

MILITARY STANDARD

MIL-STD-1325-149
(NAVY)

CARLOADING

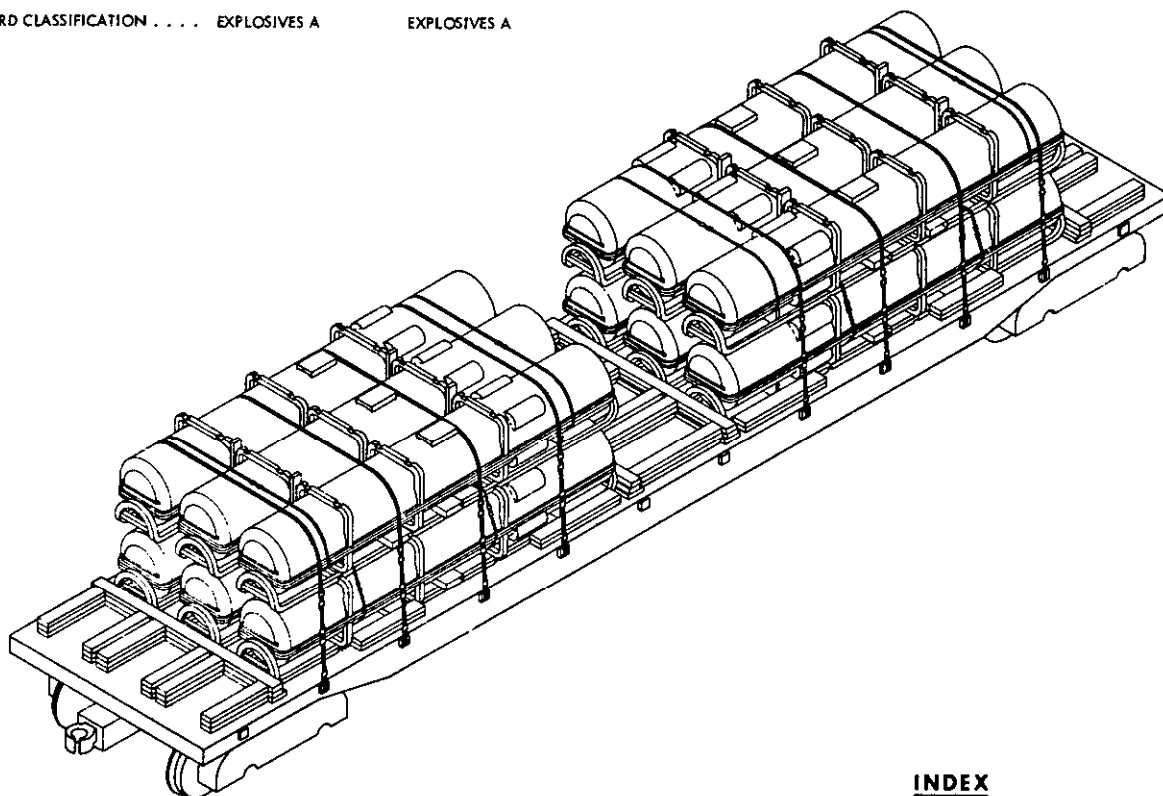
24 APRIL 1973

GUIDED WEAPON MK 5 & MODS (WALLEYE)
IN CONTAINER CNU-154 A/E OR CNU-154 B/E

SUPERSEDING
WR-52/149
23 MAY 1972

CONTAINER DATA

	CNU-154 A/E	CNU-154 B/E
WEIGHT, EMPTY	650 LBS.	610 LBS.
WEIGHT, LOADED	2950 LBS.	2910 LBS.
DIMENSIONS	182-3/4 L x 28-3/4 W x 32-21/32 H	172 L x 28-3/4 W x 32-21/32 H
STACKING HEIGHT	32-11/32	32-11/32
CUBE	99.5 CU. FT.	93.5 CU. FT.
DOT HAZARD CLASSIFICATION	EXPLOSIVES A	EXPLOSIVES A



INDEX

ITEM	PAGE
GENERAL NOTES	2
42'-6" FLATCAR, COML	2, 3, 4, 5 & 6

NOTES:

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

*U.S. GOVERNMENT PRINTING OFFICE: 1981-703-023/6697

**AUTHORIZED AND RELEASED
FOR GENERAL USE**

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MIL-STD-1325-149 (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.
3. LOADING PLANS SHOWN ARE FOR A FLATCAR WITH A PLATFORM 42 FT 6 INCHES LONG AND 9 FT 0 INCHES WIDE WITH STAKE POCKETS SPACED 42 INCHES ON CENTERS. FLATCARS WITH STEEL FLOOR ENDS AND/OR EXPOSED STEEL BOLSTERS SHALL NOT BE USED.
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. THE LOAD CONSISTS OF GUIDED WEAPONS MK 5 AND MODS (WALLEYE) IN EITHER CNU-154 A/E OR CNU-154 B/E CONTAINER.
6. THE CONTAINERS ARE HANDLED AND LOADED WITH A FORK LIFT TRUCK OR A SUITABLE HOISTING DEVICE EQUIPPED WITH A SUITABLE FOUR LEG BRIDLE.
7. UNLESS OTHERWISE SPECIFIED NAILING SHALL BE IN ACCORDANCE WITH MIL-STD-1325 (NAVY).
8. APPLICABLE MATERIAL SPECIFICATIONS:
 - DUNNAGE LUMBER - FED. SPEC MM-L-75I
 - NAILS - FED. SPEC FF-N-105
 - STRAPPING - FED. SPEC QQ-5-78I, TYPE I, HEAVY DUTY, CLASS A, DRY (UNLUBRICATED).
 - SEALS - FED. SPEC QQ-5-78I, STYLE III, HEAVY DUTY
9. AFTER BLOCKING AND BRACING HAS BEEN INSPECTED ATTACH SHIPPING DOCUMENTS IN AN ACCESSIBLE AREA AND ATTACH APPLICABLE PLACARDS TO THE CAR AS PRESCRIBED IN OP 2165 (VOL. I).

42 FT 6 IN. FLATCAR, COMMERCIAL

1. THE CARLOAD CONSISTS OF 12 CONTAINERS (2 STACKS OF 3 ROWS 2 LAYERS). THE CONTAINERS MAY BE EITHER THE CNU-154 A/E OR CNU-154 B/E TYPE, HOWEVER EACH LAYER OF EITHER STACK MUST BE OF LIKE CONTAINERS.
2. WHEN LESS THAN CARLOAD (LCL) QUANTITIES ARE REQUIRED TO BE SHIPPED ON COMMERCIAL FLATCARS, THE PROCEDURES OUTLINED ON PAGE 6 SHALL BE FOLLOWED. THE WEIGHT DISTRIBUTION REQUIREMENTS OF THE CAR MUST BE COMPLIED WITH, SEE MIL-STD-1325 (NAVY).
3. CONTAINERS SHALL BE STACKED TWO HIGH AND STRAPPED TOGETHER AS DESCRIBED ON PAGE 5.
4. AS ROWS ARE PLACED AGAINST EACH OTHER, PLACE TWO ANTI-CHAFING FRAMES, DETAIL A, BETWEEN CONTAINERS. ANTI-CHAFING FRAMES ARE POSITIONED VERTICALLY WITH THE CLEATS STRADDLING THE CONTAINER STACKING RINGS.
5. STRAP THE TOP LAYER OF EACH STACK OF CONTAINERS TOGETHER WITH TWO BANDS OF STEEL STRAPPING (PIECE 18), POSITIONED AS SHOWN, AND SECURE WITH TWO DOUBLE CRIMPED SEALS (PIECE 2) PER BAND.
6. STRAP THE LOAD TO THE CAR WITH FOUR BANDS OF STEEL STRAPPING OVER EACH GROUP OF 6 CONTAINERS, POSITIONED AS SHOWN. TENSION AND SECURE TIE-DOWN STRAPPING TO THE CAR AS FOLLOWS:

CUT STRAPPING (PIECE 19) IN TWO SECTIONS TO ALLOW TENSIONING IN A DESIRABLE AREA. THREAD ONE END OF ONE SECTION OF STRAP THROUGH STAKE POCKET ON ONE SIDE OF CAR, SEAL STAKE POCKET PAD (PIECE 21) IN PLACE, SEE DETAIL D, PAGE 4. SECURE THIS END WITH TWO DOUBLE CRIMPED SEALS (PIECE 20) AND BRING STRAP OVER THE LOAD. SECURE OTHER SECTION OF STRAP TO STAKE POCKET ON OPPOSITE SIDE IN A SIMILAR MANNER, THEN TENSION AND SEAL THE ENDS OF THE TWO SECTIONS TOGETHER WITH TWO DOUBLE CRIMPED SEALS.

7. AS AN ALTERNATE, TWO COMMERCIAL STAKE POCKET PROTECTORS MAY BE USED UNDER EACH STAKE POCKET IN PLACE OF STAKE POCKET PAD (PIECE 21), SEE DETAIL D.

TABLE I

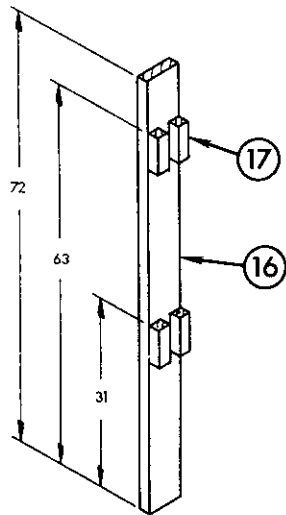
CONTAINER	LOADED CONTAINER WEIGHT (LBS.)	CARLOAD WT. (LBS.)
CNU-154 A/E	2950	36,268
CNU-154 B/E	2910	35,788

ESTIMATED WEIGHT OF DUNNAGE (868 LBS.) INCLUDED IN CARLOAD WEIGHT.

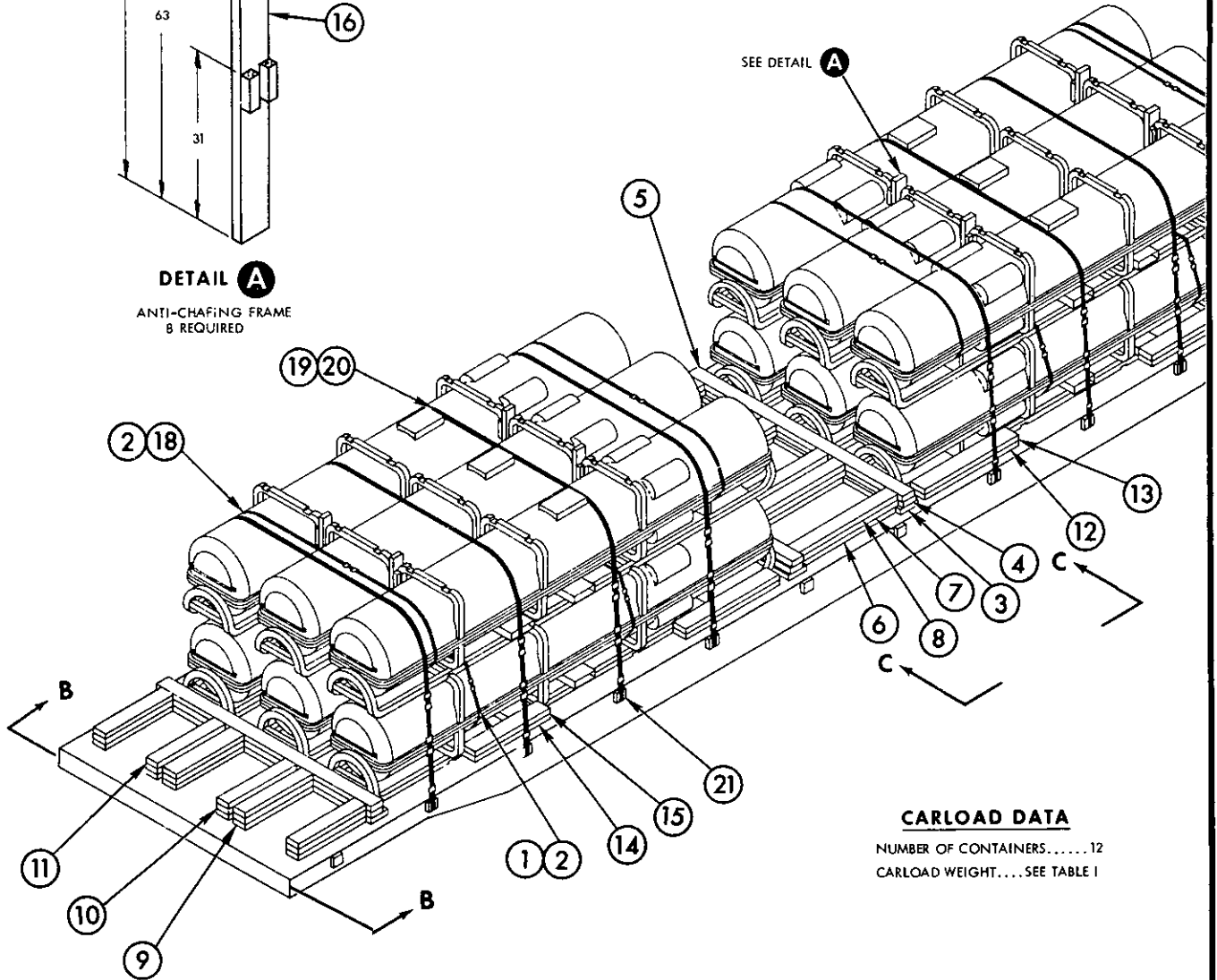
PIECE NO.	DESCRIPTION	SIZE	NO. OF PIECES REQ'D	NAIL TO	NUMBER	SIZE
21	STAKE POCKET PAD	2 x .050 x 24	16	-	-	-
20	SEAL	2	64	-	-	-
19	TIE-DOWN STRAPPING	2 x .050 x 28 FT	8	-	-	-
18	CROSS STRAPPING	1 1/4 x .035 x 21 FT 6	4	-	-	-
17	CLEAT	2 x 2 x 6	32	16	2 PER JOINT	10d
16	ANTI-CHAFING MEMBER	2 x 6 x 72	8	SEE 17	-	-
15	SIDE BLOCKING	2 x 6 x 34	4	14	5	30d
14	SIDE BLOCKING	2 x 6 x 34	4	CAR FLOOR	5	30d
13	SIDE BLOCKING	2 x 6 x 42	4	12	6	30d
12	SIDE BLOCKING	2 x 6 x 42	4	CAR FLOOR	6	30d
11	END BLOCKING	2 x 6 x 30	12	10	5	60d
10	END BLOCKING	2 x 6 x 30	12	9	5	60d
9	END BLOCKING	2 x 6 x 30	12	CAR FLOOR	5	30d
8	INTERMEDIATE BLOCKING	2 x 6 x 52 REF	6	7	7	60d
7	INTERMEDIATE BLOCKING	2 x 6 x 52 REF	6	6	7	60d
6	INTERMEDIATE BLOCKING	2 x 6 x 52	6	CAR FLOOR	7	30d
5	CROSS MEMBER	2 x 6 x 96	4	4	1 EVERY 8 INCHES	60d
4	CROSS MEMBER	2 x 6 x 96	4	3	1 EVERY 8 INCHES	60d
3	CROSS MEMBER	2 x 8 x 96	4	CAR FLOOR	1 EVERY 8 INCHES	30d
2	SEAL	1 1/4	32	-	-	-
1	VERTICAL STRAPPING	1 1/4 x .035 x 11 FT 6	12	-	-	-

LIST OF MATERIALS & NAILING DATA

MIL-STD-1325-149 (NAVY)

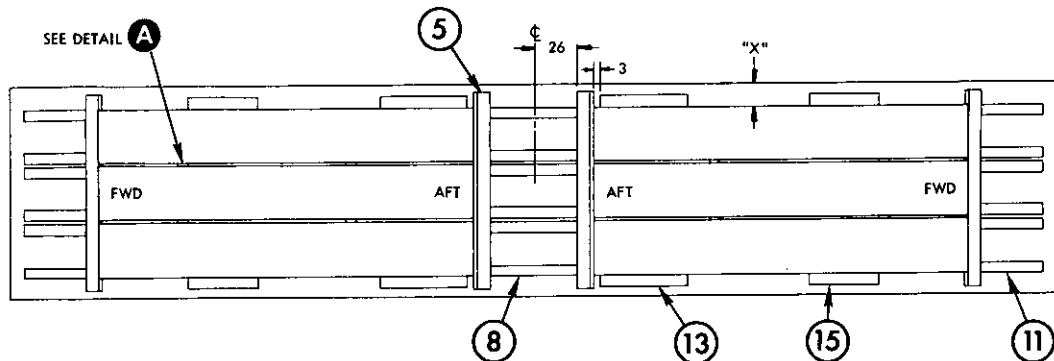


DETAIL A
ANTI-CHAFING FRAME
B REQUIRED



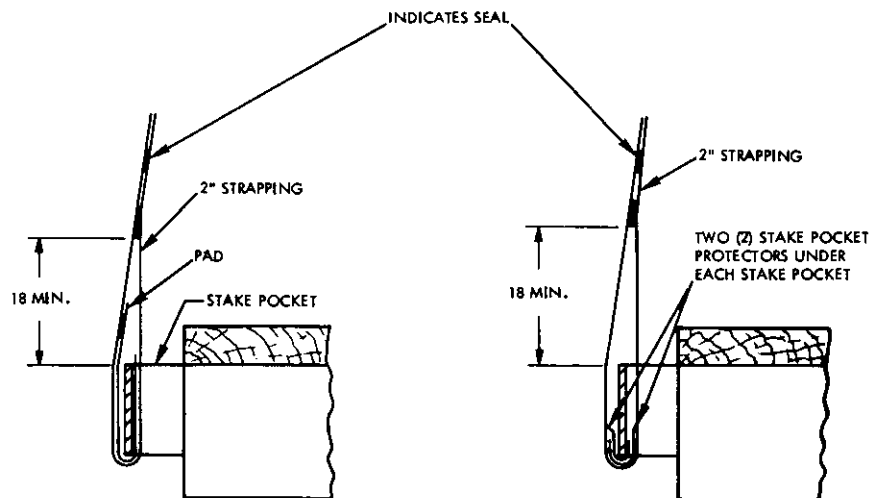
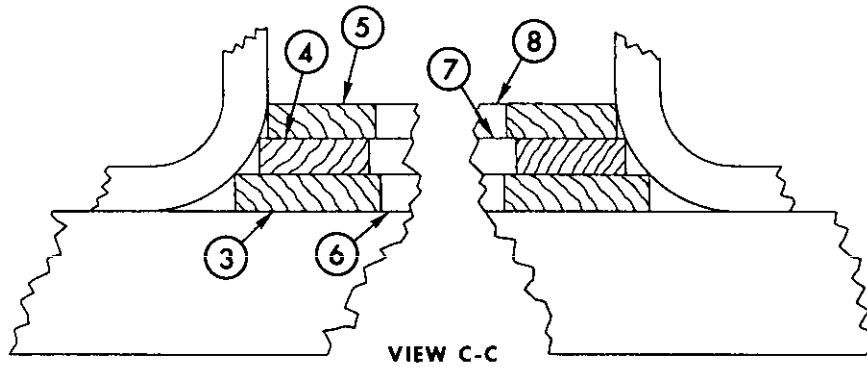
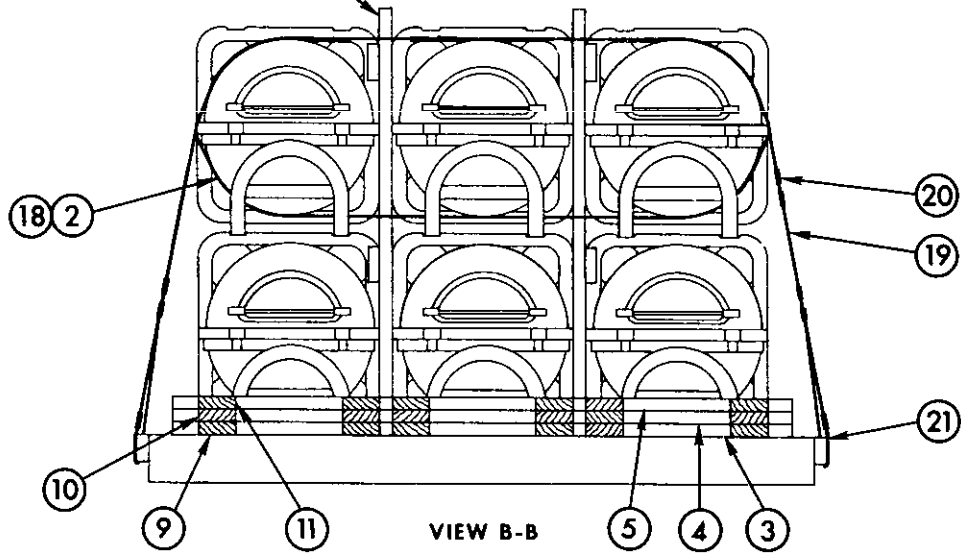
CARLOAD DATA
NUMBER OF CONTAINERS..... 12
CARLOAD WEIGHT.... SEE TABLE I

*"X" = ONE HALF PLATFORM WIDTH
MINUS 44 3/4 INCHES



LOADING PLAN

MIL-STD-1325-149 (NAVY) SEE DETAIL A PAGE 3

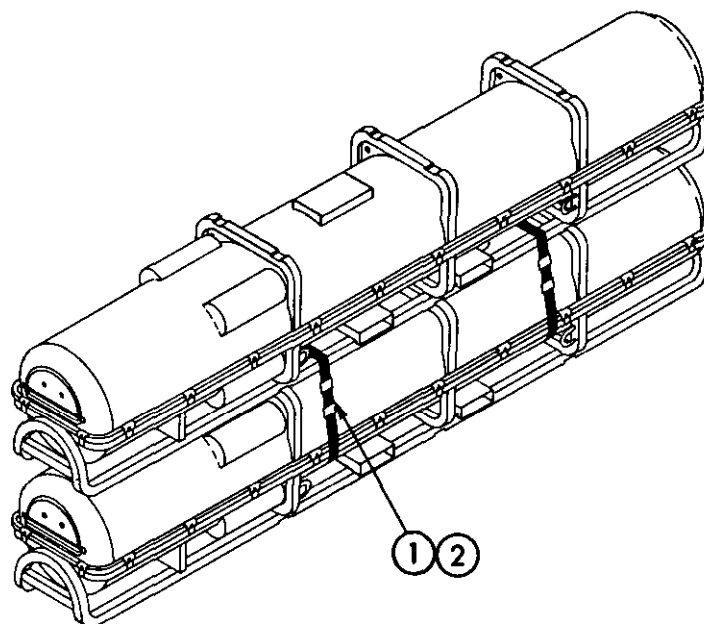


METHOD OF INSTALLING 2" STRAPPING AND PAD AT STAKE POCKET.

METHOD OF INSTALLING 2" STRAPPING AND STAKE POCKET PROTECTORS (ALT PAD).

DETAIL D

UNITIZING AND HANDLING



CONTAINER UNITIZING AND BANDING PROCEDURE:

1. USING FORK LIFT TRUCK OR A SUITABLE HOISTING DEVICE EQUIPPED WITH A SUITABLE FOUR LEG BRIDLE, STACK CONTAINERS TWO HIGH.
2. BE CERTAIN THAT NESTING FEATURES AND BEARING SURFACES ARE PROPERLY POSITIONED TO PREVENT SHIFTING IN LATERAL AND LONGITUDINAL DIRECTIONS.
3. SECURE BOTTOM CONTAINER TO TOP CONTAINER WITH TWO STRAPS (PIECE 1) POSITIONED AS INDICATED ABOVE.
4. SEAL WITH TWO SEALS (PIECE 2) EACH STRAP AND DOUBLE CRIMP.

CONTAINER HANDLING PROCEDURE:

1. UNITIZED CONTAINERS CNU-154 A/E OR CNU-154 B/E FOR GUIDED WEAPON MK 5 & MODS (WALLEYE) ARE HANDLED AND POSITIONED ON FLAT CARS WITH A FORK LIFT TRUCK. IF NECESSARY CONTAINERS MAY BE LOADED ON FLAT CAR ONE AT A TIME USING A SUITABLE HOISTING DEVICE EQUIPPED WITH A SUITABLE FOUR LEG BRIDLE, AND UNITIZED IN POSITION.

WARNING

TO AVOID TOPPLING SPECIAL CARE SHOULD BE TAKEN WHEN MOVING STACKS OF CONTAINERS. THE UNITIZING OF THE CONTAINERS IS ONLY AUTHORIZED AS PART OF THE CARLOADING PROCEDURE. UNITIZING IS TO ENSURE CONTINUOUS ENGAGEMENT OF THE STACKING FEATURES AND MOVEMENT OF UNITIZED CONTAINERS SHOULD BE LIMITED TO THAT NECESSARY TO LOAD OR UNLOAD THE FLAT CAR.

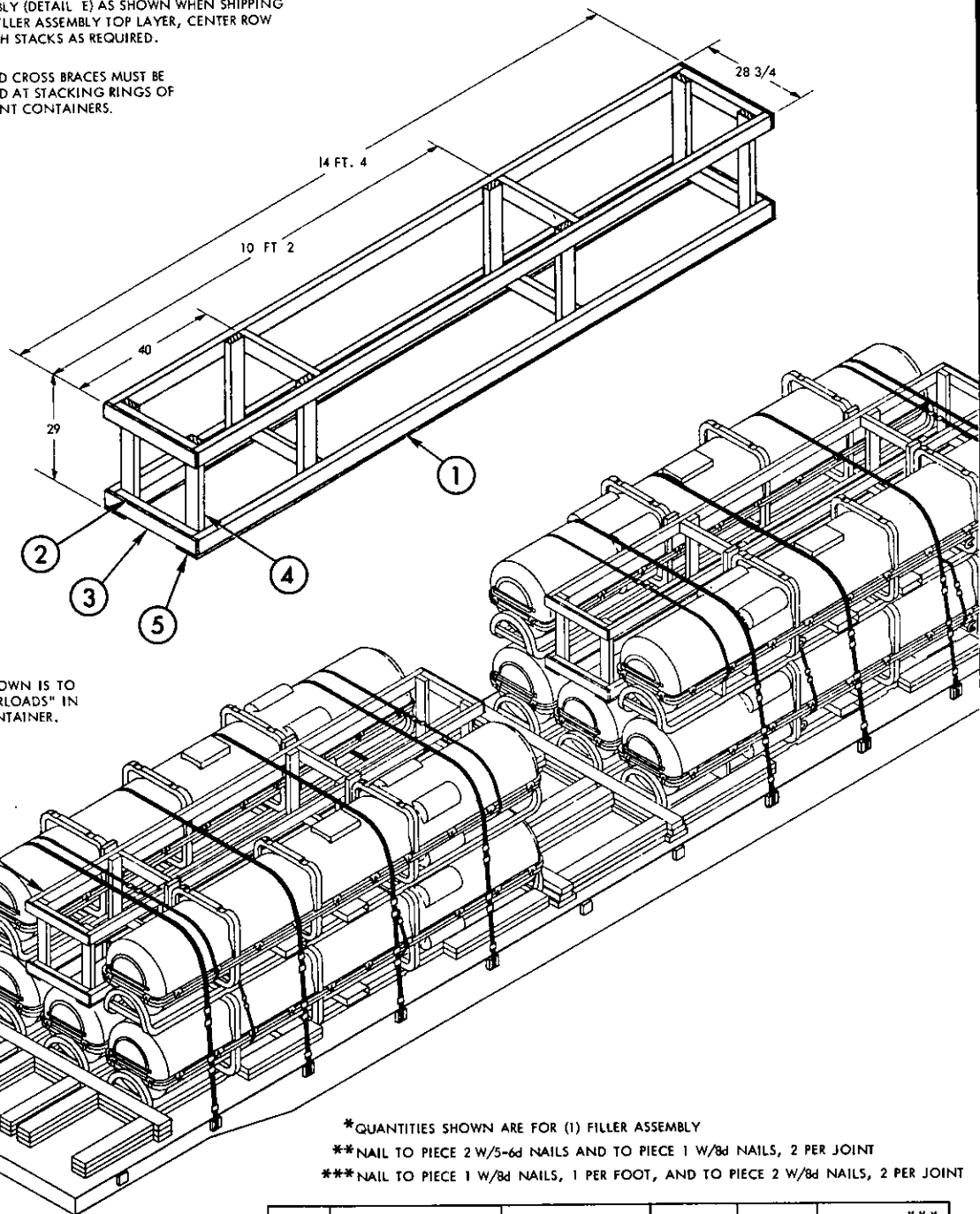
MIL-STD-1325-149 (NAVY)

LESS THAN CARLOAD

USE FILLER ASSEMBLY (DETAIL E) AS SHOWN WHEN SHIPPING LCL. POSITION FILLER ASSEMBLY TOP LAYER, CENTER ROW OF EITHER OR BOTH STACKS AS REQUIRED.

NOTE:

INBOARD CROSS BRACES MUST BE LOCATED AT STACKING RINGS OF ADJACENT CONTAINERS.



DETAIL E

FILLER ASSEMBLY

THE FILLER ASSEMBLY AS SHOWN IS TO BE USED IN "LESS THAN CARLOADS" IN PLACE OF AN OMITTED CONTAINER.

SEE DETAIL E

*QUANTITIES SHOWN ARE FOR (1) FILLER ASSEMBLY

**NAIL TO PIECE 2 W/5-6d NAILS AND TO PIECE 1 W/8d NAILS, 2 PER JOINT

***NAIL TO PIECE 1 W/8d NAILS, 1 PER FOOT, AND TO PIECE 2 W/8d NAILS, 2 PER JOINT

NOTE:

FILLER ASSEMBLY SHALL BE STRAPPED TO LOWER CONTAINER WITH VERTICAL STRAPPING SIMILAR TO STRAPPING PROCEDURE SHOWN ON PAGE 5.

PIECE NO.	DESCRIPTION	SIZE	NO. OF PIECES REQ'D*	NAIL TO	NUMBER	SIZE
					NAILS	
5	SUPPORT	1 x 6 x 14 FT. 4	2	1,2	SEE NOTE***	
4	VERTICAL PIECE	2 x 4 x 28 1/4	8	2,1	3 PER JOINT	10d
3	END PIECE	1 x 4 x 28 3/4	4	2,1	SEE NOTE**	
2	CROSS BRACE	2 x 4 x CUT TO FIT	8	SEE 1	-	-
1	HORIZONTAL PIECE	2 x 4 x CUT TO FIT	4	2,4	2 PER JOINT	16d
LIST OF MATERIALS & NAILING DATA						