



MIL-STD-1325-402A (NAVY)

**GENERAL NOTES**

1. THE TYPICAL LOADING PLANS SHOWN ARE FOR PARTIAL LAYER BRACING OF PALLETIZED UNIT LOADS, SKIDDED UNIT LOADS, AND UNITIZED CONTAINERS IN BOXCARS. THE DUTY BRACING IS CONSTRUCTED IN SUCH A MANNER THAT NAILING INTO THE DEWALS OF THE BOXCAR IS NOT NECESSARY.
2. THE TYPICAL PROCEDURES SHOWN HAVE BEEN APPROVED FOR BLOCKING AND BRACING PARTIAL LAYERS IN BOXCARS WITH METAL SIDE WALLS. THEY ARE ALSO APPLICABLE TO BOXCARS WITH WOOD SIDEWALLS.
3. THE "LOAD LIMIT" OF A CAR MUST NOT BE EXCEEDED NOR SHOULD THE RAILCAR BE LOADED SO THAT MORE THAN ONE-HALF OF THE "LOAD LIMIT" IS CARRIED BY ONE SET OF TRUCKS.
4. IF END WALLS OF CARS ARE NOT SQUARE THEY MUST BE SQUARED OFF BEFORE STARTING TO LOAD CAR.
5. UNLESS OTHERWISE SPECIFIED, NAILING SHALL BE IN ACCORDANCE WITH MIL-STD-1325 (NAVY).
6. ALL STRAP JOINTS SHALL BE CRIMP-TYPE JOINTS MADE WITH A CRIMPING TOOL THAT DOES NOT CUT THE SEAL OR STRAP, RATHER THAN A TOOL THAT MAKES A NOTCH-TYPE JOINT.
7. APPLICABLE MATERIAL SPECIFICATIONS:
  - DUNNAGE (LUMBER) - FED. SPEC MM-L-751
  - NAILS - FED. SPEC NF-N-106
  - STRAPPING - FED. SPEC QQ-S-781 TYPE I, HEAVY DUTY, CLASS A DRY (UNLUBRICATED)
  - SEALS - FED. SPEC QQ-S-781 STYLE III, HEAVY DUTY

**PARTIAL LAYER RETENTION PROCEDURES USING VERTICAL MEMBERS AND STRAPPING**

1. THESE PROCEDURES MAY BE USED TO RETAIN AN UPPER PARTIAL LAYER. THE WEIGHT RETAINED IN EACH LAYER ROW MUST NOT EXCEED 800 LBS. THESE TYPICAL PROCEDURES DEPICT TWO ROWS WITH THE SAME NUMBER OF UNIT LOADS RETAINED IN EACH PARTIAL LAYER ROW. THESE PROCEDURES ARE ALSO APPLICABLE TO CARLOADS HAVING OTHER THAN TWO PARTIAL UPPER LAYER ROWS (1, 3 OR MORE ROWS) AND TO CARLOADS HAVING DISSIMILAR NUMBERS OF UNIT LOADS IN THE PARTIAL UPPER LAYER ROWS.
2. CARLOADS THAT DO HAVE DISSIMILAR NUMBERS OF UNIT LOADS IN THE PARTIAL UPPER LAYER ROWS MUST NOT EXCEED THE WEIGHT LIMITATIONS FOR LONGITUDINAL AND CROSSWISE DISTRIBUTION AS REQUIRED BY MIL-STD-1325 (NAVY) AND THE ASSOCIATION OF AMERICAN RAILROADS (AAR) GENERAL RULES COVERING LOADING OF CARLOAD SHIPMENTS OF COMMODITIES IN CLOSED CARS.
3. EACH FACT MUST HAVE ADEQUATE SWAY BRACING IF THE CROSSWISE VOID EXCEEDS 6-INCHES. CARLOADS HAVING DISSIMILAR NUMBER OF UNIT LOADS IN THE PARTIAL UPPER LAYER ROWS MUST HAVE THE LONG ROWS SWAY BRACED SO THAT THE LATERAL FORCES ARE CARRIED INTO THE SIDE WALL OF THE CAR (SEE MIL-STD-1325 (NAVY) FOR SWAY BRACING PROCEDURES).
4. THE SLIGHT AND HEIGHT OF THE UPPER PARTIAL LAYER TO BE RETAINED DETERMINES THE SIZE AND QUANTITY OF VERTICAL MEMBERS REQUIRED TO RETAIN THE LOAD. TABLE I SHOWS THE AMOUNT OF LOAD WHICH MAY BE RETAINED BY EACH VERTICAL MEMBER. THE AMOUNT DEPENDS ON THE DIMENSIONS OF THE VERTICAL AND THE HEIGHT IT EXTENDS ABOVE THE TOP OF THE FULL LOWER LAYER. THIS HEIGHT WILL NORMALLY BE THE HEIGHT OF THE UNIT LOADS BEING RETAINED. A MINIMUM OF 2 VERTICALS MUST BE USED FOR EACH UPPER LAYER ROW BEING RETAINED. IF SUFFICIENT VERTICAL MEMBERS CANNOT BE POSITIONED AT APPROPRIATE STRONG AREAS OF THE UNIT LOADS ON THE FRONT SIDE WHERE THE STEP DOWN OCCURS, ADDITIONAL VERTICAL MEMBERS MAY BE POSITIONED ON THE OPPOSITE SIDE (BACK SIDE). VERTICAL MEMBERS IN ADDITION TO THE MINIMUM NUMBER CALLED FOR MAY BE USED IF DICTATED BY THE CONFIGURATION OF THE UNIT LOAD STRONG AREAS (HARD POINTS) AND/OR THE NEED FOR SYMMETRY.
5. THE AMOUNT AND TYPE OF BUFFER MEMBERS REQUIRED DEPENDS ON THE CRUSHING STRENGTH OF THE UNIT LOAD AND ITS ABILITY TO CARRY THE LONGITUDINAL FORCES. A MINIMUM OF 2 BUFFER MEMBERS MUST BE USED FOR EACH UNIT LOAD CONTACTED. THE CONFIGURATION OF THE UNIT LOAD DETERMINES HOW STRAPS ARE POSITIONED TO HOLD THE VERTICAL MEMBERS THAT RETAIN THE PARTIAL LAYER. TWO STRAPS ARE REQUIRED TO HOLD THE VERTICAL MEMBER FRAME IN POSITION.

**CAUTION**

UNIT LOADS THAT ARE WEAK IN THE AREAS WHERE THE VERTICALS MUST BE POSITIONED AND THAT CANNOT BE SUFFICIENTLY STRENGTHENED BY ADDING BUFFER BOARDS (EXAMPLES: WIRE BOUND CRATES, POLYSTYRENE BOXES, ETC.) AND UNIT LOADS OF AMMUNITION ITEMS IN CARTRIDGE TANKS SHOULD NOT BE RETAINED IN THIS MANNER.

**TABLE I**

HEIGHT OF UNIT LOAD (INCHES)	MAXIMUM LOAD PER VERTICAL (LBS.)	
	4 X 4	4 X 6 *
27	1745	3492
30	1570	3143
33	1428	2857
36	1309	2619
39	1208	2418
42	1122	2245
45	1047	2095

\* TWO 2 X 6 VERTICALS LAMINATED WITH 100 NAILS (2 PER FOOT) AND WITH A 1 X 1 FACE BOARD NAILED TO THE OUTER EDGE WITH 6d NAILS (11 PER FOOT) MAY BE SUBSTITUTED IN PLACE OF 4 X 6 VERTICALS.

MIL-STD-1325 102A (NAVY)

## TYPICAL PARTIAL LAYER RETENTION PROCEDURE

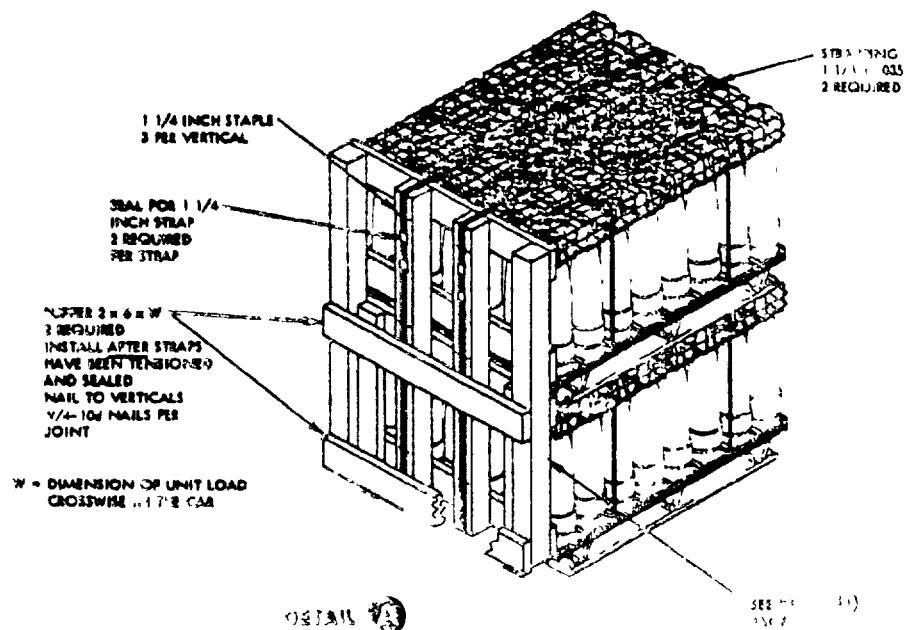
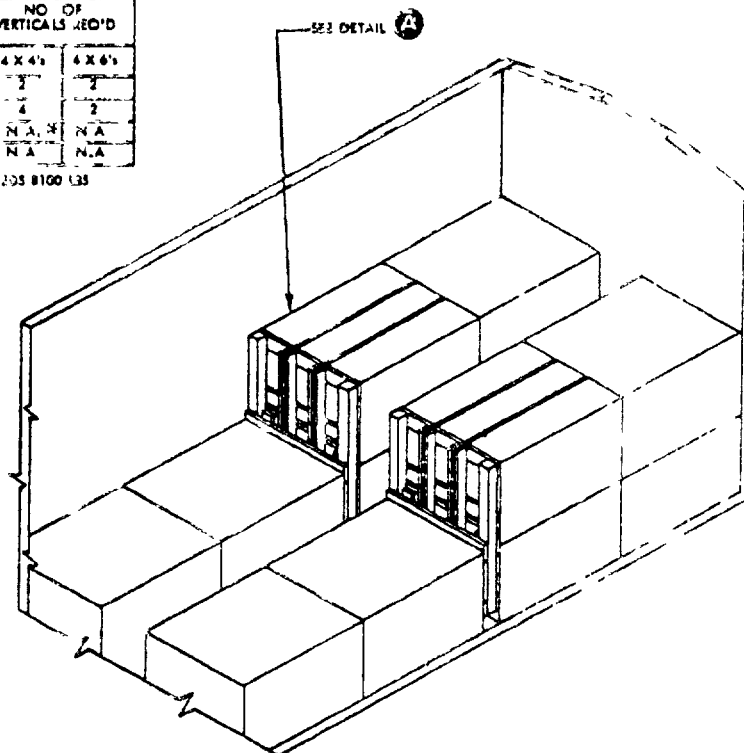
TABLE II

NO. OF U.L.'S IN PARTIAL LAYER ROW	UNIT LOAD HEIGHT (INCHES)	UNIT LOAD WEIGHT (LBS)	TOTAL WT IN PARTIAL LAYER ROW (LBS)	NO. OF VERTICALS REQ'D	
				4 X 4's	4 X 6's
1	28 3/8	3083	3083	2	2
2	28 3/8	3083	6166	4	2
3	28 3/8	3083	9249	N.A.	N.A.
4	28 3/8	3083	12332	N.A.	N.A.

\* N.A. - THROUGH DIMS NOT APPLICABLE WHEN WEIGHT EXCEEDS 8100 LBS

## NOTE

THIS PARTIAL LAYER EXAMPLE CONSISTS OF APPROVED UNIT LOADS OF PROJECTILES IN WIRE FRAME ADAPTERS. THE EXAMPLE SHOWN DEPICTS UNIT LOADS AS PER M154/4. THE UNIT LOAD IS 28-3/8 INCHES HIGH AND WEIGHS 3083 LBS. WITH THIS DATA AND THE DATA GIVEN IN TABLE I, THE MINIMUM NUMBER OF VERTICALS REQUIRED TO RETAIN A PARTICULAR QUANTITY OF UNIT LOADS IN A PARTIAL LAYER ROW MAY BE OBTAINED AND ARE SHOWN IN TABLE II.



UNIT LOADS TO BE TENSIONED TO UNIT WEIGHT

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## TYPICAL PARTIAL LAYER RETENTION PROCEDURE

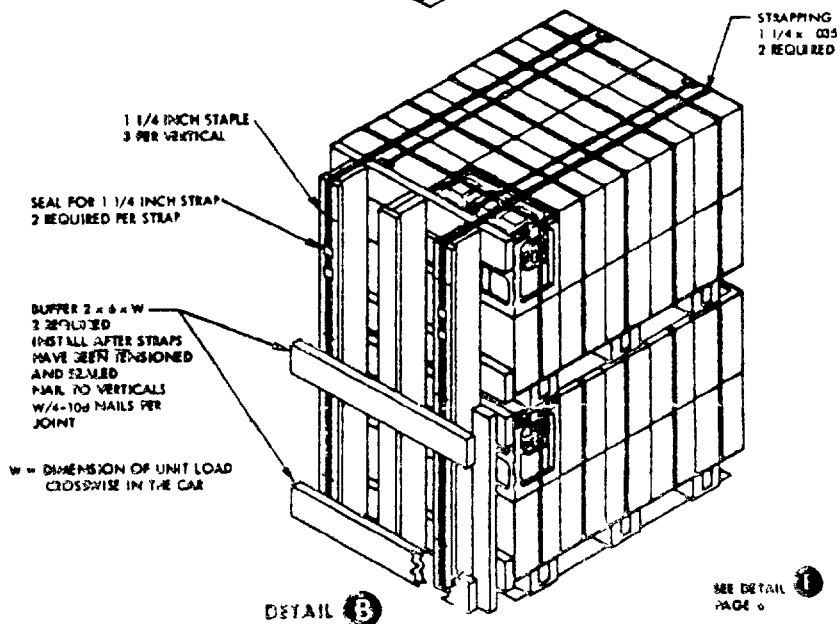
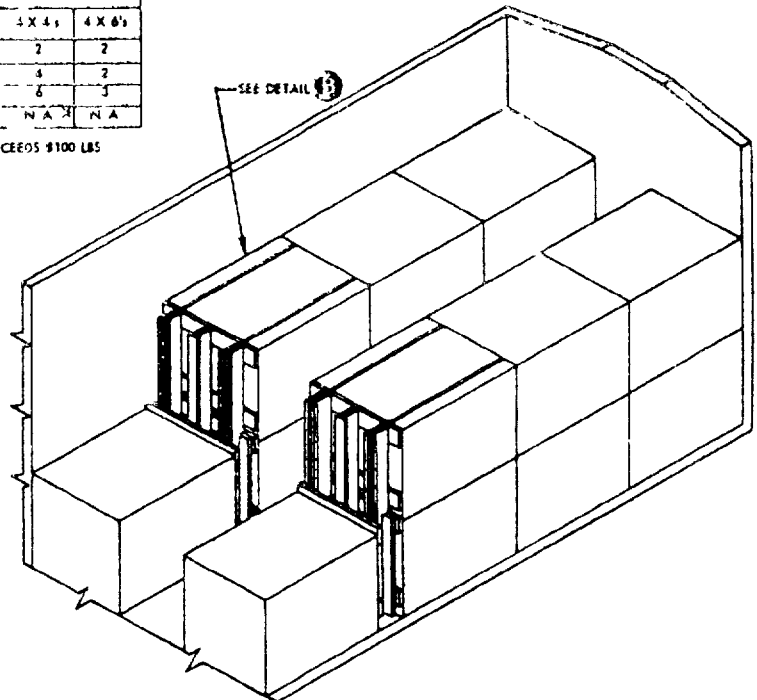
TABLE III

NO. OF U. L.'S IN PARTIAL LAYER ROW	UNIT LOAD HEIGHT (INCHES)	UNIT LOAD WEIGHT (LBS)	TOTAL WT. IN P. RTIAL LAYER ROW (LBS)	NO. OF VERTICALS REQ'D	
				4 X 4's	4 X 6's
1	34 7/8	2700	1700	2	2
2	34 7/8	2700	3400	4	2
3	34 7/8	2700	5100	6	3
4	34 7/8	2700	6800	N/A	N/A

N/A = PROCEDURES NOT APPLICABLE WHEN WEIGHT EXCEEDS 8100 LBS

## NOTE

THIS PARTIAL LAYER EXAMPLE CONSISTS OF APPROVED UNIT LOADS OF SMALL ARMS AMMUNITION BOXES. THE EXAMPLE SHOWN DEPICTS UNIT LOADS AS PER WB-54/11. THE UNIT LOAD IS 34-7/8 INCHES HIGH AND WEIGHS 2700 LBS. WITH THIS DATA AND THE DATA GIVEN IN TABLE I, THE MINIMUM NUMBER OF VERTICALS REQUIRED TO RETAIN A PARTICULAR QUANTITY OF UNIT LOADS IN A PARTIAL LAYER ROW MAY BE OBTAINED AND ARE SHOWN IN TABLE III.

SEE DETAIL 1  
PAGE 6

PARTIAL LAYER RETAINING FRAME STRAPPED TO UNIT LOADS

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## TYPICAL PARTIAL LAYER RETENTION PROCEDURE

TABLE IV

NO. OF U. L.'S IN PARTIAL LAYER ROW	UNIT LOAD HEIGHT (INCHES)	UNIT LOAD WEIGHT (LBS)	TOTAL WT. IN PARTIAL LAYER ROW (LBS)	NO. OF VERTICALS REQ'D	
				4 X 4's	6 X 6's
1	39 3/4	2250	2250	2	2
2	39 3/4	2250	4500	4	3
3	39 3/4	2250	6750	6	4
4	39 3/4	2250	9000	N/A	N/A

N/A = PROCEDURES NOT APPLICABLE WHEN WEIGHT EXCEEDS 9100 LBS

## NOTE

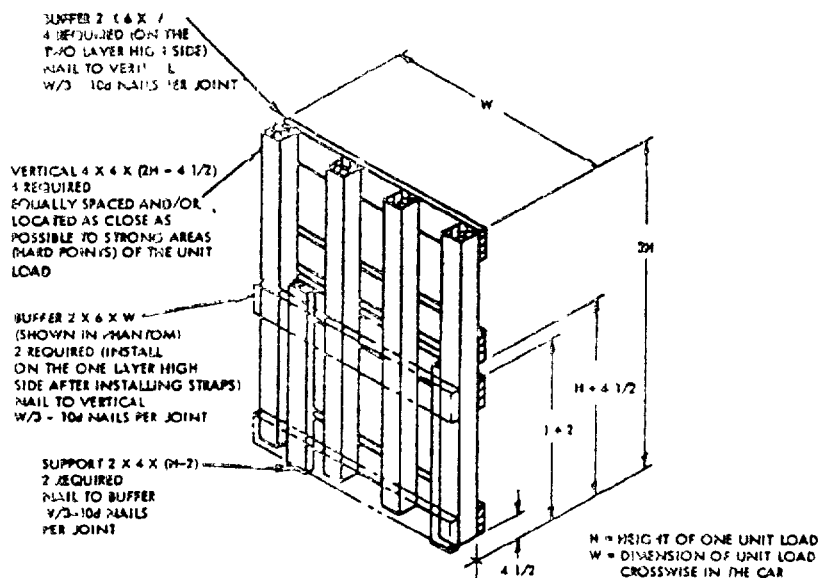
THIS PARTIAL LAYER EXAMPLE CONSISTS OF APPROVED UNIT LOADS OF DRUMS IN STEEL ANGLE FRAME (1-1/2 X 1-1/2 X 1/8 INCH MINIMUM ANGLE SIZE) ADAPTERS. THE EXAMPLE SHOWN DEPICTS UNIT LOADS AS 24 INCH-54/100. THE UNIT LOAD IS 39-3/4 INCHES HIGH AND WEIGHS 2250 LBS. WITH THIS DATA AND THE DATA FROM TABLE I, THE MINIMUM NUMBER OF VERTICALS REQUIRED TO RETAIN A PARTICULAR QUANTITY OF UNIT LOADS IN A PARTIAL LAYER ROW MAY BE OBTAINED AND ARE SHOWN IN TABLE IV.

WHEN RETAINING PARTIAL LAYERS OF DRUM LOADS WITH VERTICAL MEMBERS AND STRAPPING, SEPARATOR GATES (DETAILS G AND H) ARE REQUIRED BETWEEN STACKS OF THE PARTIAL LAYERS AND BETWEEN THE FIRST AND SECOND FULL LAYER STACKS IMMEDIATELY ADJACENT TO THE PARTIAL LAYER RETAINING FRAME AS SHOWN IN THE ISOMETRIC ILLUSTRATION.

SEE DETAIL  
PAGE 7SEE DETAIL  
CSEE DETAIL  
PAGE 7STRAPPING  
1 1/4 IN. 525  
2 REQUIRED1 1/4 INCH STRAP  
3 PER VERTICALSEAL FOR 1 1/4 INCH STRAP  
2 REQUIRED PER STRAPBUPPER 2 x 4 x W  
2 REQUIRED  
INSTALL AFTER STRAPS  
HAVE BEEN POSITIONED  
AND SEALED  
NAIL TO VERTICALS  
#4-10d NAILS PER  
JOINTX DIMENSION OF UNIT LOAD  
TO USE IN THE CABDETAIL  
PAGE 7SEE DETAIL  
PAGE 7

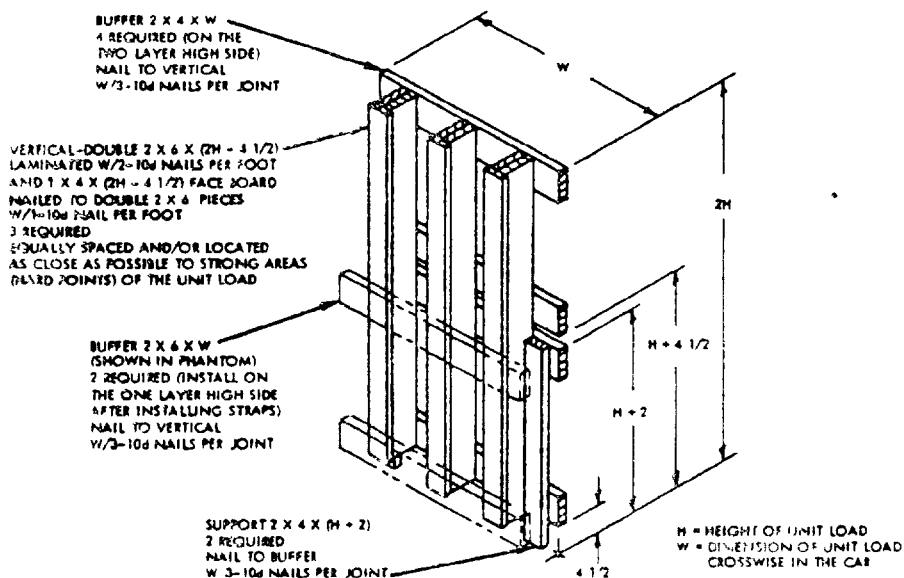
PARTIAL LAYER RETAINING FRAME STRAPPED TO UNIT LOADS

## MIL STD-1325-103A (NAVY)



## DETAIL D

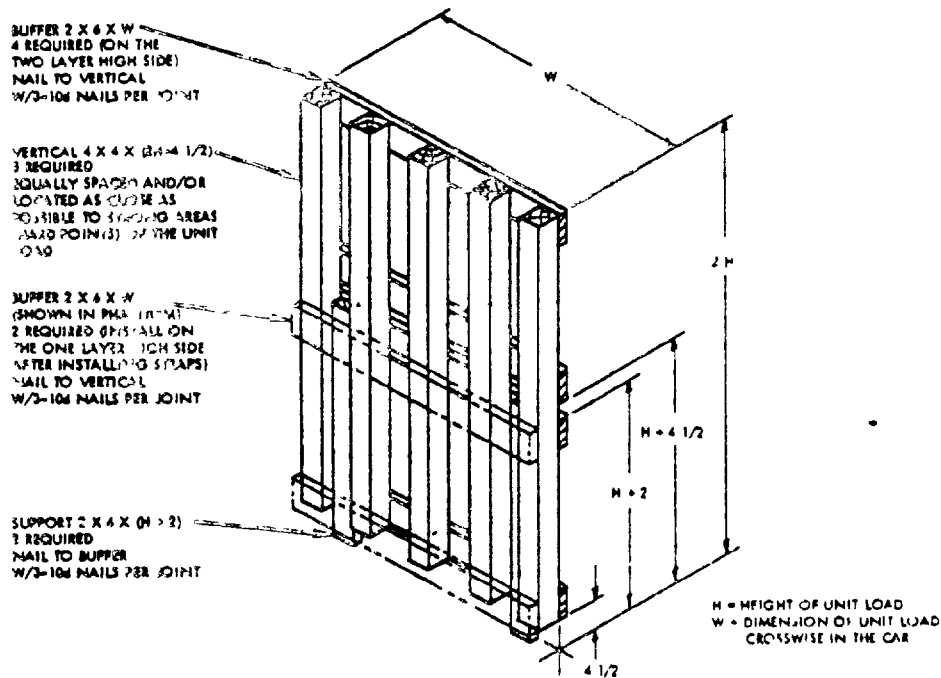
PARTIAL LAYER RETAINING FRAME



## DETAIL E

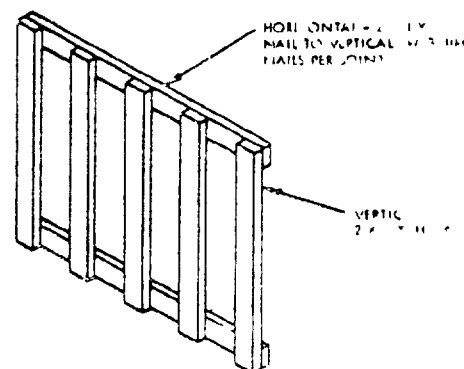
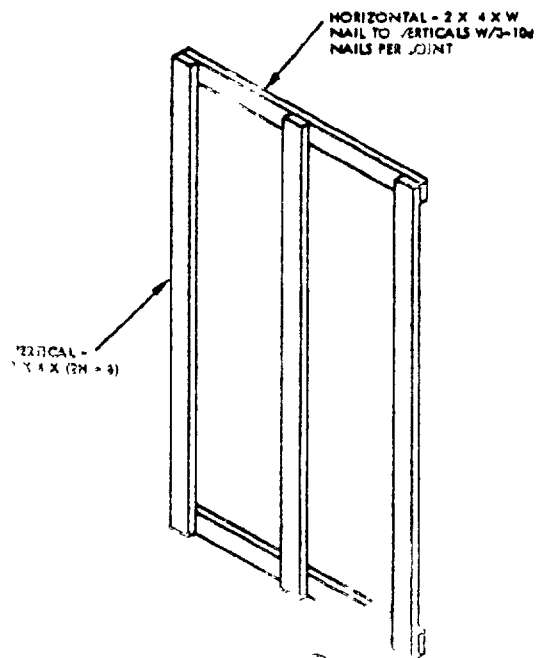
PARTIAL LAYER RETAINING FRAME

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**DETAIL F**

PARTIAL LAYER RETAINING FRAME



**DETAIL H**

PARTIAL LAYER RETAINING FRAME

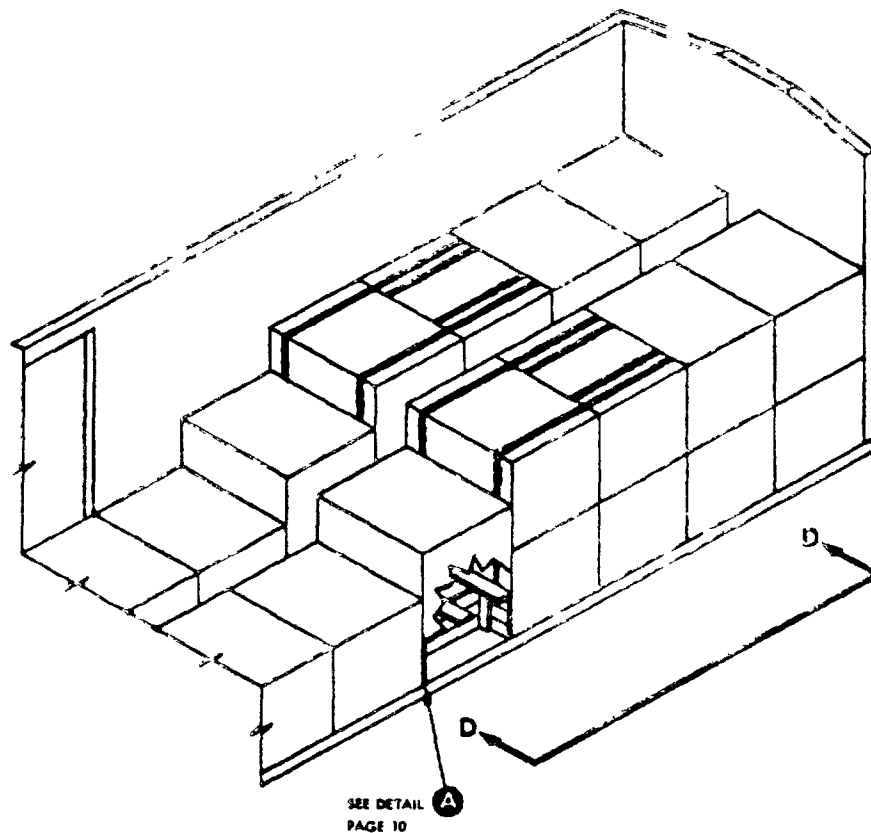
1. 1/2" DIA. NAIL  
2. 1/2" DIA. NAIL

MIL STD 1325-102 A (NAVY)

## PARTIAL LAYER RETENTION PROCEDURES USING A UNIT LOAD ON A HALF HEIGHT RISER

1. THESE PROCEDURES MAY BE USED TO RETAIN AN UPPER PARTIAL LAYER. THE WEIGHT RETAINED IN EACH LAYER ROW MUST NOT EXCEED 2000 LBS. THESE TYPICAL PROCEDURES DEPICT TWO ROWS WITH THE SAME NUMBER OF UNIT LOADS RETAINED IN EACH PARTIAL LAYER ROW. THESE PROCEDURES ARE ALSO APPLICABLE TO CARLOADS HAVING OTHER THAN TWO PARTIAL UPPER LAYER ROWS (1, 3 OR MORE ROWS) AND TO CARLOADS HAVING DISSIMILAR NUMBERS OF UNIT LOADS IN THE PARTIAL UPPER LAYER ROWS.
2. CARLOADS THAT DO HAVE DISSIMILAR NUMBERS OF UNIT LOADS IN THE PARTIAL UPPER LAYER ROWS MUST NOT EXCEED THE WEIGHT LIMITATIONS FOR LONGITUDINAL AND CROSSWISE DISTRIBUTION AS REQUIRED BY MIL-STD-1325 (NAVY) AND THE ASSOCIATION OF AMERICAN RAILROADS (AAR) GENERAL RULES COVERING LOADING OF CARLOAD SHIPMENTS OF COMMODITIES IN CLOSED CARS.
3. EACH STACK MUST HAVE ADEQUATE SWAY BRACING IF THE CROSSWISE VOID EXCEEDS 4-INCHES. CARLOADS HAVING DISSIMILAR NUMBERS OF UNIT LOADS IN THE PARTIAL UPPER LAYER ROWS MUST HAVE THE LONG ROWS SWAY BRACED SO THAT THE LATERAL FORCES ARE CARRIED INTO THE SIDE WALL OF THE CAR (SEE MIL-STD-1325 (NAVY) FOR SWAY BRACING PROCEDURES).
4. ONLY APPROVED UNIT LOADS OF ITEMS IN STRONG METAL OR WOOD BOXES/CONTAINERS THAT WHEN PALLETIZED/UNITIZED HAVE A FULLY DISTRIBUTED HARD SURFACE ON AT LEAST TWO OPPOSITE VERTICAL SIDES MAY BE RETAINED BY THESE PROCEDURES (EXAMPLE: SMALL ARMS BOXES, WOOD BOXES, ETC.).
5. UNIT LOADS MADE UP OF ITEMS WITH IRREGULAR SHAPES AND THOSE THAT REQUIRE PALLET ADAPTERS TO SQUARE UP THE LOAD MAY NOT BE RETAINED BY THESE PROCEDURES (EXAMPLE: PROJECTILES IN MK 11 ADAPTER, UNCRATED DEPTH CHARGE CASE MK 9).
6. ITEMS THAT ARE PACKED IN BOXES/CONTAINERS THAT ARE NOT STRONG ENOUGH TO CARRY THE LONGITUDINAL FORCES TO WHICH THESE PROCEDURES SUBJECT THE UNIT LOAD, WITHOUT RESULTING DAMAGE TO THE UNIT LOAD MAY NOT BE RETAINED BY THESE PROCEDURES (FIBERBOARD BOXES, POLYSTYRENE CONTAINERS, WIRE BOUND CRATES, ETC.).
7. THE TWO STACKS OF THE PARTIAL LAYER ROW NEXT TO THE UNIT LOAD ON THE HALF HEIGHT RISER MUST BE UNITIZED BY STEEL STRAPPING (SEE VIEW D-D). IF ONLY ONE STACK IS BEING HELD BY THE UNIT LOAD ON THE HALF HEIGHT RISER IT MUST BE UNITIZED BY VERTICAL STRAPPING ONLY.

## MIL-STD-1325-102 A (NAVY)



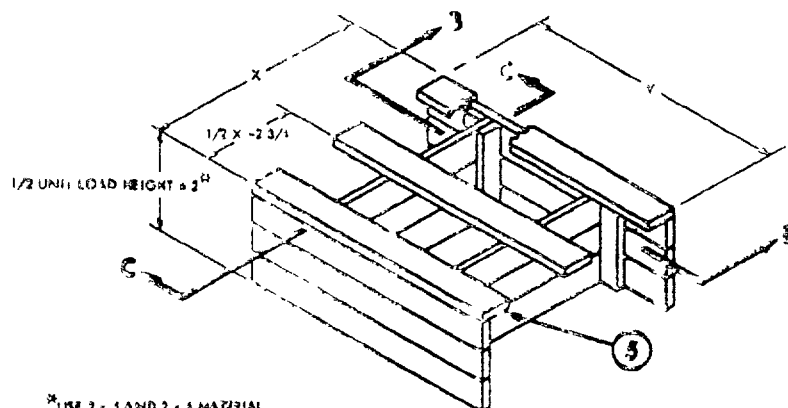
USE 2 x 4 AND 2 x 6 MATERIAL AS REQUIRED TO OBTAIN  
1/2 UNIT LOAD HEIGHT ± 2

SWAY BRACING IS NOT USED FOR  
CLARITY. REFER TO GENERAL  
DOCUMENT MIL-STD-1325 (NAVY)  
FOR DETAILS OF SWAY BRACING  
PROCEDURES.

8	SEAL	1 1/4	2 PER STRAP	-	-	-
7	LONGITUDINAL STRAPPING	1 1/2 x 0.035 x TO SUIT	2 PER ROW	-	-	-
6	VERTICAL STRAPPING	1 1/4 x 0.035 x TO SUIT	2 PER ROW	-	-	-
5	DECK PIECE	2 x 6 x Y	3	3	7	10g
4	LONGITUDINAL SUPPORT TIE PIECE	2 x 4 x H	4	3	2 PER JOINT	10w
3	LONGITUDINAL SUPPORT PIECE	2 x 6 x X	SEE NOTE	-	-	-
2	LATERAL SUPPORT TIE PIECE	2 x 4 x H	4	1	2 PER JOINT	10w
1	LATERAL SUPPORT PIECE	2 x 6 x W	SEE NOTE	3	4	3 PER JOINT 20w
PIECE NO	DESCRIPTION	SIZE	NO. PCS REQ'D	NAIL TO	NUMBER NAILS	SIZE

LIST OF MATERIALS AND PACKAGING DATA

## MIL-STD-1316-102 A (NAVY)

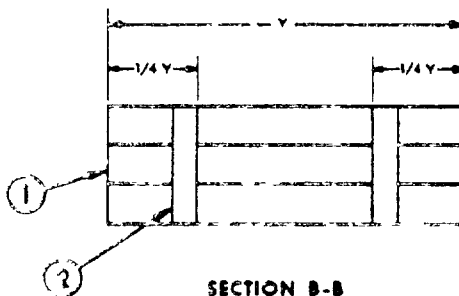


\*USE 2 x 4 AND 2 x 6 MATERIAL  
AS REQUIRED TO OBTAIN  
1/2 UNIT LOAD HEIGHT ± 2

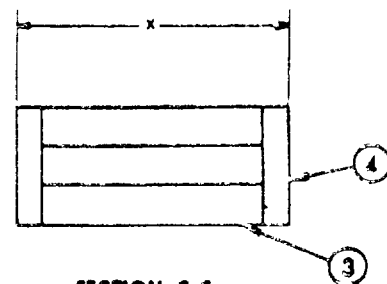
**DETAIL A**

HALF HEIGHT RISER  
1 REQUIRED PER ROW

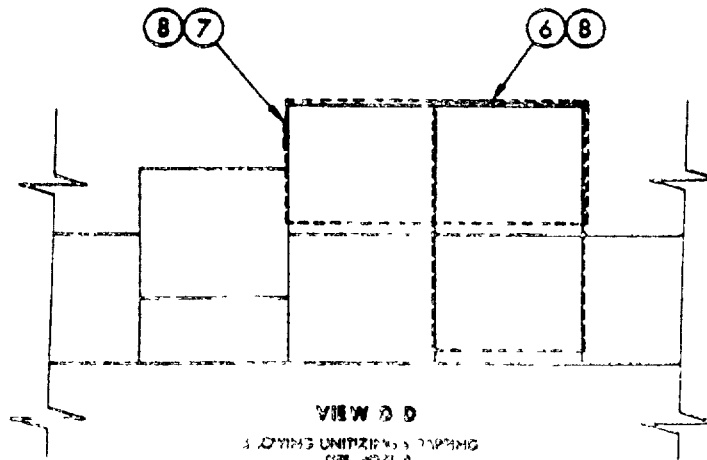
X = UNIT LOAD DIMENSION POSITIONED LENGTHWISE IN THE BOXCM  
Y = UNIT LOAD DIMENSION POSITIONED CROSSWISE IN THE BOXCM



**SECTION B-B**  
(ITEM 5 OMITTED FOR CLARITY)  
LATERAL SUPPORT  
2 REQUIRED PER RISER



**SECTION C-C**  
(ITEM 5 OMITTED FOR CLARITY)  
LONGITUDINAL SUPPORT  
2 REQUIRED PER RISER



**VIEW D-D**  
LOADING UNIT DIMENSIONS SHOWN  
(SEE FIGURE 1)

MIL-STD-1325 102 A (NAT)

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MIL-STD-1323 102 A (NAVY)

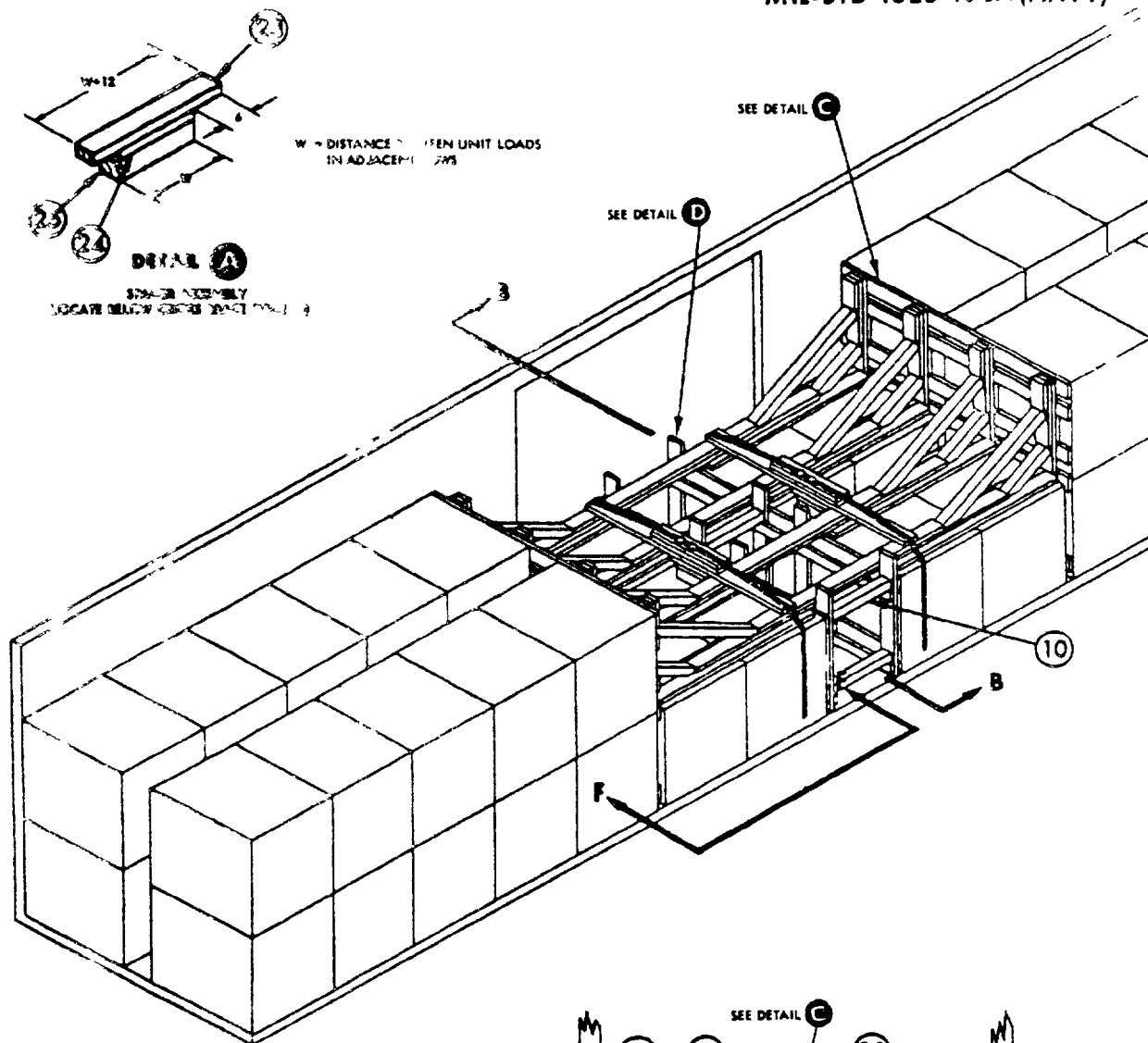
PARTIAL LAYER RETENTION PROCEDURES  
USING KNEE BRACING

1. KNEE BRACING PROCEDURES MAY BE USED TO HOLD PARTIAL LAYERS HAVING A WEIGHT NOT IN EXCESS OF 24,000 LBS EACH END OF THE BOXCAR.
2. A MINIMUM OF 1 TIE DOWN STRAP MUST BE INSTALLED FOR EACH LOWER LAYER UNIT LOAD LOCATED BETWEEN THE LOWER ENDS OF THE LONG DIAGONALS EACH END OF THE CAR. MAXIMUM DISTANCE BETWEEN TIE DOWNS MUST NOT EXCEED 48 INCHES.
3. CENTER GATE AREA OF LOWER LAYER SHALL NOT EXCEED 38 INCHES.
4. DIAGONALS, PIECES 12 AND 13, MUST FORM A 60 DEGREE ANGLE WITH THE VERTICAL MEMBER AND A 30 DEGREE ANGLE WITH THE HORIZONTAL MEMBER PLUS OR MINUS 5 DEGREES. (SEE DETAIL 2.)
5. UNIT LOADS HAVING A HEIGHT GREATER THAN 36 INCHES SHALL HAVE A LONG DIAGONAL HOLD DOWN CLEAT (PIECE 14) 12 INCHES IN LENGTH AND UNIT LOADS HAVING A HEIGHT 36 INCHES OR LESS SHALL HAVE A LONG DIAGONAL HOLD DOWN CLEAT (PIECE 17) 8 INCHES IN LENGTH.

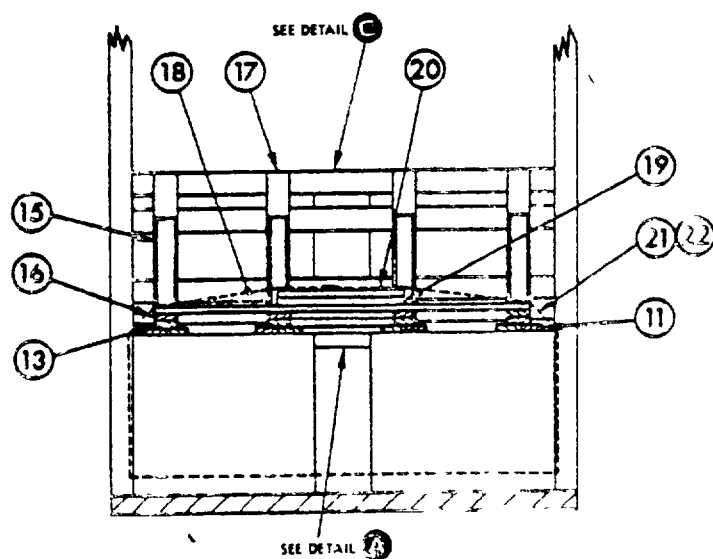
H = HEIGHT OF UNIT LOAD  
H ≤ 36 INCHES FOR UNIT LOADS 36 INCHES HIGH OR LESS  
W = DISTANCE BETWEEN UNIT LOADS IN ADJACENT ROWS

								13	BACK-UP CLEAT	2x6x CUT TO FIT	4	11	2 PER FOOT	10d
25	CROSS BRACE	4x4x W <sup>WMM</sup>	AS REQD	SEE 24	-	-	-	12	SHORT DIAGONAL BRACE	4x4x 20	8	2 & 11	2 EACH END	16d
24	SPACER	2x4x W <sup>WMM</sup>	AS REQD	25	4	16d	-	11	BEARING PIECE	2x6x CUT TO FIT	16	SEE 11	-	-
23	SUPPORT PIECE	2x4x (W + 12) <sup>WMM</sup>	AS REQD	26	4	10d	-	10	STRUT	4x4x WEDGE FIT	8	5	2 PER JOINT	16d
22	SEAL	1 1/4 INCH	2 PER STRAP	-	-	-	-	9	CENTER GATE HOLD DOWN	2x4x CUT TO FIT	4	8	2 PER FOOT	16d
21	HOLD DOWN STRAP	1 1/4 x .035 x LENGTH TO SUIT	AS REQD	SEE NOTE 2				8	CENTER GATE HOLD DOWN	2x4x CUT TO FIT	4	7	2 PER FOOT	10d
20	STRAPPING BOARD	2x6x (DISTANCE BETWEEN U.L. + 18)	AS REQD	19	5	10d	-	7	HOLD DOWN MEMBER	2x4x CAR WIDTH - 1	2	5	3 PER JOINT	10d
19	STRAPPING BOARD	2x6x (DISTANCE BETWEEN U.L. + 18)	AS REQD	18	5	10d	-	6	CENTER GATE STRUT CLEAT	2x4x CAR WIDTH - 1	4	5	3 PER JOINT	10d
18	CROSS BRACE	2x6x CAR WIDTH - 12	AS REQD	16	3 PER JOINT	16d	-	5	CENTER GATE VERTICAL	2x6x (H + 10) <sup>H</sup>	8	SEE 4	-	-
17	HOLD DOWN CLEAT	2x6x 12 <sup>HR</sup>	8	14	5	16d	-	4	CENTER GATE HORIZONTAL	2x6x CAR WIDTH - 1	4	5	3 PER JOINT	10d
16	BACK-UP CLEAT	2x6x CUT TO FIT	4	13	2 PER FOOT	10d	-	3	SPACER	2x6x CUT TO FIT	8	2	2 PER FOOT	10d
15	LONG DIAGONAL BRACE	4x4x 2x (H - 33 1/2) <sup>H</sup>	8	13 & 14	2 EACH END	16d	-	2	KNEE BRACE GATE VERTICAL	2x6x 2 H	8	SEE 1	-	-
14	HOLD-DOWN CLEAT	2x6x (H + 11 1/2) <sup>H</sup>	8	2	12	10d	-	1	KNEE BRACE GATE HORIZONTAL	2x6x CAR WIDTH - 1/2	10	2	3 PER JOINT	10d
PIECE NO	DESCRIPTION	SIZE	NO. PCS REQD	NAIL TO	NUMBER	SIZE		PIECE NO	DESCRIPTION	SIZE	NO. PCS REQD	NAIL TO	NUMBER	SIZE
LIST OF MATERIALS AND NAILING DATA								LIST OF MATERIALS AND NAILING DATA						

MIL-STD-1325-102A (NAVY)



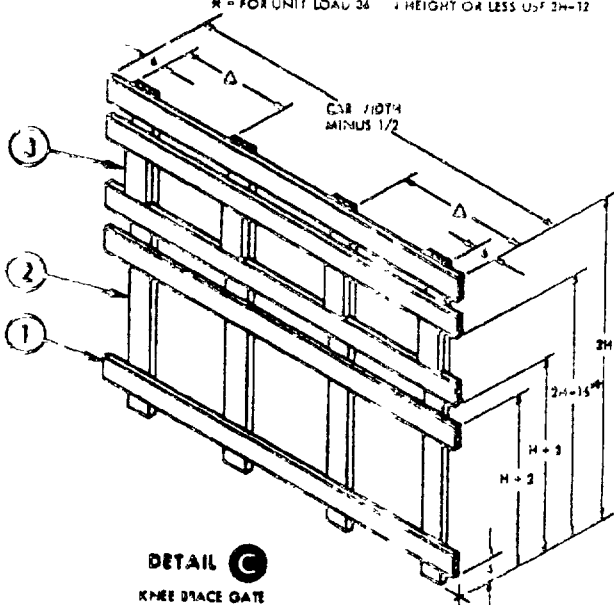
STAY BRACING AND DOORWAY PROTECTION LIMITED FOR CLAMP REFER TO GENERAL DOCUMENT MIL-STD-1325 (NAVY) FOR DETAILS OF THESE PROCEDURES



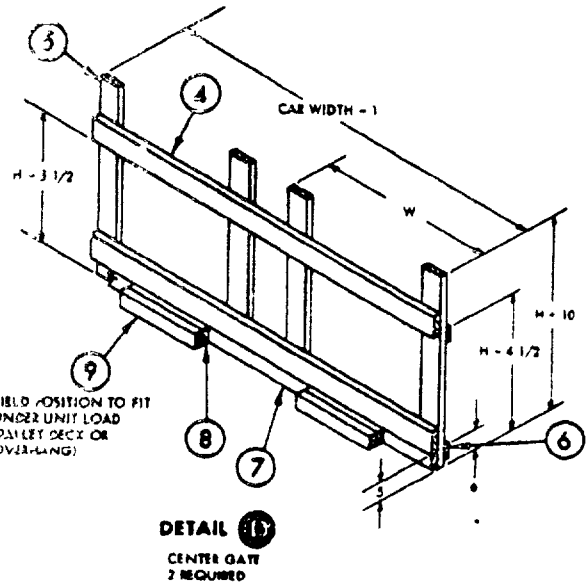
SECTION 3-3

# MIL STD-1323-102A (NAVY)

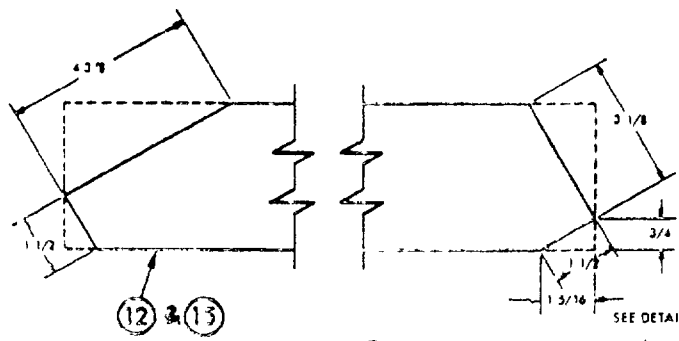
W = DIMENSION OF UNIT LOAD CROSS RISE IN CAR  
 $\Delta$  = U. L. DIMENSION 4 1/2" RISE IN CAR MINUS 1 1/2"  
 H = HEIGHT OF UNIT LOAD  
 H = FOR UNIT LOAD 36" HEIGHT OR LESS USE 2H-12



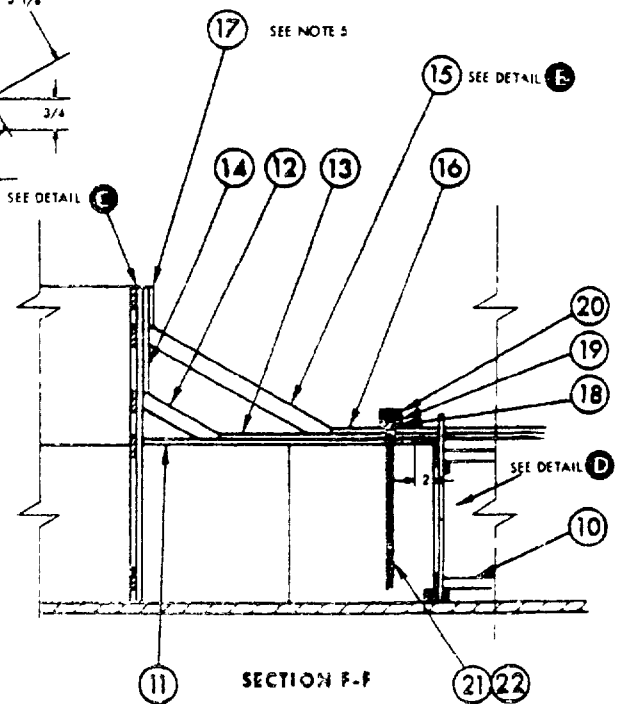
**DETAIL C**  
 KNEE BRACE GATE  
 2 REQUIRED



**DETAIL B**  
 CENTER GATE  
 2 REQUIRED



**DETAIL E**  
 DIAGONAL BRACE  
 60°/30° DIAGONAL CUTS FROM 4 x 4 MATERIAL  
 (3 1/2 x 3 1/2 ACTUAL DIMENSIONS)



**SECTION F-F**

REVISION ACTIVITY  
 NA Y-05

PREPARING ACTIVITY  
 NA Y-05  
 PROJECT NO. 8140-N-327

## STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

OMB Approval  
No 22-R255

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## DOCUMENT IDENTIFIER AND TITLE

MIL-STD-1325-102A (Navy)

## NAME OF ORGANIZATION AND ADDRESS

## CONTRACT NUMBER

## MATERIAL PROCURED UNDER A

☐ DIRECT GOVERNMENT CONTRACT ☐ SUBCONTRACT

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## B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES

## 2 COMMENTS ON ANY DOCUMENT REQUIREMENT CONSIDERED TOO RIGID

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☐ YES ☐ NO (If "Yes", in what way?)

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