

# MILITARY STANDARD

## LOADING OF HAZARDOUS MATERIALS AND ASSOCIATED ITEMS IN MILVAN CONTAINERS MINE, UNDERWATER MK 52 AND MODS IN CRATE MK 52 FLEET ISSUE UNIT LOAD

**MIL-STD-1386-47**  
**(NAVY)**

24 FEBRUARY 1975

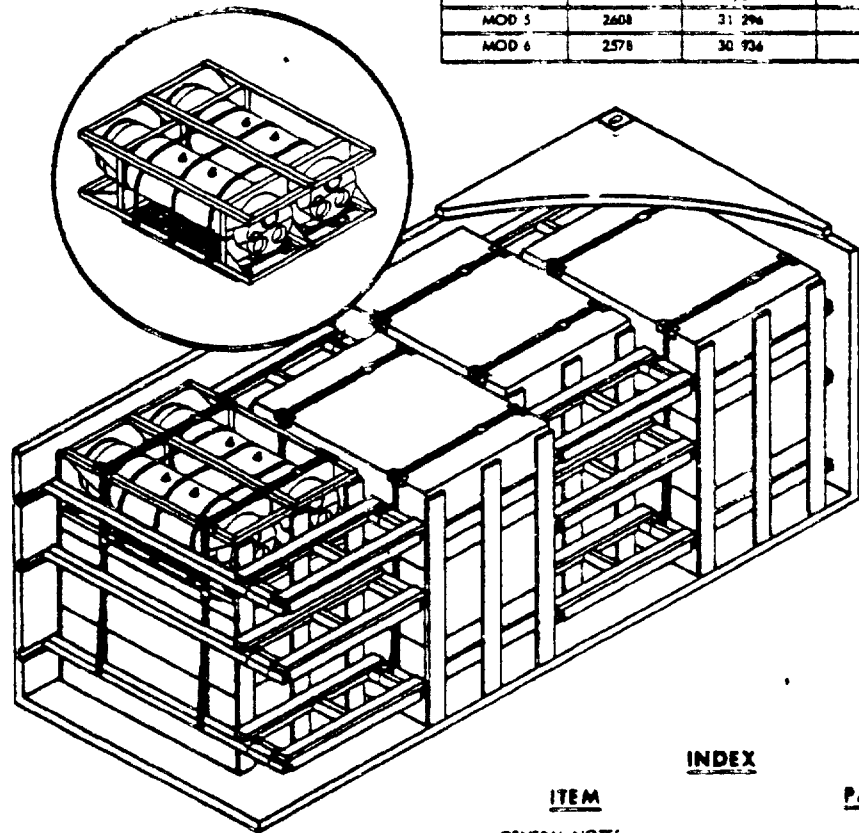
**UNIT LOAD DATA**

UNIT LOAD DRAWING ..... M1-64/208  
 DIMENSIONS ..... 66 1/4" x 39 3/4" x 27 3/4" H  
 CASE ..... 33.9 CU FT  
 WEIGHT ..... 33 TABLE 1

HAZARD CLASSIFICATION:  
 DOT - EXPLOSIVES A  
 CG - CLASS X-A

**TABLE 1**

MK 52 MINE UNDERWATER	UNIT LOAD WT (LBS)	CONTAINER LOAD WEIGHT (LBS)	CONTAINER GROSS WEIGHT (LBS)
MOD 1	2 188	29 236	35 114
MOD 2	2 588	31 056	37 314
MOD 3	2 612	31 344	37 602
MOD 4	2 524	30 288	36 546
MOD 5	2 608	31 296	37 354
MOD 6	2 578	30 936	37 194



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COFC, TOFC CONTAINERSHIP & HIGHWAY	2 & 3

**NOTES:**

- UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.
- FOR CROSS REFERENCE TO ASSOCIATED PALLETIZING, TRUCKLOADING AND CARLOADING MILITARY STANDARDS, REFER TO THE INDEX TO STANDARDS, MIL-HDBK-224 (NAVY).

FSC 8140

**AUTHORIZED FOR TRAILER-ON-FLAT-CAR (TOFC), CONTAINER-ON-FLAT-CAR (COFC), CONTAINERSHIP AND HIGHWAY SHIPMENTS**

**APPROVED BY  
US COAST GUARD**

**APPROVED BY  
BUREAU OF EXPLOSIVES**

*R. Schuman, COMUSCG*  
11-7-74

*A. J. Grossman*  
11/27/74

*M. S. Gray, NAVAID* 2/10/75  
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ORIGINATOR *S. J. ...* 2/12/75  
SIGNATURE

*J. E. Kelly* 2/20/75  
SIGNATURE NAVSEAS/COM BY DIRECTION DATE

NAVAL WEAPONS HANDLING LABORATORY  
NAD CARL, NEW JERSEY

MIL-STD-1386-47 (NAVY)

## GENERAL NOTES

1. THIS DOCUMENT GIVES DETAILED INSTRUCTIONS FOR LOADING THE MILVAN CONTAINER WITH THE UNDERWATER MINE MK 52 AND MODS IN CRATE MK 52 WHEN THE MINES ARE PALLETIZED IN ACCORDANCE WITH W2-54/208.
2. THE MILVAN SHALL BE EQUIPPED WITH A MECHANICAL LOAD-BRACING SYSTEM THAT MEETS THE REQUIREMENTS OF THE BUREAU OF EXPLOSIVES PAMPHLET 6C.
3. IN ADDITION TO THE BELT RAILS REQUIRED BY PAMPHLET 6C THE MILVAN CONTAINER HAS BELT RAILS AT THE 72" AND 80" HEIGHTS FROM THE CONTAINER FLOOR.
4. CONTAINERS ARE EQUIPPED WITH 25 CROSSMEMBERS. UNUSED CROSSMEMBERS MUST REMAIN WITH THE CONTAINER AND SHALL BE FASTENED INTO BELT RAILS FOR SHIPMENT.

**CAUTION**

WHEN POSITIONING CROSSMEMBERS MAKE A VISUAL CHECK TO ENSURE THAT CROSSMEMBERS ARE LOCKED SECURELY IN PLACE.

5. WHEN THE LONGITUDINAL SLACK BETWEEN A CROSSMEMBER AND THE UNIT LOAD IS GREATER THAN ONE INCH, INSTALL SHIM (PIECE 9 TO THE CROSSMEMBER TO FILL THE VOID. TWIST TIE WITH THREE PIECES OF 16 GAUGE SOFT ANNEALED IRON WIRE, AS SHOWN IN DETAIL A. THIS SHIM STRIP MAY BE ADDED OR OMITTED AS REQUIRED.
6. SWAY BRACE, DETAIL D, IS TWIST TIED TO THE CROSSMEMBERS AT BOTH ENDS WITH 16 GAUGE SOFT ANNEALED IRON WIRE. LENGTH OF STRUT, PIECE 4, SHALL BE OF SUFFICIENT THICKNESS TO CAUSE THE SWAY BRACE TO FILL THE VOID BETWEEN THE UNIT LOAD AND THE CONTAINER SIDE WALL.
7. EACH BAY OF UNIT LOADS IS TOWMED DOWN WITH TWO 1 1/4" x .005 STEEL STRAPS. STRAPS ARE ATTACHED TO THE CROSSMEMBERS AS SHOWN IN SECTION 3-5. SECURE EACH END OF STRAP WITH ONE SEAL WITH TWO PAIR OF NOTCHES PER SEAL OR TWO SEALS, BUTTED TOGETHER WITH TWO PAIR OF CRIMPS PER SEAL.
8. APPLICABLE MATERIAL SPECIFICATIONS:  
DUNNAGE LUMBER - FED. SPEC. MM-4-751.  
NAILS - FED. SPEC. FF-4-105, TYPE II, STYLE 10, COMMON NIBBIT.  
STRAP - FED. SPEC. QQ-5-781, TYPE I, CLASS A.
9. AFTER BLOCKING AND BRACING HAS BEEN INSPECTED, ATTACH SHIPPING DOCUMENTS INSIDE THE CONTAINER IN AN ACCESSIBLE AREA, CLOSE AND SEAL CONTAINER DOORS AND ATTACH APPLICABLE PLACARDS TO THE OUTSIDE OF THE CONTAINER FOR THE APPROPRIATE MODE OF TRANSPORTATION AS PRESCRIBED IN OP 2165 (VOL. 1).

## TOFC/COFC, CONTAINERSHIP AND HIGHWAY

1. THE CONTAINER LOAD CONSISTS OF 12 UNIT LOADS WHICH MUST BE LOADED AND DUNNAGED IN ACCORDANCE WITH THIS DOCUMENT.

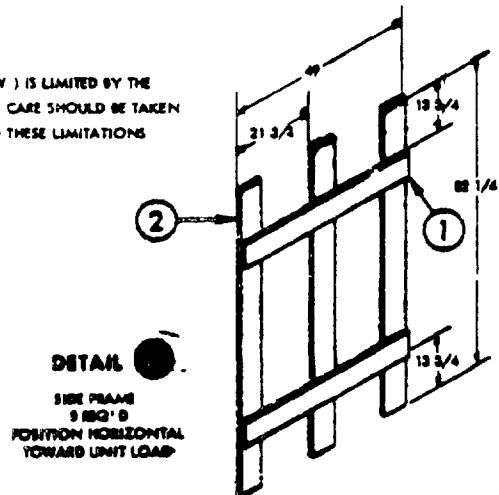
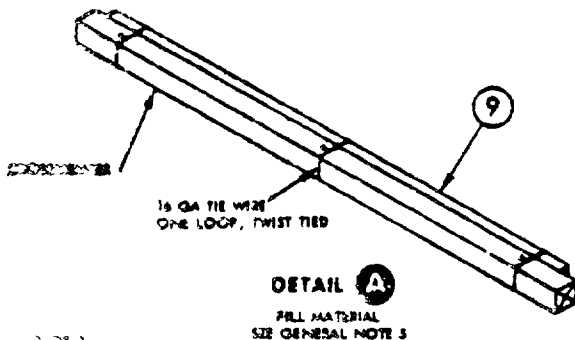
**NOTE**

THE TOP LAYER OF THE LAST BAY MAY BE OMITTED IF CONTAINER HEIGHT PREVENTS LOADING. REMAINING MINES IN THE BAY ARE TOWMED DOWN USING A CROSSMEMBER ON THE 60" HEIGHT. SHIM BETWEEN CROSSMEMBER AND MINE CRATE IS REQUIRED.

2. THE LOADED MILVAN CONTAINER SHALL BE ON A 20 FT MILVAN CHASSIS EQUIPPED WITH DOUBLE BOGIES WHEN BEING MOVED IN TOFC SERVICE.
3. WHEN THE LOADED CONTAINER IS IN TOFC OR COFC SERVICE, IT SHALL BE ON FLAT RAILCARS THAT COMPLY WITH BUREAU OF EXPLOSIVES PAMPHLET 6C.
4. THE LOADED MILVAN MAY BE TRANSPORTED OVER PUBLIC HIGHWAYS ON A MILVAN CHASSIS EQUIPPED WITH DOUBLE BOGIES OR ON SUITABLE COMMERCIAL EQUIPMENT OF APPROPRIATE CAPACITY.

**NOTE**

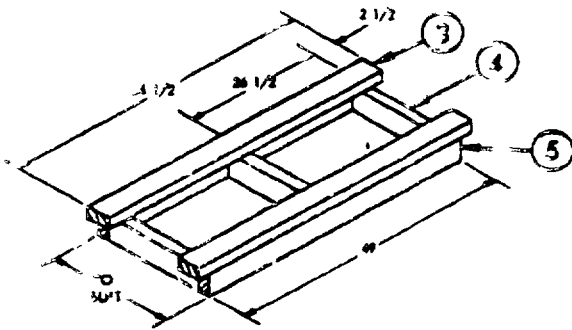
IN CERTAIN STATES THE GROSS VEHICLE WEIGHT (G.V.W.) IS LIMITED BY THE DISTANCE BETWEEN THE AXLES OF THE ASSEMBLED RIG. CARE SHOULD BE TAKEN TO SEE THAT THE PROPOSED G.V.W. DOES NOT EXCEED THESE LIMITATIONS.



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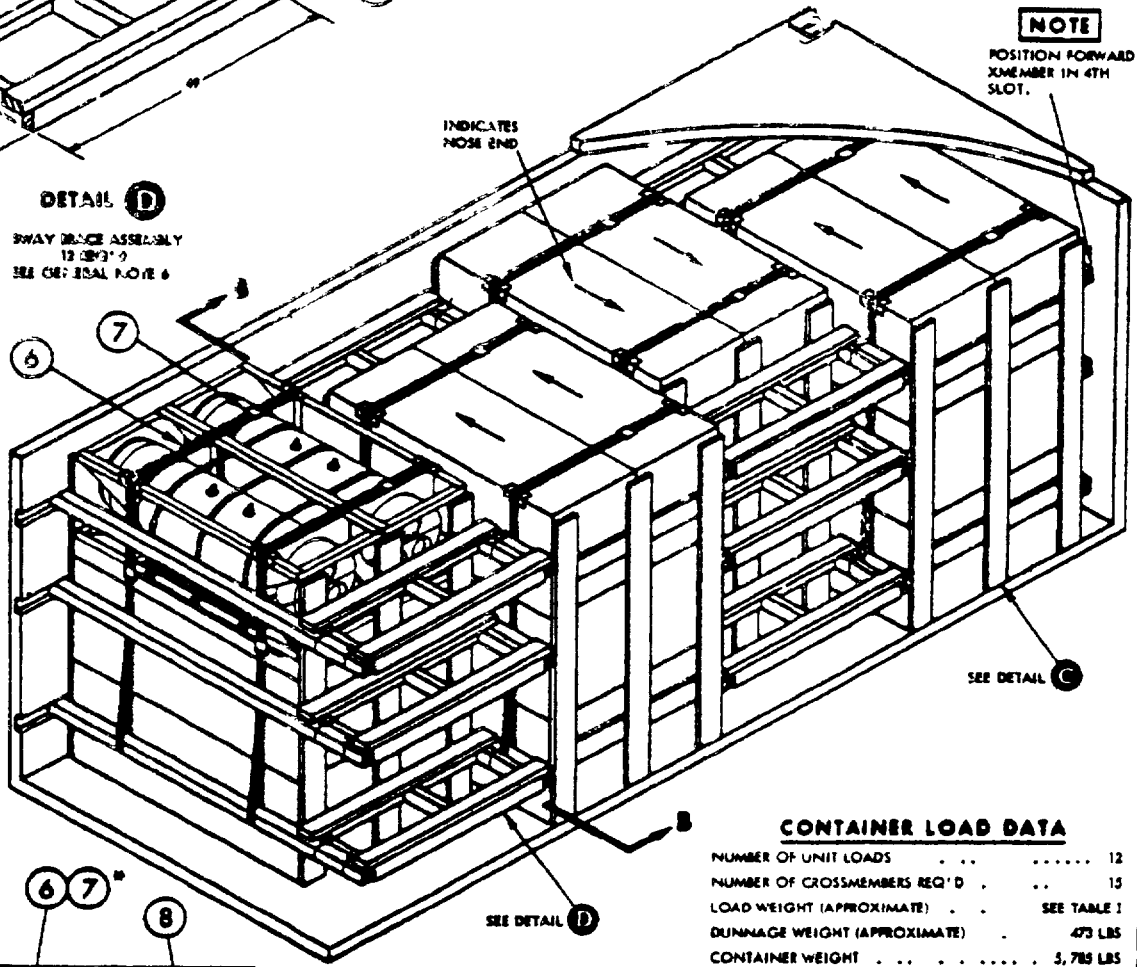
**NOTE**

POSITION FORWARD MEMBER IN 4TH SLOT.



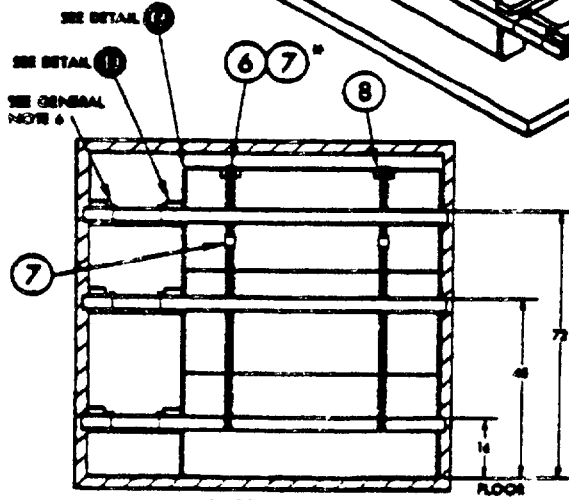
**DETAIL D**

SWAY BRACE ASSEMBLY  
12 (3) 1/2  
SEE GENERAL NOTE 6



**CONTAINER LOAD DATA**

NUMBER OF UNIT LOADS	12
NUMBER OF CROSSMEMBERS REQ'D	15
LOAD WEIGHT (APPROXIMATE)	SEE TABLE I
DUNNAGE WEIGHT (APPROXIMATE)	475 LBS
CONTAINER WEIGHT	5,785 LBS
GROSS WEIGHT (APPROXIMATE)	SEE TABLE I



**SECTION 3-B**

FAR END OF STRAP IS ATTACHED TO FORWARD 72 INCH HIGH CROSSMEMBER OF THE RAY. STRAP SEAL IS LOCATED SO THAT IT WILL BE ON TOP OF THE UNIT LOAD WHEN STRAP IS TENSIONED.

PIECE NO	DESCRIPTION	SIZE	NO PCS REQD	NAIL TO	NUMBER	SIZE
9	SHIM	4 WIDE x 90 LONG x THICKNESS TO SUIT	AS REQ'D	SEE GENERAL NOTE 5		
8	EDGE PROTECTOR	2 3/4 x 2 x 600	16	-	-	-
7	SEAL	1 1/4	16	-	-	-
6	STRAP	1 1/4 x 635 x 16 FT	8	-	-	-
5	LONGITUDINAL	2 x 4 x 49	24	4	2/JOINT	16d
4	STILT	2 x 4 x TO SUIT	36	SEE 5	-	-
3	SUPPORT	2 x 4 x 34 1/2	24	5	7	10d
2	VERTICAL	1 x 6 x 82 1/4	24	1	3/JOINT	6d CLINCHED
1	HORIZONTAL	1 x 6 x 49	16	SEE 2	-	-

LIST OF MATERIALS AND NAILING DATA

**TOPS/50PC, CONTAINERSHIP AND HIGHWAY**

REVIEW ACTIVITY  
NAVY - 01

PREPARING ACTIVITY  
NAVY - 05  
(PROJECT NO. 8140-N259)

SPECIFICATION ANALYSIS SHEET		Form Approved Budget Bureau No 22-R233
<p><b>INSTRUCTIONS</b> This sheet is to be filled out by personnel either Government or contractor involved in the use of the specification in procurement of products for ultimate use by the Department of Defense. This sheet is provided for obtaining information on the use of this specification which will insure that suitable products can be procured with a minimum amount of delay and at the least cost. Comments and the return of this form will be appreciated. Fold on lines on reverse side, staple in corner, and send to preparing activity. Comments and suggestions submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or serve to amend contractual requirements.</p>		
<p><b>SPECIFICATION</b> MIL-STD-1386-47 (Navy)</p>		
<p><b>ORGANIZATION</b></p>		
<p><b>CITY AND STATE</b></p>		<p><b>CONTRACT NUMBER</b></p>
<p><b>MATERIAL PROCURED UNDER A</b>  <input type="checkbox"/> DIRECT GOVERNMENT CONTRACT      <input type="checkbox"/> SUBCONTRACT</p>		
<p><b>1 HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?</b>  <b>A. GIVE PARAGRAPH NUMBER AND WORDING</b></p>		
<p><b>B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES</b></p>		
<p><b>2 COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID</b></p>		
<p><b>3 IS THE SPECIFICATION RESTRICTIVE?</b>  <input type="checkbox"/> YES      <input type="checkbox"/> NO (If "yes", in what way?)</p>		
<p><b>4 REMARKS (Attach any pertinent data which may be of use in improving this specification. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity.)</b></p>		
<p><b>SUBMITTED BY (Printed or typed name and activity - Optional)</b></p>		<p><b>DATE</b></p>

DD FORM 1426

REPLACES EDITION OF 1 OCT 64 WHICH MAY BE USED

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