TYPICAL LTL LOAD HAS OVERALL DIMENSIONS OF 46" LONG BY 39" WIDE BY 54" HIGH. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR UNITS OF OTHER SIZES, POSITIONED WITH THE BOXES EITHER CROSSWISE OR LENGTHWISE.
3. IN ADDITION TO BEING USED FOR SHIPMENTS OF ONE SKIDDED UNIT, THE DEPICTED PROCEDURES CAN BE USED IN CONJUNCTION WITH THE OUTLOADING PROCEDURES ON PAGES 42 THRU 51 FOR THE ADJUSTMENT OF A LOAD QUANTITY. NOTE THAT THE PRINCIPLES CAN ALSO BE APPLIED FOR A 1-UNIT TIER/BAY IN AN UPPER TIER OF A LOAD.
4. THE LOCATION OF THE CROSS MEMBERS SHOWN IS TYPICAL AND WILL APPLY TO SHIPMENTS OF MOST UNITS. HOWEVER, IF THE UNIT BEING LOADED IS 37-1/2" OR LESS IN HEIGHT THE UPPER CROSS MEMBER SHOULD BE POSITIONED AT THE 28" HEIGHT IN LIEU OF THE 38" HEIGHT SHOWN.

KEY NUMBERS

- ① CROSS MEMBER (4 REQD). POSITION IN TWO (2) BLOCKING STATIONS AT THE HEIGHTS AS SPECIFIED BY THE ISOMETRIC VIEW ABOVE. SEE GENERAL NOTE 'A' ON PAGE 40. SEE SPECIAL NOTE 4 AT LEFT.
- ② SIDE BLOCKING, 4" X 4" BY CUT TO FIT BETWEEN THE SKIDDED UNIT AND THE TRAILER SIDEWALL (4 REQD). WIRE TIE TO A CROSS MEMBER W/2 WRAPS OF NO. 14 GAGE WIRE AT EACH END.
- ③ SUPPORT PIECE, 2" X 4" BY UNIT LENGTH (OR UNIT WIDTH, AS APPLICABLE); PLUS 5-1/2" (4 REQD). NAIL TO PIECES MARKED ② W/3-12d NAILS AT EACH JOINT.

TYPICAL LTL (BOXES CROSSWISE) IN A
TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES

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CONVENTIONAL VAN TRAILERS

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TRAILERS EQUIPPED WITH MECHANICAL BRACING DEVICES

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DETAILS FOR TRAILERS EQUIPPED WITH MECHANICAL BRACING DEVICES:

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ANTI-SWAY BRACES C AND D -----	31
SHIPMENT OF LEFTOVER BOXES -----	39
SHIPMENT OF PARTIAL UNITS -----	38
TOP-OF-LOAD ANTI-SWAY BRACE A -----	32
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