

NOTICE OF  
VALIDATION

INCH-POUND

MIL-STD-1325/180(OS)

NOTICE 1

23 February 1989

MILITARY SPECIFICATION

RAILCAR LOADING OF HAZARDOUS MATERIALS  
DISPENSER AND BOMB, AIRCRAFT CBU-59(T-1)/B TRAINING  
IN CONTAINER MK 427 MOD 1 FLEET ISSUE UNIT LOAD

MIL-STD-1325/180(OS) dated 05 APR.1976, has been reviewed and determined to be valid for use in acquisition.

Preparing Activity:  
Navy - OS

AMSC N/A

FSC 8140

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# MILITARY STANDARD

MIL-STD-1325-180

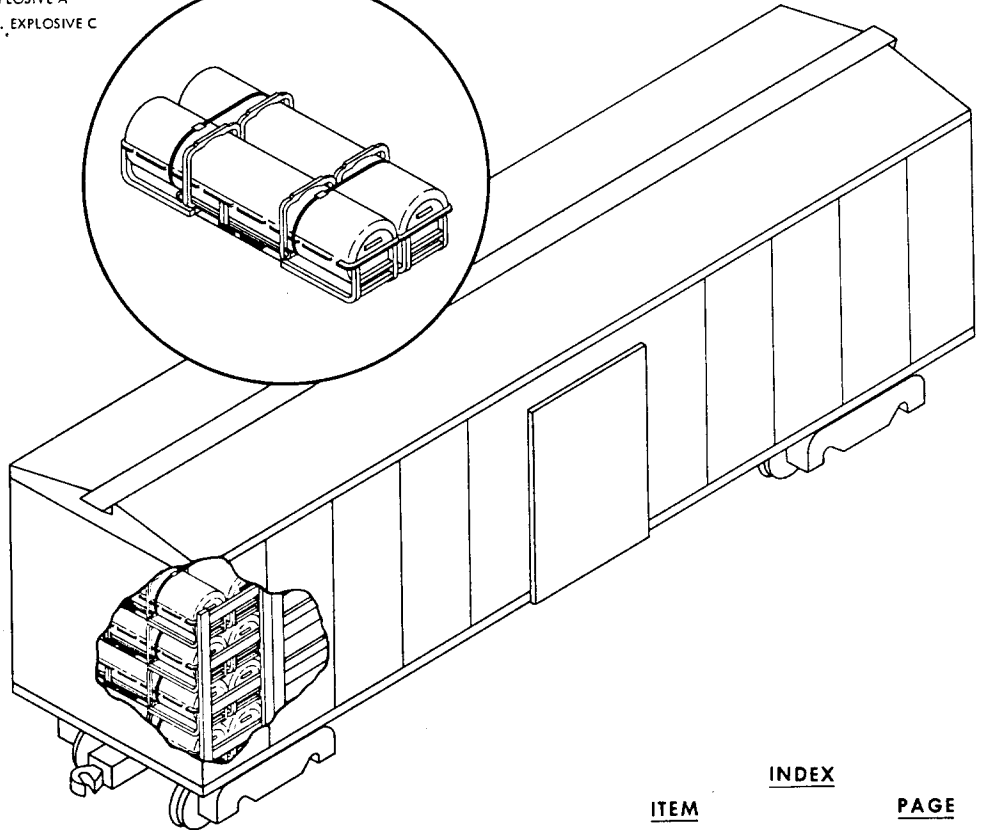
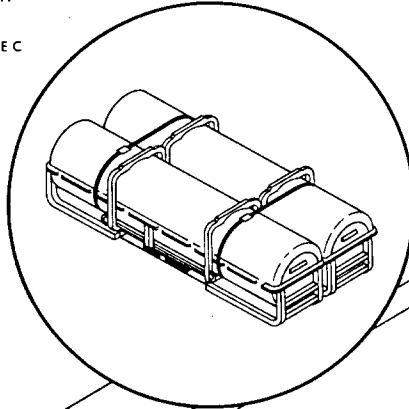
(NAVY)

5 APRIL 1976

## RAILCAR LOADING OF HAZARDOUS MATERIALS DISPENSER AND BOMB, AIRCRAFT CBU-59/B, COMPLETE (APAM) OR DISPENSER AND BOMB, AIRCRAFT CBU-59(T-1)/B TRAINING IN CONTAINER MK 427 MOD 1 FLEET ISSUE UNIT LOAD

### UNIT LOAD DATA

UNIT LOAD DRAWING ..... WR-54/286  
WEIGHT ..... 2386 LBS  
DIMENSIONS ..... 103 L X 47 1/4 W X 26 1/4 H  
STACKING HEIGHT 25 3/4  
CUBE ..... 73.9 CU FT  
DOT HAZARD CLASSIFICATION .....  
CBU - 59/B ... EXPLOSIVE A  
CBU - 59(T-1)/B ... EXPLOSIVE C



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DODX CARLOAD	2 & 3
50'-6" CARLOAD, COM'L	4, 5, & 6

### NOTES:

- UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.
- FOR CROSS REFERENCE TO ASSOCIATED PALLETIZING, TRUCK-LOADING AND CONTAINERLOADING MILITARY STANDARDS, REFER TO INDEX TO STANDARDS MIL-HDBK-236 (NAVY).

FSC 8140

**AUTHORIZED AND RELEASED  
FOR GENERAL USE**

**APPROVED BY BUREAU OF EXPLOSIVES**

*M. F. Grammuck* 3/18/76  
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*M.S. Long NWH* 3/31/76  
SIGNATURE TECHNICAL DIRECTION AGENT (TDA) DATE  
*J.E. Kelly* 4/8/76  
SIGNATURE [AIR] [ORD] SYSCOM, BY DIRECTION DATE

**ORIGINATOR** *Charles Mc Bride* 3/30/76  
SIGNATURE

**NAVAL WEAPONS HANDLING LABORATORY  
N A D EARLE, NEW JERSEY**

PAGE 1 OF 6

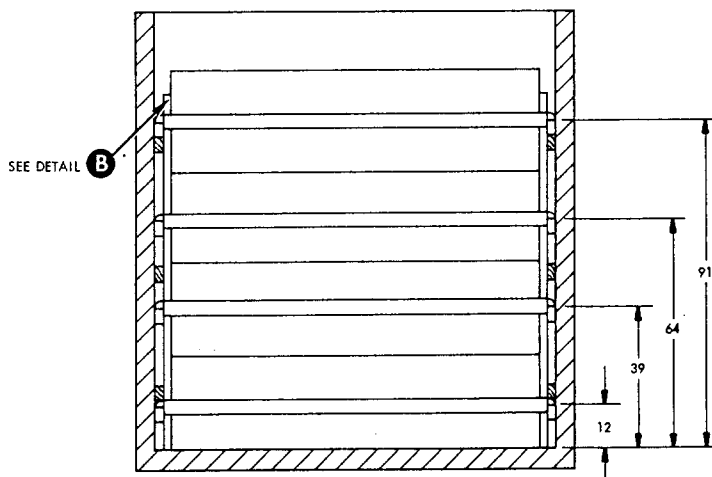
# MIL-STD-1325-180 (NAVY)

## GENERAL NOTES

1. FOR GENERAL INFORMATION CONCERNING ORDERING, INSPECTING, AND PREPARING CARS, AND FOR DUNNAGING MATERIALS, DESIGN, AND INSTALLATION OF DUNNAGE SEE THE GENERAL DOCUMENT MIL-STD-1325 (NAVY) "RAILCAR LOADING OF HAZARDOUS MATERIALS".
2. WHEN PLANNING SHIPMENTS ORDER THE MINIMUM NUMBER OF CARS OF THE CAPACITY REQUIRED FOR THE SHIPMENT. DODX UTILITY LOADER CARS SHALL NOT BE USED FOR ITEMS WITH EXPLOSIVES A OR B HAZARD CLASSIFICATION.
3. LOADING PLANS SHOWN ARE FOR DODX UTILITY LOADER CAR WITH 50 FT 6 INCHES INSIDE LENGTH, 107 3/4 INCHES INSIDE WIDTH BETWEEN RAILS (111 INCHES INSIDE WIDTH BETWEEN SIDE WALLS), AND COMMERCIAL BOXCARS WITH 50 FT 6 INCHES INSIDE LENGTH, 110 INCHES INSIDE WIDTH.
4. 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.
5. IF END WALLS OF CAR ARE NOT SQUARE THEY MUST BE SQUARED OFF BEFORE STARTING TO LOAD CAR.
6. THE LOAD CONSISTS OF AIRCRAFT DISPENSER AND BOMB, CBU-59/B, COMPLETE (APAM) OR AIRCRAFT DISPENSER AND BOMB, CBU-59 (T-1)/B, TRAINING IN CONTAINER MK 427 MOD 1. THE CONTAINERS ARE UNITIZED TWO TO A UNIT LOAD AS SHOWN IN WR-54/286.
7. THE UNIT LOADS ARE HANDLED AND LOADED WITH A SUITABLE FORK LIFT TRUCK.
8. UNLESS OTHERWISE SPECIFIED NAILING SHALL BE IN ACCORDANCE WITH MIL-STD-1325 (NAVY).
9. 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. THE STRAPPING MUST BE IN ACCORDANCE WITH NAVSUP NOTICE 4642 DATED 21 APRIL 1971.
10. APPLICABLE MATERIAL SPECIFICATIONS:
  - DUNNAGE LUMBER - FED SPEC MM-L-751
  - NAILS - FED SPEC FF-N-105
  - STRAPPING - FED SPEC QQ-S-781, TYPE I, HEAVY DUTY, CLASS A, DRY (UNLUBRICATED).
  - SEALS - FED SPEC QQ-S-781, STYLE III, HEAVY DUTY
11. AFTER BLOCKING AND BRACING HAS BEEN INSPECTED ATTACH SHIPPING DOCUMENTS INSIDE THE CAR IN AN ACCESSIBLE AREA, CLOSE AND SEAL BOXCAR DOORS, AND ATTACH APPLICABLE PLACARDS TO THE OUTSIDE OF CAR AS PRESCRIBED IN OP 2165 (VOL 1).

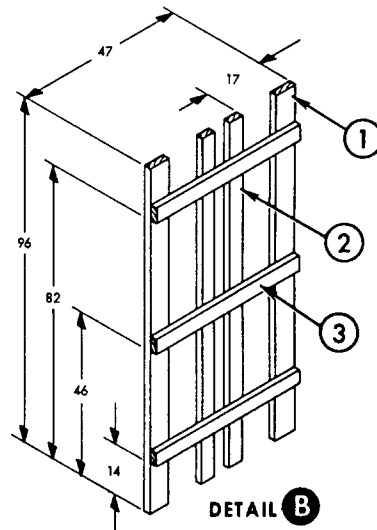
## 50 FT 6 IN. BOXCAR, DODX

1. THE CARLOAD CONSISTS OF 44 UNIT LOADS WHICH MUST BE LOADED AND DUNNAGED IN ACCORDANCE WITH THIS PROCEDURAL DRAWING.
2. A DETAILED DESCRIPTION AND OPERATING INSTRUCTIONS FOR THE UTILITY LOADER ARE CONTAINED IN OP 1750.
3. TO PREVENT UNUSED "DF" EQUIPMENT FROM BECOMING DISLODGED DURING TRANSIT OF DODX CARS SECURE IT AT ANY LOCATION IN THE BOXCAR WHICH WILL NOT INTERFERE WITH UNLOADING.
4. WHEN LESS THAN CARLOAD (LCL) QUANTITIES ARE REQUIRED TO BE SHIPPED IN DODX BOXCARS THE SAME PROCEDURES AND METHODS OF BLOCKING ARE APPLICABLE. ANY BAYS OR PORTION THEREOF MAY BE USED PROVIDING THE WEIGHT DISTRIBUTION REQUIREMENTS OF THE AAR ARE COMPLIED WITH, SEE MIL-STD-1325 (NAVY). EACH CROSSMEMBER WILL BE USED IN SUCH A MANNER THAT IT WILL RETAIN NOT MORE THAN 2400 LBS OF THE LADING.



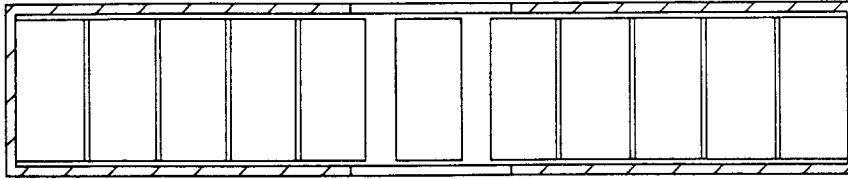
SECTION A-A

SHOWING LOCATIONS OF WALL MEMBERS  
USED FOR CROSSMEMBERS

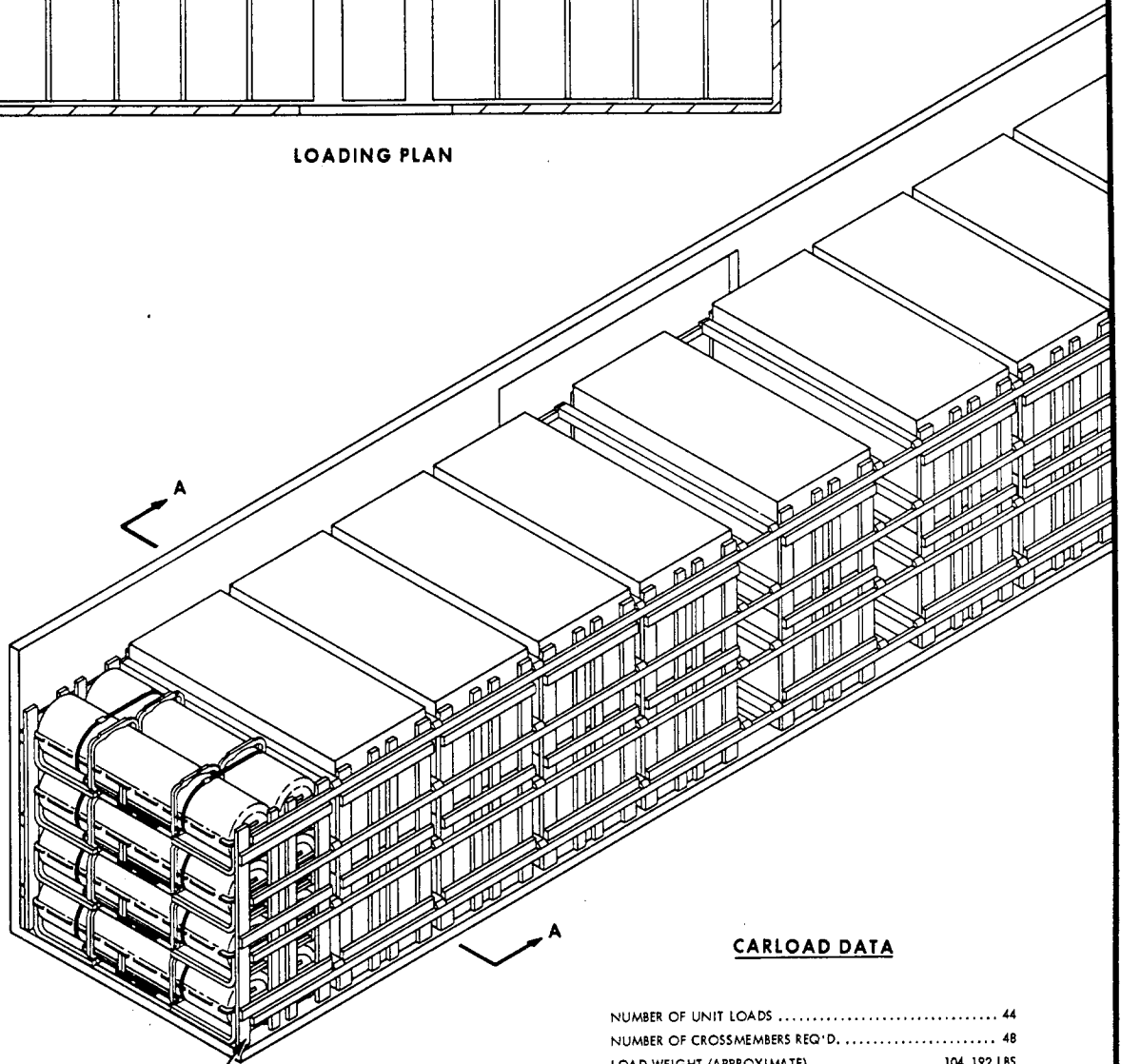


DETAIL B

SWAY BRACE  
22 REQUIRED



LOADING PLAN



SEE DETAIL **B**

**CARLOAD DATA**

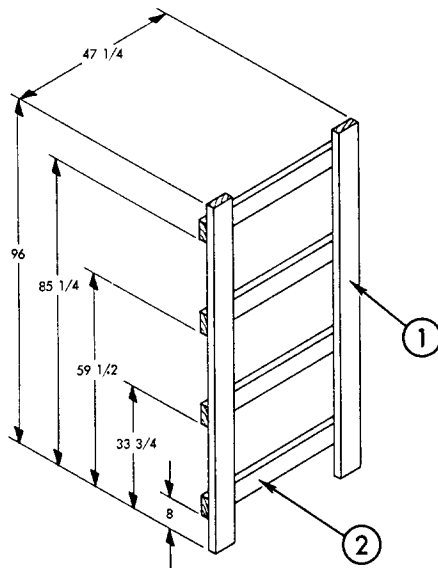
NUMBER OF UNIT LOADS ..... 44  
 NUMBER OF CROSSMEMBERS REQ'D. .... 48  
 LOAD WEIGHT (APPROXIMATE) ..... 104,192 LBS  
 DUNNAGE WEIGHT (APPROXIMATE) ..... 1,878 LBS  
 CARLOAD WEIGHT (APPROXIMATE) ..... 106,070 LBS

3	SWAY BRACE HORIZONTAL	2 X 4 X 46	66	SEE 1, 2	-	-
2	SWAY BRACE VERTICAL	2 X 4 X 96	44	3	3/JOINT	10d
1	SWAY BRACE VERTICAL	2 X 6 X 96	44	3	3/JOINT	10d
PIECE NO.	DESCRIPTION	SIZE	NO. OF PIECES REQ'D	NAIL TO	NUMBER NAILS	SIZE
LIST OF MATERIALS & NAILING DATA						

MIL-STD-1325-180 (NAVY)

50 FT 6 IN. BOXCAR, COMMERCIAL

1. THE CARLOAD CONSISTS OF 48 UNIT LOADS WHICH MUST BE LOADED AND DUNNAGED IN ACCORDANCE WITH THIS PROCEDURAL DRAWING.
2. WHEN LESS THAN CARLOAD (LCL) QUANTITIES ARE REQUIRED TO BE SHIPPED IN COMMERCIAL BOXCARS AND A PARTIAL LAYER RESULTS, THE PARTIAL LAYER OF LADING SHALL BE BRACED BY MEANS OF END BRACING AND/OR PARTIAL LAYER BRACING CONSTRUCTED IN ACCORDANCE WITH MIL-STD-1325-100 (NAVY) OR PARTIAL UPPER LAYER BRACING IN ACCORDANCE WITH MIL-STD-1325-102 (NAVY). SELECT THE TYPE OF BRACE TO COMPLY WITH THE WEIGHT OF THE UNITS TO BE RETAINED. THE WEIGHT DISTRIBUTION REQUIREMENTS OF THE AAR MUST BE COMPLIED WITH, SEE MIL-STD-1325 (NAVY).
3. THE LOADS AS SHOWN ARE BASED ON CARS WHICH HAVE 10 FT WIDE DOORWAY OPENINGS AND ARE EQUIPPED WITH CONVENTIONAL SLIDING TYPE DOORS. THE DEPICTED PROCEDURES AND METHODS OF BLOCKING ARE APPLICABLE TO BOXCARS EQUIPPED WITH CONVENTIONAL SLIDING TYPE DOORS OTHER THAN 10 FT WIDE.
4. THE DEPICTED PROCEDURES AND METHODS OF BLOCKING ARE ALSO APPLICABLE TO BOXCARS EQUIPPED WITH PLUG TYPE DOORS. STACKS WITH MORE THAN HALF OF THE UNIT LOAD IN THE DOORWAY AREA MUST HAVE THE SWAY BRACE EACH SIDE OF THE STACK SECURED TO THE STACK WITH TWO LATERALLY APPLIED 1 1/4 IN STEEL STRAPS PER STACK, EACH TENSIONED AND SEALED WITH TWO DOUBLE CRIMPED SEALS. IF THE CAR FLOOR IS NOT A NAILABLE FLOOR DOORWAY PROTECTION AS PER MIL-STD-1325 (NAVY) IS REQUIRED. CLOSE DOORS SECURELY AND WIRE TOGETHER WITH A FLEXIBLE STRONG STEEL WIRE INSERTED THROUGH THE HOLES IN THE DOOR LATCH ASSEMBLY ONE OR MORE TIMES AND THE WIRE ENDS TWISTED TOGETHER.
5. WHEN BOXCARS WIDER THAN 9 FT 2 IN ARE USED, INCREASE THE THICKNESS OF PIECE 1 BY LAMINATING AN APPROPRIATELY THICK PIECE TO IT. IF THE WIDTH OF BOXCARS USED IS LESS THAN 9 FT 2 IN DECREASE THE THICKNESS OF PIECE 1 AS NECESSARY.



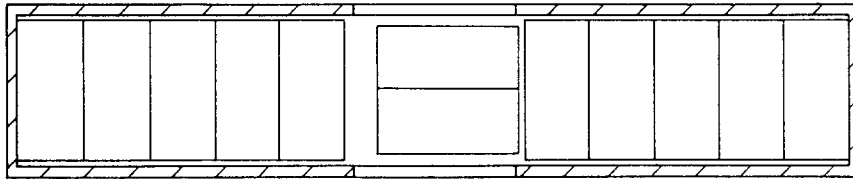
**DETAIL A**  
SWAY BRACE  
20 REQUIRED

\* 2 X 6 STRUTS DOUBLED AND LAMINATED WITH 10d NAILS MAY BE SUBSTITUTED IN PLACE OF 4 X 4'S...

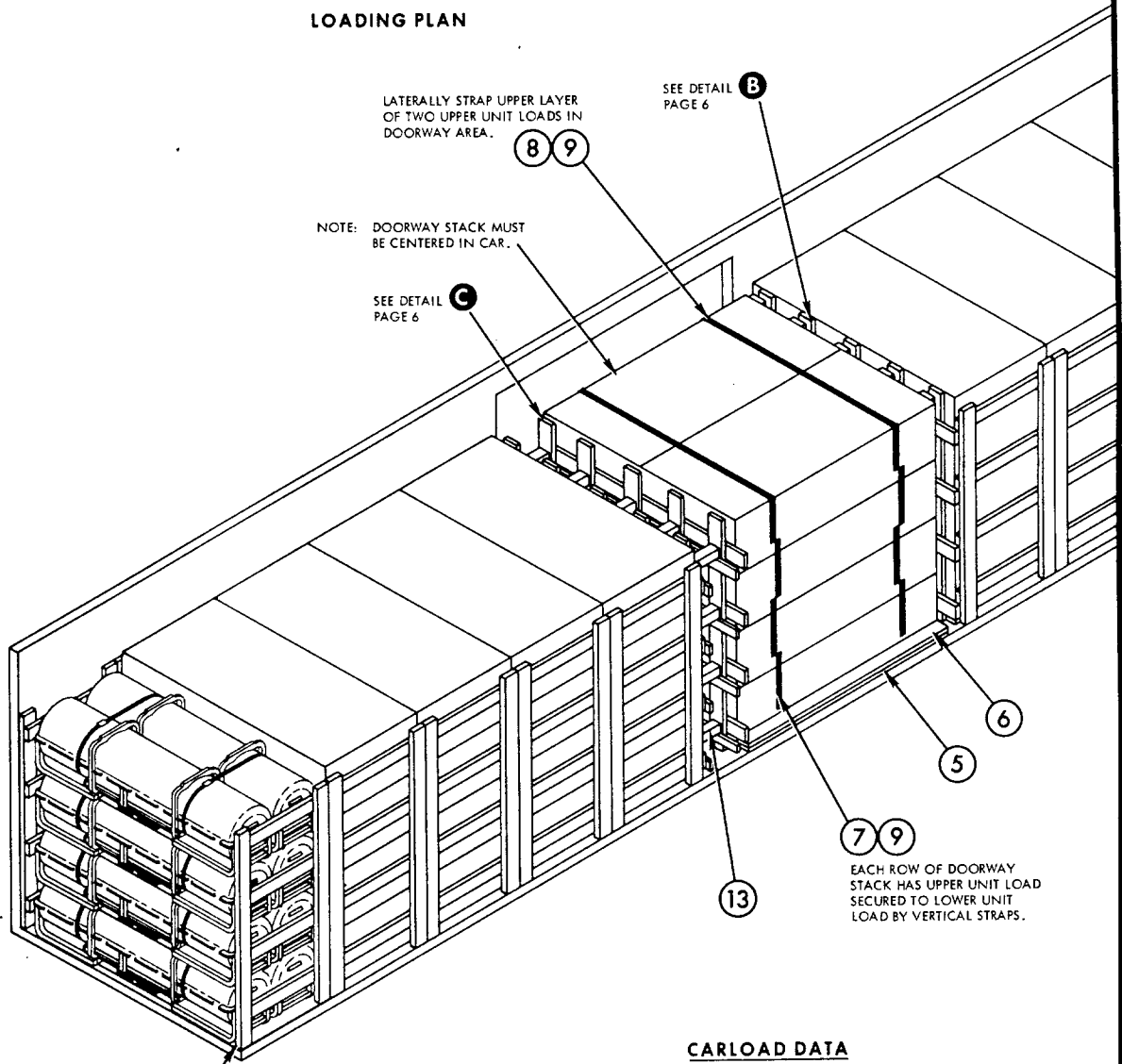
\*\* WHEN BOXCAR HAS A NON-NAILABLE FLOOR DOORWAY PROTECTION AS PER MIL-STD-1325 (NAVY) IS REQUIRED.

14	CENTER GATE HOLD DOWN	2 X 3 X 48	2	11	2 PER JOINT	10d
13	STRUT	4 X 4 X WEDGE FIT *	20	11	2 PER JOINT	16d
12	CENTER GATE STRUT CLEAT	2 X 4 X CAR WIDTH - 1	8	11	3 PER JOINT	10d
11	CENTER GATE VERTICAL	2 X 6 X 104	10	SEE 10	-	-
10	CENTER GATE HORIZONTAL	2 X 6 X CAR WIDTH - 1	8	11	3 PER JOINT	10d
9	SEAL	1 1/4	28	-	-	-
8	HORIZONTAL STRAP	1 1/4 X .035 X 22 FT	2	-	-	-
7	VERTICAL STRAP	1 1/4 X .035 X 12 FT 6	12	-	-	-
6	SLEEPER	2 X 6 X 103	2	5	1 PER FOOT	16d
5	SLEEPER	2 X 6 X 103	2	CAR** FLOOR	1 PER FOOT	16d
4	SEPARATOR GATE HORIZONTAL	2 X 6 X CAR WIDTH - 1	4	SEE 3	-	-
3	SEPARATOR GATE VERTICAL	2 X 6 X 104	10	4	3 PER JOINT	10d
2	SWAY BRACE HORIZONTAL	2 X 6 X 47 1/4	80	1	3 PER JOINT	10d
1	SWAY BRACE VERTICAL	2 X 6 X 96	40	SEE 2	-	-
PIECE NO.	DESCRIPTION	SIZE	NO. OF PIECES REQ'D	NAIL TO	NUMBER	SIZE
					NAILS	

LIST OF MATERIALS & NAILING DATA



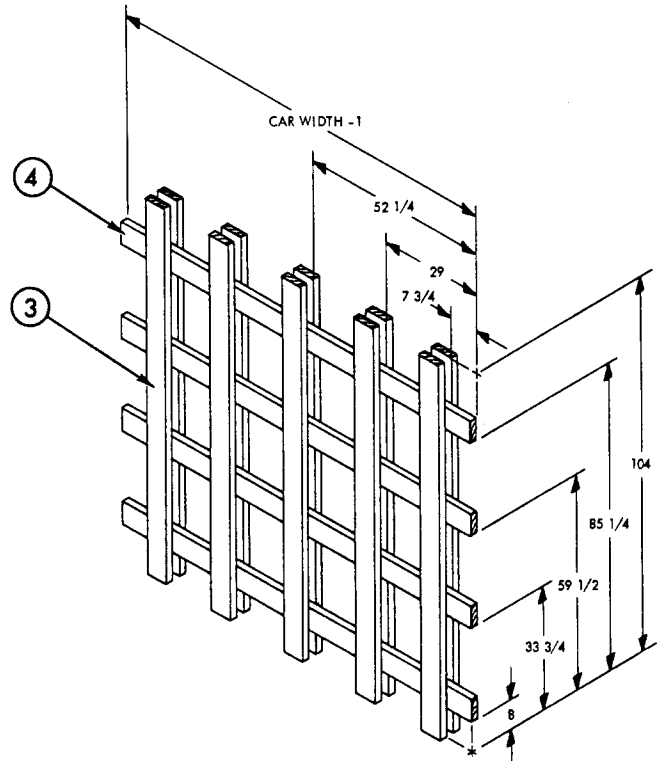
LOADING PLAN



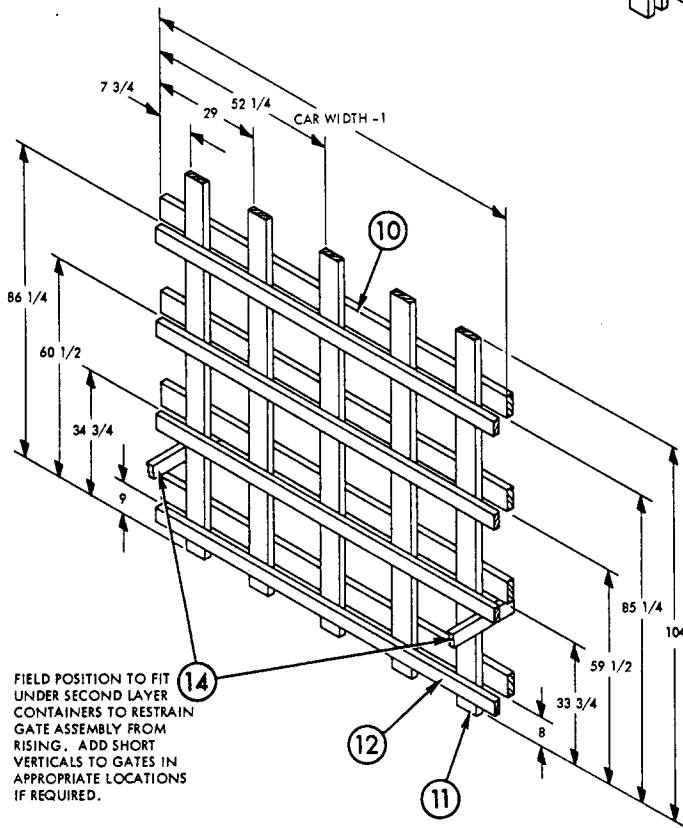
CARLOAD DATA

NUMBER OF UNIT LOADS .....	48
LOAD WIEGHT (APPROXIMATE) .....	113,664 LBS
DUNNAGE WEIGHT (APPROXIMAGE) .....	2,645 LBS
CARLOAD WEIGHT (APPROXIMATE) .....	116,309 LBS

MIL-STD-1325-180 (NAVY)



**DETAIL B**  
SEPARATOR GATE  
1 REQUIRED



FIELD POSITION TO FIT UNDER SECOND LAYER CONTAINERS TO RESTRAIN GATE ASSEMBLY FROM RISING. ADD SHORT VERTICALS TO GATES IN APPROPRIATE LOCATIONS IF REQUIRED.

**DETAIL C**  
CENTER GATE  
2 REQUIRED

REVIEW ACTIVITY:  
NAVY - OS, AS

PREPARING ACTIVITY:  
NAVY - OS  
(PROJECT NO. 8140-N314)