

MILITARY STANDARD

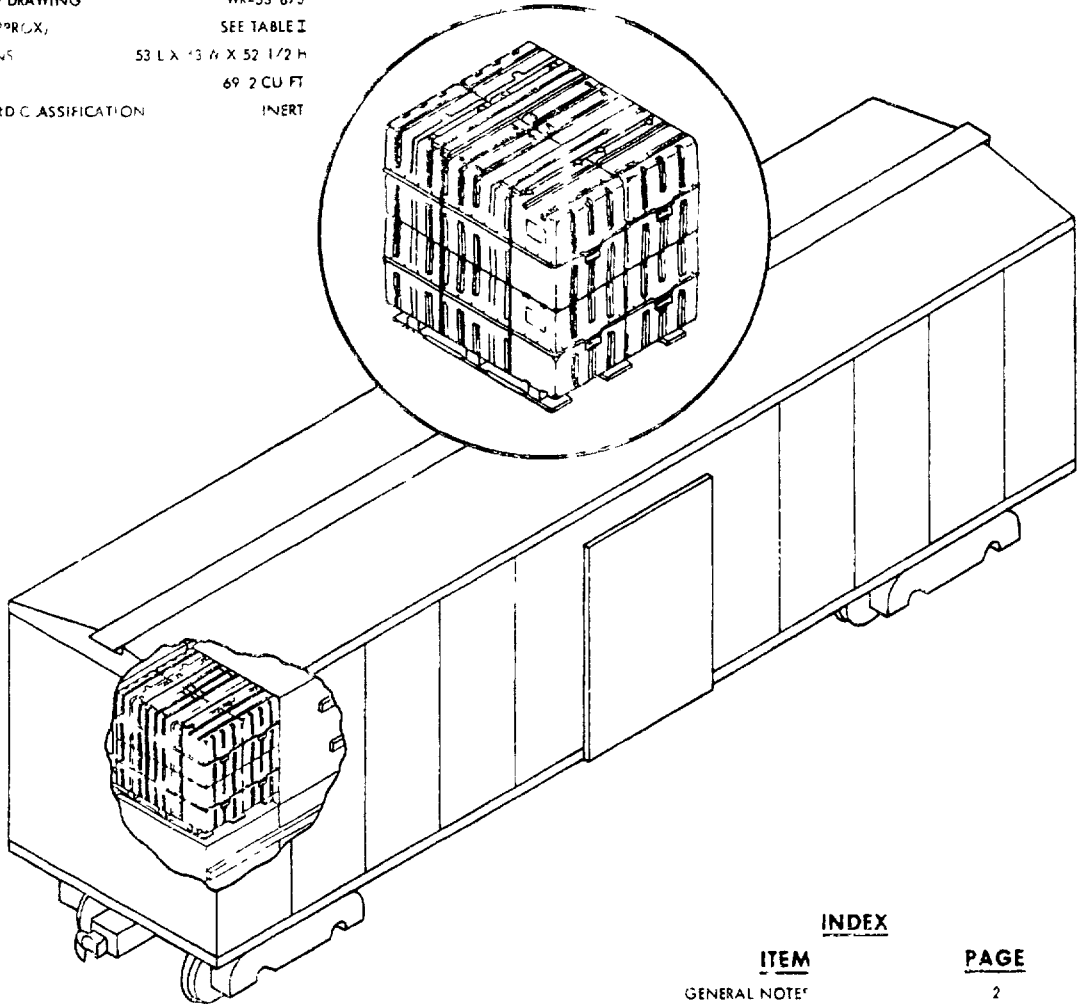
MIL-STD-1325-185
(NAVY)

RAILCAR LOADING OF HAZARDOUS MATERIALS
ALUMINUM MK 4 MOD 0, MK 5 MOD 0, OR MK 8 MOD 0 OR 1 (ASROC)
IN CONTAINER MK 321 MOD 0 OR 1

7 OCTOBER 1976

UNIT LOADING DATA

UNIT LOAD DRAWING WR-53'873
WEIGHT APPROX. SEE TABLE I
DIMENSIONS 53 L X 13 W X 52 1/2 H
CUBE 69.2 CU FT
DOT HAZARD CLASSIFICATION INERT



INDEX

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GENERAL NOTES	2
DODX CARLOAD	2, 3
40' - 6 CARLOAD, COM L	4, 5, 6
50' - 6 CARLOAD, COM L	8, 9, 10

NOTES

- UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
- FOR CROSS REFERENCE TO ASSOCIATED PALLETIZING, TRUCKLOADING 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
NOT APPLICABLE

[Handwritten signature]
10/25/76
DATE

SIGNATURE SUPERVISOR MILITARY AND INTERMODEL SERVICE DATE
ORIGINATOR *[Handwritten signature]* 10/25/76 DATE
NAVAL WEAPONS HANDLING CENTER
WPNSTA EARLE NEW JERSEY

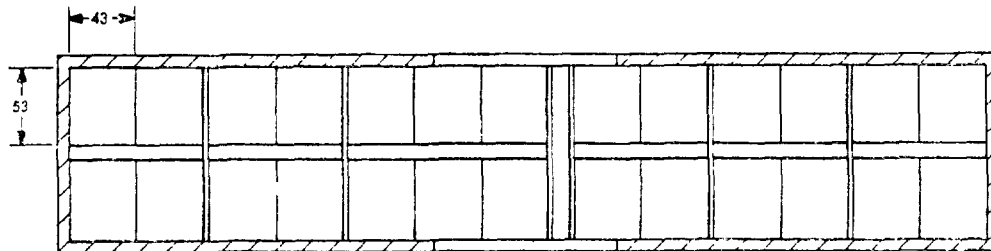
MIL-STD-1325-133 (NAVY)

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 LOADS OF DIVERSE MATERIALS
- 2 WHEN PLANNING SHIPMENTS ORDER THE MINIMUM NUMBER OF CARS OF THE CAPACITY REQUIRED FOR THE SHIPMENT. UTILITY LOADER CARS SHALL BE SERIES DODX 29000
- 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), COMMERCIAL BOXCARS WITH 40 FT 6 INCHES INSIDE LENGTH, 110 INCHES INSIDE WIDTH, 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 CARS ARE NOT SQUARE THEY MUST BE SQUARED OFF BEFORE STARTING TO LOAD CAR
- 6 THE LOAD CONSISTS OF AIR FRAME MK 4 MOD 0, MK 5 MOD 0, OR MF 8 MOD 0 OR 1 (ASROC) IN CONTAINER MF 321 MOD 0 OR 1 PALLETIZED IN ACCORDANCE WITH WR-53/873
- 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 NCTICL 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 I)

50 FT 6 IN BOXCAR, DODX

- 1 THE CARLOAD CONSISTS OF 52 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 CAR ARE COMPLIED WITH, SEE MIL-STD-1325 (NAVY). EACH CROSSMEMBER WILL BE USED IN SUCH A MANNER THAT IT WILL RETAIN NOT MORE THAN 2000 LBS OF THE LADING



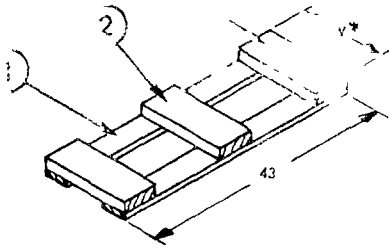
LOADING PLAN

- * - PIECE 1 NAILS TO PIECE 2 WITH 10d NAILS, CLINCHED, 3 PER JOINT
- ** W = DISTANCE BETWEEN LEGS OF PALLET ACROSS THE CAR

4	SEAL	3/4	6	-	-	-
3	SWAY BRACE STRAP STOP	3/4 X .035 X 7 FT	6	-	-	-
2	CROSS BRACE	2 X 6 X W**	78	SEE 1	-	-
1	SWAY BRACE LONGITUDINAL	1 X 4 X 43	52	2	SEE NOTE	*
PIECE NO.	DESCRIPTION	SIZE	NO. OF PIECES REQ'D	NAIL TO	NUMBER	SIZE
LIST OF MATERIALS & NAILING DATA						

MIL-STD-1325-185 (NAVY)

CROSS SECTIONAL VIEW
ALTERNATE POSITION



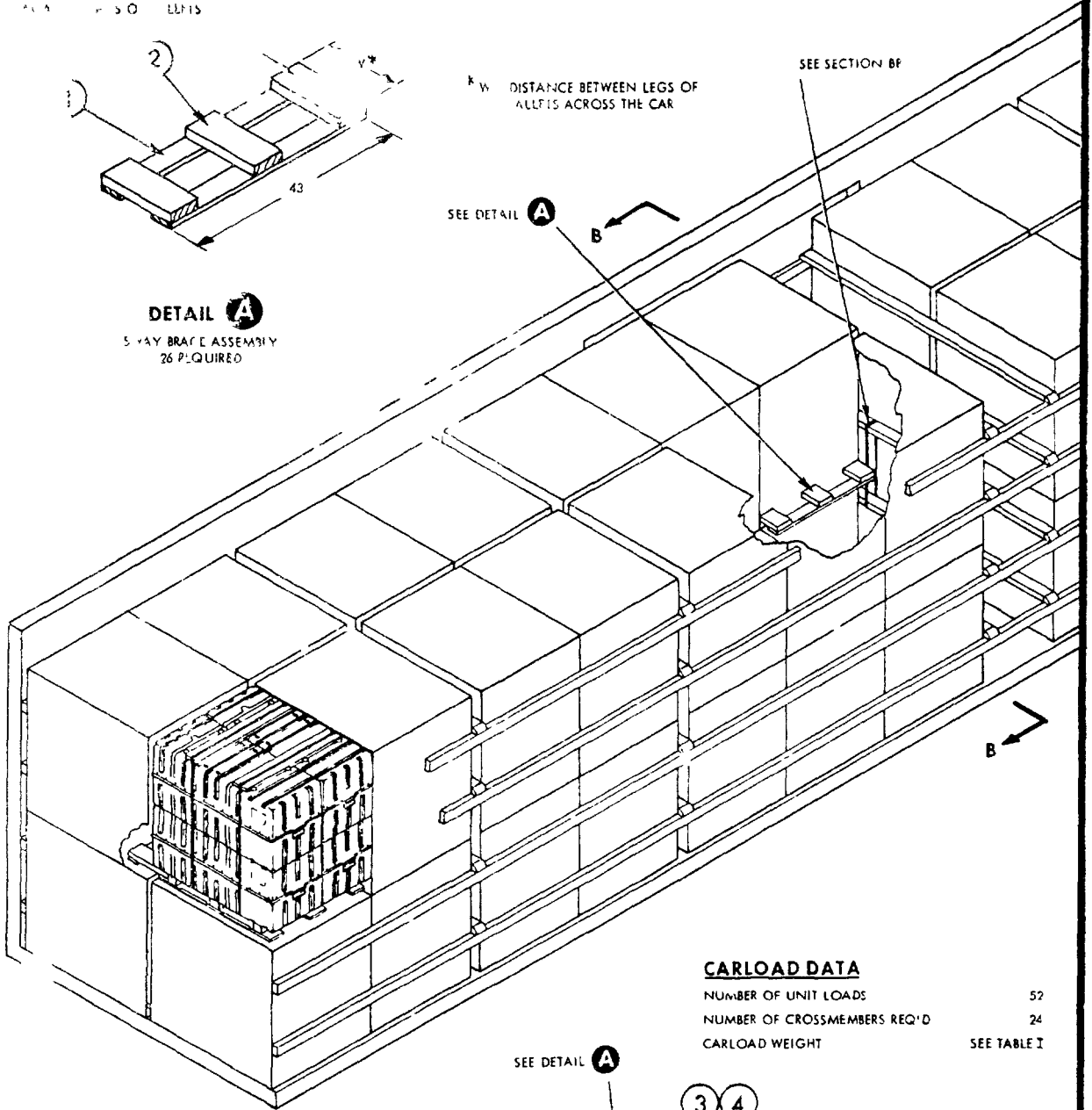
DETAIL A

5-WAY BRACE ASSEMBLY
26 REQUIRED

R W DISTANCE BETWEEN LEGS OF
ALLIES ACROSS THE CAR

SEE SECTION BF

SEE DETAIL A



CARLOAD DATA

NUMBER OF UNIT LOADS	52
NUMBER OF CROSSMEMBERS REQ'D	24
CARLOAD WEIGHT	SEE TABLE I

SEE DETAIL A

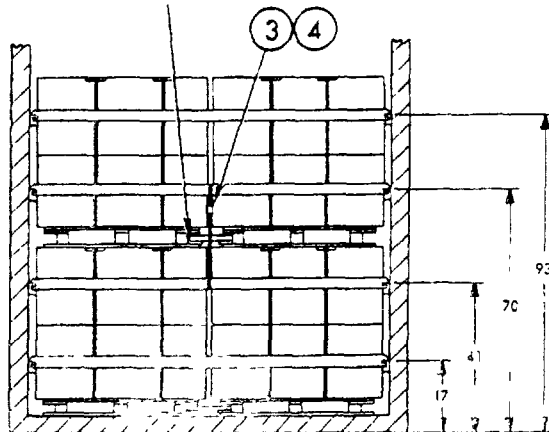


TABLE I

DODIC N.A.L.C.	AIR FRAME	UNIT LOAD WT (LBS APPROX)	CARLOAD WT (LBS APPROX)
GW 06	MK 8 MOD 1	519	27274
TA 06	MK 8 MOD 0	519	27274
TY 06	MK 5 MOD 0	571	27378
T 251	MK 4 MOD 0	615	32263

ESTIMATED WEIGHT OF DUMPAGE .26 LBS INCLUDED IN CARLOAD WEIGHT

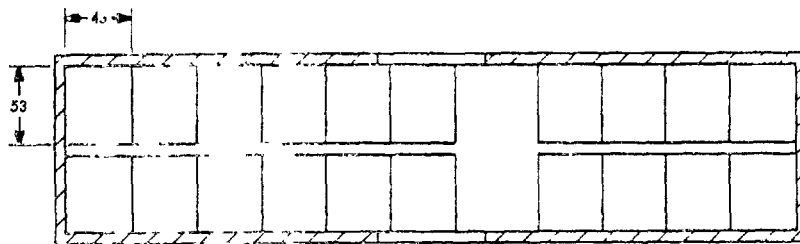
SECTION 3-3

SHOWS LOCATION OF WALL MEMBERS AND
CROSSMEMBERS REQUIRED FOR CROSS MEMBERS

MIL-STD-1325-100 (NAVY)

40 FT 6 IN BOXCAR, COMMERCIAL

- 1 THE CARLOAD OF THIS TYPE OF UNITS SHALL BE LOADED AND DUNNAGED IN ACCORDANCE WITH THIS PROCEDURAL DRAWING
- 2 WHEN LESS THAN CARLOAD (FULL) 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 6 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 6 FT WIDE



LOADING PLAN

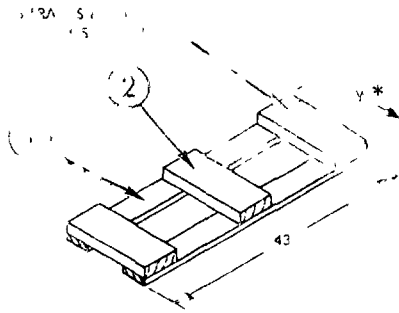
* PIECE 1 NAILS TO PIECE 2 WITH 10d NAILS, CLINCHED, 3 PER JOINT

** W = DISTANCE BETWEEN LEGS OF PALLET ACROSS THE CAR

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

14	HORIZONTAL DOORWAY MEMBER	2 X 4 Y DOOR WIDTH	8	13	2 PER JOINT	10d
13	VERTICAL DOORWAY MEMBER	2 X 3 X 108	4	DOOR POST	2 PER FOOT	20d
12	VERTICAL TIE BAR	2 X 4 X 96	4	10	3 PER JOINT	10d
11	HORIZONTAL TIE BAR	2 X 4 X 108	4	10	3 PER JOINT	10d
10	STRUT	4 X 4 X *** WEDGE FIT	16	4	2 PER JOINT	16d
9	SWAY BRACE STOP	2 X 4 X 18	2	4	2 PER JOINT	10d
8	HOLD DOWN	2 X 2 1/2 X TO SUIT	4	7	4	10d
7	HOLD DOWN	2 X 2 1/2 X TO SUIT	4	6	4	10d
6	HOLDDOWN SPACER	2 X 4 X CAR WIDTH - 1	2	4	3 PER JOINT	10d
5	CENTER GATE STRUT CLEAT	2 X 4 X CAR WIDTH - 1	8	4	3 PER JOINT	10d
4	CENTER GATE VERTICAL	2 X 6 X 108	8	SEE 3	-	-
3	CENTER GATE HORIZONTAL	2 X 6 X CAR WIDTH - 1	8	4	3 PER JOINT	10d
2	CROSS BRACE	2 X 6 X W ***	60	SEE 1	-	-
1	SWAY BRACE LONGITUDINAL	1 X 4 X 43	40	2	SEE NOTE	*
PIECE NO	DESCRIPTION	SIZE	NO OF PIECES REQ'D	NAIL TO	NUMBER NAILS	SIZE
LIST OF MATERIALS & NAILING DATA						

MIL-STD-1325-18 (1977)

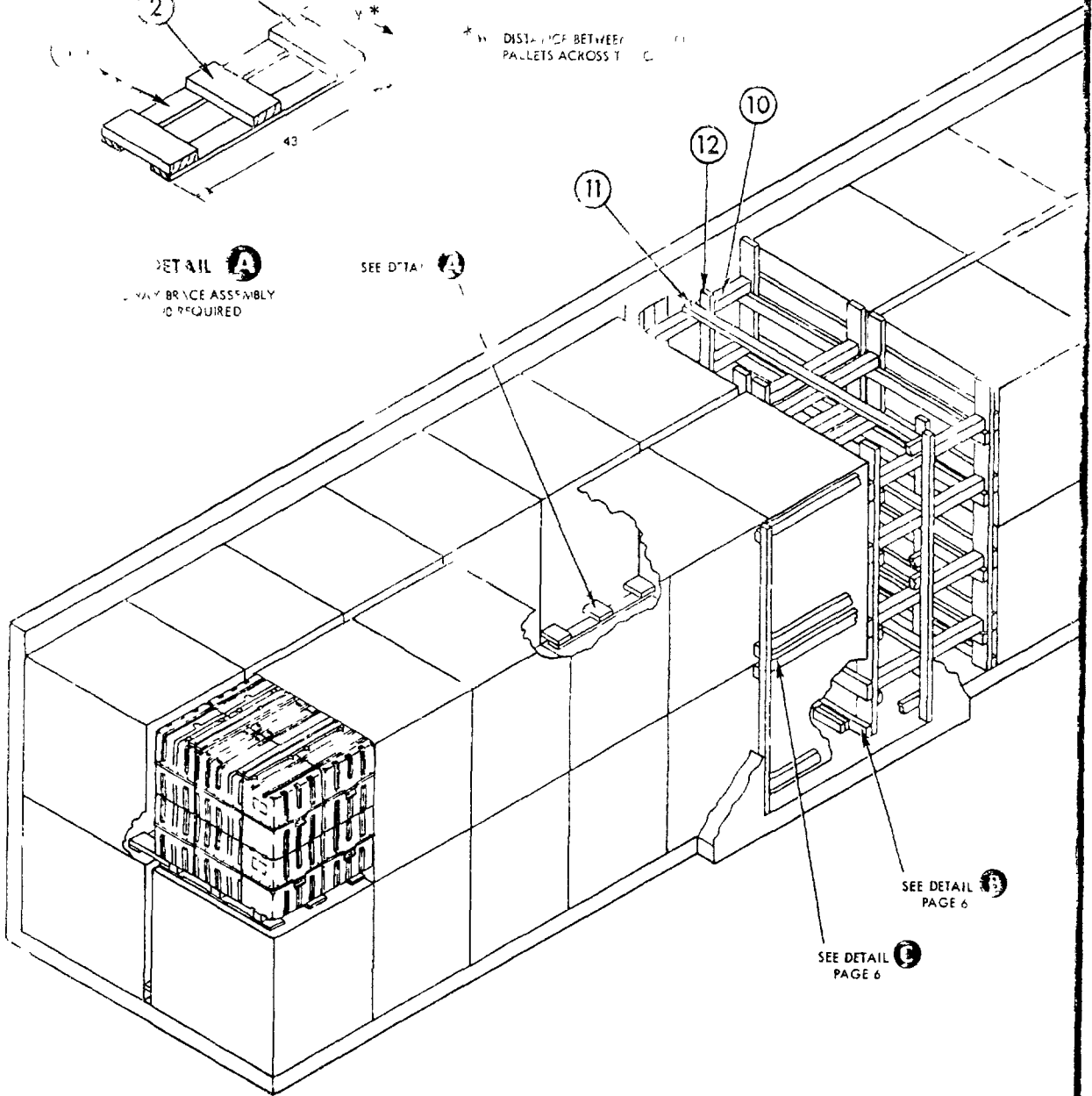


* DISTANCE BETWEEN PALLETS ACROSS T

DETAIL A

BRACE ASSEMBLY REQUIRED

SEE DETAIL A



SEE DETAIL PAGE 6

SEE DETAIL PAGE 6

CARLOAD DATA

NUMBER OF UNIT LOADS
CARLOAD WEIGHT

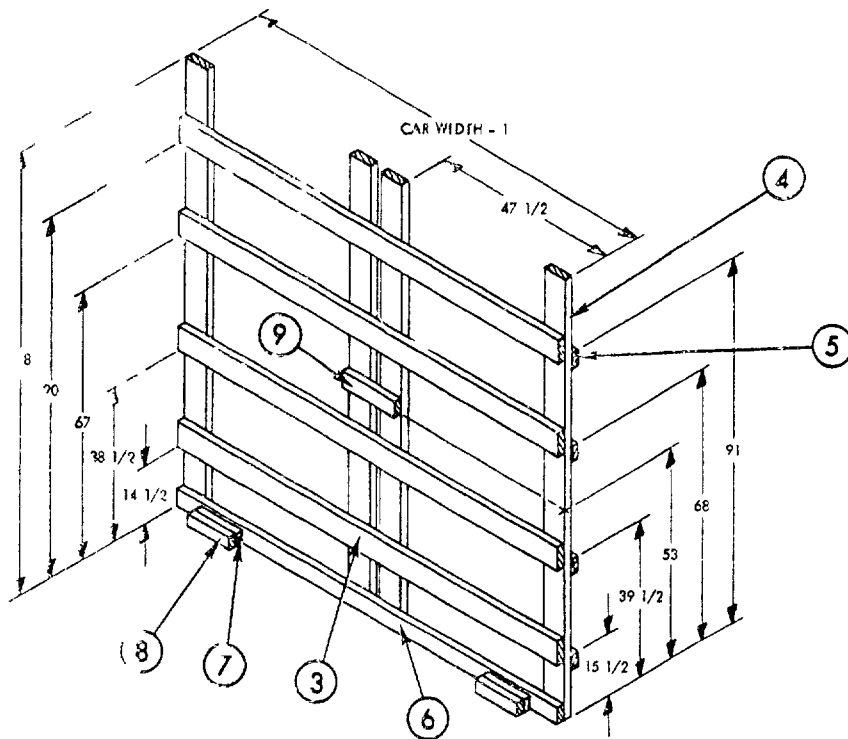
40
SEE TABLE II

TABLE II

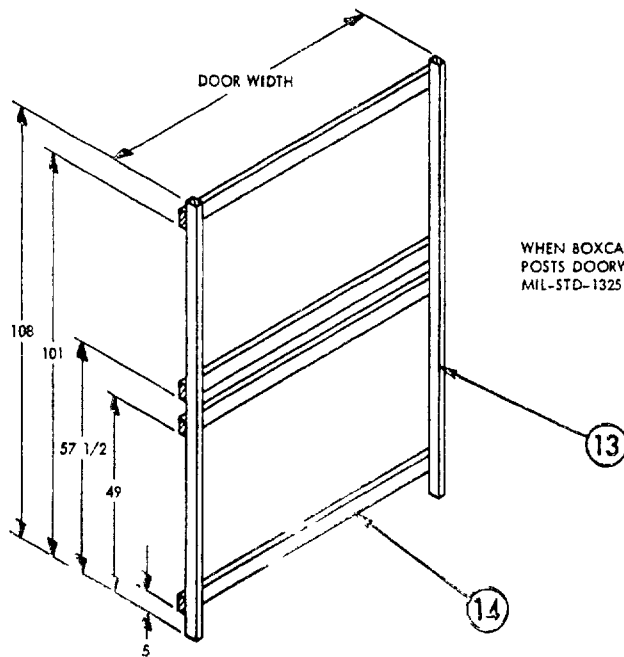
DODIC/ NALC	AIR FRAME	UNIT LOAD WT (LBS APPROX)	CARLOAD WT (LBS APPROX)
QW 06	MK 8 MOD 1	519	21862
TA 06	MK 8 MOD 0	519	21862
W 06	MK 5 MOD 0	521	21942
SI	MK 4 MOD 0	675	27377

MAXIMUM HEIGHT OF UNIT LOADS (1102) IS INCLUDED IN CARLOAD WEIGHT

MIL-STD-1325 (NAVY)



DETAIL B
CENTER GATE
2 REQUIRED



WHEN BOXCAR HAS STEEL DOOR
POSTS DOORWAY PROTECTION AS PER
MIL-STD-1325 (NAVY) IS REQUIRED

DETAIL C
DOORWAY PROTECTION
2 REQUIRED

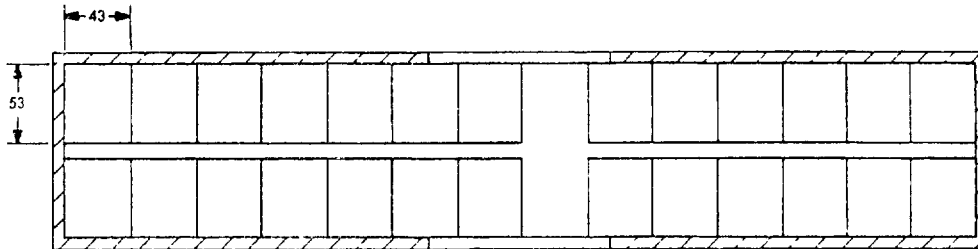
MIL-STD-1325-1B3 (NAVY)

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MIL-STD-1325-100 (NAVY)

50 FT 6 IN BOXCAR, COMMERCIAL

- 1 THE CARLOAD CONSISTS OF 52 UNIT LOADS WHICH MUST BE LOADED AND DUNNAGED IN ACCORDANCE WITH THIS PROCEDURAL DRAWING
- 2 WHEN LESS THAN CARLOAD (CL) QUANTITIES ARE EQUIPPED TO BE SHIPPED IN COMMERCIAL BOXCARS AND A PARTIAL LAYER RESULTS A PARTIAL LAYER C 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 DOORS PROVIDING TRACKS WITH MORE THAN HALF OF THE UNIT LOAD IN THE DOORWAY AREA ARE UNITIZED WITH TWO LATERALLY APPLIED 1 1/4" STEEL STRAPS PER STACK EACH TENSIONED AND SEALED WITH TWO DOUBLE CRIMPED SEALS AND A TOP SWAY BRACE, CONSISTING OF A STRAPPING BOARD AND CROSS BRACE, TWO PER STACK (SEE DETAIL D) INSTALLED BETWEEN THE ROWS OF THE DOORWAY STACKS EACH STRAP IS SECURED TO STRAPPING BOARD WITH TWO 1 1/4" STAPLES DUNNAGE MATERIAL MUST NOT BE NAILED TO ANY PLUG DOOR, WHETHER MAIN OR AUXILIARY, EXCEPT WHEN THE CAR HAS A COMBINATION OF A CONVENTIONAL SLIDING TYPE DOOR AND A PLUG TYPE DOOR AND AN ADEQUATE NAILING STRIP IS PROVIDED ON THE PLUG TYPE DOOR DIMENSIONAL LUMBER DOORWAY PROTECTION, PIECES 11 AND 12 IS NOT REQUIRED WHEN PLUG DOOR EQUIPPED BOXCARS ARE USED EXCEPT WHEN CAR HAS A COMBINATION OF PLUG DOOR AND CONVENTIONAL SLIDING DOOR THEN DIMENSIONAL LUMBER DOORWAY PROTECTION IS REQUIRED FOR THE CONVENTIONAL DOOR PLUG DOORS MUST BE SECURELY CLOSED AND WIRED TOGETHER WITH A STRONG FLEXIBLE STEEL WIRE INSERTED THROUGH THE HOLES IN THE DOOR LATCH ASSEMBLY ONE OR MORE TIMES AND THE WIRE ENDS TWISTED TOGETHER



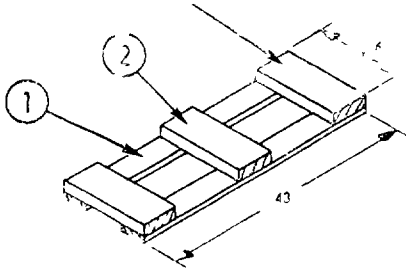
LOADING PLAN

- * PIECE 1 NAILS TO PIECE 2 WITH 10d NAILS, CLINCHED, 3 PER JOINT
- ** W = DISTANCE BETWEEN LEGS OF PALLET'S ACROSS THE CAR
- *** 2 X 6 STRUTS DOUBLED AND LAMINATED WITH 10d NAILS MAY BE SUBSTITUTED IN PLACE OF 4 X 4'S

12	HORIZONTAL DOORWAY MEMBER	2 X 4 X DOOR WIDTH	8	13	2 PER JOINT	10d
11	VERTICAL DOORWAY MEMBER	2 X 3 X 108	4	DOOP POST	2 PER FOOT	20d
10	STRUT	2 X 4 X *** WEDGE FIT	16	4	2 PER JOINT	16d
9	SWAY BRACE STOP	2 X 4 X 18	2	4	2 PER JOINT	10d
8	HOLDDOWN	2 X 4 X TO SUIT	4	7	4	10d
7	HOLDDOWN	2 X 4 X TO SUIT	4	6	4	10d
6	HOLDDOWN SPACER	2 X 4 X CAR WIDTH - 1	2	4	3 PER JOINT	10d
5	CENTER GATE STRUT CLEAT	2 X 4 X CAR WIDTH - 1	8	4	3 PER JOINT	10d
4	CENTER GATE VERTICAL	2 X 6 X 108	8	SEE 3	-	-
3	CENTER GATE HORIZONTAL	2 X 6 X CAR WIDTH - 1	8	4	3 PER JOINT	10d
2	CROSS BRACE	2 X 6 X W **	78	SEE 1	-	-
1	SWAY BRACE LONGITUDINAL	1 X 4 X 43	52	2	SEE NOTE	*
PIECE NO	DESCRIPTION	SIZE	NO OF PIECES REQ'D	NAIL TO	NUMBER	SIZE
						NAILS
LIST OF MATERIALS & NAILING DATA						

MIL-S-111 137-187 (NAVY)

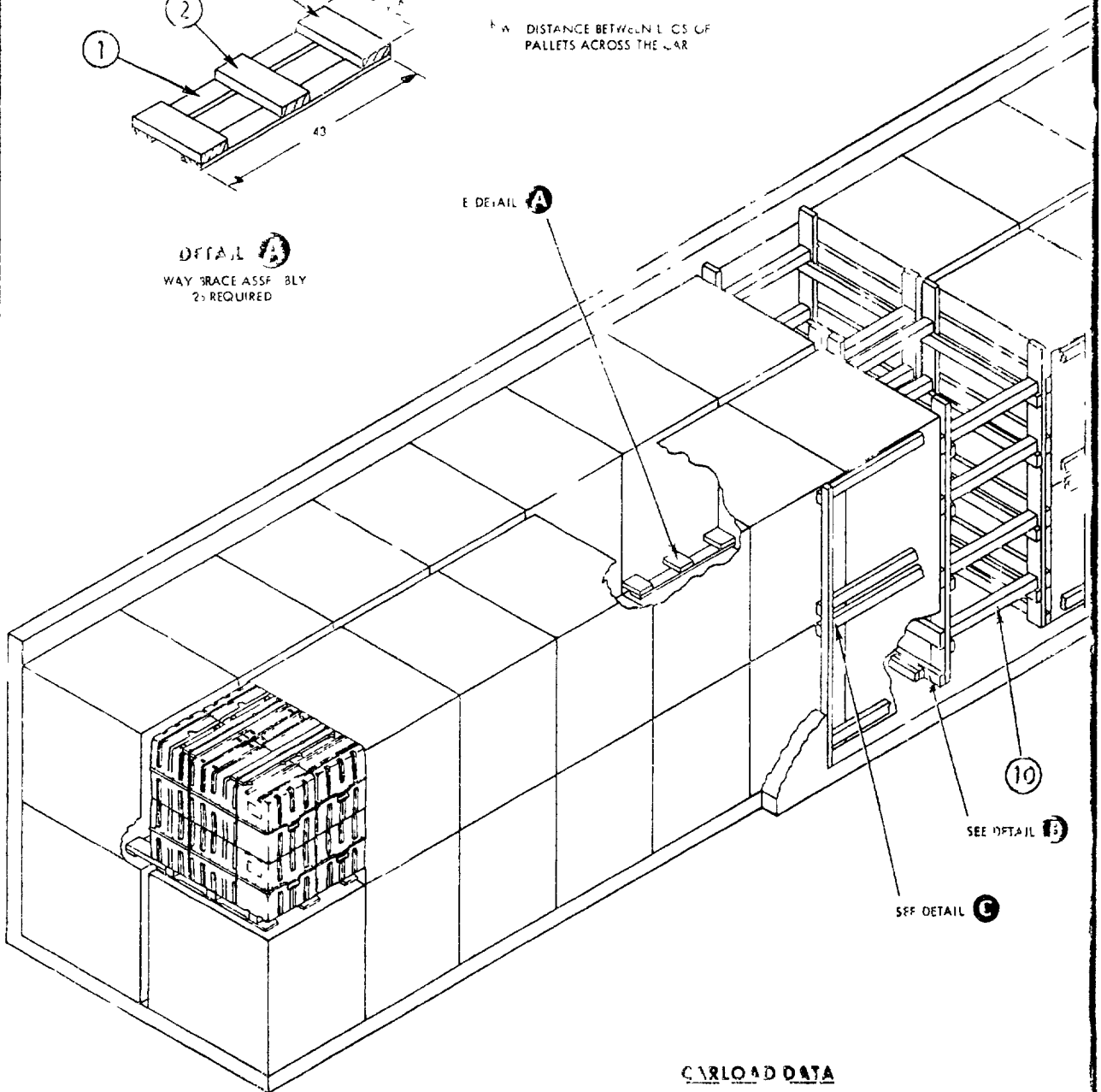
CR 30 5 M ST
NGAL ST 15 OF PALT 5



F W DISTANCE BETWEEN L CS OF
PALLETS ACROSS THE CAR

DETAIL A
WAY BRACE ASSF BLY
25 REQUIRED

E DETAIL A



CARLOAD DATA

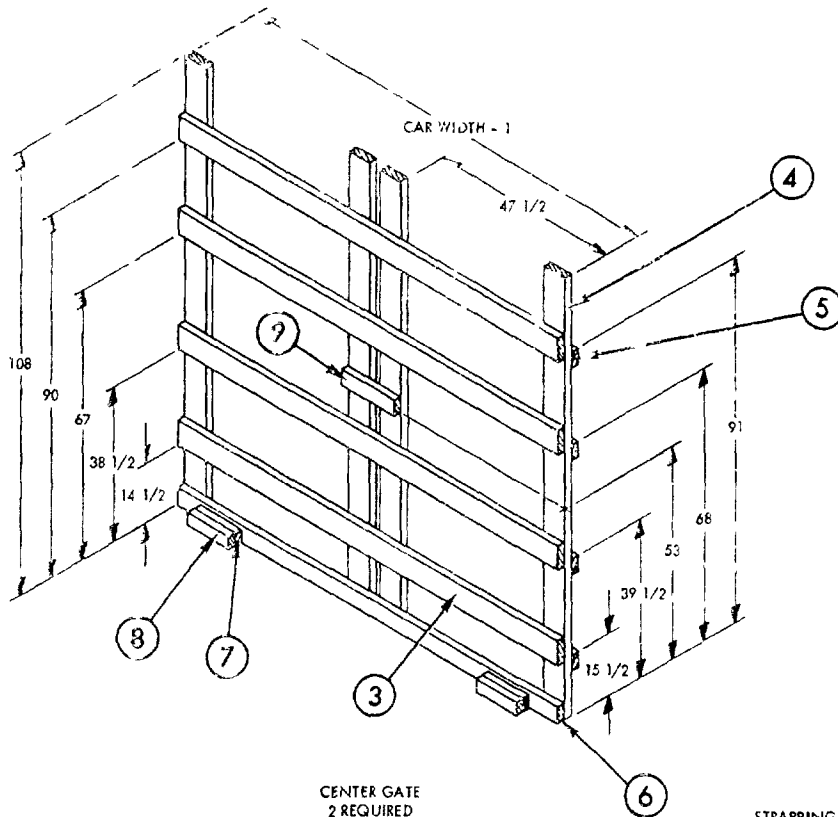
NUMBER OF UNIT LOADS
CARLOAD WEIGHT

52
SEE TABLE III

TABLE III

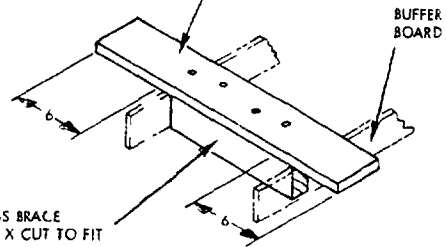
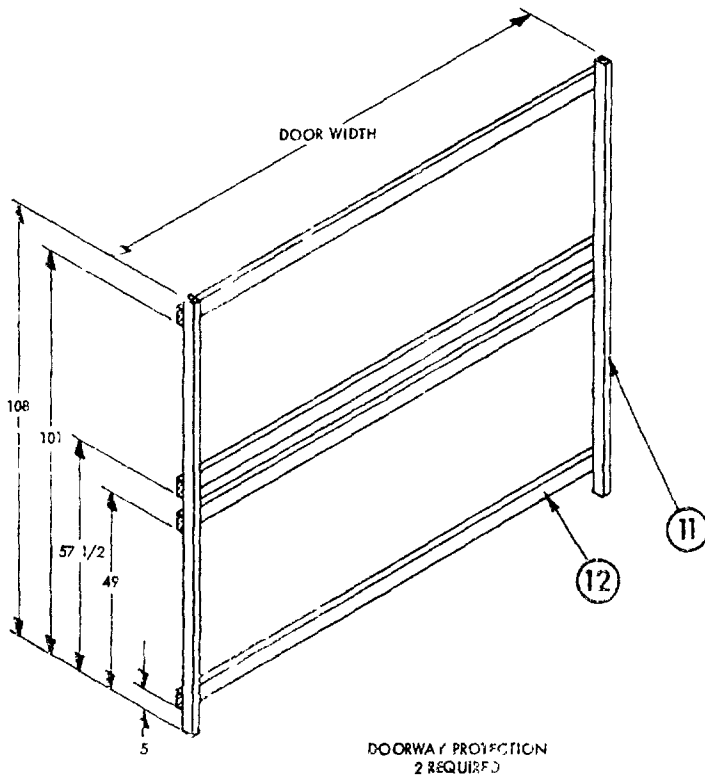
DODIC/ NALC	AIR FRAME	UNIT LOAD WT (LBS APPROX)	CARLOAD WT (LBS APPROX)
QW 06	MK 8 MOD 1	519	28066
TA 06	MK 8 MOD 0	519	28066
TW 06	MK 5 MOD 0	521	27170
1 151	MK 4 MOD 0	615	31058

ESTIMATED WEIGHT OF GUNNASE (1073 LBS) INCLUDED IN
CARLOAD WEIGHT



CENTER GATE
2 REQUIRED

STRAPPING BOARD
1 X 4 X CUT TO FIT
NAIL TO EDGE OF
CROSS BRACE WITH
FOUR 10d NAILS



TO AVOID CONCENTRATED FORCES ON CONTAINERS CONNECT TWO TOP SWAY BRACES WITH BUFFER BOARDS (1 X 4 X 36) NAILED TO ENDS OF CROSS BRACES WITH TWO 10d NAILS EACH JOINT TOP SWAY BRACES TO BE SPACED TO SUIT STRAPPING LOCATIONS

DETAIL D
TOP SWAY BRACE

REVIEW ACTIVITY
NAVY - OS, AS

PREPARING ACTIVITY
NAVY - OS
(PROJECT NO 3140-N 154)