

**NOTICE
OF VALIDATION**

INCH-POUND

MIL-STD-1320/169
NOTICE 3
13 MARCH 1991

MILITARY STANDARD
TRUCKLOADING HARPOON MISSILE RGM-84A-1 (ASROC)
IN CONTAINER MK 608 MOD 0

MIL-STD-1320\169, dated 2 November 1976 and Notice 1, dated 14 April 1978, and Notice 2, dated 18 May 1979, has been reviewed and determined to be valid for use in acquisition.

Preparing activity:
Navy-OS

AMSC NVA
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FSC 8140

MILITARY STANDARD

TRUCKLOADING

HARPOON Missile RGM-84A-1 (ASROC)
in Container Mk 608 Mod 0

TO ALL HOLDERS OF MIL-STD-1320-169 (NAVY)

Page 2. .

1. After Note 3 of General Notes delete the Note after **WARNING** and substitute

When loading/unloading trailers with unitized containers, extra caution should be taken to prevent toppling. Special attention should be given to appropriate backup of outboard containers. Containers shall be deunitized after unloading the vehicle.

2. Delete General Notes 5 and 6 and substitute
 5. Chains, Fittings and Loadbinders shall meet the requirements of the basic Truckloading Document MIL-STD-1320 (NAVY) and applied as shown on Page 5 of this document.
 6. Steel strap used as tiedowns shall be 2 X .050 and shall conform to and be applied as specified in the basic truckloading document MIL-STD-1320 (NAVY) as shown on Page 3 of this document.
3. In Note 11 delete "Class A" and substitute "Heavy Duty, Finish A, B, or C."

Page 5.

1. In List of Materials, add "or 5/16" to Size of Piece No. 10.

Page 6.

1. Delete "Load Strapping" and all material under that heading.

Review Activity:

NAVY - OS

Preparing Activity:

NAVY - OS
(Project No. 8140-N436)

MIL-STD-1320-169 (NAVY)
NOTICE 1
14 April 1978

MILITARY STANDARD
TRUCKLOADING
HARPOON MISSILE RGM-84A-1 (ASROC)
IN CONTAINER MK 608 MOD 0

TO ALL HOLDERS OF MIL-STD-1320-169 (NAVY)

Page 2.

1. Two places in General Note 3 Change "3/4" to "1 1/4".

Preparing Activity:

NAVY - OS
(Project No. 8140-361)

Review Activity:

FSC 8140

Navy - OS

☆U.S. GOVERNMENT PRINTING OFFICE: 1978-703-122/2233

MILITARY STANDARD

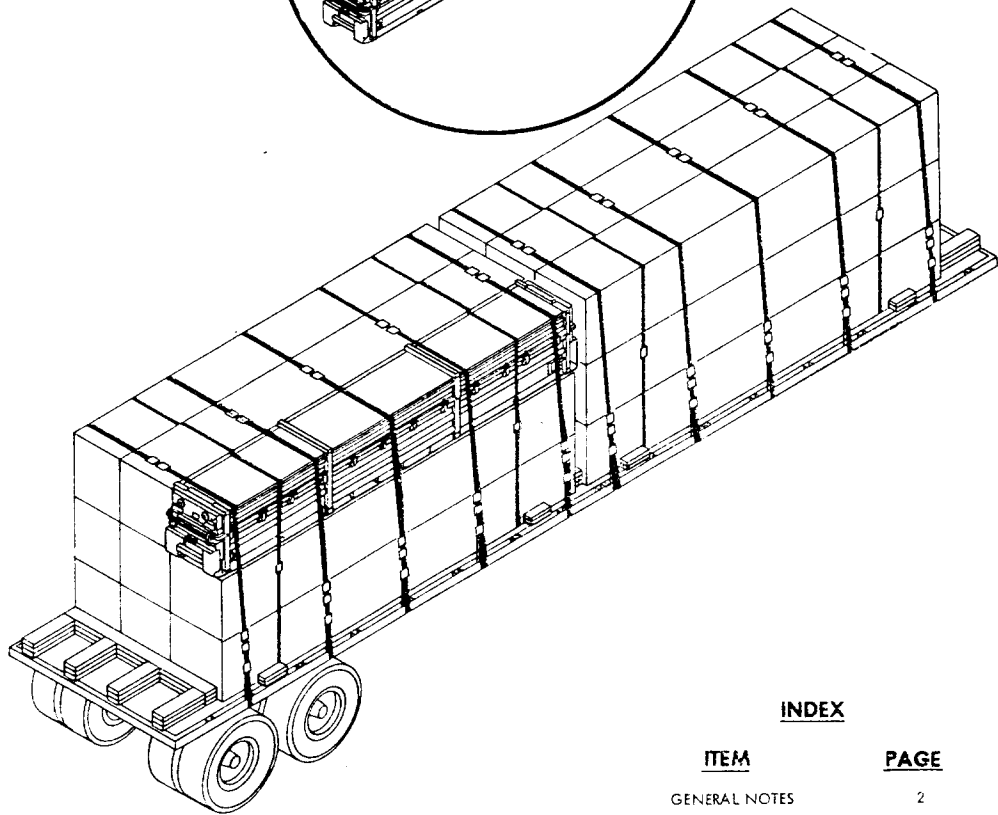
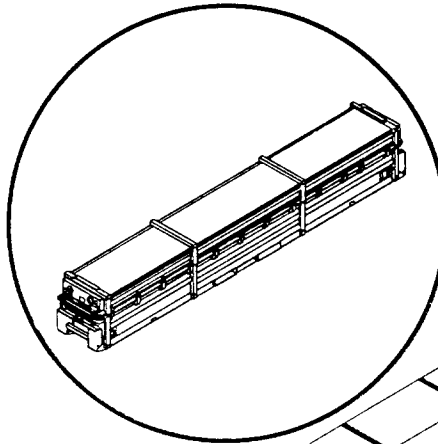
MIL-STD-1320-169
(NAVY)

TRUCKLOADING HARPOON MISSILE RGM-84A-1 (ASROC) IN CONTAINER MK 608 MOD 0

2 NOVEMBER 1976

CONTAINER DATA

LENGTH 206 3/4
 WIDTH 28 1/2
 HEIGHT 31
 CUBE 105.8 CU FT
 TARE WT (APPROX) 1045 LBS
 GROSS WT (APPROX) 2500 LBS
 DVG NO. DL 2645308



NOTES:

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

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TYPICAL LOADS	3 & 5
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FSC 8140

**AUTHORIZED AND RELEASED FOR
HIGHWAY SHIPMENT ONLY**

SIGNATURE M. S. Brown NWHC 10/22/76 DATE
 TECHNICAL DIRECTION AGENT (TDA)
 SIGNATURE J. E. Kelly 10/24/76 DATE
 SEASYS/SCM, BY DIRECTION

ORIGINATOR

**NAVAL WEAPONS MANAGER'S CENTER
WPNSTA EARLE, NEW JERSEY**

10/24/76
DATE

PAGE 1 OF 6

GENERAL NOTES

1. THIS DOCUMENT PROVIDES DETAIL INSTRUCTIONS FOR TRUCKLOADING THE HARPOON MISSILE RGM-84A-1 (ASROC) IN CONTAINERS MK 608 MOD 0.
2. THE PROCEDURES AND PRACTICES DESCRIBED HEREIN ARE INTENDED FOR 40 FT FLATBED TRAILERS. THE TRAILER TANDEM AXLES SHALL BE LOCATED IN THE "WESTERN" POSITION (AT THE EXTREME REAR OF THE TRAILER).
3. WHEN THE CONTAINERS ARE TWO OR THREE HIGH THEY SHALL BE STRAPPED TOGETHER USING TWO 3/4 X .035 STEEL STRAPS SEALED WITH ONE 3/4 DOUBLE NOTCHED SEAL AS SHOWN ON PAGE 3 (PIECES NOS. 5 & 6). EACH ROW OF CONTAINERS IS STRAPPED SEPARATELY, THE STRAPS PASSING UNDER THE BOTTOM CONTAINER AND OVER THE TOP CONTAINER.

NOTE

A ROW OF CONTAINERS (ONE WIDE AND TWO OR THREE HIGH) MAY BE STRAPPED TOGETHER PRIOR TO LOADING THEM ON THE TRAILER. HOWEVER, ADEQUATE HANDLING EQUIPMENT MUST BE USED TO POSITION THE CONTAINERS ON THE TRAILER. IF ADEQUATE EQUIPMENT IS NOT AVAILABLE, CONTAINERS SHALL BE LOADED ONE AT A TIME AND STRAPPED TOGETHER IN PLACE WITH STRAPS PREPOSITIONED AS REQUIRED.

WARNING

THE STACKING AND STRAPPING OF CONTAINERS TOGETHER IS AUTHORIZED AS PART OF THE TRUCKLOADING PROCEDURE ONLY. USE EXTREME CARE WHEN HANDLING TO AVOID TOPPLING. MOVEMENT OF THE STACKED CONTAINERS SHALL BE LIMITED TO THAT NECESSARY TO LOAD OR UNLOAD THE TRAILER.

TABLE I

NO. OF CONTAINERS PER STACK	NO. OF TIE-DOWNS REQUIRED
9	5
8	4
6	3
5	3
4 OR LESS	2

4. CHAINS AND STEEL STRAPS MAY BE USED INTERCHANGEABLY FOR TIE-DOWNS ON A 1 TO 1 BASIS. THE NUMBER OF TIE-DOWN REQUIRED FOR A STACK OF CONTAINERS SHALL BE AS SHOWN IN TABLE I.
5. STEEL STRAPS SHALL BE 2 X .050 AND APPLIED AS SPECIFIED BY THE LOAD STRAPPING REQUIREMENTS SHOWN ON PAGE 6.
6. CHAINS AND LOAD BINDERS SHALL MEET THE FOLLOWING CONDITIONS:
 - A. CHAINS AND FITTINGS SHALL BE 3/8 INCH AND LOADBINDERS 3/8 INCH CAPACITY.
 - B. CHAINS, FITTINGS AND LOADBINDERS SHALL HAVE A MINIMUM SAFE WORKING LOAD OF 5000 LBS.
 - C. LOADBINDERS SHALL BE SAFETY WIRED WITH 16 GAUGE SOFT ANNEALED IRON WIRE OR SECURED USING THE END PIECE OF THE 3/8 CHAIN.
7. WHEN USING CHAIN, INSERT A PROTECTOR BOARD (LAMINATED DOUBLE 2 X 6) BETWEEN CHAIN AND LADING. SECURE CHAIN TO THE BOARD WITH FOUR 20d NAILS BY DRIVING THE NAIL THROUGH THE CHAIN INTO THE BOARD AND CLINCHING IT OVER THE CHAIN.
8. PRIOR TO LOADING THE TRAILER AND DURING THE PRELOADING INSPECTION REQUIRED BY OP2165 AND REPORTED ON DD FORM 626, THE CHAINS, FITTINGS AND LOADBINDERS SHALL BE INSPECTED FOR STRETCH, GOUGING, BENT LINKS, WEAR AND ANY OTHER NOTICEABLE DEFECTS. THE INSPECTOR SHALL CONFIRM THAT THE CHAINS AND LOADBINDERS HAVE BEEN INSPECTED AND SHALL SO NOTE IN ITEM NO. 22 OF DD FORM 626. ANY DEFICIENCY SHALL BE CAUSE FOR REJECTION OF A CHAIN OR LOADBINDER.
9. THE MAXIMUM GROSS WEIGHT OF THE TRACTOR-TRAILER AND THE ALLOWABLE AXLE WEIGHTS ARE THE RESPONSIBILITY OF THE CARRIER. THE CARRIER WILL ADVISE THE SHIPPER OF THESE LIMITATIONS AND THE SHIPPER SHALL LOAD THE TRAILER IN SUCH A MANNER THAT THE TRACTOR-TRAILER WILL NOT EXCEED THESE LIMITATIONS.
10. AFTER BLOCKING AND BRACING HAS BEEN INSPECTED, ATTACH SHIPPING DOCUMENTS TO INSIDE OF TRAILER IN AN ACCESSIBLE AREA, CLOSE AND SEAL TRAILER DOORS AND ATTACH "EXPLOSIVE A" PLACARD TO BOTH SIDES, FRONT AND BACK OF TRAILER.
11. APPLICABLE MATERIAL SPECIFICATIONS: DUNNAGE LUMBER, MM-L-751; NAILS, FF-N-105, TYPE II STYLE 10, COMMON BRIGHT; STRAPPING, QQ-S-781, TYPE 1 CLASS A.
12. FOR GENERAL TRUCKLOADING PROCEDURES REFER TO THE GENERAL TRUCKLOADING DOCUMENT, MIL-STD-1320 (NAVY).

FTL & LTL 40 FT TRAILER (FLATBED)

WARNING

THIS STANDARD PROVIDES FOR INCREASED LOADING WHICH PRODUCE HEAVIER GROSS TANDEM AXLE WEIGHTS AND GROSS VEHICLE WEIGHT. THESE INCREASED WEIGHTS ARE NOT AUTHORIZED IN ALL 50 STATES. BEFORE LOADING 18 CONTAINERS DETERMINE THAT THE ROUTING IS THROUGH STATES PERMITTING 34,000 LBS ON THE TANDEM AXLES.

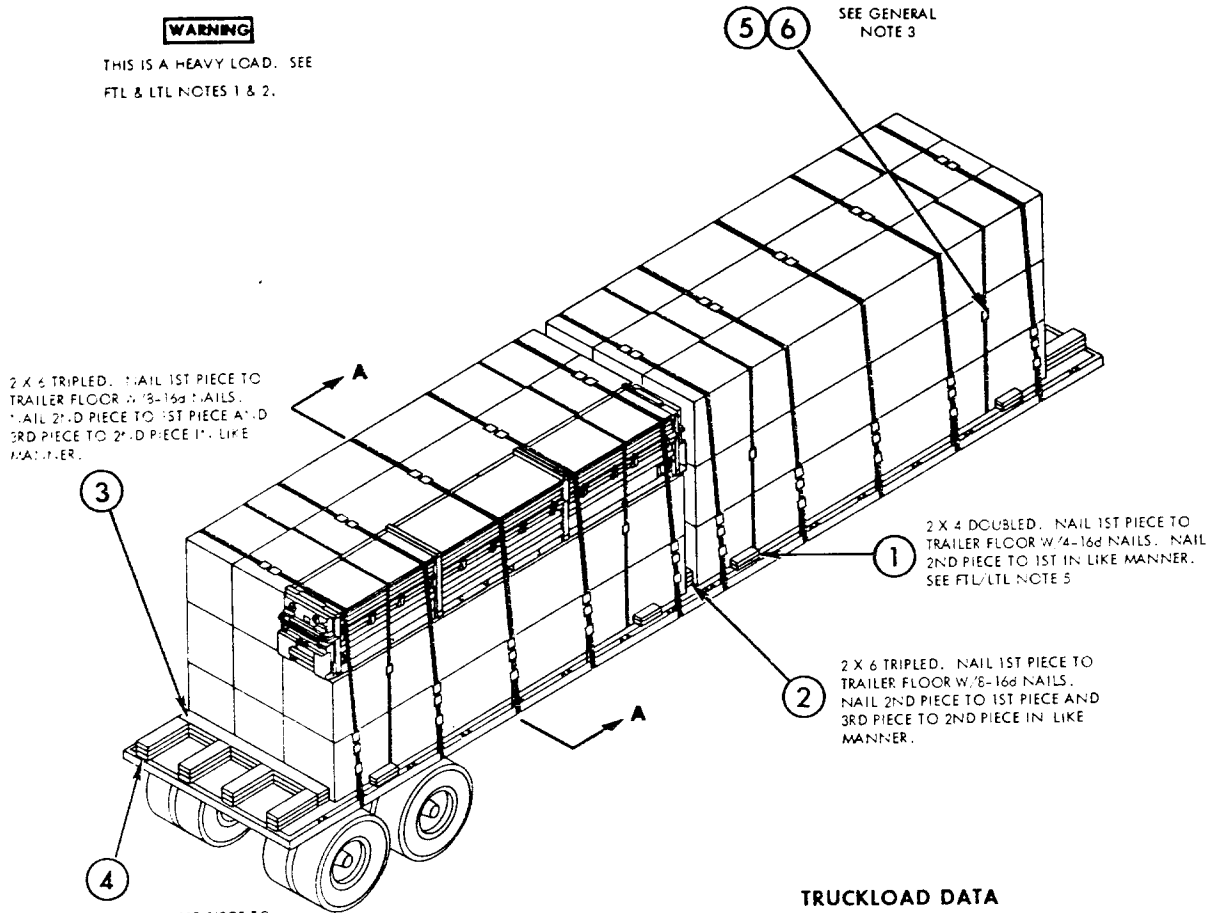
1. A FTL WHEN THE ROUTING IS THROUGH STATES PERMITTING 34,000 LBS ON TANDEM AXLES CONSISTS OF 18 CONTAINER BLOCKED AND TIED DOWN AS SHOWN ON PAGE 3.
2. A FTL WHEN THE ROUTING IS THROUGH STATES LIMITING TANDEM AXLES TO 32,000 LBS CONSISTS OF 17 CONTAINERS. ARRANGE THE CONTAINERS ON THE TRAILER AS SHOWN BY THE LOAD PATTERN IN TABLE II, PAGE 4. BLOCK AND TIEDOWN USING THE PRINCIPLES SHOWN ON PAGES 3 AND 5.
3. WHEN REQUIRED TO SHIP 16 OR LESS CONTAINERS, SELECT THE CORRECT LOAD PATTERN FROM TABLE II. BLOCK AND TIEDOWN USING THE PRINCIPALS SHOWN ON PAGES 3 AND 5.
4. WHEN THE CENTER OF THE TOP LAYER OF A STACK DOES NOT HAVE A CONTAINER (SEE TABLE II LOAD PLAN FOR 9 CONTAINERS), THE FILLER ASSEMBLY, DETAIL B SHALL BE USED. THE LONGITUDINAL (PIECE 11) MAY BE SPLICED WITH A 2 X 4 X 42 WHEN FULL LENGTH LONGITUDINALS ARE NOT AVAILABLE.
5. WHEN THE STACKS OF CONTAINERS ARE THREE WIDE, IT MAY NOT BE POSSIBLE TO NAIL THE SLEEPERS, PIECE 1 TO THE TRAILER FLOOR. WHEN THIS HAPPENS, USE THE PREPOSITION BLOCKING METHOD SHOWN IN DETAIL E, PAGE 6.

NOTE

THIS TRUCKLOAD ILLUSTRATES THE USE OF 2 X .050 STRAPS AS TIEDOWNS. CHAINS ARE AN AUTHORIZED ALTERNATE. SEE GENERAL NOTE 4.

WARNING

THIS IS A HEAVY LOAD. SEE FTL & LTL NOTES 1 & 2.



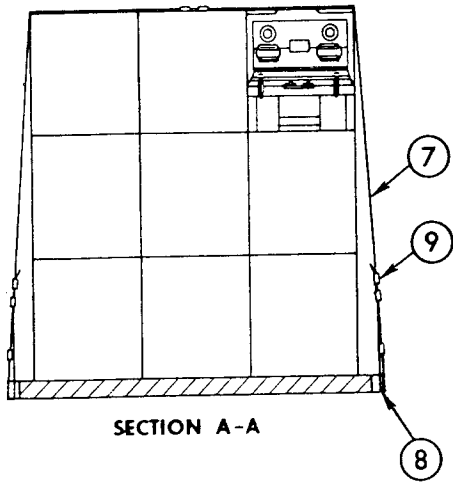
TRUCKLOAD DATA

NO. OF CONTAINERS 18
 WEIGHT (APPROX) 45,000 LBS

2 X 4 TRIPLED. NAIL 1ST PIECE TO TRAILER FLOOR W/ 8-16d NAILS. NAIL 2ND PIECE TO 1ST PIECE AND 3RD PIECE TO 2ND PIECE IN LIKE MANNER.

2 X 4 DOUBLED. NAIL 1ST PIECE TO TRAILER FLOOR W/ 4-16d NAILS. NAIL 2ND PIECE TO 1ST IN LIKE MANNER. SEE FTL/LTL NOTE 5

2 X 6 TRIPLED. NAIL 1ST PIECE TO TRAILER FLOOR W/ 8-16d NAILS. NAIL 2ND PIECE TO 1ST PIECE AND 3RD PIECE TO 2ND PIECE IN LIKE MANNER.



SECTION A-A

9	SEAL	FOR 2 IN. STRAP	80	-	-	-
8	STAKE POCKET PAD (STRAPPING)	2 X .050 X 24	20	-	-	-
7	STRAP	2 X .050 X 29 FT	10	SEE TABLE I		
6	SEAL	FOR 1 1/4 STRAP	12	-	-	-
5	STRAP	1 1/4 X .035 X 22 FT	12	SEE GENERAL NOTE 3		
4	BACKUP CLEAT	2 X 6 X 24	24	SEE FIELD NOTE		
3	END CROSSMEMBER	2 X 6 X 86	6	SEE FIELD NOTE		
2	CENTER CROSSMEMBER	2 X 6 X 86	3	SEE FIELD NOTE		
1	SLEEPER	2 X 4 X 14	16	SEE FIELD NOTE		
PIECE NO.	DESCRIPTION	SIZE	NO. OF PIECES REQ'D	NAIL TO	NUMBER NAILS	SIZE

LIST OF MATERIALS & NAILING DATA

FLATBED LOAD OF 18 CONTAINERS

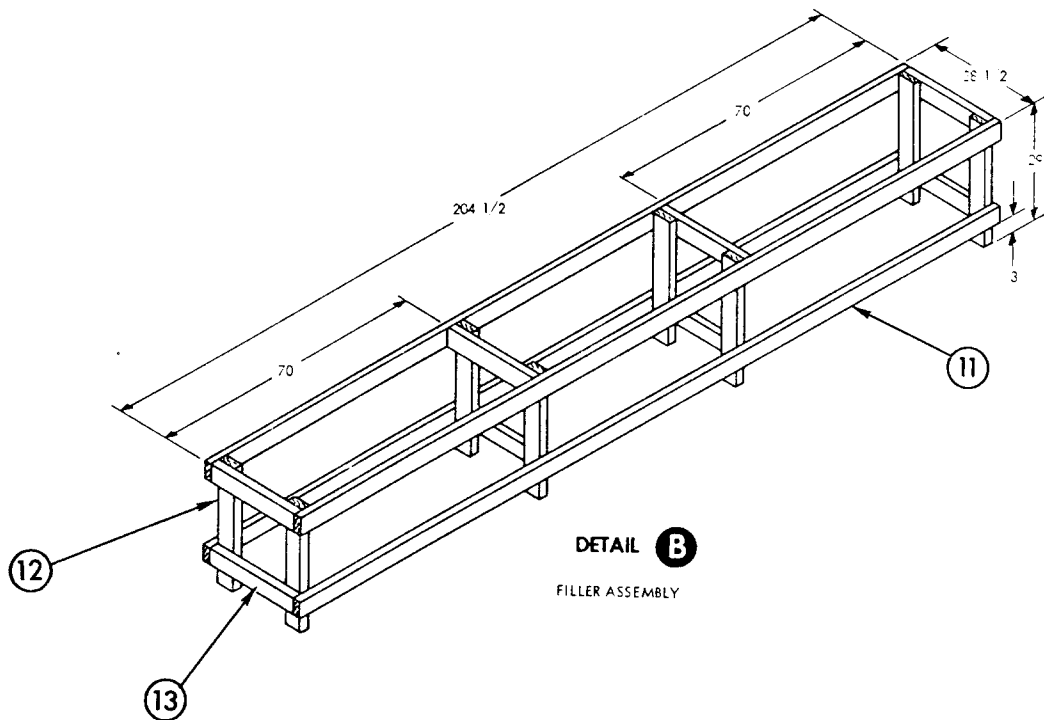
MIL-STD-1320-169 (NAVY)

2 NOVEMBER 1976

TABLE II

NO. OF CONTAINERS	LOAD PATTERN *	NO. OF CONTAINERS	LOAD PATTERN *	NO. OF CONTAINERS	LOAD PATTERN * FWD →
17		11		5	
16		10		4	
15		9		3	
14		8		2	
13		7		1	
12		6			

* LOAD PATTERN SHOWS THE FLOOR PLAN FOR THE TRAILER. NUMBER INDICATED THE QUANTITY OF CONTAINERS IN A LAYER.



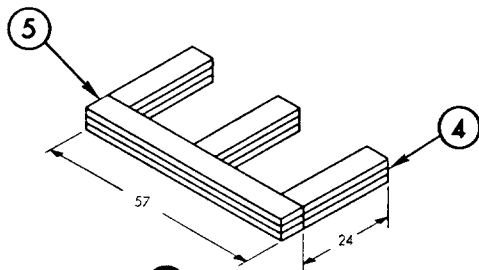
DETAIL B
FILLER ASSEMBLY

MIL-STD-1320-169 (NAVY)

2 NOVEMBER 1976

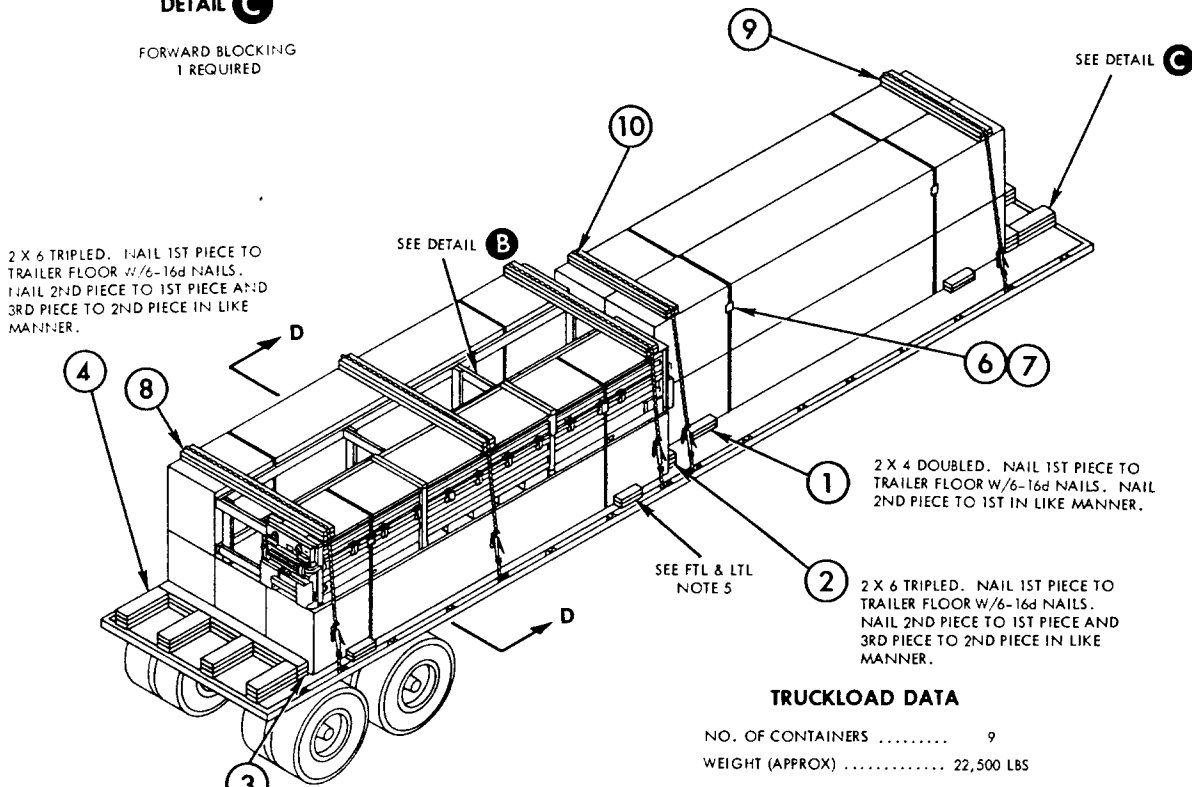
NOTE

THIS TRUCKLOAD ILLUSTRATES THE USE OF CHAINS AS TIEDOWNS. 2 X .050 STEEL STRAPS ARE AN AUTHORIZED ALTERNATE. SEE GENERAL NOTE 4.



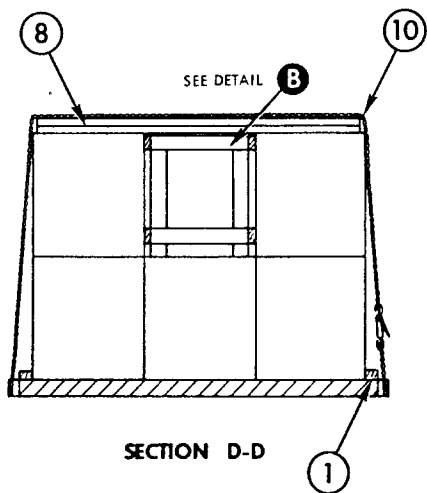
DETAIL C

FORWARD BLOCKING
1 REQUIRED



TRUCKLOAD DATA

NO. OF CONTAINERS 9
WEIGHT (APPROX) 22,500 LBS

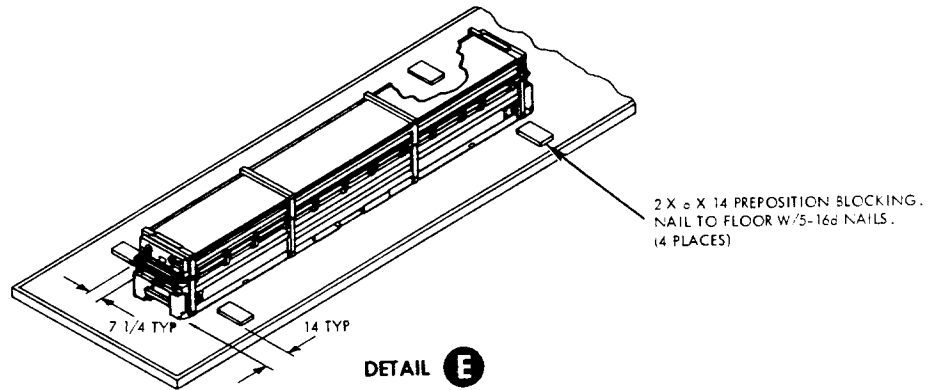


13	SPREADER	2 X 4 X 25 1/2	8	12	3 PER JOINT	10d
12	UPRIGHT	2 X 4 X 29	8	SEE 13	-	-
11	LONGITUDINAL	2 X 4 X 204 1/2 SEE FTL NOTE 4	4	12 & 3	2 PER JOINT	10d
10	CHAIN & LOADBINDER	3/8	5	SEE TABLE I		
9	PROTECTOR BOARD	2 X 6 X 54	4	DOUBLE LAMINATE	4	10d
8	PROTECTOR BOARD	2 X 6 X 82 1/2	6	DOUBLE LAMINATE	6	10d
7	SEAL	FOR 1 1/4 STRAP	8	-	-	-
6	STRAP	1 1/4 X .035 X 17 FT	8	-	-	-
5	FWD CORSSMEMBER	2 X 6 X 57	3	SEE FIELD NOTE		
4	BACKUP CLEAT	2 X 6 X 24	21	SEE FIELD NOTE		
3	REAR CROSSMEMBER	2 X 6 X 86	3	SEE FIELD NOTE		
2	CENTER CROSSMEMBER	2 X 6 X 86	3	SEE FIELD NOTE		
1	SLEEPER	2 X 4 X 14	16	SEE FIELD NOTE		
PIECE NO.	DESCRIPTION	SIZE	NO. OF PIECES REQ'D	NAIL TO	NUMBER	SIZE
					NAILS	

LIST OF MATERIALS & NAILING DATA

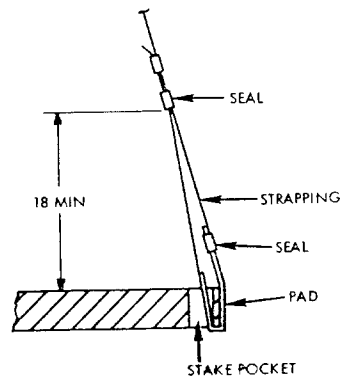
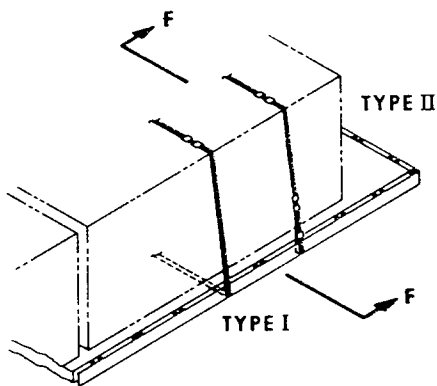
MIL-STD-1320-169 (NAVY)

2 NOVEMBER 1976



WHEN SLEEPERS CANNOT BE NAILED TO TRAILER FLOOR, USE ALTERNATE BLOCKING PROCEDURE SHOWN IN DETAIL E. POSITION STACK'S CENTER CONTAINERS ON TRAILER. LOCATE PREPOSITION BLOCKING AS SHOWN MEASURING FROM EXTREME END AND SIDE OF CONTAINER. POSITION STACKS SIDE CONTAINERS OVER PREPOSITIONED BLOCKING.

LOAD STRAPPING



SECTION F-F

TIE-DOWN STRAPPING

THE FOLLOWING TWO METHODS OF TIEDOWN STRAPPING ARE APPROVED FOR USE WITH THE SHIPMENT OF LOADS ON FLATBED TRAILERS. STEEL STRAPPING SHALL BE IN ACCORDANCE WITH FEDERAL SPECIFICATION QQ-S-781. STRAPPING SEALS SHALL HAVE A MINIMUM TENSILE STRENGTH EQUAL TO 75 PER CENT OF THE STRAP STRENGTH. FOR EACH OF THE TYPES ILLUSTRATED ABOVE IT IS PREFERRED TO POSITION, TENSION, AND DOUBLE CRIMP THE STRAP SEALS AT THE TOP OF THE LOAD, IF PRACTICABLE.

TYPE I - CONTINUOUS STRAPPING AROUND THE FLATBED AND THE LOAD.

TYPE II - THE STRAPPING IS SECURED TO THE STAKE POCKETS, ONE PIECE ON EACH SIDE OF THE TRAILER, AND IS BROUGHT UP OVER THE LOAD, TENSIONED, AND SEALED WITH TWO DOUBLE-CRIMPED SEALS ON THE TOP. METHOD OF SECURING STRAPPING TO STAKE POCKET IS SHOWN IN SECTION F-F. THE SHORT END IS ON THE INSIDE AND IS SECURED WITH TWO DOUBLE-CRIMPED SEALS AT A MINIMUM OF 18 INCHES ABOVE THE TRAILER BED. A STAKE POCKET PAD (A SHORT PIECE OF THE SAME STRAPPING 18 INCHES LONG) IS INSERTED BETWEEN THE MAIN STRAP AND THE STAKE POCKET AND IS SECURED TO THE MAIN STRAP WITH A SEAL AS SHOWN.

REVIEW ACTIVITY:
NAVY - OS

PREPARING ACTIVITY:
NAVY - OS
(PROJECT NO. 8140-N349)