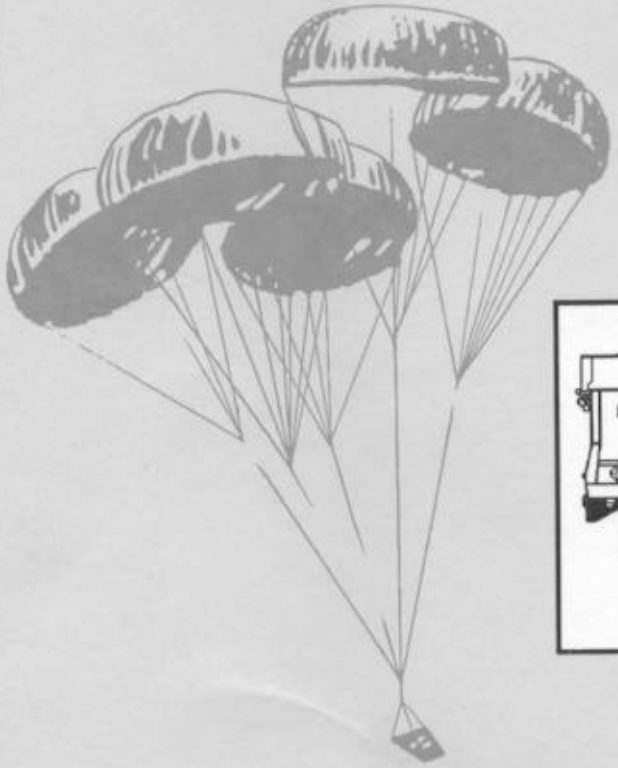
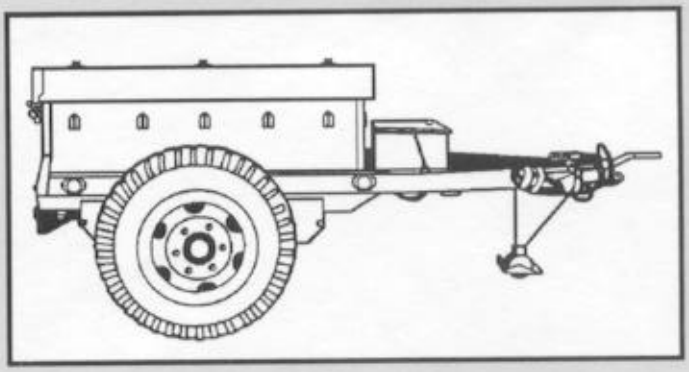
C2, FM 10-555/TO 13C7-3-401

AIRDROP OF SUPPLIES AND EQUIPMENT:

# RIGGING MUNITIONS TRAILERS





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HEADQUARTERS
DEPARTMENTS OF THE ARMY AND THE AIR FORCE

**DEPARTMENT OF THE ARMY**

HEADQUARTERS UNITED STATES ARMY TRAINING AND DOCTRINE COMMAND
FORT MONROE, VIRGINIA 23651-5000

REPLY TO ATTENTION OF

ATCD-SL (70-1f) 21 Oct 96

MEMORANDUM FOR DEPUTY CHIEF OF STAFF OPERATIONS AND PLANS, 400 ARMY PENTAGON, ATTN: DAMO-FDL, WASHINGTON DC 20310-0400

SUBJECT: Quartermaster (QM) Functional Area Assessment (FAA) Response

1. References:

a. Message, HQDA, DAMO-FDL, 231825Z Apr 96, subject: QM FAA Results.

b. Memorandum, HQ TRADOC, ATCG, 29 Jul 96, Army Airdrop Capabilities Assessment.

2. At the 29 Mar 96 QM FAA briefing to the Director of Army Staff, the decision was reached to revisit the Army's decision to "shelf" Low Altitude Parachute Extraction System (LAPES) (reference 1a).

a. Reference 1b, solicited CINCs input for their positions on LAPES and assessments of airdrop capabilities. The CINCs responses will be used to chart the direction and role for airdrop in the 21st century.

b. Based on the responses received (enclosure), there is no strong support for LAPES airdrop capability at this time. The consensus for the airdrop capabilities is to continue support for current Low Velocity Airdrop System (LVAD), develop a 500-foot LVAD and further explore Advanced Precision Aerial Delivery System (APADS).

3. Further, we will continue to maintain a range of airdrop capabilities to support all contingencies throughout the Army. The results of the Army Airdrop Capabilities Assessment also will be incorporated into the Operational Concept for Aerial Delivery Operations and Improved Cargo Aerial Delivery Capability Mission Needs Statement being developed by the Quartermaster Directorate of Combat Developments, U.S. Army Combined Arms Support Command (CASCOM).

4. The HQ TRADOC POC is MAJ Higgins, Airborne Airlift Action Office, ATCD-SL, E-mail: higginsn@emh10.monroe.army.mil, DSN 680-2469/3921, datafax DSN 680-2520.

ATCD-SL
SUBJECT: Quartermaster (QM) Functional Area Assessment (FAA) Response

FOR THE DEPUTY CHIEF OF STAFF FOR COMBAT DEVELOPMENTS:

Encl

JOHN A. MANDEVILLE
Colonel, GS
Director, Combat Service Support

CF:
USACASCOM (ATCL-CG/ATCL-QC/ATCL-MES)
USAQMC&S (ATSM-CG/ATSM-ABN/FS)
USANRDEC (SSCNC-UT/AMSSC-PM)

| ORGANIZATION | LAPES | LVAD | 500' LVAD | APADS | SPTS/ NOT SPEC |
|---|---|---|---|---|---|
| USSOCOM | | X | X | X | |
| EUCOM | | | | | X |
| CENTCOM | | X | X | | |
| FORSCOM | | X | X | X | |
| TRANSCOM | | | | | X |
| SOUTHCOM | X | | | X | |
| VIII ARMY | | | | | X |
| ACOM | | | | | X |

**USSOCOM**: Memorandum specifically states that the command does not support LAPES airdrop capability, but supports LVAD as well as APADS.

**EUCOM**: Draft memorandum specifically states that the command support the need for a low level airdrop capability. However, memorandum summarizes that the specific capability is not important as to have a capability to meet the required mission/threat profile.

**CENTCOM**: Memorandum specifically states that the command does not support LAPES airdrop capability, but support both current LVAD and 500-foot LVAD airdrop capabilities.

**FORSCOM**: 1st Endorsement specifically states that the command does not support LAPES airdrop capability, however supports LVAD, 500-foot LVAD and APADS.

**TRANSCOM**: Memorandum does not specifically address any airdrop capability as it talks to the 21st century requiring the full spectrum of tactical delivery methods.

**SOUTHCOM**: Memorandum specifically supports LAPES and APADS airdrop capabilities for their command.

**VIII ARMY**: E-Mail note for VIII Army states that the command has no input to the assessment as their plans call for a limited employment of airdrop.

**ACOM**: Sent request for input on 30 Sep 96. Received verbal response on 16 Oct 96 stating command is indifferent on the specific capability received.

DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY TRAINING AND DOCTRINE COMMAND
FORT MONROE, VIRGINIA 23651-5000

REPLY TO
ATTENTION OF

6 SEP 1995

ATCD-SL (70-1f)

MEMORANDUM FOR

Major General Thomas W. Robison, Commander, U.S. Army Combined Arms Support Command and Fort Lee, Fort Lee, VA 23801-6000
Major General Robert K. Guest, Commander, U.S. Army Quartermaster Center and School, Fort Lee, VA 23801-5030

SUBJECT: Low Altitude Parachute Extraction System (LAPES) Disassembly

1. References:

a. Message, HQ TRADOC, ATCD-SL, 100930Z Jan 95, subject: LAPES.

b. OVVM Note, HQ USACASCOM, 30 March 95, subject: TRADOC Disassembly of LAPES.

2. The U.S. Army and other services recently have concurred that LAPES will be terminated, as this capability is no longer required as a viable wartime contingency airdrop option. However, Headquarters, Department of the Army (DA), Deputy Chief of Staff for Operations and Plans, has agreed that LAPES technology will be shelved, and all specialized equipment preserved for possible future use.

3. Take the necessary steps to terminate training and leader development concerning LAPES operations. Major General Guest's questions regarding the disassembly of LAPES (enclosed) with following guidance will be utilized:

a. "Does the U.S. Army Quartermaster Center and School (USAQMC&S) continue to publish LAPES procedures in their joint field manual(FMs)/technical order manuals?" "Do we publish the LAPES procedures that have been written but not been printed yet?" Publishing LAPES procedures in all joint publications, Army FMs, regulations, etc., will be discontinued and addressed in the next revision of the aforementioned documents. Concurrently, all LAPES procedures that have been written and not printed will not be published.

6 SEP 1995

ATCD-SL
SUBJECT: Low Altitude Parachute Extraction System (LAPES) Disassembly

b. "Do we keep LAPES in our programs of instruction (POIs)?" "Do we teach LAPES to other services and our allies?" The USAQMC&S will remove LAPES procedures from POI and cease teaching LAPES to other services and/or allies.

c. "What do we teach to folks that have LAPES equipment in their war reserves?" All instruction concerning LAPES procedures will be discontinued whether LAPES equipment is located in units or in war reserves.

d. "What is the DA/TRADOC guidance on disposition of unit, depot, and war reserves LAPES equipment?" All LAPES equipment in war reserves and depot should be preserved with the exception of a few items that can be utilized in other existing airdrop capabilities. Specifically, the Type V airdrop platforms and attitude control bars of the LAPES system are being utilized to augment current Low Velocity Airdrop Systems (LVADS) loads.

e. "What is the guidance to U.S. Army Test and Experimentation Command on force development test and experimentation certification of LAPES loads?" The certification of all LAPES loads at the Airborne Special Operations Test Directorate will be redirected toward testing and certification of LVADS loads.

4. HQ TRADOC POC is CPT Higgins or CPT Phillips, ATCD-SL, DSN 680-2469/3921, datafax DSN 680-2520.

FOR THE COMMANDER:

JOE N. BALLARD
Major General, GS
Chief of Staff

Encl

CF:
HQDA (DAMO-FDL)
CDR, NRDEC (SAFNC-UA)
CDR, FORSCOM (FCJ3-FC)
CDR, OPTEC (CSTE-CS, CSTE-OPM)
CDR, ATCOM (AMSAT-W-TD)
DIR, ABNSOTD (ATCT-AB)
HQ TRADOC (ATCD-L, ATCD-RM, ATDO-A, ATTG-IT)

Date and time 07/18/95 10:28:11

From: HIGGINSN--MON1
To: HIGGINSN--MON1

From: CPT NEIL HIGGINS, (AAACO), 680-2467
Subject: TRADOC "DISASSEMBLY" OF LAPES

**********
* AIRBORNE AIRLIFT ACTION OFFICE *
* (AAACO) *
**********

** Forwarding note from BRUNEAUN--CMSNAMES 07/18/95 10:27 ***
Received: from LEE-EMH2.ARMY.MIL by MONROE-EMH1.ARMY.MIL (IBM VM SMTP V2R2)
with TCP; Tue, 18 Jul 95 10:27:22 EDT
Received: from LEE1 by LEE-EMH2.ARMY.MIL (IBM VM SMTP V2R2) with BSMTP id 3547;
Tue, 18 Jul 95 10:29:34 EDT
Comments: Converted from PROFS to RFC822 format by PUMP V2.2X
Date: Tue, 18 Jul 95 10:29:26 EDT
From: NORMAN BRUNEAU <BRUNEAUN@LEE-EMH2.ARMY.MIL>
Subject: TRADOC "DISASSEMBLY" OF LAPES
To: "NEIL HIGGINS- AAACO " <HIGGINSN@MONROE-EMH1.ARMY.MIL>

*** Resending note of 03/30/95 09:23

--To: LARRY MC MILLIAN AAA <MCMILLIL@MONROE-EMH1.ARMY.MIL>
From: NORMAN BRUNEAU
Subject: TRADOC "DISASSEMBLY" OF LAPES

NEIL- HERE ARE THE QUESTIONS THAT MG GUEST WANTS DA/ TRADOC TO ANSWER RE LAPES.
AS I UNDERSTAND HIS GUIDANCE. I HAVE DISCUSSED THESE W/ OUR ABN DPT. IF THESE
QUESTIONS MAKE SENSE, GIVE ME AN "OP" BEFORE I FORMALLY SEND ANYTHING OUT.
MG GUEST WANTS SPECIFIC GUIDANCE FM TRADOC ON LAPES, RESPONSE NEEDS TO BE CLEAR
AND TO THE POINT. A LOT OF THIS WILL HINGE ON WHAT ACC PLANS TO DO W/ LAPES
NOW THAT THE AIR STAFF HAS GIVEN THEM THE GREEN LIGHT TO KILL IT. IF THEY
PLAN TO PLACE IT ON THE SHELF OR KEEP A LIMITED OR CONTINGENCY CAPABILITY, THAT
WILL DRIVE YOUR ANSWER TO US, AT THIS POINT I THINK ACC WILL DO WHATEVER THE
ARMY WANTS, AS THEIR PRIMARY CUSTOMER. I WILL NOT REHASH HOW THE ARMY DE-
CIDED THEY DIDNT NEED LAPES. QUESTIONS FOLLOW:

DOES THE GMCS CONTINUE TO PUBLISH LAPES PROCEDURES IN THEIRJOINT FM/TO MAN-
UALS?
DO WE PUBLISH THE LAPES PROCEDURES THAT HAVE BEEN WRITTEN BUT HAVE NOT BEEN
PRINTED YET?
DO WE REMOVE ALL LAPES PROCEDURES FROM ALREADY PUBLISHED MANUALS?
DO WE KEEP LAPES IN OUR POI?
DO WE TEACH LAPES TO OTHER SERVICES AND OUR ALLIES?
DO WE TEACH LAPES TO FOLKS THAT HAVE LAPES EQUIPMENT IN THEIR WAR RESERVES?
WHAT DO WE TEACH TO FOLKS THAT HAVE LAPES EQUIPMENT IN THEIR WAR RESERVES?
WHAT IS THE DA/TRADOC GUIDANCE ON DISPOSITION OF UNIT, DEPOT, AND WAR RE-
SERVE LAPES EQUIPMENT?
WHAT IS THE GUIDANCE TO TEXCOM ON THE FDTE CERTIFICATION OF LAPES LOADS?

I KNOW THESE ARE TOUGH QUESTIONS, BUT THEY HAVE TO BE ASKED. HQ STAFFS CAN-
NOT SIMPLY SAY "KILL IT" AND MOVE ON TO THE NEXT ISSUE. I DONT THINK WE ARE
DOING OUR JOB IF WE LEAVE IT UP TO THE SCHOOLHOUSE TO INTERPRET SKETCHY GUID-
ANCE. THAT PLACES US IN THE POSSIBLE POSITION OF BEING ACCUSED OF NOT FOLLOW-
ING ORDERS.

LETS TALK.....NORM

TAGS 7/18

SEP 11 '95 08:30AM CSSRD FT MONROE VA

Encl 1

**DEPARTMENT OF THE ARMY**
QUARTERMASTER CENTER AND SCHOOL
1201 22D STREET
FORT LEE, VIRGINIA 23801-1601

ATSM-ABN-FS 15 Dec 96

MEMORANDUM FOR RECORD

SUBJECT: Airdrop Equipment Update

Reference:

a. Phone conversation between CW4 Mahon, CASCOM and Dick Harper, Weapons System Management Office, Army Aviation Troop Command, Subject : sab

b. Phone conversation between CW4 Mahon, CASCOM and Don Stump, Logistics Management Specialist, Office, Deputy Chief of Staff for Logistics, Subject, sab

c. Phone conversation between CW4 Mahon, CASCOM and Chief Msgt Okraneck, Hqrs Air Combat Command, Subject sab

d. msg dtg R 181348Z Feb 94, subject: FCIF item: Type II platforms, PEFTC and SL/CS for Air Force unilateral training

1. Based on information received from the references a-c above, the following update is provided per request ref c, above.

a. The type II modular platform no longer exists within any contingency stocks. Therefore, maintaining Joint Inspection training program is no longer required for this equipment.

b. The Parachute Extraction Transfer Force Coupling (PEFTC) no longer exists within any contingency stocks. Therefore, maintaining Joint Inspection training program is no longer required for this equipment.

c. The metric platform interim rigging procedures are no longer valid as they apply to metric platforms. Those rigging procedures which have dual application with the type V platform are still valid for the type V platform.

d. The static line connector strap (SL/CS) currently has limited application. Only those loads that specifically require this system are authorized use of this system. The SL/CS is not an across the board substitute for the Extraction Force Transfer Coupling (EFTC). These authorized loads are specific in nature and will normally be found in the special operations arena of airdrop loads. This system is not authorized for use IAW ref d, above.

2. For additional questions/information contact the undersigned at DSN 687-4733, Fax 3084.

John R. Mahon
CW4, USA
Senior Airdrop Systems
Technician

CHANGE
No. 2

HEADQUARTERS
DEPARTMENT OF THE ARMY
DEPARTMENT OF THE AIR FORCE
Washington, DC, 6 June 1997

# AIRDROP OF SUPPLIES AND EQUIPMENT:

# RIGGING MUNITIONS TRAILERS

This change adds the procedures for rigging the mine-cleaning line charge on a 2 1/2-ton trailer on a type V platform for low-velocity airdrop. Also, the manual title and distribution restriction are changed.

FM 10-555/TO 13C7-3-401, 23 May 1986, is changed as follows:

1. New or changed material is identified by a vertical bar (▮) in the margin opposite the changed material.
2. File this transmittal page in front of the publication for reference purpose.
3. Remove old pages and insert new pages as indicated below:

| Remove pages | Insert pages |
|---|---|
| Cover 1 | Cover 1 |
| i through iii | i through v |
| 1-1 | 1-1 |
| ..... | 5-1 through 5-27 |
| Glossary- 1 | Glossary-1 |
| References-1 | References- 1 |

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By Order of the Secretary of the Army:

DENNIS J. REIMER
*General, United States Army*
*Chief of Staff*

Official:

JOEL B. HUDSON
*Administrative Assistant to the*
*Secretary of the Army*
03484

DISTRIBUTION:

Active Army, Army National Guard, and U.S. Army Reserve: To be distributed in accordance with the initial distribution number 113834, requirements for FM 10-555.

CHANGE
NO. 1

HEADQUARTERS
DEPARTMENT OF THE ARMY
DEPARTMENT OF THE AIR FORCE
Washington, DC, 17 March 1992

# AIRDROP OF SUPPLIES AND EQUIPMENT
# RIGGING 1 1/2-TON AMMUNITION TRAILER

This change adds the procedures for rigging the 1 1/2-ton ammunition trailer on a type V platform for low-velocity and LAPE airdrop. Also, with this change, the distribution restriction statement is changed to read as shown below. A destruction notice (as shown below) is now also required. Please mark the changes on the cover of the basic manual.

FM 10-555/TO 13C7-3-401, 23 May 1986, is changed as follows:

1. New or changed material is identified by a vertical bar in the margin opposite the changed material.

2. Remove old pages and insert new pages as indicated below:

| Remove old pages | Insert new pages |
|---|---|
| i through iii | i through iv |
| | 4-1 through 4-53 |
| Glossary-1 | Glossary-1 |
| References-1 | References-1 |

3. File this transmittal sheet in front of the publication for reference purposes.

DISTRIBUTION UNLIMITED

Field Manual
No 10-555
Technical Order
No 13C7-3-401

HEADQUARTERS
DEPARTMENTS OF THE ARMY
AND THE AIR FORCE
Washington, DC, 23 May 1986

AIRDROP OF SUPPLIES AND EQUIPMENT

# RIGGING MUNITIONS TRAILERS

## TABLE OF CONTENTS



# PREFACE

## SCOPE

This manual tells and shows how to prepare and rig the 1 1/2-ton ammunition trailer for low-velocity airdrop from the C-130 and C-141 aircraft on the type II and type V platforms. This manual tells and shows how to prepare and rig the 1 1/2-ton ammunition trailer on the type V platform for low-velocity airdrop from the C-5, and C-17 aircraft. This manual also tells and shows how to prepare and rig the 1 1/2-ton ammunition trailer for LAPE airdrop from the C-130 aircraft. This manual tells and shows how to prepare and rig the mine-clearing line charge (MICLIC) on a 2 1/2-ton trailer for low-velocity airdrop from C-130, C-141, C-17, and C-5 aircraft on the type V platform.

## USER INFORMATION

The proponent for this publication is HQ TRADOC. You are encouraged to report any errors or omissions and suggest ways to improve this manual. ARMY personnel, send your comments on DA Form 2028 directly to:

AERIAL DELIVERY AND FIELD SERVICES DEPARTMENT
USA QUARTERMASTER CENTER AND SCHOOL
1010 SHOP ROAD
FORT LEE VIRGINIA 23801-1502

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Air Force personnel in Special Operations Command, send your reports on AFTO Form 22 through:

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100 BARTLEY STREET SUITE 260
HURLBURT FIELD FLORIDA 32544-5273

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USA QUARTERMASTER CENTER AND SCHOOL
1010 SHOP ROAD
FORT LEE VIRGINIA 23801-1502

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*Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men.*

# CHAPTER 1
# INTRODUCTION

## 1-1. Description of Load

The descriptions and unrigged data for the items covered in this manual are given below.

*a.* The unrigged 1 1/2-ton ammunition trailer weighs 2,660 pounds. It is 148 inches long, 95 inches wide, and 64 inches high. The height is reducible to 58 inches. The trailer may be dropped empty or with an accompanying load. The accompanying load may weigh up to a maximum of 3,300 pounds.

*b.* The mine-clearing line charge (MICLIC) in its container weighs 2,855 pounds. It is mounted on a 2 1/2-ton M200A1 trailer. The rocket projectile, in its shipping container, weighs 270 pounds and is rigged on the platform.

## 1-2. Special Considerations

Special considerations for this manual are described below.

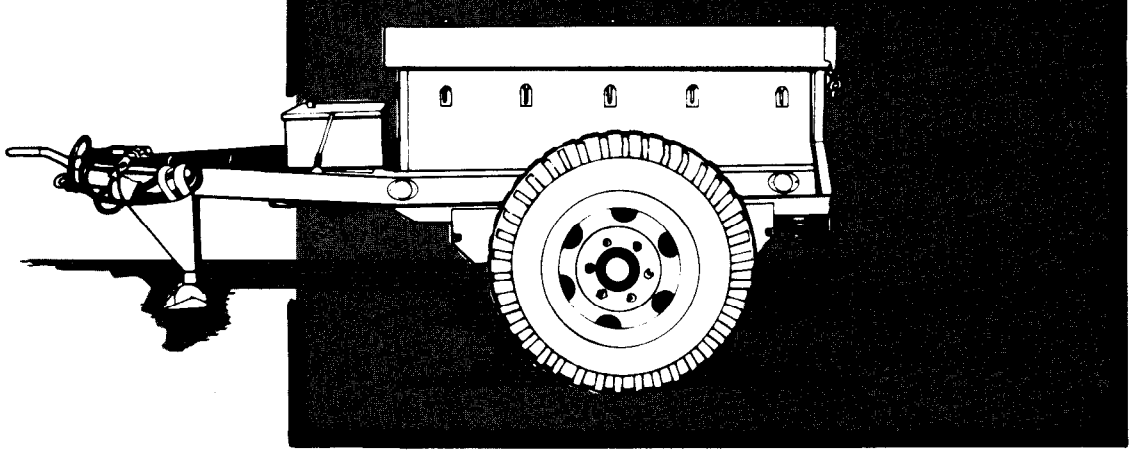
*a.* The loads covered in this manual will include hazardous materials as defined in AFJMAN 24-204/TM 38-250. The hazardous material must be packaged, marked, and labeled as required by AFJMAN 24-204/TM 38-250.

*b.* A copy of this manual must be available to the joint airdrop inspectors during the before- and after-loading inspections.

**CAUTION**
Only ammunition listed in FM 10-500-53/ TO 13C7-18-41 may be dropped.

CHAPTER 4

# RIGGING AMMUNITION TRAILER ON A TYPE V PLATFORM



## Section I

## LOW-VELOCITY AIRDROP

### 4-1. Description of Load

The 1 1/2-ton ammunition trailer (Figure 4-1) is rigged on a 12-foot, type V platform for low-velocity airdrop. The trailer may be rigged with or without an accompanying load. The accompanying load in the trailer may weigh a maximum of 3,000 pounds. The total weight of the accompanying loads in the trailer and on the platform must not exceed 5,090 pounds. The accompanying loads shown in this section—24 rounds of 155-millimeter projectiles, 24 powder canisters, and three boxes of primers and fuses—weigh 3,292 pounds. The load shown in this section requires two G-11B cargo parachutes.

### 4-2. Preparing Platform

Prepare a 12-foot, type V platform using four tandem links and 52 clevis assemblies as shown in Figure 4-2.

**Notes:** **1. The nose bumper may or may not be installed.**

**2. Measurements given in this section are from the front edge of the platform, NOT from the front edge of the nose bumper.**

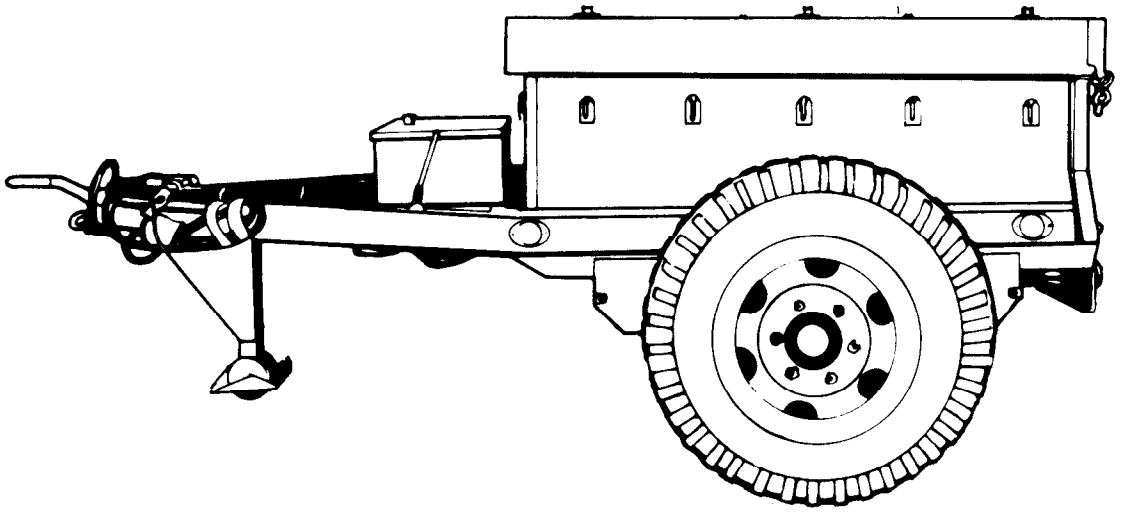
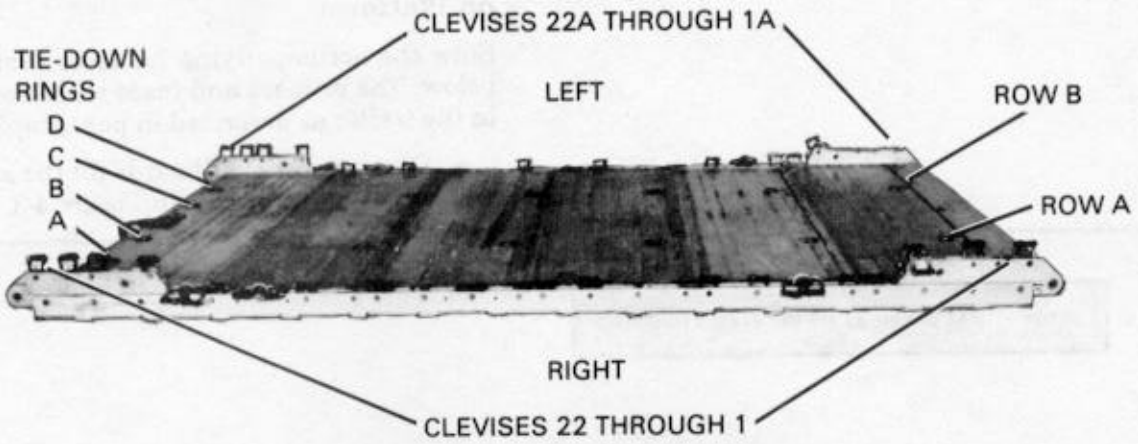


*Figure 4-1. Left side of unrigged 1 1/2-ton ammunition trailer*




**Step:**

1. Inspect, or assemble and inspect, the platform according to TM 10-1670-268-20&P/TO 13C7-52-22.
2. Install a tandem link on the front of each platform side rail using holes 1, 2, and 3.
3. Install a tandem link on the rear of each platform side rail using holes 22, 23, and 24.
4. Install a clevis on bushings 1 and 3 on each front tandem link.
5. Install a clevis on bushings 1, 2, 3, and 4 on each rear tandem link.
6. Starting at the front of each platform side rail, install clevises on each platform side rail using the bushings bolted on holes 4, 5, 7, 8, 11, 16, 18, and 20.
7. Install a clevis on bushing 4 in an inverted position on each front tandem link. Install a clevis on bushings 6, 19, and 21 in an inverted position on each side rail. Bolt two clevises to each inverted clevis.

**Note: When numbering the clevises, disregard the inverted clevises.**

8. Starting at the front of each platform, number the clevises bolted to the right side from 1 through 22 and those bolted to the left side from 1A through 22A.
9. Starting at the front of the platform, label the two tie-down rings in the first five panels A and B from right to left. Label the four tie-down rings in the last panel A, B, C, and D from right to left. Starting with the first panel, number the tie-down rings 1 through 6.

*Figure 4-2. Platform prepared*

## 4-3. Stowing Accompanying Loads on Platform

Stow the accompanying loads as described below. The primers and fuses will be stowed in the trailer as described in paragraph 4-6.

*a.* Construct the endboards for the accompanying loads as shown in Figure 4-3.

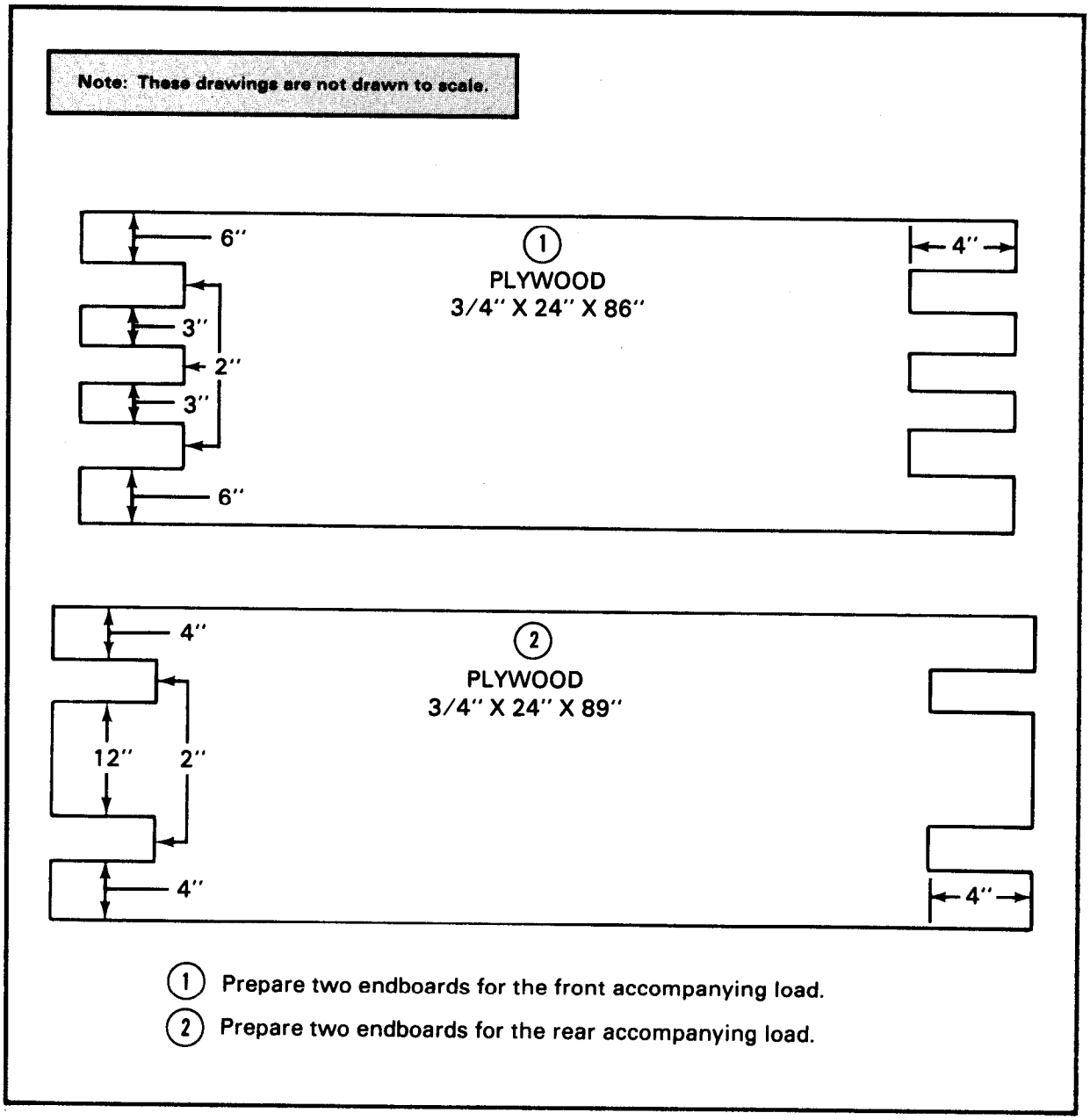
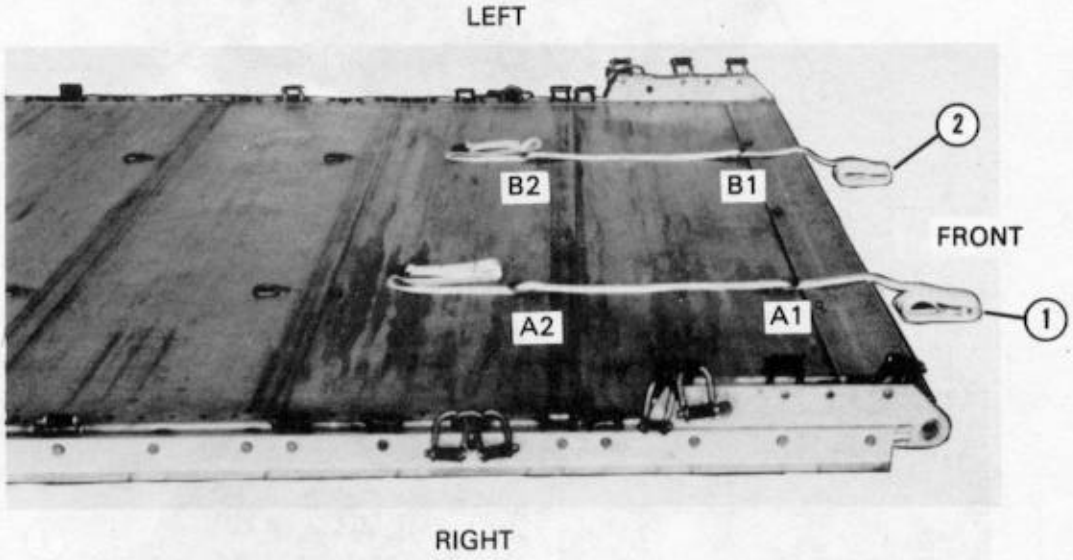



*Figure 4-3. Endboards constructed*

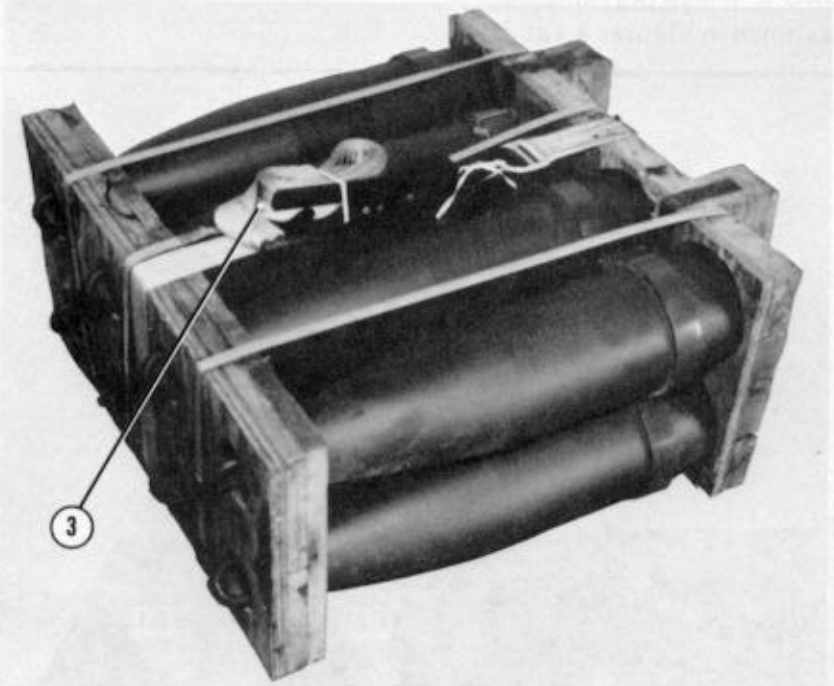
*b.* Prepare, stow, and lash the front accompanying load as shown in Figures 4-4 and 4-5.

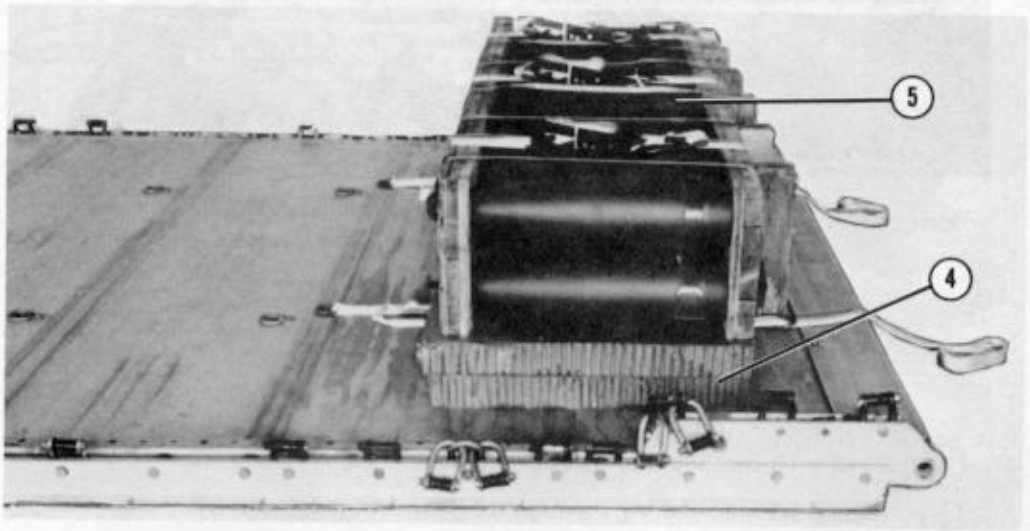



(1) Pass a 15-foot lashing through tie-down rings A1 and A2.

(2) Pass a 15-foot lashing through tie-down rings B1 and B2.

*Figure 4-4. Front accompanying load prepared and stowed on platform*



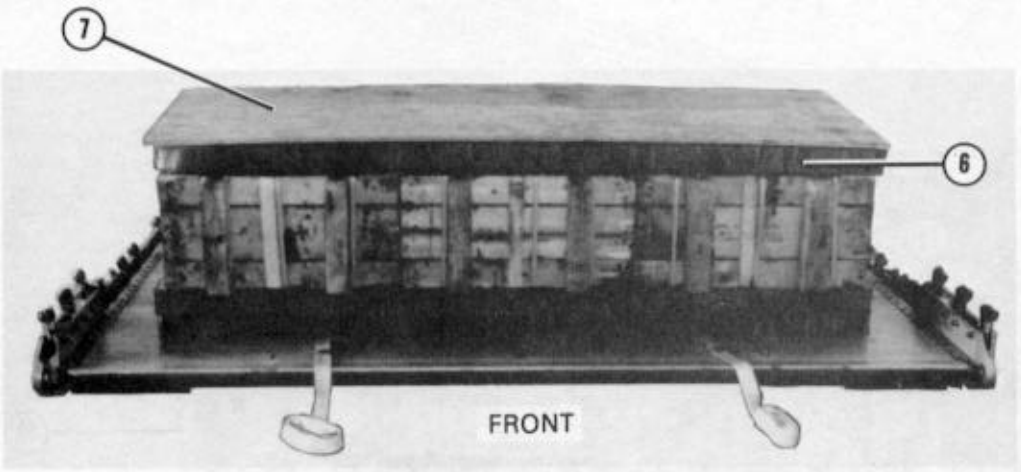



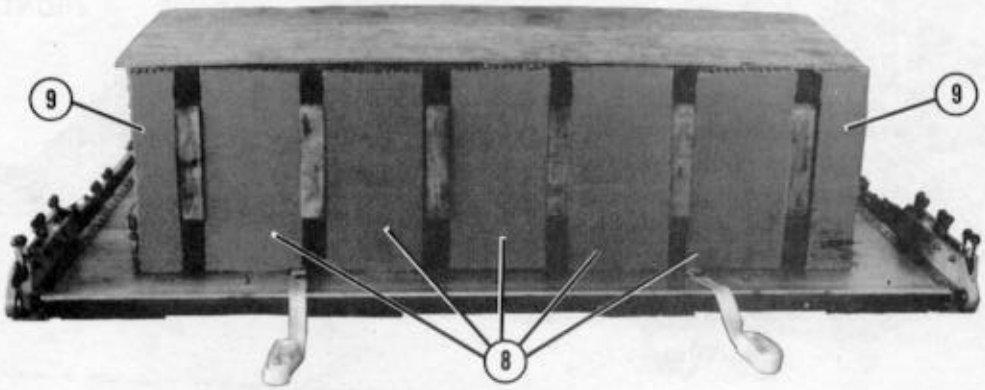

(3) Bind a group (eight rounds) of projectiles with a 15-foot lashing. Bind two more groups.

(4) Center two 84- by 28-inch pieces of honeycomb on the platform 10 inches from the front edge.

(5) Place the three groups of projectiles on the honeycomb. Place the bases of the projectiles toward the front of the platform.

*Figure 4-4. Front accompanying load prepared and stowed on platform (continued)*



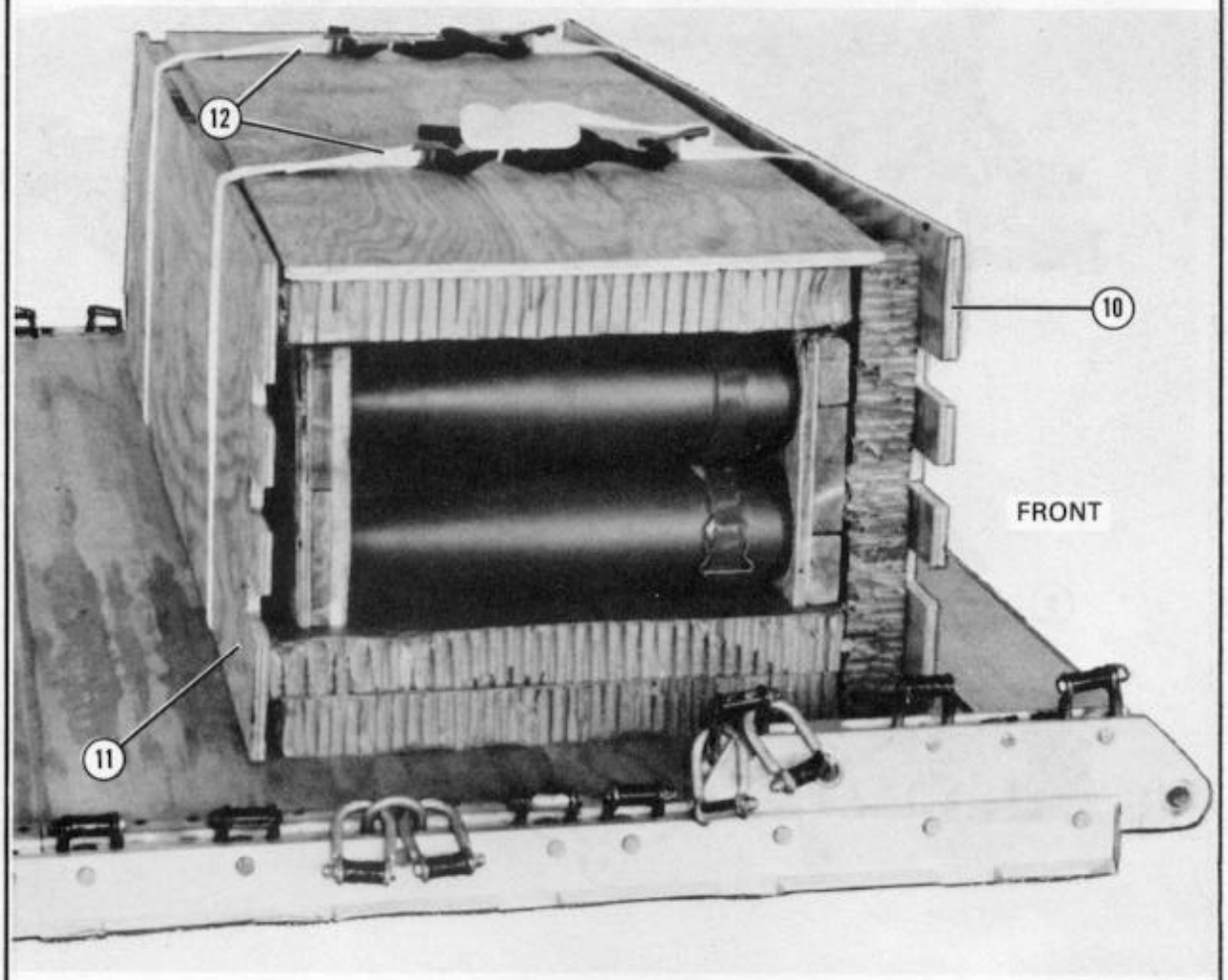

(6) Place an 84- by 28-inch piece of honeycomb on top of the projectiles.

(7) Place a 3/4- by 84- by 28-inch piece of plywood on top of the honeycomb.

(8) Space five 11- by 23-inch pieces of honeycomb against the bases of the projectiles.

(9) Place a 5- by 23-inch piece of honeycomb at each end of the projectile bases.

*Figure 4-4. Front accompanying load prepared and stowed on platform (continued)*

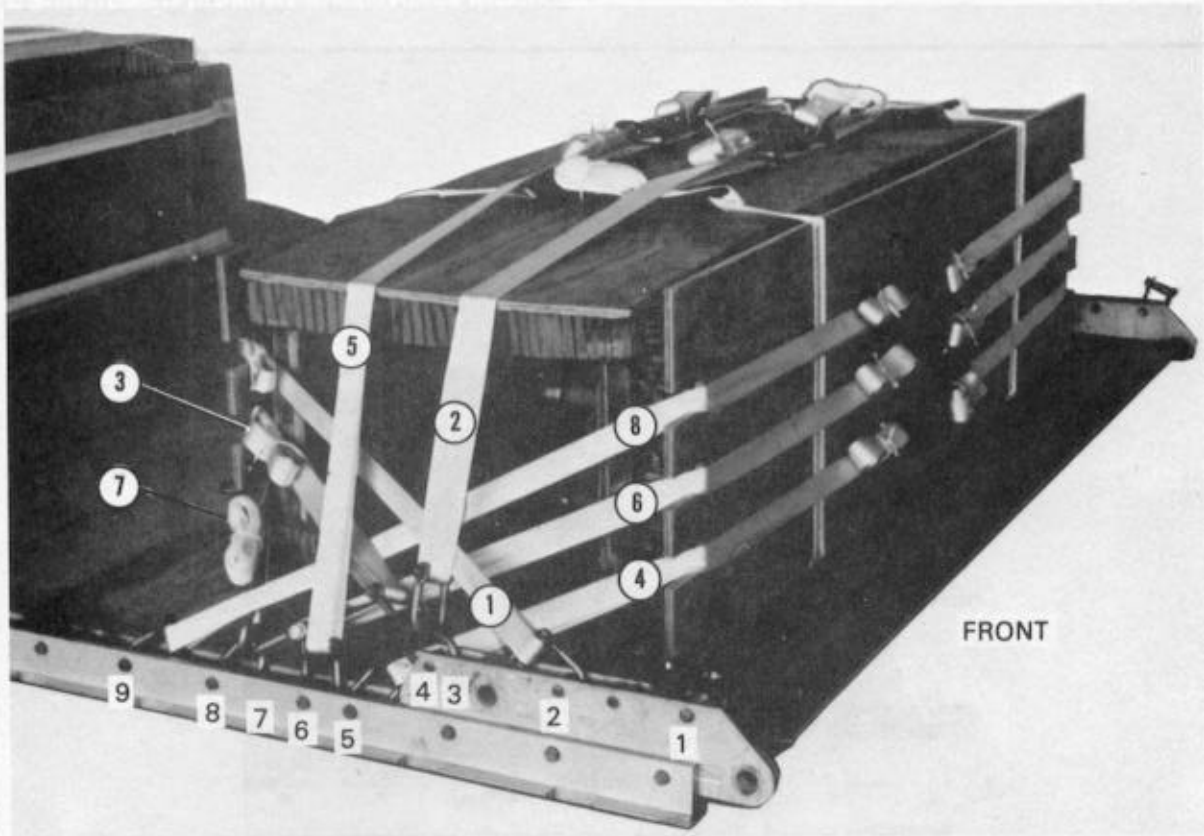



(10) Place one endboard (Figure 4-3, step 1) in front of the projectiles against their bases.

(11) Place one endboard (Figure 4-3, step 1) to the rear of the projectiles against their tops.

(12) Route the lashings (steps 1 and 2, page 4-5) over the endboards. Secure the lashings on top of the load according to FM 10-500-2/TO 13C7-1-5.

*Figure 4-4. Front accompanying load prepared and stowed on platform (continued)*

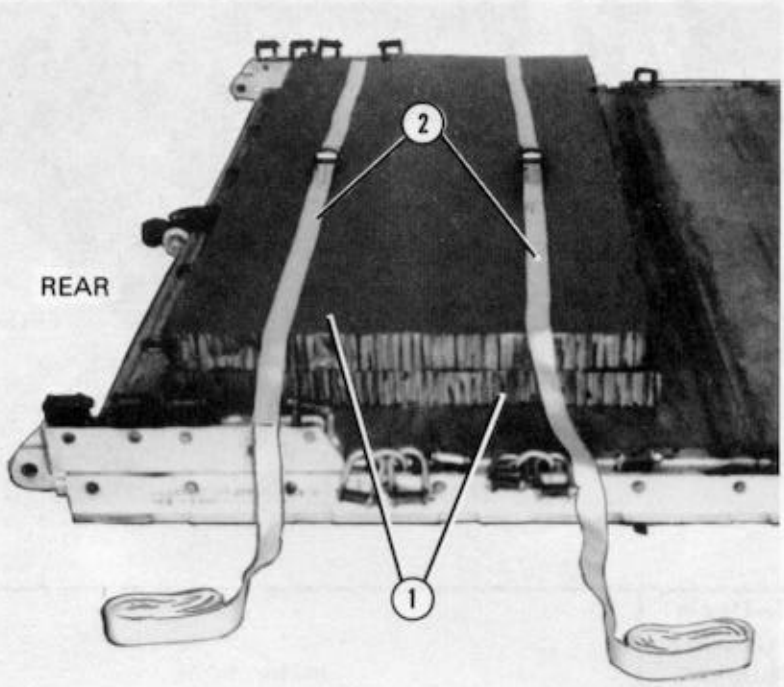



| Lashing Number | Tie-Down Clevis Number | Instructions |
|---|---|---|
| | | Pass Lashing: |
| 1* | 2 and 2A | Through top cutouts of the rear endboard. |
| 2* | 3 and 3A | Over the top of the projectiles. |
| 3* | 4 and 4A | Through middle cutouts of the rear endboard. |
| 4* | 5 and 5A | Through bottom cutouts of the front endboard. |
| 5* | 6 and 6A | Over the top of the projectiles. |
| 6* | 7 and 7A | Through middle cutouts of the front endboard. |
| 7* | 8 and 8A | Through bottom cutouts of the rear endboard. |
| 8* | 9 and 9A | Through top cutouts of the front endboard. |

*30-foot lashing

*Figure 4-5. Front accompanying load lashings 1 through 8 installed*

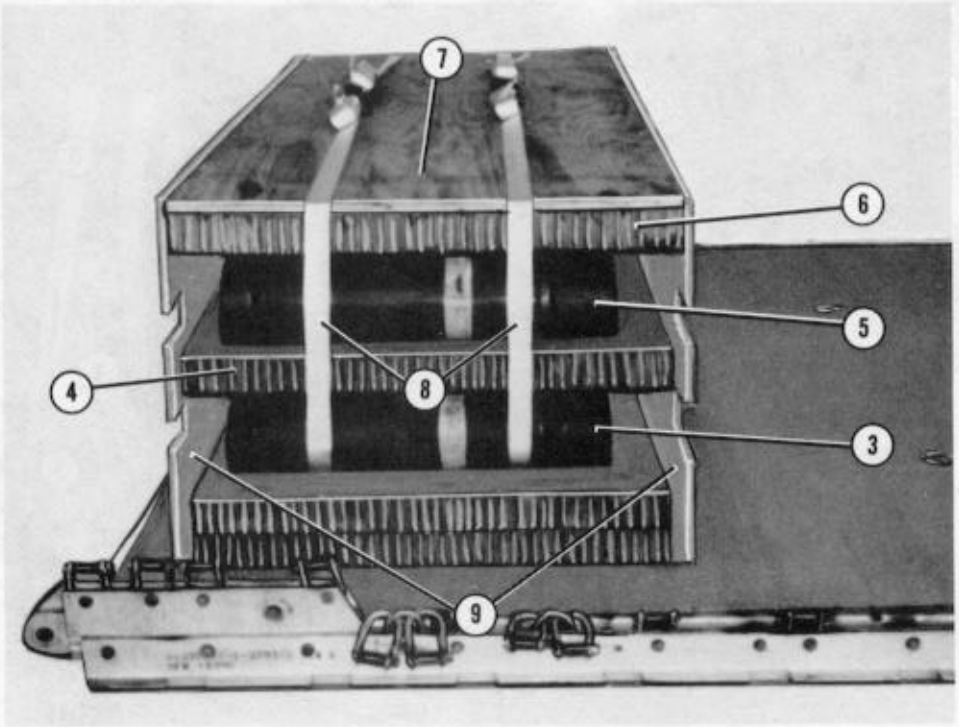
*c.* Prepare, stow, and lash the rear accompanying load as shown in Figures 4-6 and 4-7.




(1) Center two 84- by 36-inch pieces of honeycomb 5 inches from the rear of the platform.

(2) Place two 30-foot lashings across the honeycomb.

*Figure 4-6. Rear accompanying load prepared and stowed on platform*




(3) Center 12 powder canisters on the honeycomb between the rails. Alternate the ends of the canisters.

(4) Place an 80- by 36-inch piece of honeycomb on top of the canisters.

(5) Place a second layer of canisters on the honeycomb as in step 3.

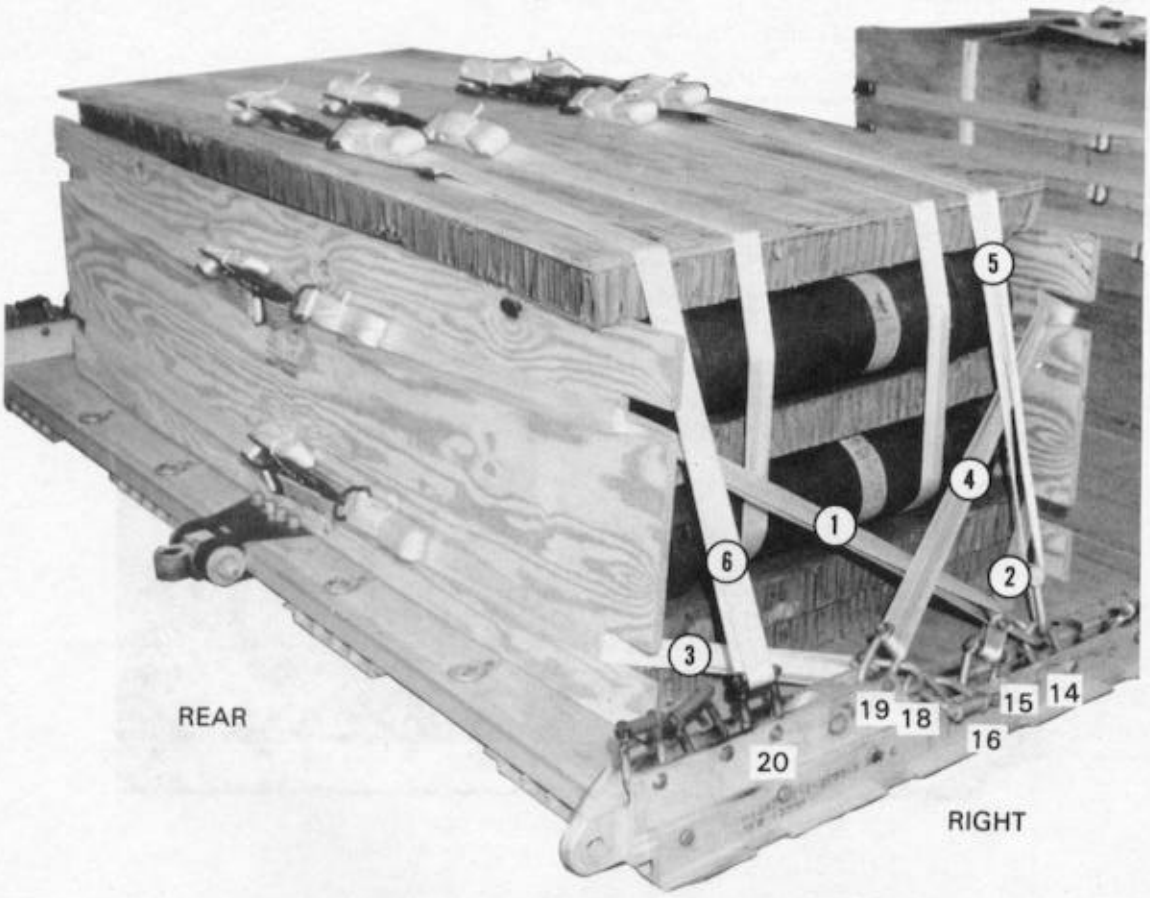
(6) Place a second 80- by 36-inch piece of honeycomb on top of the canisters.

(7) Place a 3/4- by 80- by 36-inch piece of plywood on top of the honeycomb.

(8) Secure the canisters, honeycomb, and plywood with the lashings placed in step 2. Secure the lashings on top of the load according to FM 10-500-2/TO 13C7-1-5.

(9) Place one endboard (Figure 4-3, step 2) on the front and one on the rear against the canisters.

*Figure 4-6. Rear accompanying load prepared and stowed on platform (continued)*



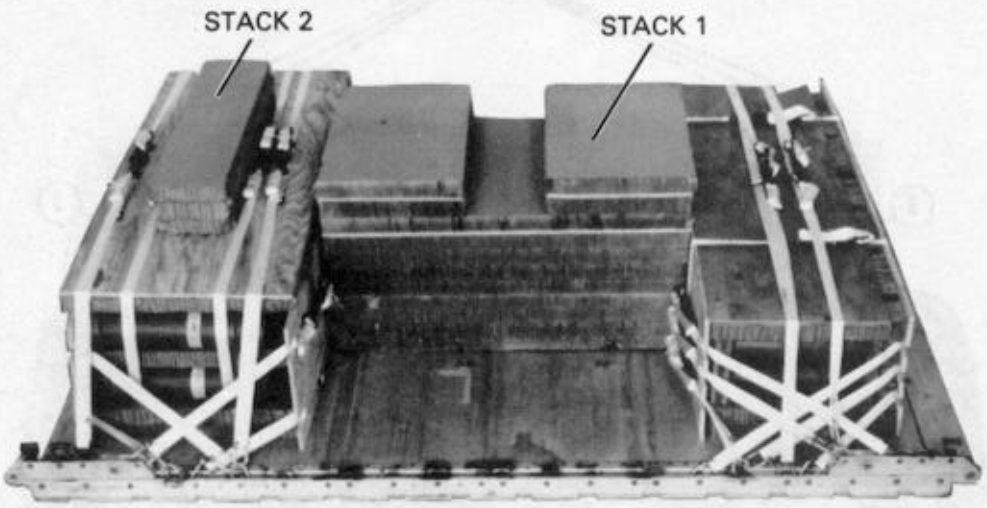

| Lashing Number | Tie-Down Clevis Number | Instructions |
|---|---|---|
| | | Pass Lashing: |
| 1* | 15 and 15A | Through top cutouts of the rear endboard. |
| 2* | 16 and 16A | Through bottom cutouts of the front endboard. |
| 3* | 18 and 18A | Through bottom cutouts of the rear endboard. |
| 4* | 19 and 19A | Through top cutouts of the front endboard. |
| 5* | 14 and 14A | Over the top of the canisters. |
| 6* | 20 and 20A | Over the top of the canisters. |

*30-foot lashing

*Figure 4-7. Rear accompanying load lashings 1 through 6 installed*

## 4-4. Building and Placing Honeycomb Stacks

Build and place the honeycomb stacks as shown in Figure 4-8.

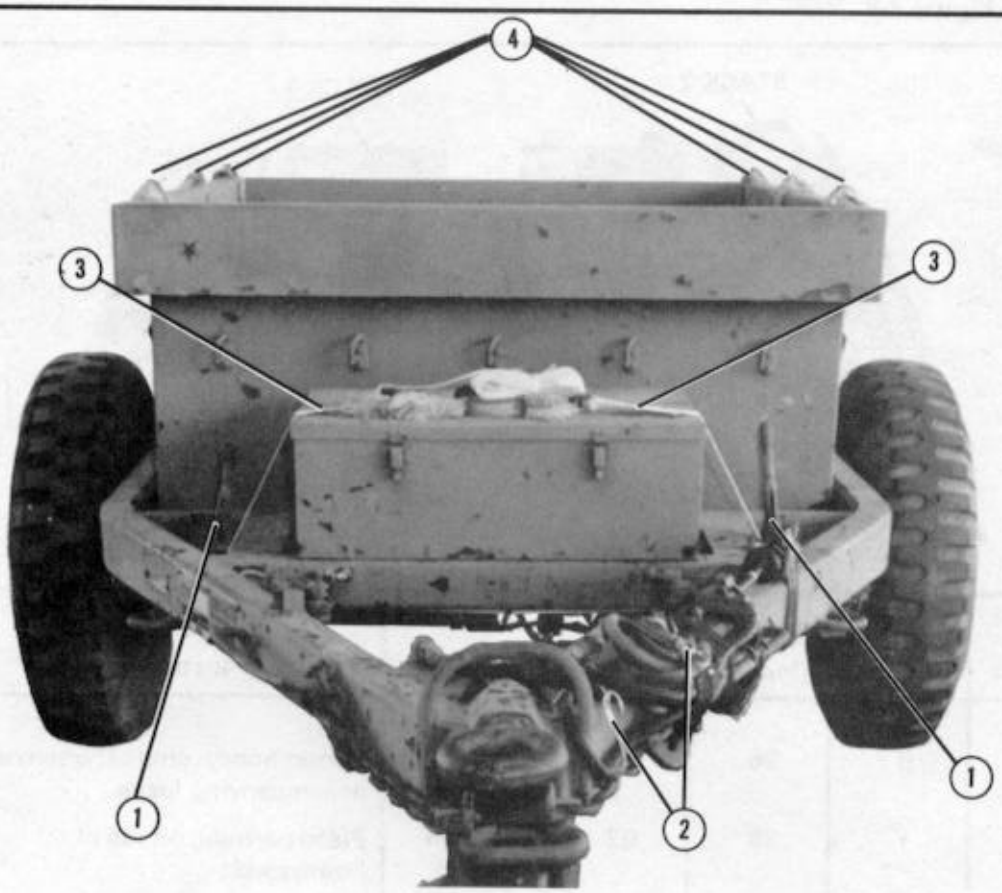



| Stack Number | Pieces | Width (Inches) | Length (Inches) | Material | Instructions |
|---|---|---|---|---|---|
| 1 | 8 | 36 | 62 | Honeycomb | Center honeycomb between rails and accompanying loads. |
| | 1 | 36 | 62 | 3/4-inch plywood | Place plywood on top of honeycomb. |
| | 1 | 36 | 62 | Honeycomb | Place honeycomb on top of plywood. |
| | 2 | 36 | 24 | Honeycomb | Place one piece of honeycomb even with the front edge of the stack and one piece of honeycomb even with the rear edge of the stack. |
| | 2 | 36 | 24 | 3/4-inch plywood | Place one piece of plywood on top of each piece of 36- by 24-inch honeycomb. |
| | 2 | 36 | 24 | Honeycomb | Place one piece of honeycomb on top of each piece of plywood. |
| 2 | 3 | 48 | 12 | Honeycomb | Center honeycomb on top of plywood on the rear accompanying load. |

*Figure 4-8. Honeycomb prepared and placed on platform*

## 4-5. Preparing Trailer

Prepare the trailer as shown in Figure 4-9.




(1) Place the hand brake levers in the OFF position.

(2) Tie the intervehicular cable, brake hose, and safety chains to the drawbar with type III nylon cord. Tape these items to the drawbar.

(3) Lash the toolbox to the frame with a 15-foot lashing. Fasten the lashing according to FM 10-500-2/TO 13C7-1-5.

(4) Pad all sharp edges with cellulose wadding, and tape the cellulose wadding to the trailer.

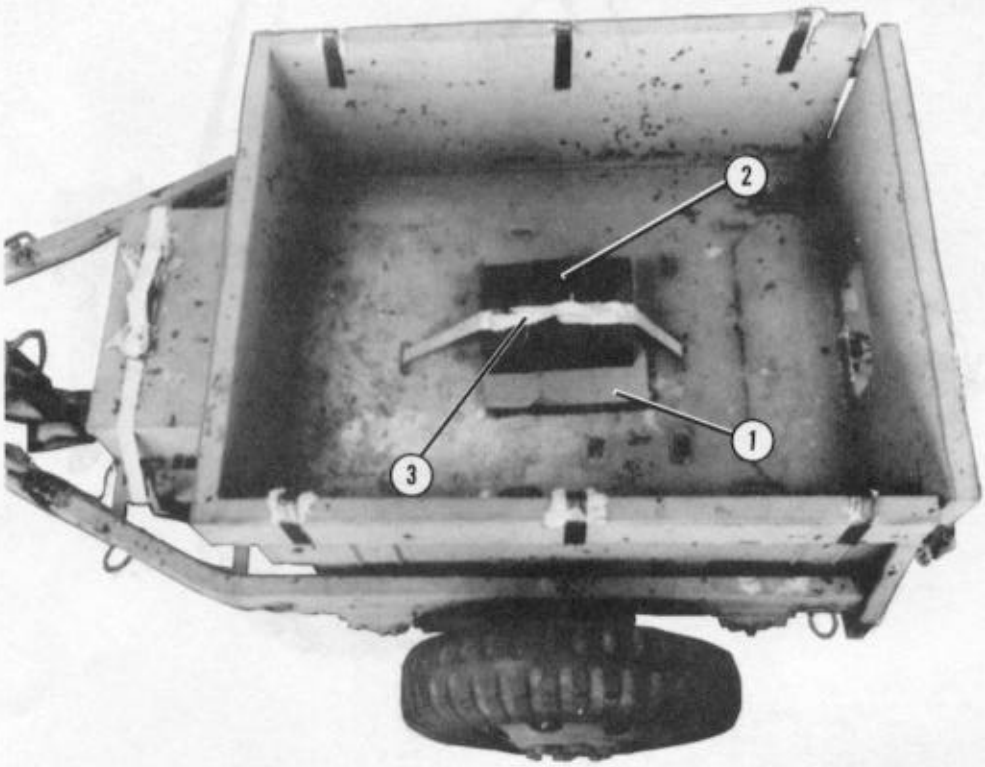
*Figure 4-9. Trailer prepared*

## 4-6. Stowing Accompanying Load in Trailer

Stow the three boxes of fuses and primers as shown in Figure 4-10. The primers and fuses must be stowed on top of any other items dropped as part of the accompanying load. The trailer cover and side rails may be stowed in the trailer.

**CAUTION**

**Only ammunition listed in FM 10-553/ TO 13C7-18-41 may be airdropped.**




(1) Center a 20- by 20-inch piece of honeycomb in the bed of the trailer.

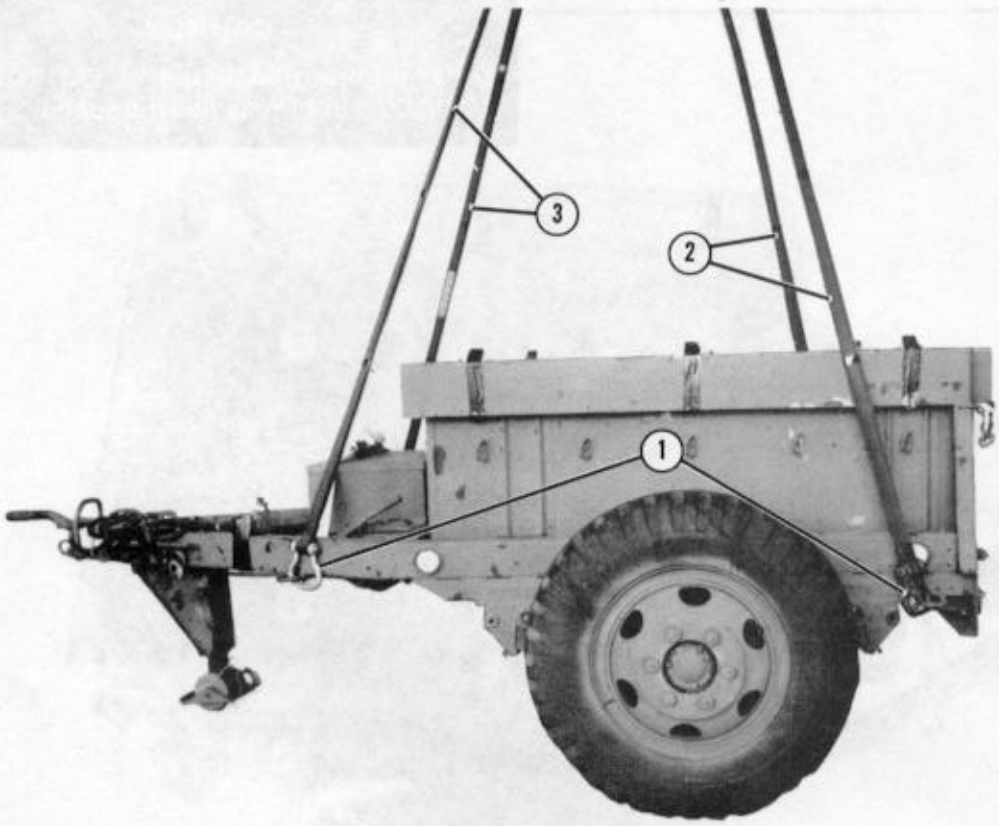
(2) Set the three boxes of primers and fuses on the honeycomb.

(3) Lash the primers and fuses to the tie-down provisions in the bed of the trailer with a 15-foot lashing. Pass the lashing through the carrying handles, and secure it according to FM 10-500-2/TO 13C7-1-5.

*Figure 4-10. Accompanying load stowed in trailer*

### 4-7. Installing Lifting Slings

Install four 12-foot (2-loop), type XXVI nylon webbing slings and four medium suspension clevises as shown in Figure 4-11.

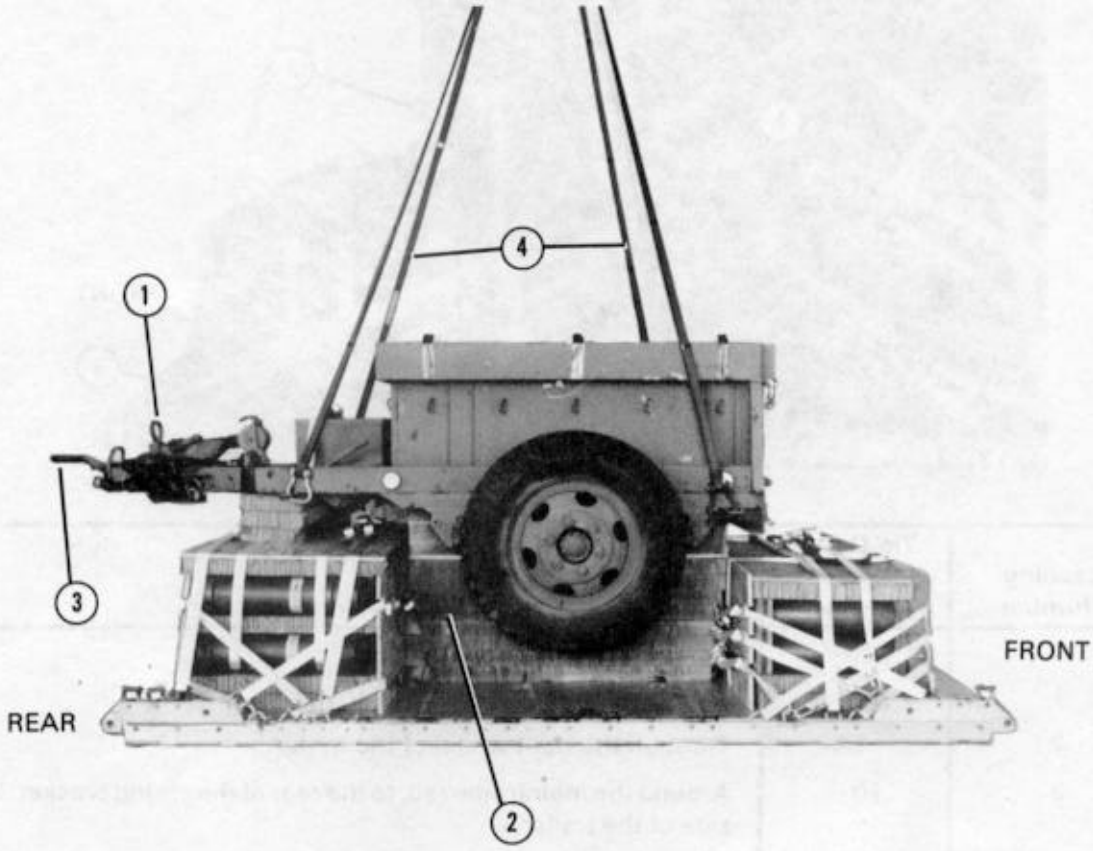



(1) Attach a medium suspension clevis to each 12-foot sling.
(2) Attach a 12-foot sling to each rear tie-down bracket.
(3) Attach a 12-foot sling to each front tie-down bracket.

*Figure 4-11. Lifting slings installed*

## 4-8. Positioning Trailer

Use the lifting slings and a lifting device to place the trailer on the honeycomb. Position the trailer as shown in Figure 4-12.




(1) Lift the trailer tongue wheel stand by pulling on the handle and lifting it to the UP position.

(2) Place the trailer on the platform with the axle centered on honeycomb stack 1.

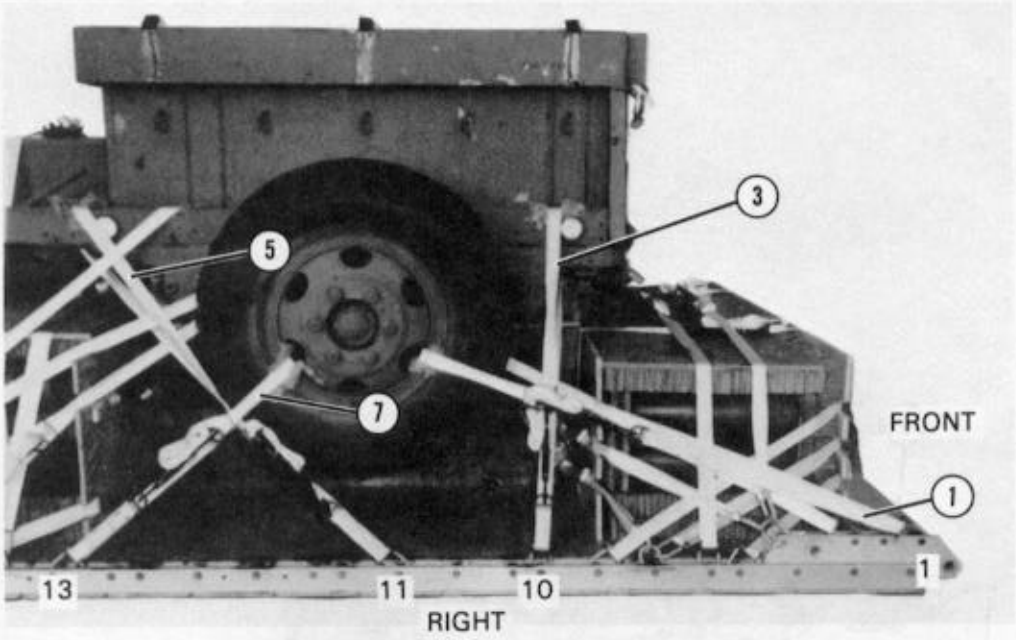
(3) Make sure the front edge of the lunette overhangs the rear of the platform by 32 inches.

(4) Remove the lifting slings (not shown).

*Figure 4-12. Trailer positioned*

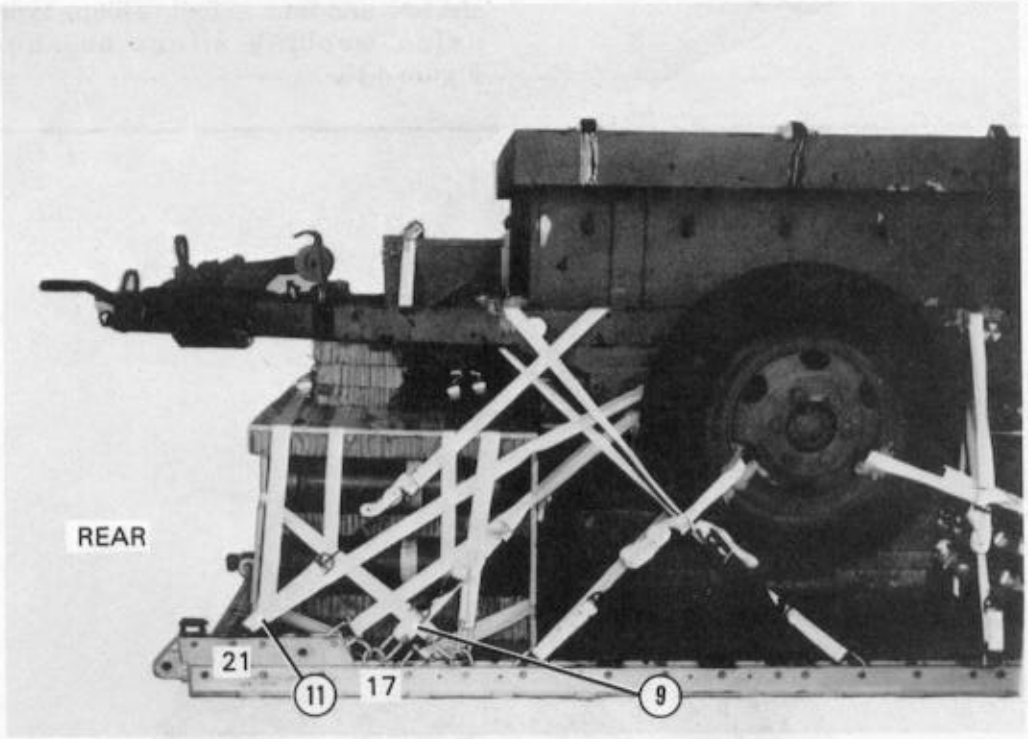
### 4-9. Lashing Trailer

Lash the trailer to the platform using twelve 15-foot tie-down assemblies according to FM 10-500-2/TO 13C7-1-5 and as shown in Figures 4-13 and 4-14.




| Lashing Number | Tie-Down Clevis Number | Instructions |
|---|---|---|
| | | Pass Lashing: |
| 1 | 1 | Through the left wheel of the trailer. |
| 2 | 1A | Through the right wheel of the trailer. |
| 3 | 10 | Around the mainframe rail, to the rear of the spring bracket, left side of the trailer. |
| 4 | 10A | Around the mainframe rail, to the rear of the spring bracket, right side of the trailer. |
| 5 | 11 | Around the mainframe rail, in front of the second cross member, left side of the trailer. |
| 6 | 11A | Around the mainframe rail, in front of the second cross member, right side of the trailer. |
| 7 | 13 | Through the left wheel of the trailer. |
| 8 | 13A | Through the right wheel of the trailer. |

*Figure 4-13. Lashings 1 through 8 installed*

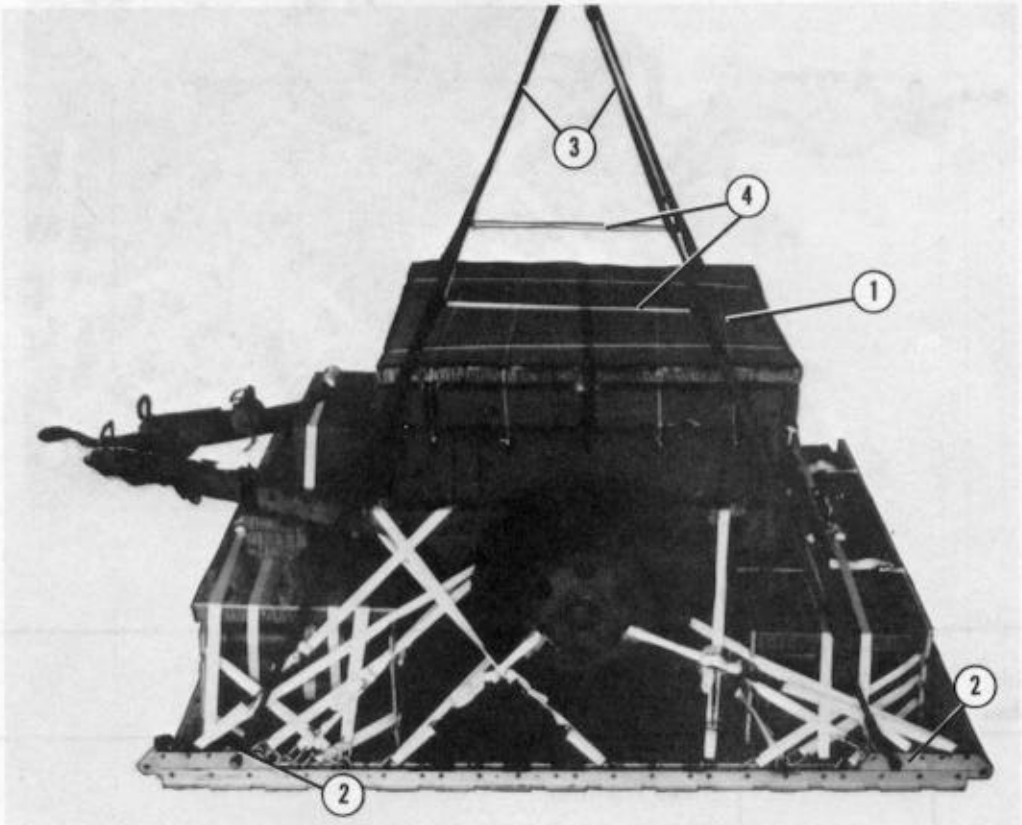



| Lashing Number | Tie-Down Clevis Number | Instructions |
|---|---|---|
| | | Pass Lashing: |
| 9 | 17 | Through the lower spring bracket, left side of the trailer. |
| 10 | 17A | Through the lower spring bracket, right side of the trailer. |
| 11 | 21 | Around the mainframe rail, to the rear of the second cross member, left side of the trailer. |
| 12 | 21A | Around the mainframe rail, to the rear of the second cross member, right side of the trailer. |

*Figure 4-14. Lashings 9 through 12 installed*

### 4-10. Installing and Safetying Suspension Slings

Install and safety four large suspension clevises and four 12-foot (2-loop), type XXVI nylon webbing slings as shown in Figure 4-15.




(1) Place two 36- by 74-inch pieces of honeycomb side by side on top of the trailer. Tape the edges of the honeycomb. Secure the honeycomb in place using six lengths of type III nylon cord.

(2) Attach a 12-foot sling to each tandem link with a large suspension clevis.

(3) Raise the suspension slings above the load.

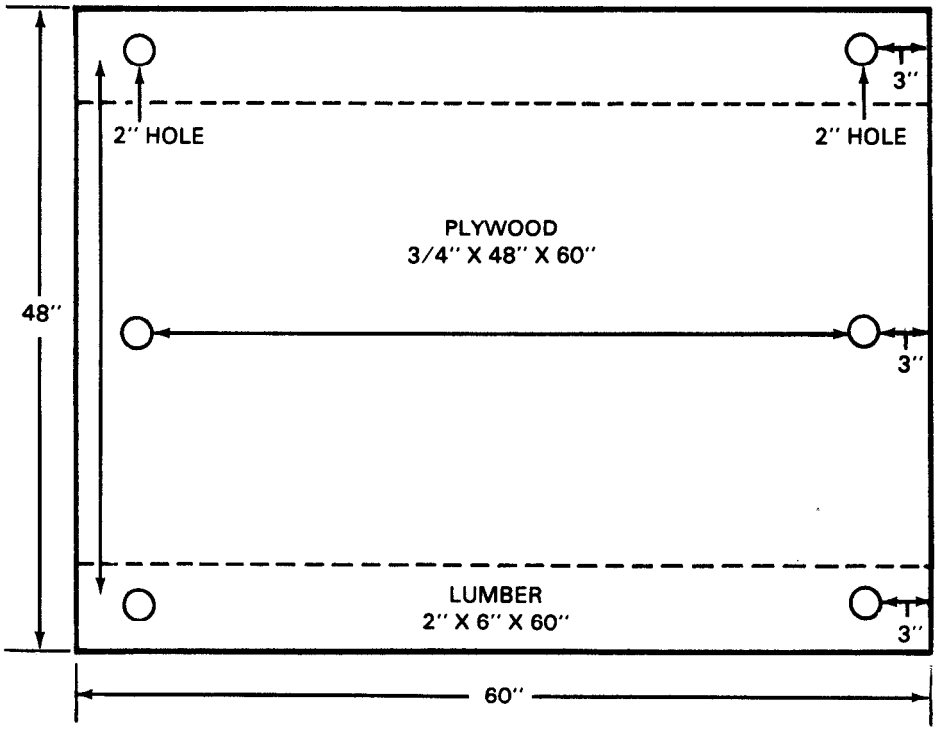
(4) Install the deadman's tie according to FM 10-500-2/TO 13C7-1-5.

*Figure 4-15. Suspension slings installed and safetied*

## 4-11. Building and Securing Cargo Parachute Stowage Platform

Build the cargo parachute stowage platform as shown in Figure 4-16. Secure the cargo parachute stowage platform as shown in Figure 4-17.

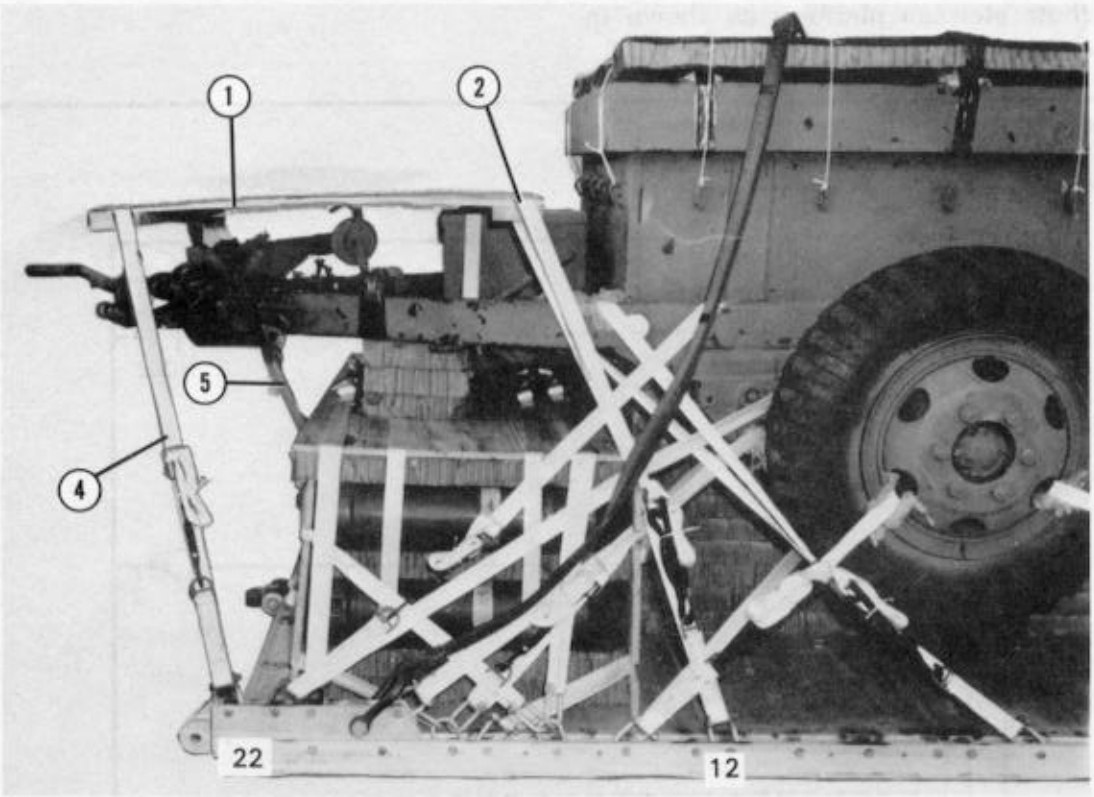
**Note: This drawing is not drawn to scale.**




**Step:**

1. Cut a 3/4- by 48- by 60-inch piece of plywood.
2. Nail a 2- by 6- by 60-inch piece of lumber along each 60-inch edge of the plywood using sixpenny nails.
3. Drill a 2-inch hole in the center of each 48-inch edge of the plywood 3 inches from the edge.
4. Drill a 2-inch hole in the center of each end of each 2- by 6- by 60-inch piece of lumber and through the plywood 3 inches from the end of the lumber.

*Figure 4-16. Cargo parachute stowage platform built*

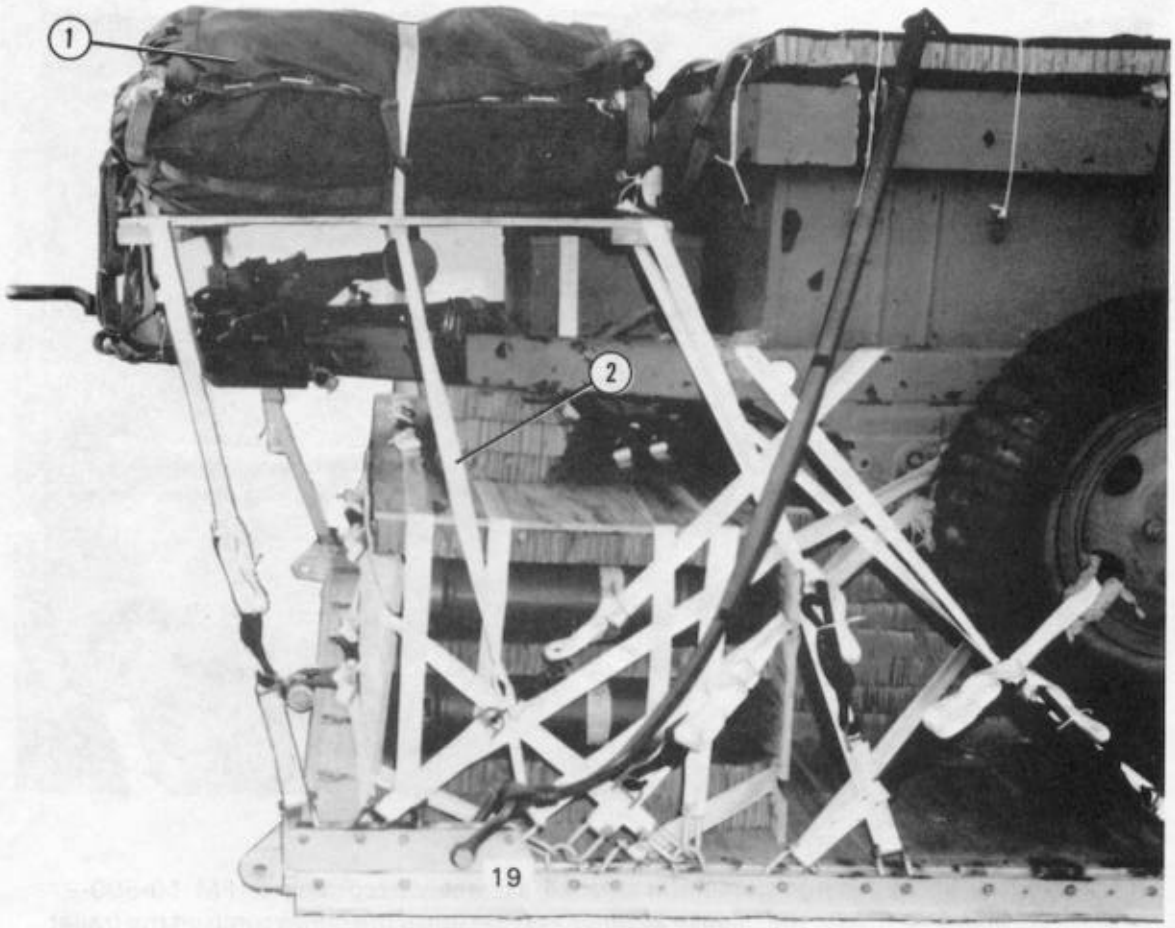



1. Place the stowage platform on the trailer tongue wheel stand and toolbox.
2. Run the free end of a 15-foot lashing through clevis 12, up through the front hole in the stowage platform, and back to the clevis. Secure the lashing with a D-ring and a load binder.
3. Repeat step 2 for the left side (not shown) using clevis 12A.
4. Run the free end of a 15-foot lashing through clevis 22, up through the rear hole in the stowage platform, and back to the clevis. Secure the lashing with a D-ring and a load binder.
5. Repeat step 4 for the left side using clevis 22A.

*Figure 4-17. Cargo parachute stowage platform secured*

## 4-12. Stowing Cargo Parachutes

Stow two G-11B cargo parachutes on the parachute stowage platform according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 4-18.



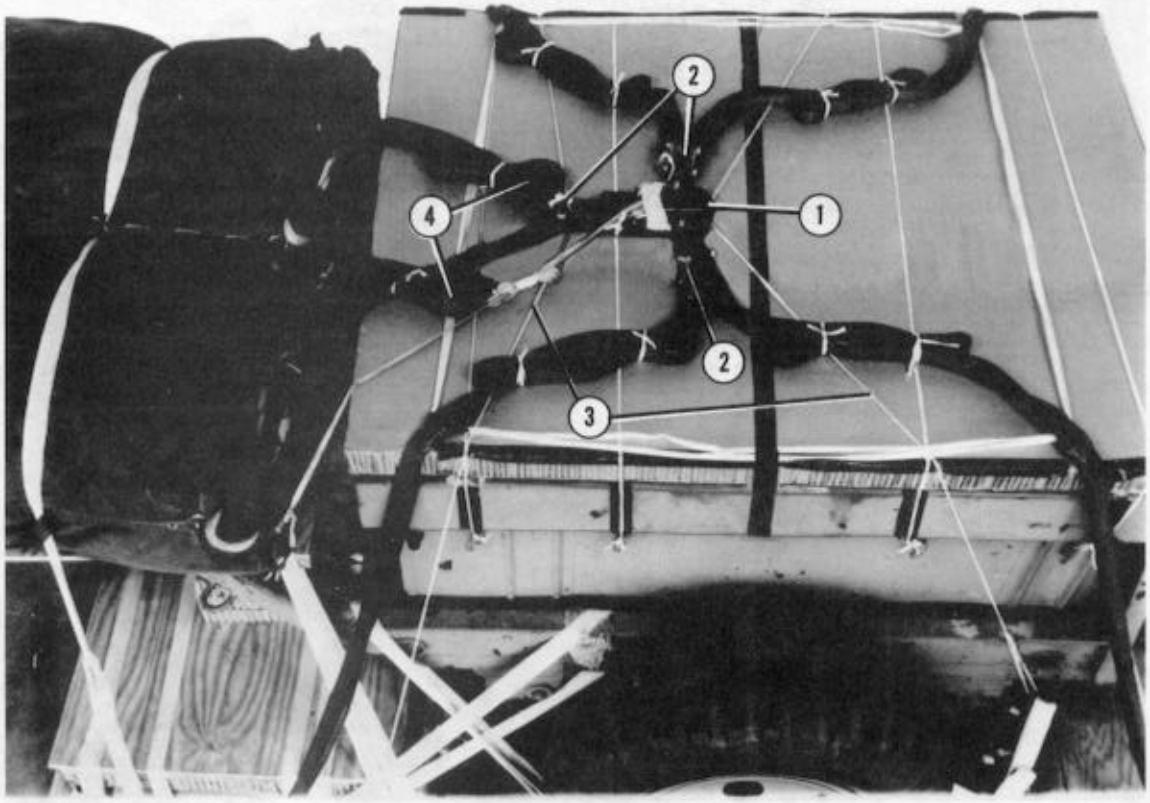

(1) Prepare and position two G-11B cargo parachutes on the parachute stowage platform according to FM 10-500-2/TO 13C7-1-5. Each parachute requires a 20-foot riser extension as outlined in FM 10-500-2/TO 13C7-1-5.

(2) Install an 8-yard length of type VIII nylon webbing restraint strap on top and over the cargo parachutes and through the middle holes in the parachute stowage platform according to FM 10-500-2/TO 13C7-1-5. Secure the ends of the strap to clevises 19 and 19A.

*Figure 4-18. Cargo parachutes stowed*

### 4-13. Installing Release Assembly

Prepare, install, and safety an M-1 cargo parachute release assembly according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 4-19.




(1) Prepare an M-1 cargo parachute release assembly according to FM 10-500-2/TO 13C7-1-5. Center the release assembly on the top of the honeycomb on the trailer bed.

(2) Install the release assembly parachutes according to FM 10-500-2/TO 13C7-1-5.

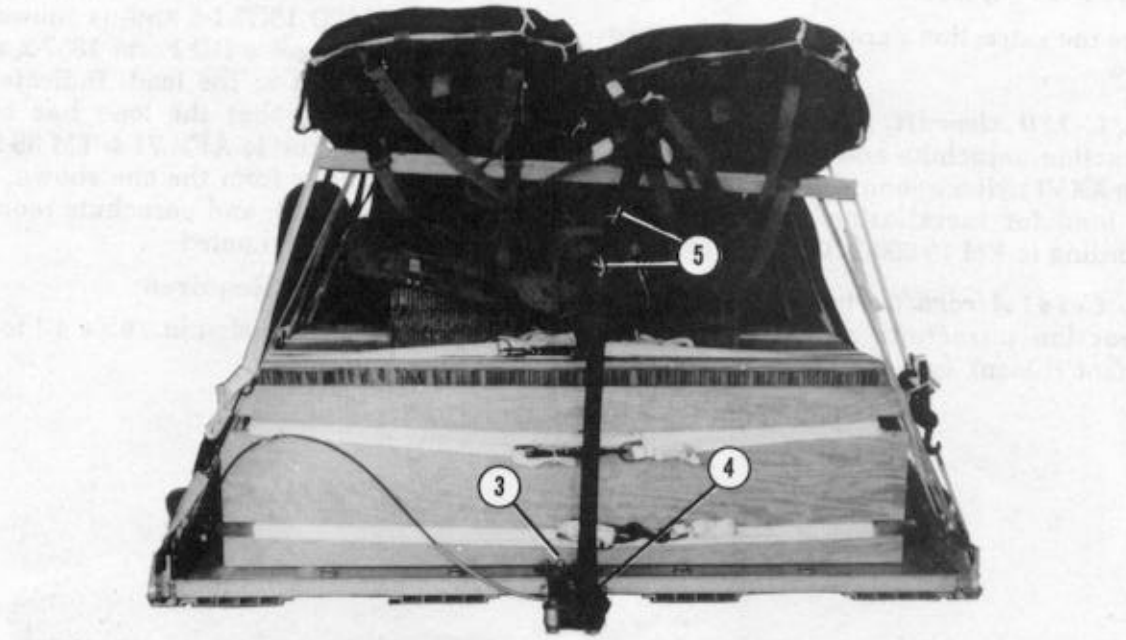
(3) Safety the top and bottom of the release with type III nylon cord.

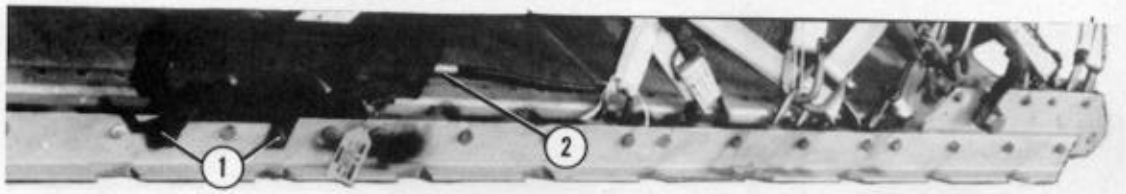
(4) S-fold the slack in the riser extensions and suspension slings. Secure them with type I, 1/4-inch cotton webbing.

*Figure 4-19. M-1 release assembly installed*

## 4-14. Installing Extraction System

Install the EFTC extraction system according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 4-20.




(1) Attach the type V EFTA mounting brackets to the front mounting holes in the left platform rail.

(2) Install the actuator to the EFTA mounting brackets with a 12-foot cable according to FM 10-500-2/TO 13C7-1-5. Secure the 12-foot cable to the clevises using type I, 1/4-inch cotton webbing.

(3) Use a 5 1/2-inch link assembly adapter. Attach the link assembly to the extraction bracket with the locking nut hole facing toward the left side of the platform according to FM 10-500-2/TO 13C7-1-5.

(4) Connect one end of a 9-foot (2-loop), type XXVI nylon webbing sling (deployment line) to the top spacer of the link assembly. Connect the free end to the clustering clevis.

(5) Fold the excess deployment line, and secure the folds with tape or type I, 1/4-inch cotton webbing.

*Figure 4-20. Extraction system installed*

### 4-15. Installing Provisions for Emergency Restraints

Install the provisions for the emergency restraints on the load according to FM 10-500-2/TO 13C7-1-5.

### 4-16. Placing Extraction Parachute

Place the extraction parachute as described below.

*a. C-130 Aircraft.* Place a 22-foot cargo extraction parachute and a 60-foot (3-loop), type XXVI nylon webbing extraction line on the load for installation in the aircraft according to FM 10-500-2/TO 13C7-1-5.

*b. C-141 Aircraft.* Place a 15-foot cargo extraction parachute and a continuous 160-foot (1-loop), type XXVI nylon webbing extraction line on the load for installation in the aircraft.

### 4-17. Marking Rigged Load

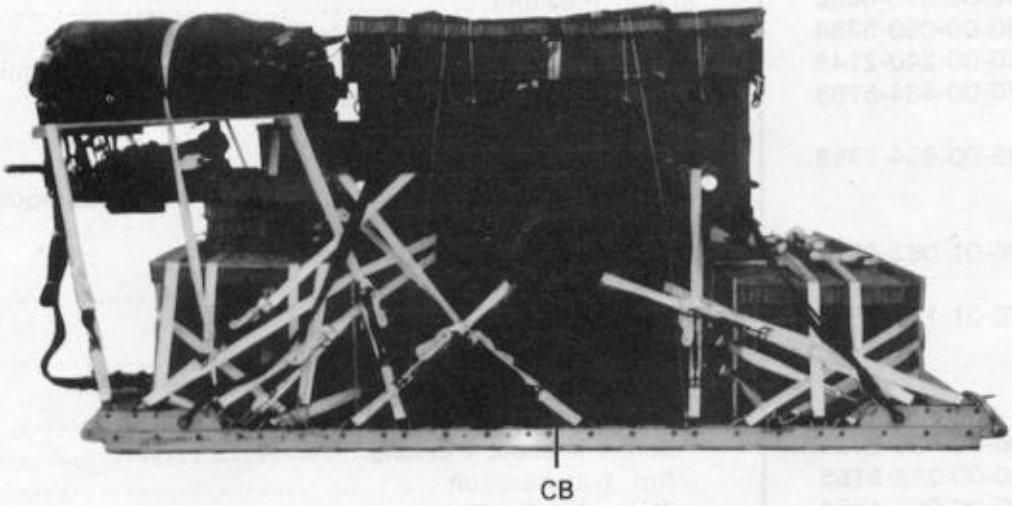
Mark the rigged load according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 4-21. Complete DD Form 1387-2, and securely attach it to the load. Indicate on DD Form 1387-2 that the load has been prepared according to AFR 71-4/TM 38-250. If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

### 4-18. Equipment Required

Use the equipment listed in Table 4-1 to rig this load.

**CAUTION**

**Make the final rigger inspection required by FM 10-500-2/TO 13C7-1-5 before the load leaves the rigging site.**




**RIGGED LOAD DATA**

| | | |
|---|---|---|
| Weight: | Load shown | 8,200 pounds |
| | Maximum load allowed | 10,000 pounds |
| Height | | 81 inches |
| Width | | 108 inches |
| Length | | 181 inches |
| Overhang: | Front | 4 1/2 inches |
| | Rear | 32 inches |
| CB (from front edge of platform) | | 71 inches |
| Extraction System | | EFTC |

*Figure 4-21. The 1 1/2-ton ammunition trailer rigged on a type V platform for low-velocity airdrop*

*Table 4-1. Equipment required for rigging the 1 1/2-ton ammunition trailer on a type V platform for low-velocity airdrop*

| National Stock Number | Item | Quantity |
|---|---|---|
| 8040-00-273-8713 | Adhesive, paste, 1-gal | As required |
| | Clevis, suspension: | |
| 4030-00-678-8562 | 3/4-in (medium) | 6 |
| 4030-00-090-5354 | 1-in (large) | 5 |
| 4020-00-240-2146 | Cord, nylon, type III, 550-lb | As required |
| 1670-00-434-5783 | Coupling, airdrop, extraction force transfer w 12-ft cable | 1 |
| 8135-00-664-6958 | Cushioning material, packaging, cellulose wadding | As required |
| | Line, extraction: | |
| 1670-01-062-6313 | 60-ft (3-loop), type XXVI nylon webbing | 1 |
| 1670-01-107-7652 | 160-ft (1-loop), type XXVI nylon webbing (Use w C-141 aircraft.) | 1 |
| | Link assembly: | |
| | Two-point: | 1 |
| 5306-00-435-8994 | Bolt, 1-in diam, 4-in long | (2) |
| 5310-00-232-5165 | Nut, 1-in, hexagon | (2) |
| 1670-00-003-1954 | Plate, side, 5 1/2-in | (2) |
| 5365-00-007-3414 | Spacer, large | (2) |
| 1670-00-783-5988 | Type IV | 1 |
| 5510-00-220-6448 | Lumber, 2- by 6- by 60-inch | 2 |
| 5315-00-010-4657 | Nail, steel wire, common, 6d | As required |
| 1670-00-753-3928 | Pad, energy-dissipating, honeycomb, | |
| | 3- by 36- by 96-in: | 16 sheets |
| | 5- by 23-in | (2) |
| | 11- by 23-in | (5) |
| | 20- by 20-in | (1) |
| | 36- by 24-in | (4) |
| | 36- by 62-in | (9) |
| | 36- by 74-in | (2) |
| | 48- by 12-in | (3) |
| | 80- by 36-in | (2) |
| | 84- by 28-in | (3) |
| | 84- by 36-in | (2) |
| | Parachute: | |
| 1670-01-016-7841 | Cargo, G-11B | 2 |
| | Cargo extraction: | |
| 1670-00-052-1548 | 15-ft or | 1 |
| 1670-01-063-3715 | 15-ft | 1 |
| 1670-00-687-5458 | 22-ft or | 1 |
| 1670-01-063-3716 | 22-ft | 1 |

*Table 4-1. Equipment required for rigging the 1 1/2-ton ammunition trailer on a type V platform for low-velocity airdrop (continued)*

| National Stock Number | Item | Quantity |
|---|---|---|
| | Platform, AD, type V, 12-ft: | 1 |
| | Bracket: | |
| 1670-01-162-2375 | Inside EFTA | (1) |
| 1670-01-162-2374 | Outside EFTA | (1) |
| 1670-01-162-2372 | Clevis assembly | (52) |
| 1670-01-162-2376 | Extraction bracket assembly | (1) |
| 1670-01-162-2381 | Tandem link | (4) |
| 5530-00-128-4981 | Plywood, 3/4-in: | 6 sheets |
| | 24- by 86-in | (2) |
| | 24- by 89-in | (2) |
| | 36- by 24-in | (2) |
| | 36- by 62-in | (1) |
| | 48- by 60-in | (1) |
| | 80- by 36-in | (1) |
| | 84- by 28-in | (1) |
| 1670-01-097-8816 | Release, cargo parachute, M-1 | 1 |
| | Sling, cargo airdrop: | |
| | For deployment: | |
| 1670-01-062-6304 | 9-ft (2-loop), type XXVI nylon webbing | 1 |
| | For lifting: | |
| 1670-01-062-6303 | 12-ft (2-loop), type XXVI nylon webbing | 4 |
| | For riser extension: | |
| 1670-00-823-5043 | 20-ft (3-loop), type X nylon webbing or | 2 |
| 1670-01-062-6302 | 20-ft (2-loop), type XXVI nylon webbing | 2 |
| | For suspension: | |
| 1670-01-062-6303 | 12-ft (2-loop), type XXVI nylon webbing | 4 |
| 1670-00-040-8219 | Strap, parachute release, multicut comes w 3 knives | 1 |
| 7510-00-266-5016 | Tape, adhesive, 2-in | As required |
| 1670-00-937-0271 | Tie-down assembly, 15-ft | 55 |
| | Webbing: | |
| 8305-00-268-2411 | Cotton, 1/4-in, type I | As required |
| | Nylon: | |
| | Tubular: | |
| 8305-00-082-5752 | 1/2-in or | As required |
| 8305-00-268-2453 | 1/2-in | As required |
| 8305-00-263-3591 | Type VIII | As required |

CHAPTER 5

# RIGGING MINE CLEARING LINE CHARGE ON 2 1/2-TON TRAILER FOR LOW-VELOCITY AIRDROP ON A TYPE V PLATFORM

## 5-1. Description of Load

The mine clearing line charge (MICLIC) in its container, mounted on a 2 1/2-ton M200A1 trailer, is rigged on a 12-foot, type V platform for low-velocity airdrop. The rocket projectile is rigged on the platform in its shipping container as an accompanying load. The MICLIC and its trailer weigh 2,855 pounds, and the rocket projectile in its container weighs 270 pounds. The load shown requires two G-11B cargo parachutes. The unrigged MICLIC on its trailer is shown in Figure 5-1.

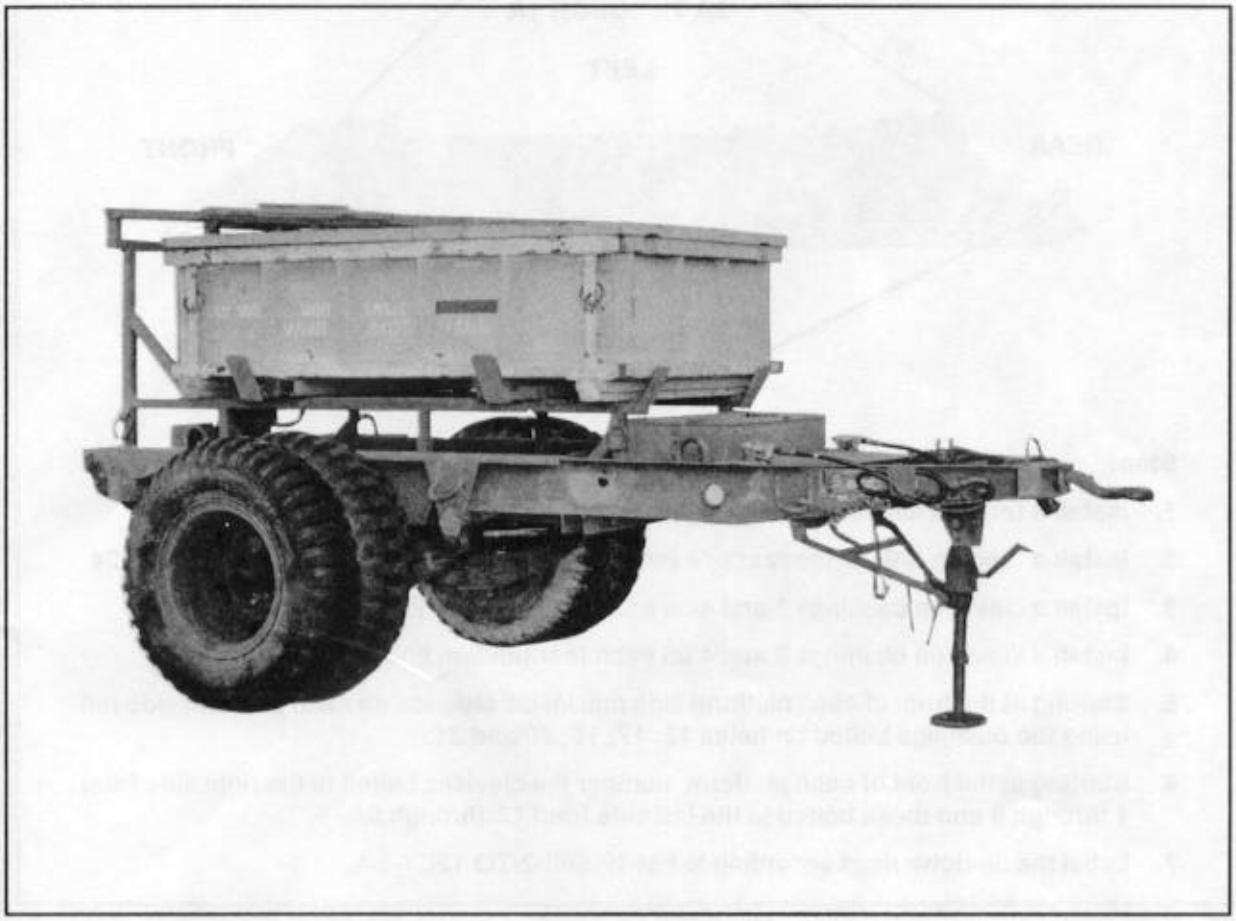


*Figure 5-1. Unrigged MICLIC on 2 1/2-ton trailer*

## 5-2. Preparing Platform

Prepare a 12-foot, type V platform as given below.

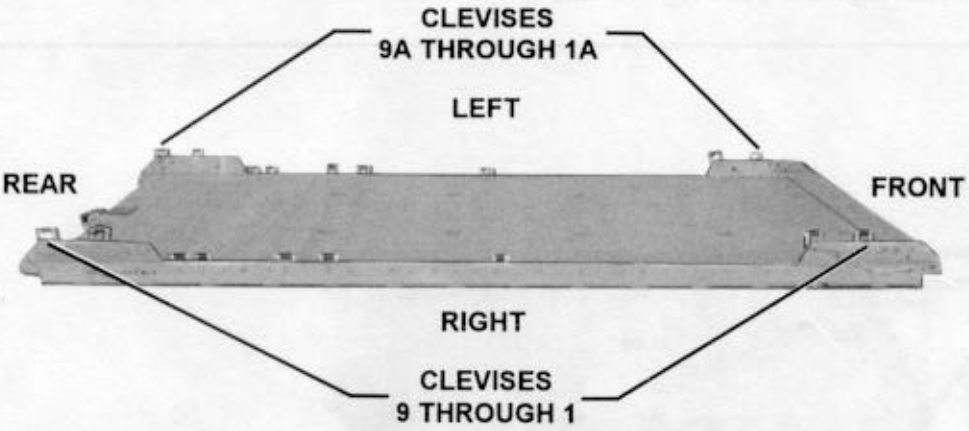
*a. Inspecting Platform.* Inspect, or assemble and inspect, the platform according to TM 10-1670-268-20&P/TO 13C7-52-22.

*b. Installing Tandem Links.* Install four tandem links as shown in Figure 5-2.

*c. Attaching and Numbering Clevises.* Attach and number 18 clevis assemblies as shown in Figure 5-2.

**NOTES: 1. The nose bumper may or may not be installed.**

**2. Measurements given in this section are from the front edge of the platform, NOT from the front edge of the nose bumper.**




**Step:**

1. Install a tandem link on the front of each platform side rail using holes 1, 2, and 3.
2. Install a tandem link on the rear of each platform side rail using holes 22, 23, and 24.
3. Install a clevis on bushings 3 and 4 on each front tandem link.
4. Install a clevis on bushings 2 and 4 on each rear tandem link.
5. Starting at the front of each platform side rail, install clevises on each platform side rail using the bushings bolted on holes 12, 17, 18, 20 and 21.
6. Starting at the front of each platform, number the clevises bolted to the right side from 1 through 9 and those bolted to the left side from 1A through 9A.
7. Label the tie-down rings according to FM 10-500-2/TO 13C7-1-5.

*Figure 5-2. Platform prepared*

## 5-3. Building and Placing Honeycomb Stacks

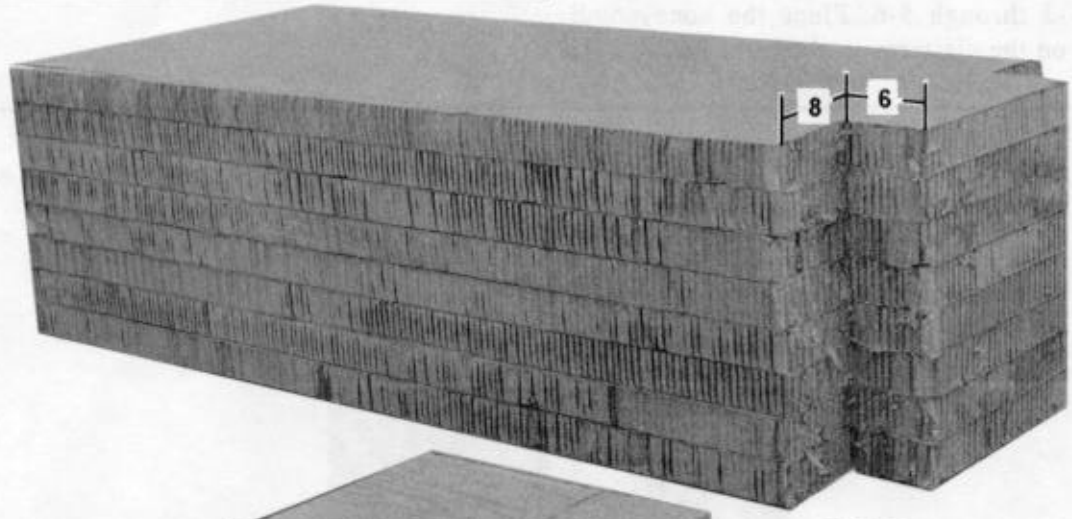
Build the honeycomb stacks as shown in Figures 5-3 through 5-6. Place the honeycomb stacks on the platform as shown in Figure 5-7.

STACKS 1 and 2

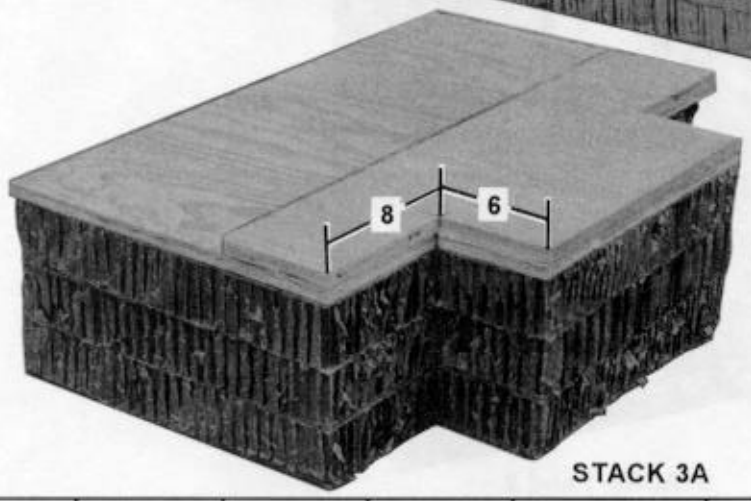
| Stack Number | Pieces | Width | Length | Material | Instructions |
|---|---|---|---|---|---|
| 1 | 11 | 24 | 10 | Honeycomb | Stack to form a base. |
| | 1 | 24 | 10 | 3/4-inch plywood | Glue flush over base. |
| | 1 | 24 | 10 | Honeycomb | Glue flush over plywood. |
| 2 | 11 | 24 | 10 | Honeycomb | Stack to form a base. |
| | 1 | 24 | 10 | 3/4-inch plywood | Glue flush over base. |
| | 1 | 24 | 10 | Honeycomb | Glue flush over plywood. |

*Figure 5-3. Stacks 1 and 2 prepared*

Note: All measurements are given in inches.



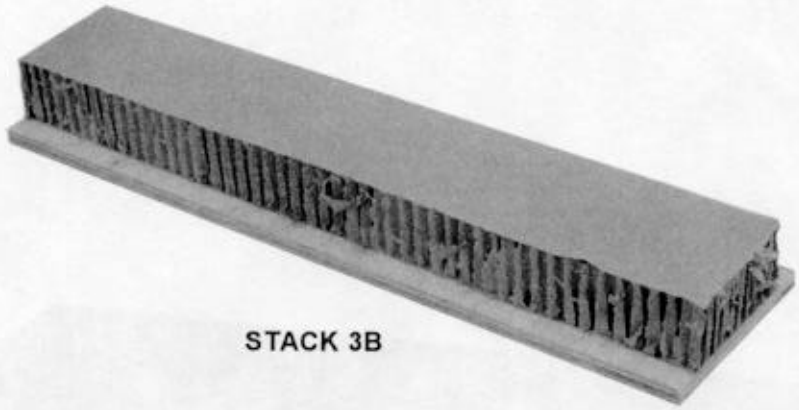

STACK 3 (BASE)



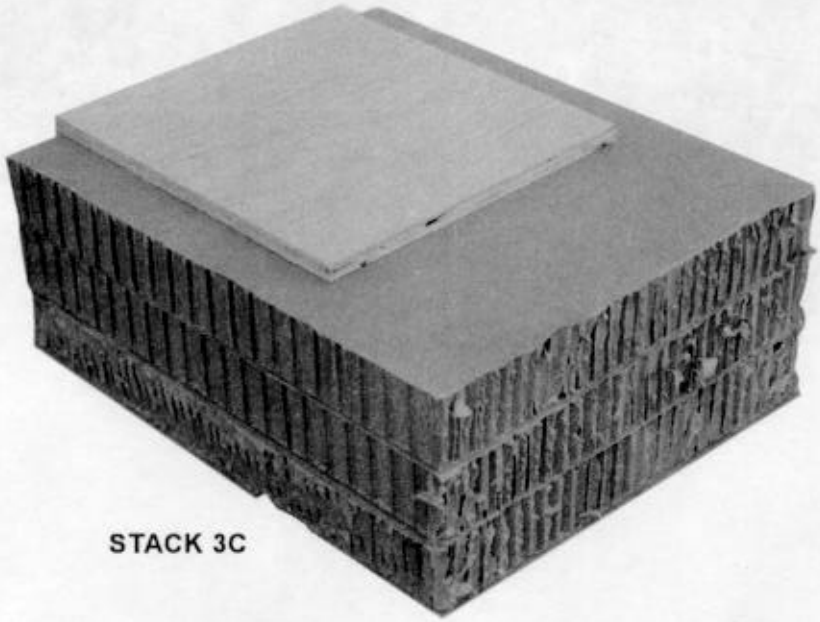

STACK 3A

| Stack Number | Pieces | Width | Length | Material | Instructions |
|---|---|---|---|---|---|
| 3 (Base) | 8 | 36 | 84 | Honeycomb | Make 8- by 6-inch cutouts in each piece as shown. Stack flush to form base. |
| 3A | 3 | 36 | 25 | Honeycomb | Make cutouts as above, and glue flush. |
| | 1 | 36 | 25 | 3/4-inch plywood | Make cutouts as above and glue over honeycomb. |
| | 1 | 36 | 12 | 3/4-inch plywood | Make cutouts as above, and glue flush over plywood and honeycomb. Set stack 3A aside. |

*Figure 5-4. Components of stack 3 prepared*



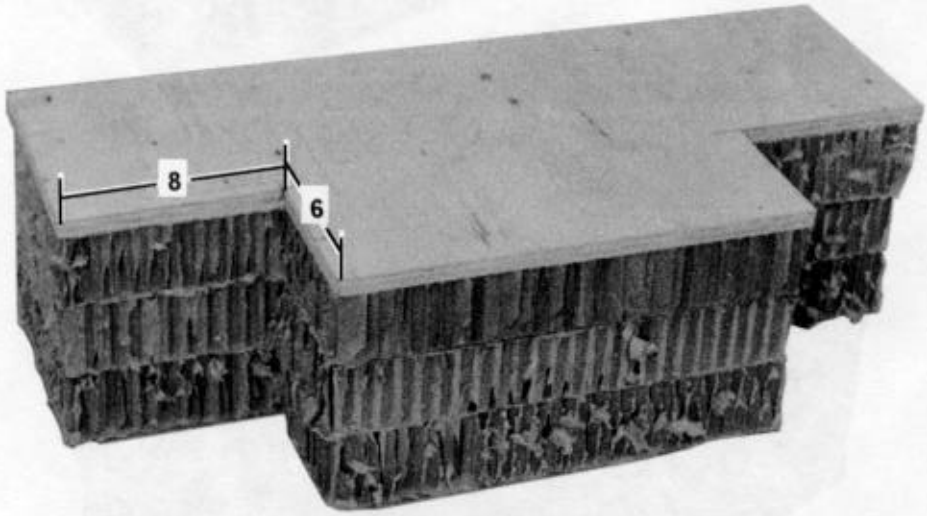
STACK 3B



STACK 3C

| Stack Number | Pieces | Width | Length | Material | Instructions |
|---|---|---|---|---|---|
| 3B | 1 | 34 | 6 | 3/4-inch plywood | Center and glue honeycomb on plywood. |
| | 1 | 34 | 8 | Honeycomb | Set 3B aside. |
| 3C | 3 | 20 | 24 | Honeycomb | Glue flush. |
| | 1 | 16 | 15 | 3/4-inch plywood | Center and glue over honeycomb with rear edges aligned. Set 3C aside. |

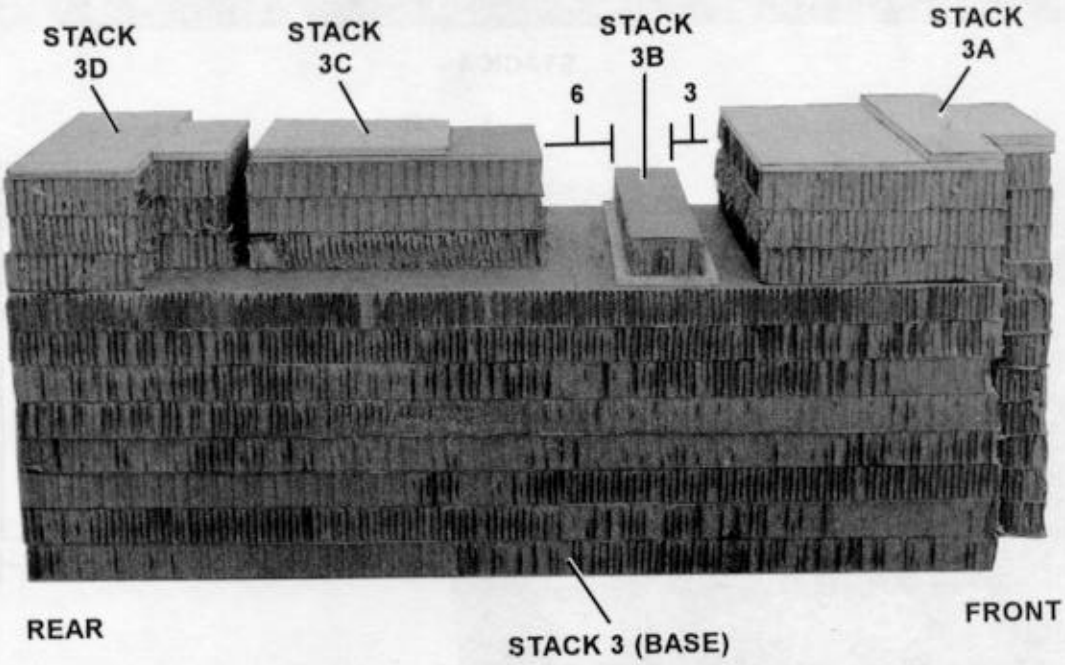
*Figure 5-4. Components of stack 3 prepared (continued)*




STACK 3D

| Stack Number | Pieces | Width | Length | Material | Instructions |
|---|---|---|---|---|---|
| 3D | 3 | 36 | 16 | Honeycomb | Make cutouts as shown and glue flush together. |
| | 1 | 36 | 16 | 3/4-inch plywood | Make cutouts as above, and glue flush over plywood and honeycomb. Set 3D aside. |

*Figure 5-4. Components of stack 3 prepared (continued)*

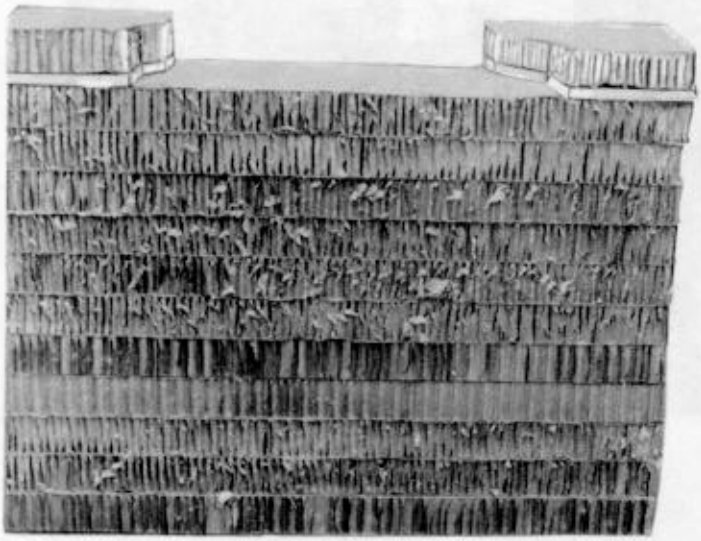


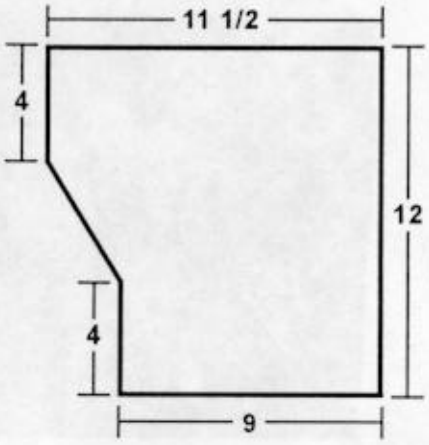

1. Align the cutouts of stack 3A with the base and glue in place.
2. Glue stack 3B on the base 3 inches to the rear of stack 3A.
3. Center stack 3C on the base 6 inches to the rear of stack 3B.
4. Glue stack 3D flush on the rear end of base with the cutouts to the front.

*Figure 5-5. Stack 3 assembled*

Notes: 1. This drawing is not drawn to scale.
2. All measurements are given in inches.

STACK 4

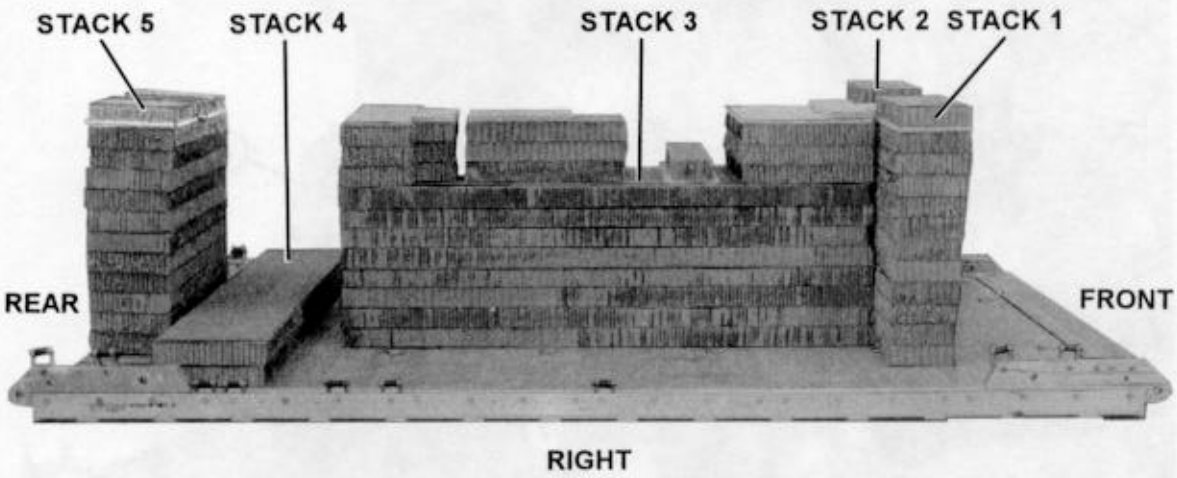





STACK 5

| Stack Number | Pieces | Width | Length | Material | Instructions |
|---|---|---|---|---|---|
| 4 | 2 | 96 | 15 | Honeycomb | Glue flush together. |
| 5 | 11 | 48 | 12 | Honeycomb | Glue flush together. |
| | 2 | 11 1/2 | 12 | 3/4-inch plywood | Make cutouts as shown, and place flush over sides of stack, facing in the same direction. |
| | 2 | 11 1/2 | 12 | Honeycomb | Make cutouts as above, and glue flush over plywood. |

*Figure 5-6. Stack 4 and 5 prepared*

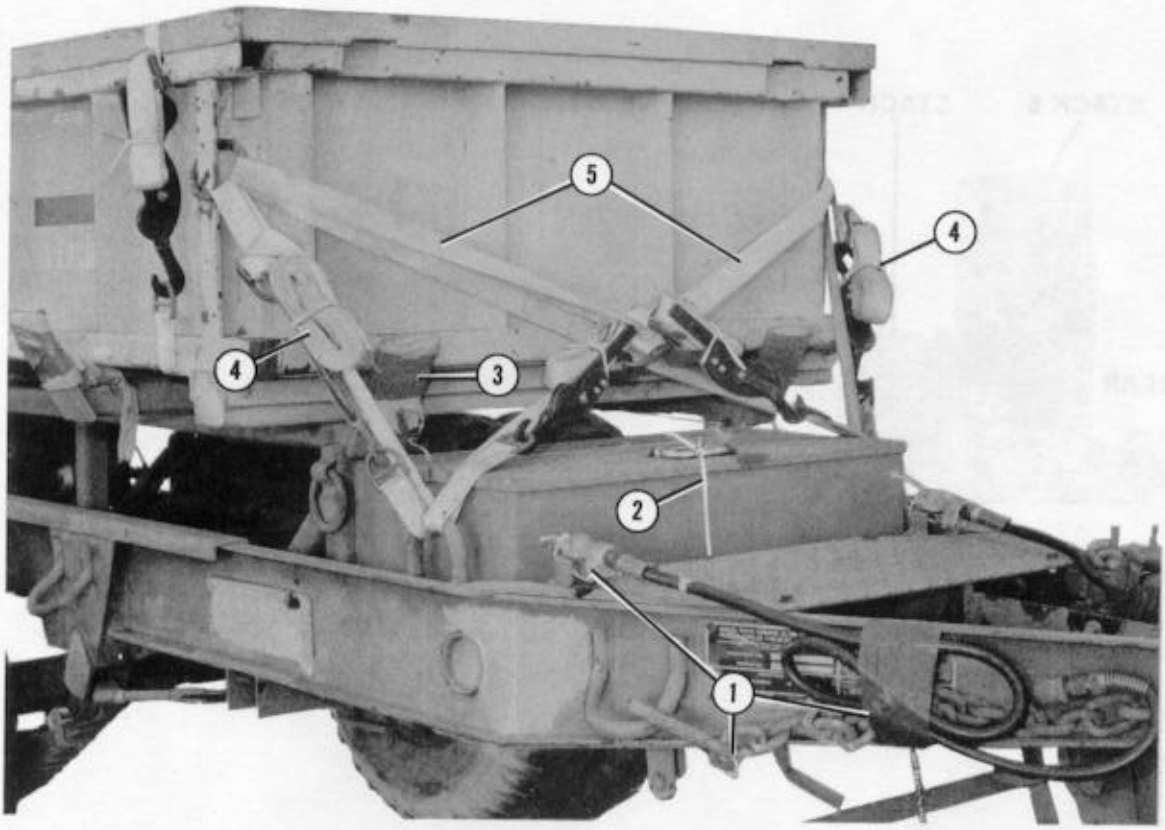



| Stack Number | Position of Stack on Platform |
|---|---|
| | Place stack: |
| 3 | Centered 24 inches from the front edge of the platform. |
| 1 | In the right cutout of stack 3, 20 inches from the front edge of the platform. |
| 2 | In the left cutout of stack 3, 20 inches from the front edge of the platform. |
| 4 | Centered 14 inches from the rear edge of the platform. |
| 5 | Centered and flush with the rear edge of the platform. |

*Figure 5-7. Honeycomb stacks positioned on platform*

## 5-4. Preparing MICLIC and Trailer

Prepare the MICLIC as shown in Figure 5-8.




(1) Secure tow chains, and electrical and brake lines to the trailer tongue with type III nylon cord and tape.

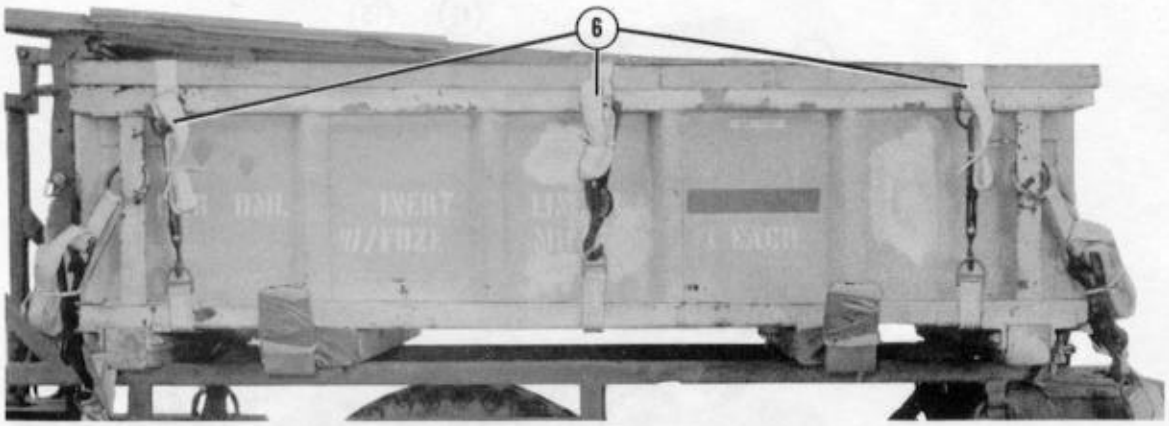
(2) Secure the tool box with type III nylon cord.

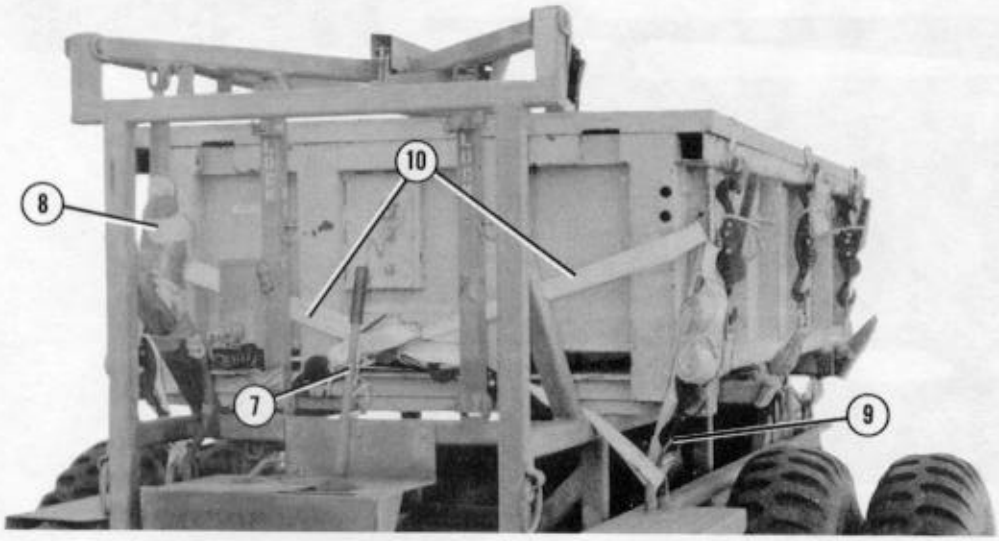
(3) Pad sharp edges with cellulose wadding taped in place.

(4) Lash the right front tie-down ring on the MICLIC box to the right front tie-down point on the trailer frame. Do the same for the left side.

(5) Lash the right front tie-down ring on the MICLIC box to the left front tie-down point on the trailer frame. Lash the left front tie-down ring on the MICLIC box to the right front tie-down point on the trailer frame.

*Figure 5-8. MICLIC prepared*




(6) Secure the MICLIC box lid with three 15-foot lashings spaced evenly. Pass the lashings over the box ONLY, not the launcher arm. Fasten the lashings on the side.

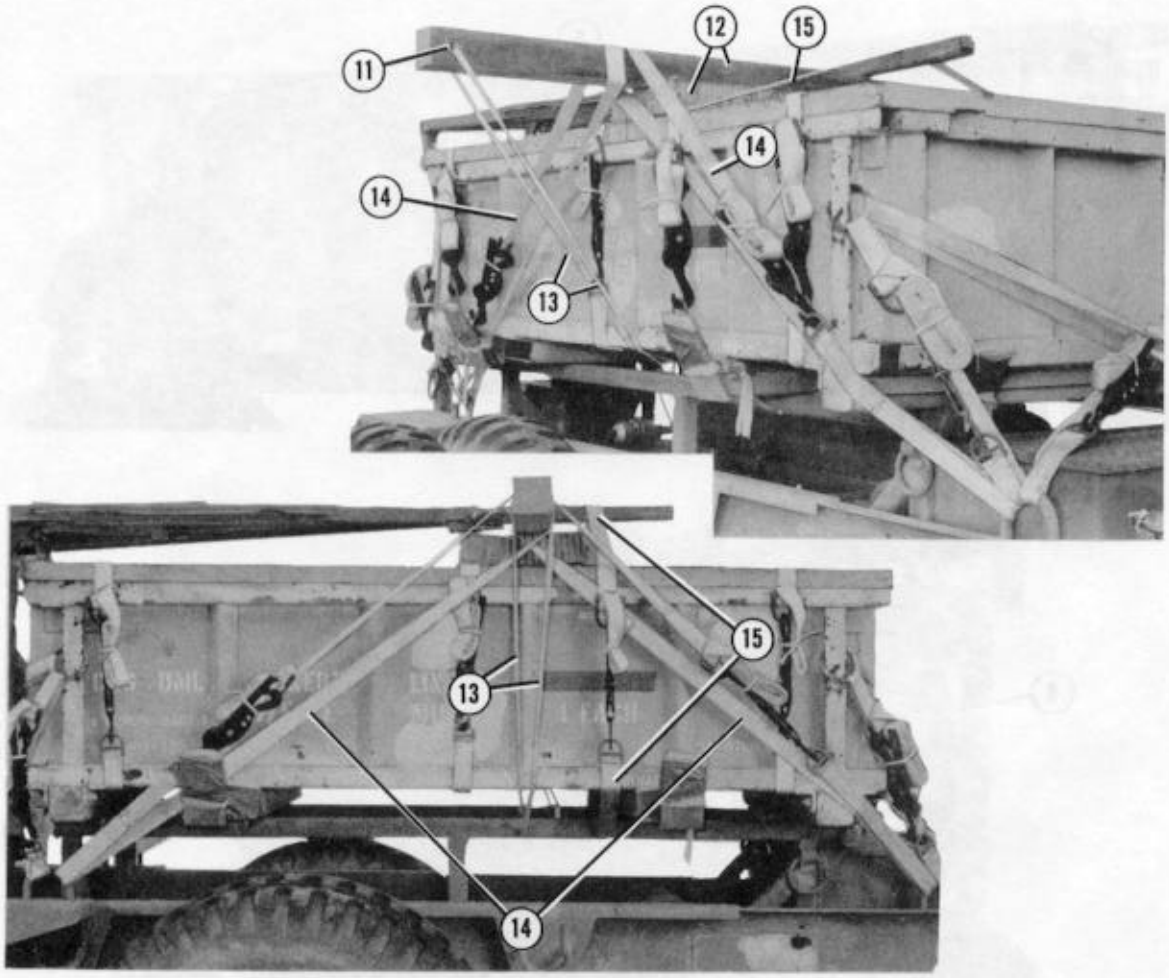
(7) Secure the hydraulics control lever in the forward position with type III nylon cord tied to the box frame.

(8) Pad the hydraulic cylinder with cellulose wadding taped in place.

(9) Lash the right rear tie-down ring on the MICLIC box to the right rear tie-down point on the trailer frame. Do the same for the left side.

(10) Lash the right rear tie-down ring on the MICLIC box to the left rear tie-down point on the trailer frame. Lash the left rear tie-down ring on the MICLIC box to the right rear tie-down point on the trailer frame.

*Figure 5-8. MICLIC prepared (continued)*




(11) Drill a 1/2-inch hole 2 inches from each end of a 96-inch piece of 4- by 4-inch lumber.

(12) Center the lumber over a 54- by 12-inch piece of honeycomb. Place the lumber and honeycomb under the launcher arm and over the MICLIC box so that the edge of the lumber is 32 inches from the front edge of the MICLIC box.

(13) Be sure that the lumber remains in its position, and tie it to the trailer frame through the drilled holes on each side with 1/2-inch tubular nylon webbing.

(14) Lash the lumber to the tie-down points on each side used previously.

**Note: Be sure that the lumber remains properly aligned when fastening the lashings.**

(15) Pass a 15-foot lashing around the trailer frame and the launcher arm immediately in front of the lumber and honeycomb placed in step 12 above.

*Figure 5-8. MICLIC prepared (continued)*

## 5-5. Stowing the Accompanying Load on Platform

Stow the accompanying load, the rocket container, on the platform as shown in Figure 5-9.

*a.* Construct endboards for the accompanying load as shown in Figure 5-9.

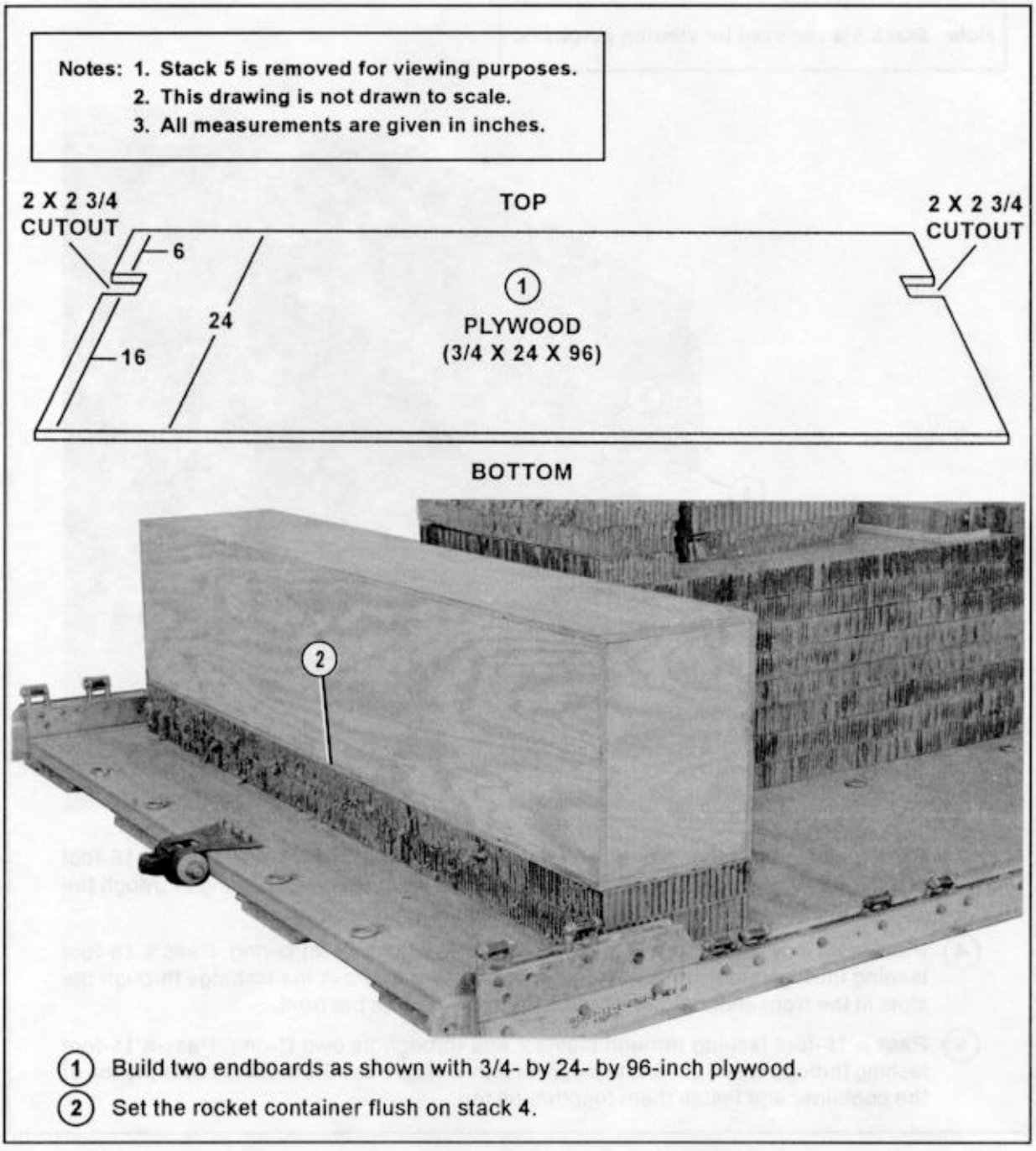
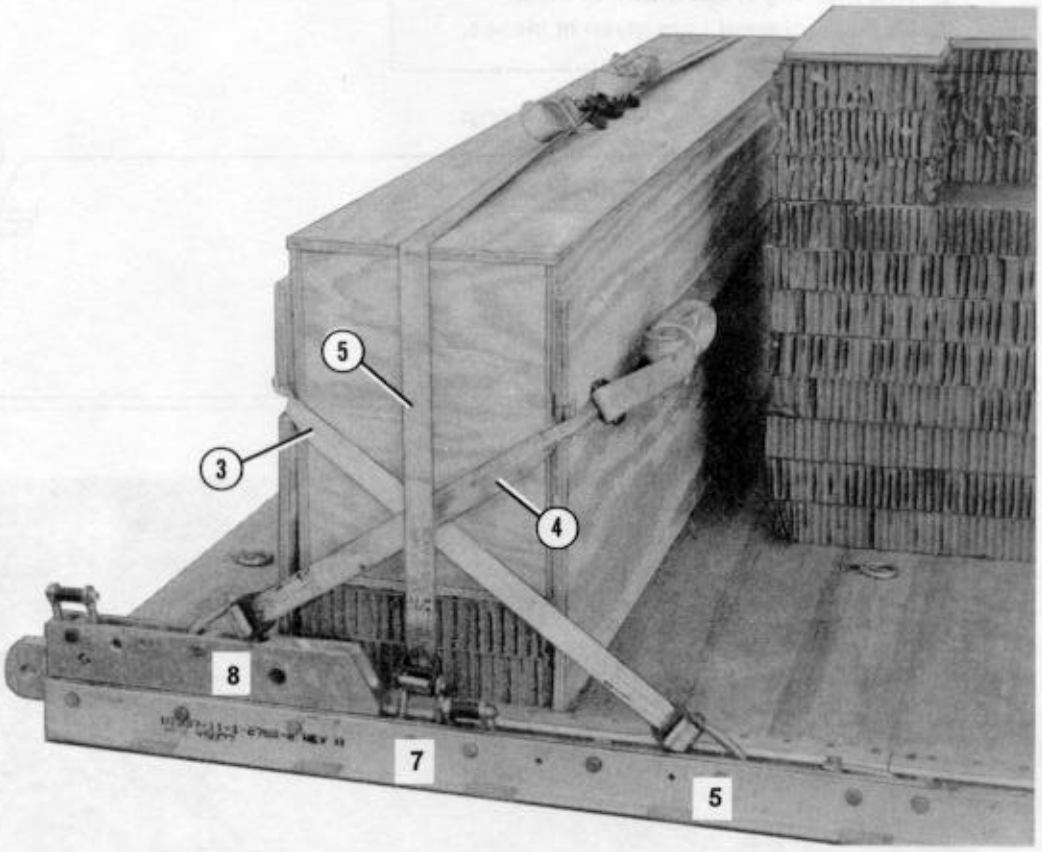



*Figure 5-9. Rocket container stowed*

*b.* Prepare, stow, and lash the front accompanying load as shown in Figure 5-9.

**Note: Stack 5 is removed for viewing purposes.**




(3) Pass a 15-foot lashing through clevis 5 and through its own D-ring. Pass a 15-foot lashing through clevis 5A and through its own D-ring. Pass the lashings through the slots in the rear endboard and fasten them together in the rear.

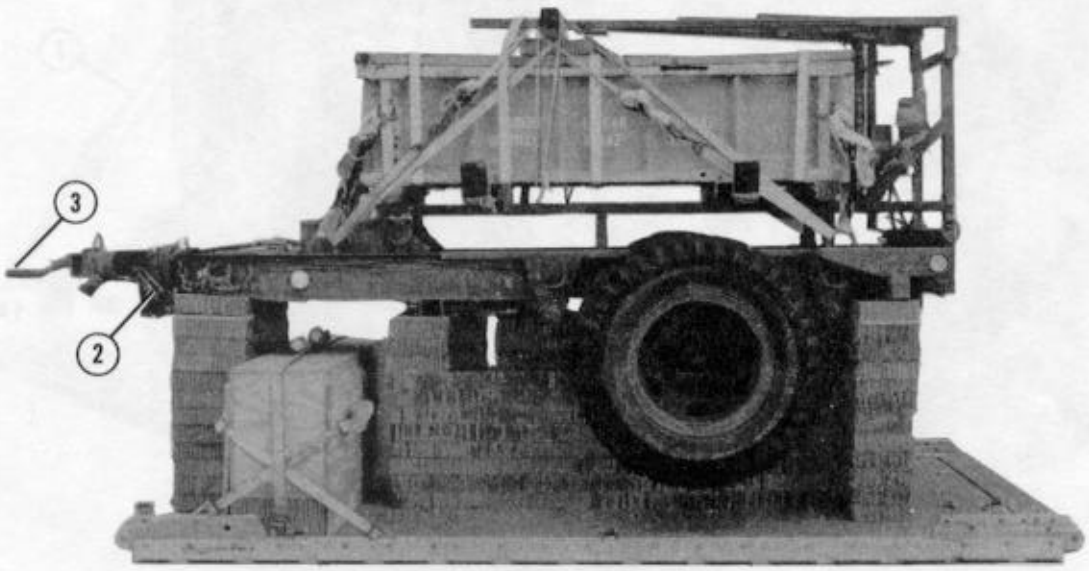
(4) Pass a 15-foot lashing through clevis 8 and through its own D-ring. Pass a 15-foot lashing through clevis 8A and through its own D-ring. Pass the lashings through the slots in the front endboard and fasten them together in the front.

(5) Pass a 15-foot lashing through clevis 7 and through its own D-ring. Pass a 15-foot lashing through clevis 7A and through its own D-ring. Pass the lashings over the top of the container and fasten them together on top.

*Figure 5-9. Rocket container stowed (continued)*

## 5-6. Lifting and Positioning MICLIC

Lift the MICLIC and position it on the honeycomb stacks as shown on Figure 5-10.




(1) Attach a 12-foot (3-loop), type XXVI nylon webbing sling to each of the four lifting points on the trailer with a medium clevis (not shown).

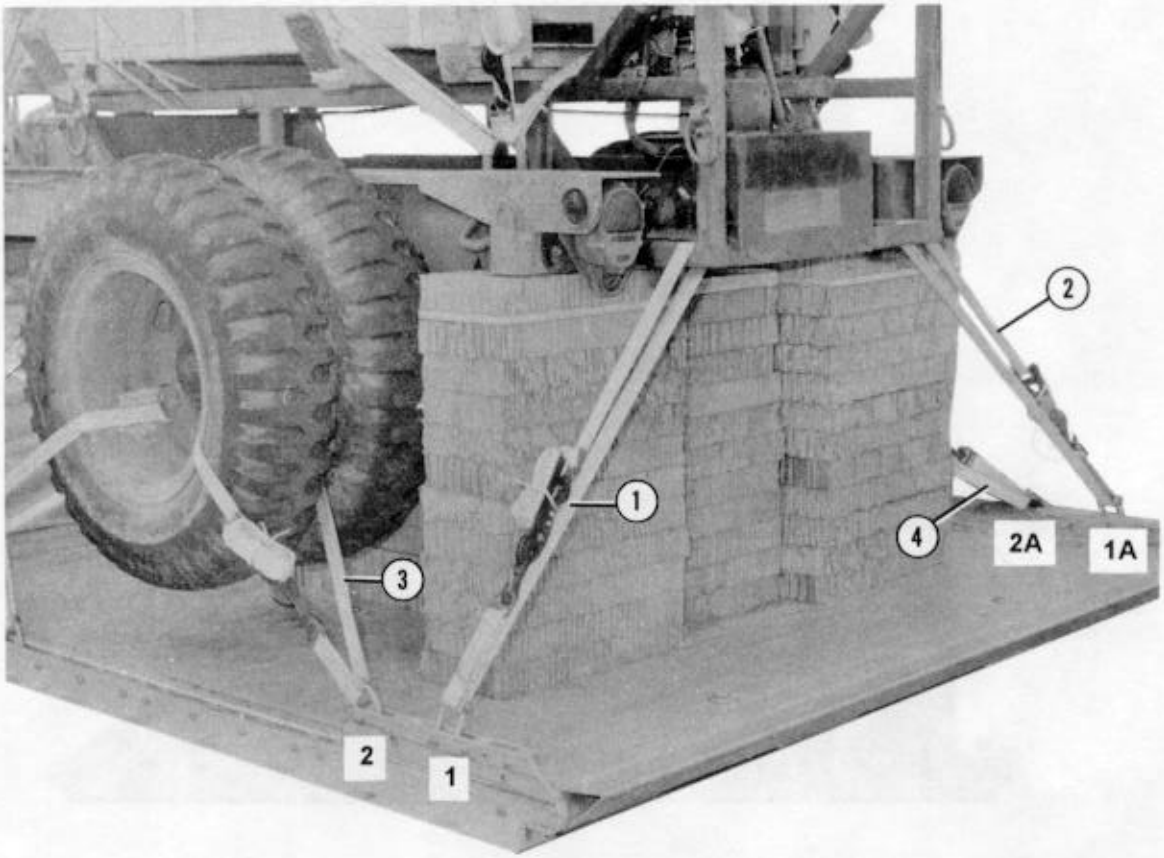
(2) Raise the trailer. Fold the support leg and A-frame. Tie them and the hand crank to the trailer frame with type III nylon cord.

(3) Position the trailer on the honeycomb stacks so that the towing pintle overhangs the rear of the platform 34 inches.

*Figure 5-10. MICLIC trailer positioned on honeycomb stacks*

## 5-7. Lashing MICLIC

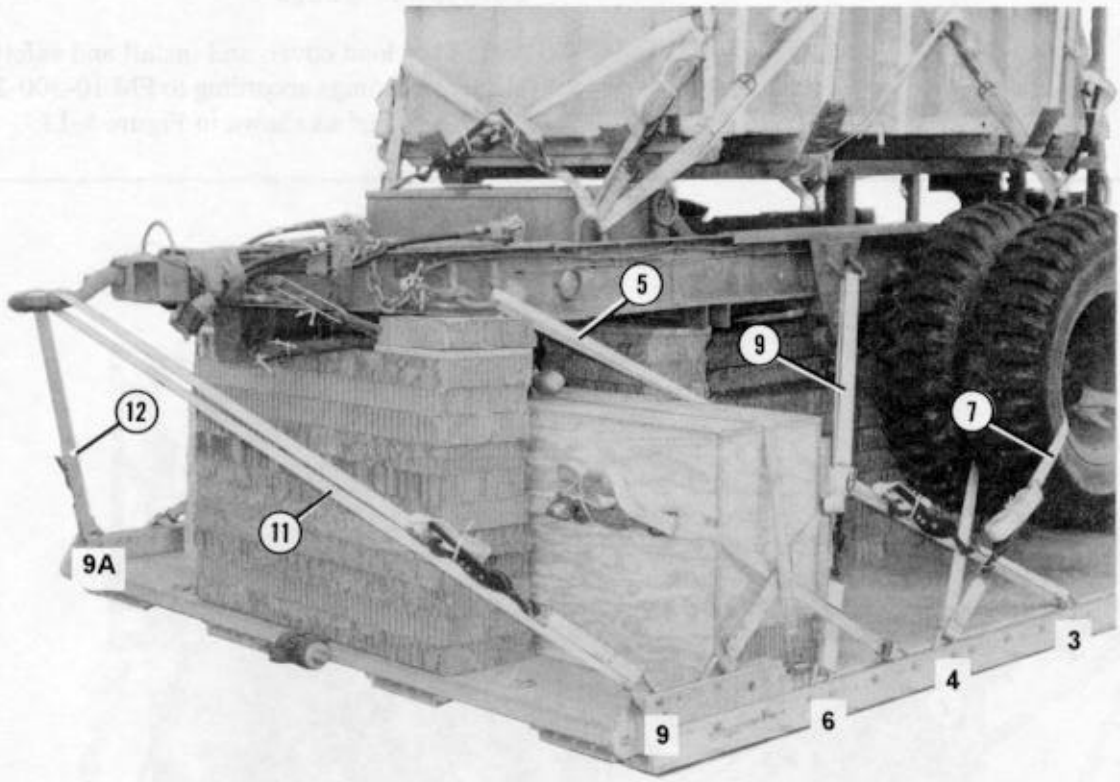
Lash the MICLIC to the platform as shown in Figures 5-11 and 5-12. Install the lashings according to FM 10-500-2/TO 13C7-1-5.




| Lashing Number | Tie-down Clevis Number | Instructions |
|---|---|---|
| | | Place lashing: |
| 1 | 1 | Around trailer frame, left side. |
| 2 | 1A | Around trailer frame, right side. |
| 3 | 2 | Around outside wheel, left side. |
| 4 | 2A | Around outside wheel, right side. |

**Note: Pad wheel opening with cellulose wadding.**

*Figure 5-11. Lashings 1 through 4 installed*



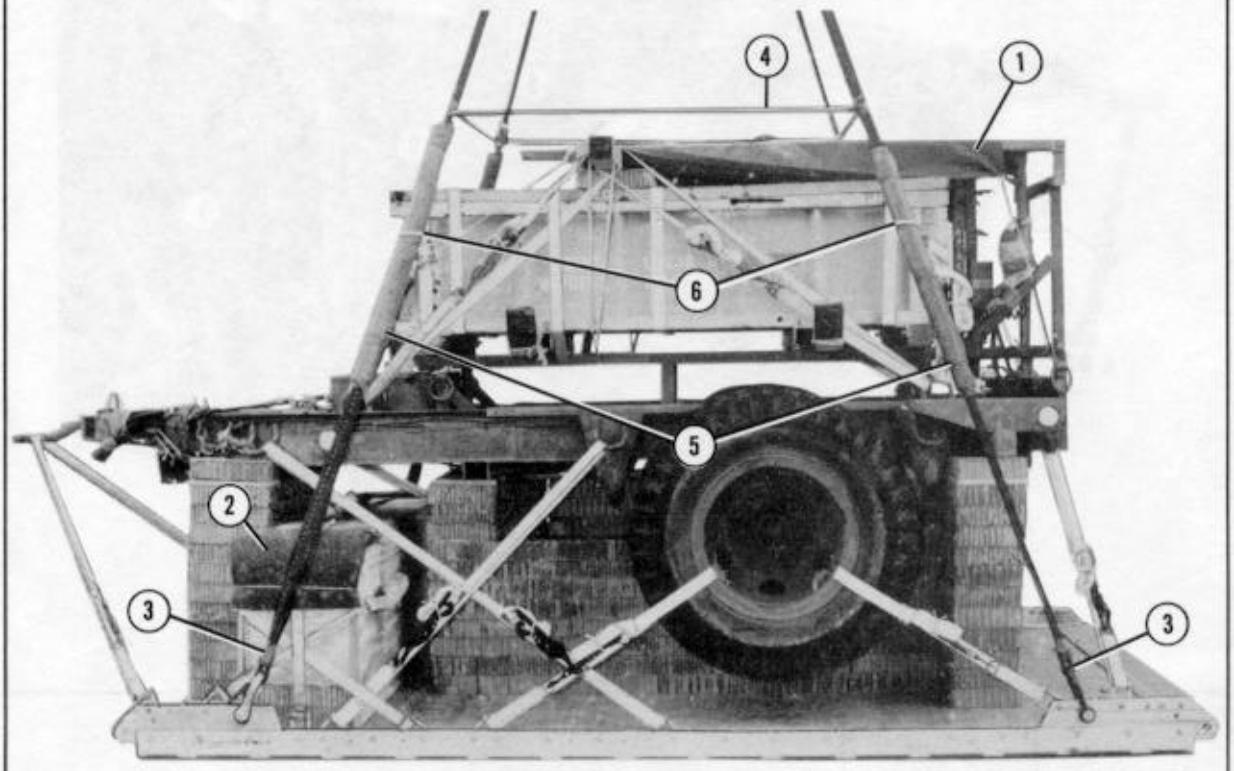

| Lashing Number | Tie-down Clevis Number | Instructions |
|---|---|---|
| | | Place lashing: |
| 5 | 3 | Through front tie-down point, left side. |
| 6 | 3A | Through front tie-down point, right side. |
| 7 | 4 | Around outside wheel, left side. |
| 8 | 4A | Around outside wheel, right side. |
| 9 | 6 | Through center tie-down point, left side. |
| 10 | 6A | Through center tie-down point, right side. |
| 11 | 9 | Through lunette. |
| 12 | 9A | Through lunette. |

**Note: Pad wheel openings with cellulose wadding.**

*Figure 5-12. Lashings 5 through 12 installed*

## 5-8. Installing Load Cover and Suspension Slings

Install the load cover, and install and safety the suspension slings according to FM 10-500-2/TO 13C7-1-5, and as shown in Figure 5-13.




(1) Place a 60- by 72-inch piece of canvas over the launcher arm and the lumber on top of the MICLIC. Tie the corners of the canvas to convenient points on the load with type III nylon cord.

(2) Tie a 36- by 18-inch piece of felt over each upper corner of the rocket box with type III nylon cord.

(3) Attach a 16-foot (2-loop), type XXVI nylon webbing suspension sling to each tandem link with a large clevis assembly.

(4) Install the deadman's tie according to FM 10-500-2/TO 13C7-1-5.

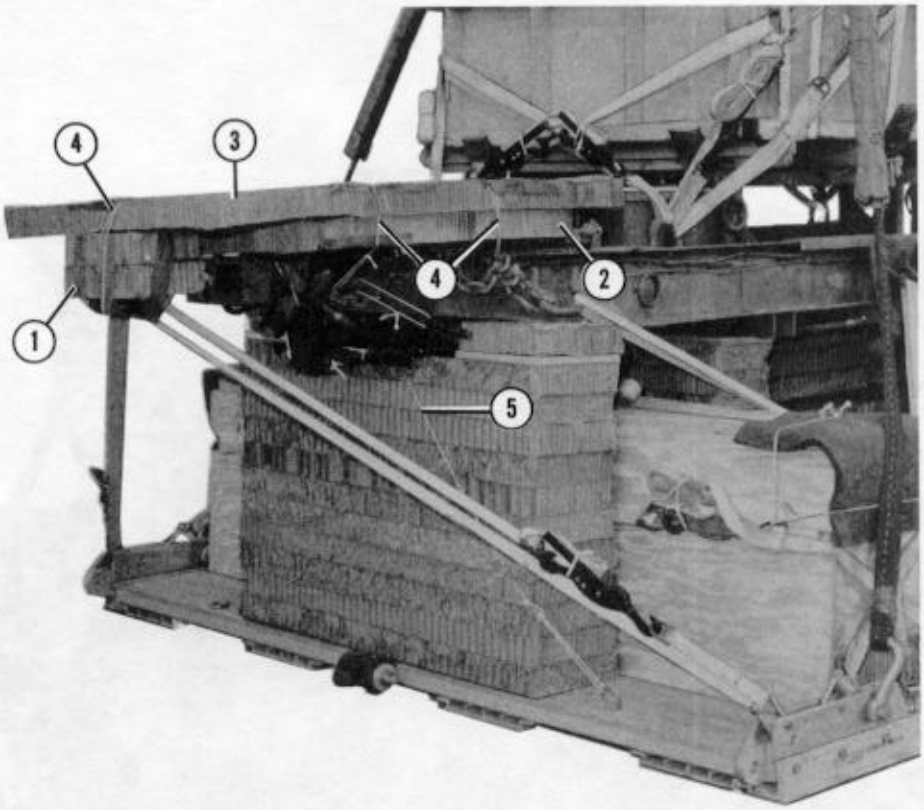
(5) Pad each suspension sling where it makes contact with the MICLIC box with felt taped in place.

(6) Tie each suspension sling to the nearest tie-down ring on the container with a length of type III nylon cord.

*Figure 5-13. Load cover and suspension slings installed*

## 5-9. Building Cargo Parachute Stowage Platform

Build and secure the cargo parachute stowage platform as shown in Figure 5-14.




(1) Place two 6- by 12-inch pieces of honeycomb on the lunette, and secure them with tape.

(2) Place a 36- by 42-inch piece of honeycomb over the trailer frame immediately in front of the pieces placed in step 1 above. Make 8- by 8-inch cutouts in the front corners of this piece to allow for the air brake hoses.

(3) Place a 36- by 54-inch piece of honeycomb over the pieces placed in steps 1 and 2 above.

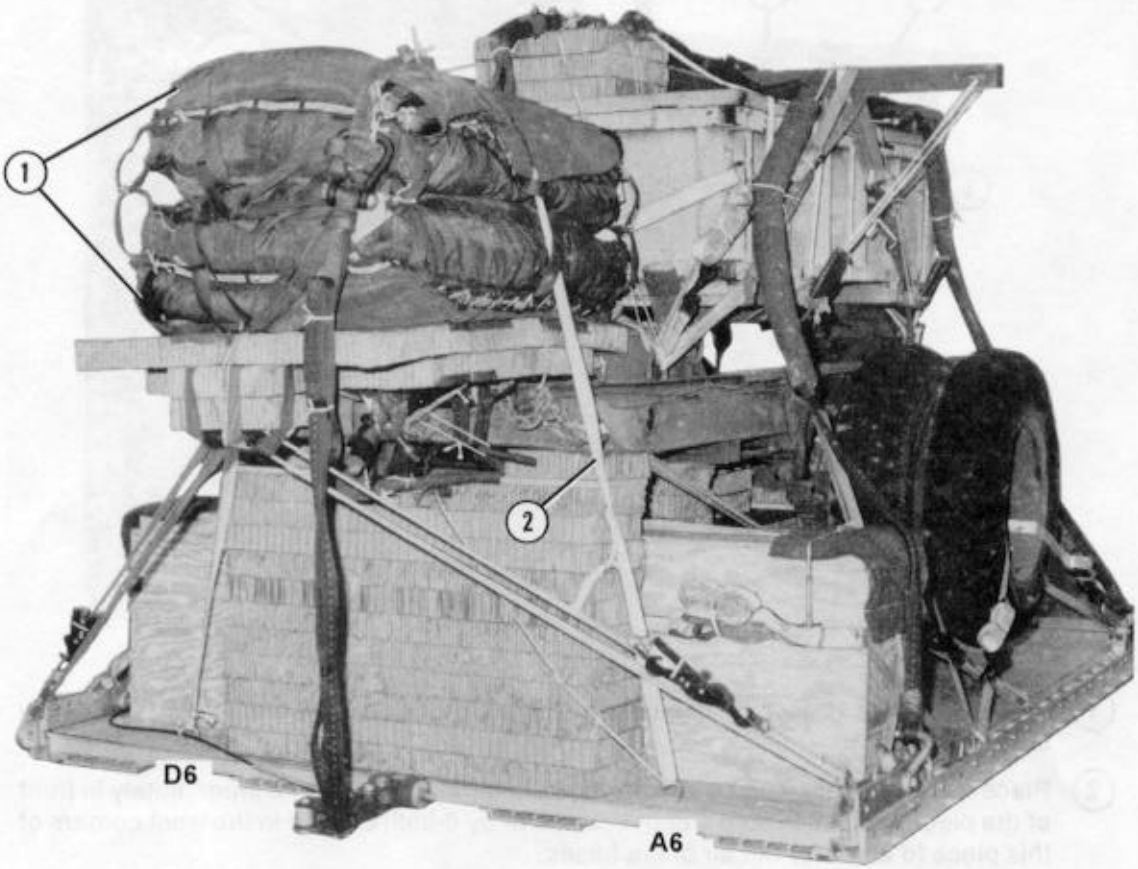
(4) Tie the honeycomb to the trailer frame in a side-to-side direction with two lengths of type III nylon cord. Tie the honeycomb to the trailer frame in a front-to-rear direction with a length of type III nylon cord.

(5) Secure honeycomb stack 5 in place with a length of type III nylon cord tied between the upper lashing on the rocket box and tie-down ring A6.

*Figure 5-14. Parachute stowage platform built and installed*

## 5-10. Stowing Cargo Parachutes

Stow two G-11 cargo parachutes on the parachute stowage platform according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 5-15.



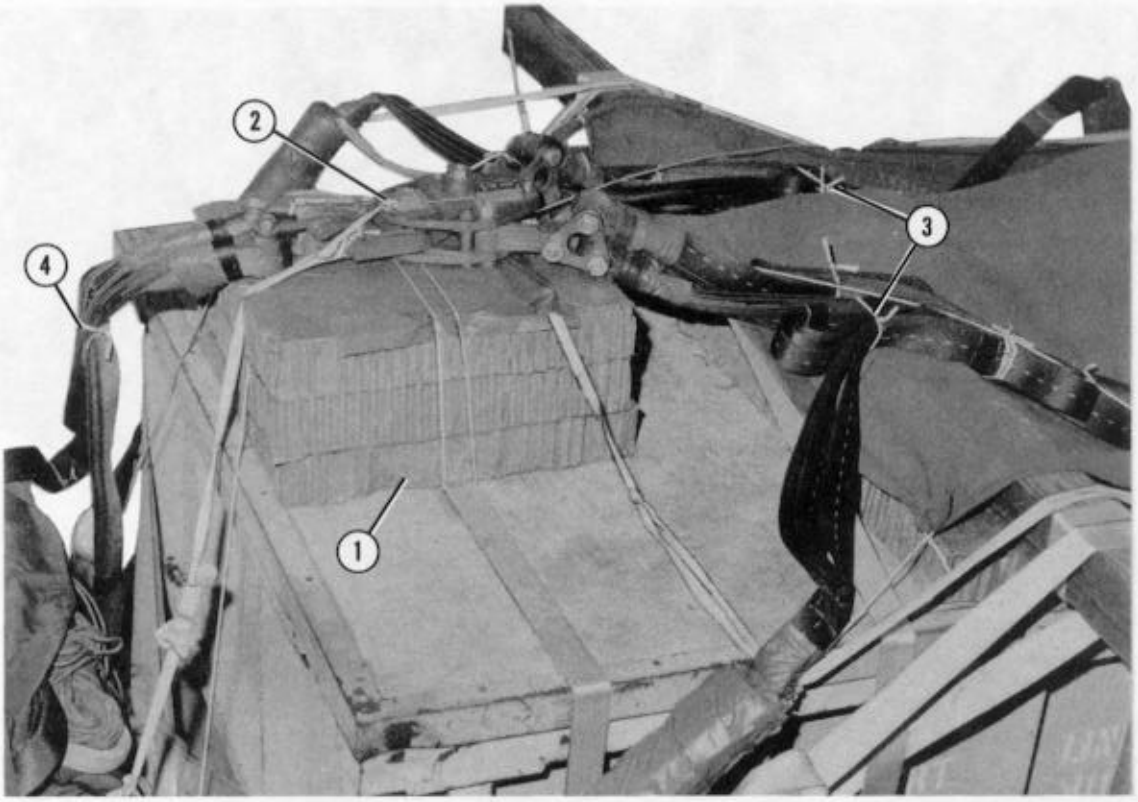

(1) Prepare and install two G-11 cargo parachutes according to FM 10-500-2/TO 13C7-1-5.

(2) Pass the type VIII nylon restraint strap through the bag carrying handles and tie the strap to tie-down rings A6 and D6.

*Figure 5-15. Cargo parachutes stowed*

## 5-11. Installing Release Assembly

Prepare, install, and safety an M-1 cargo parachute release assembly according to FM 10-500-2/TO 13C7-1-5, and as shown in Figure 5-16.




(1) Center a stack of three 18- by 18-inch pieces of honeycomb over the rear lashing on top of the MICLIC box. Tape the rear section of the deadman's tie to the honeycomb. Tie the honeycomb to the lashing with type III nylon cord.

(2) Install and safety the M-1 release according to FM 10-500-2/TO 13C7-1-5.

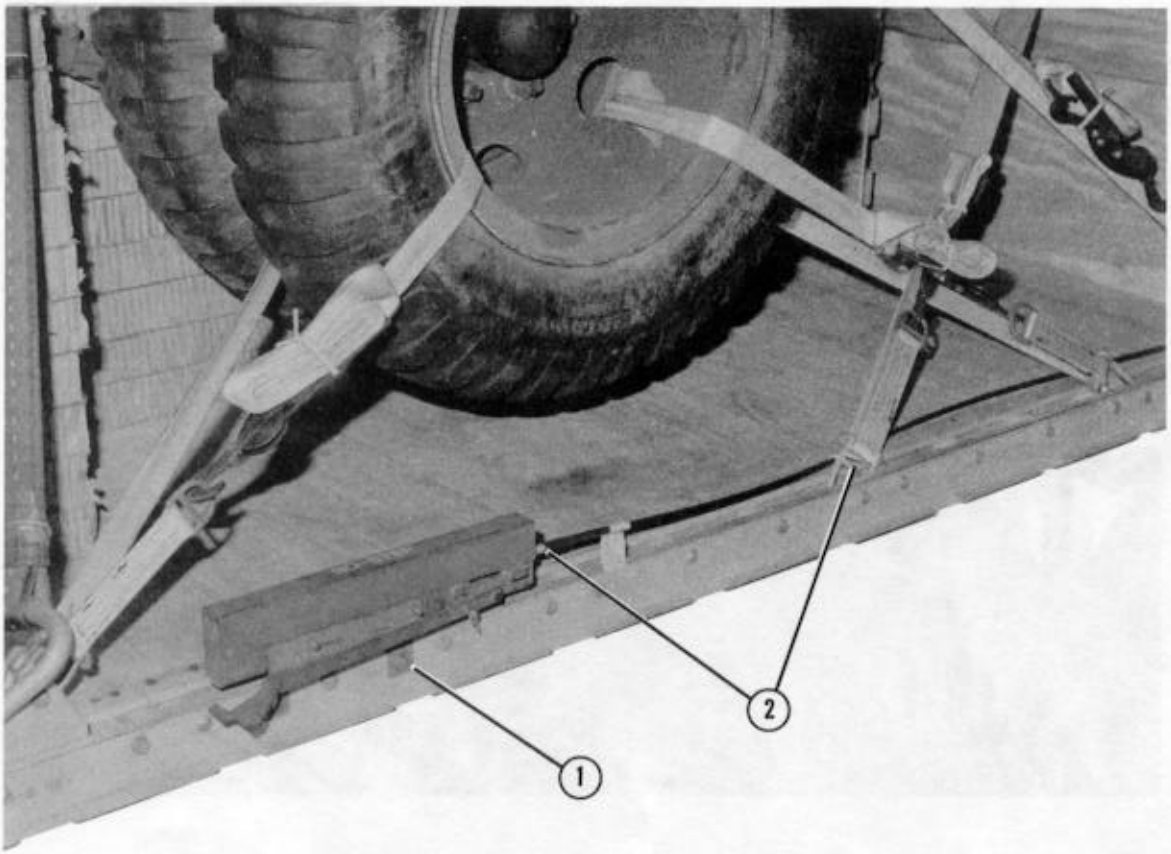
(3) Fold the suspension slings and tie the folds with type I, 1/4-inch cotton webbing.

(4) Tie the riser extensions together with a length of type I, 1/4-inch cotton webbing.

*Figure 5-16. M-1 release installed*

## 5-12. Installing Extraction System

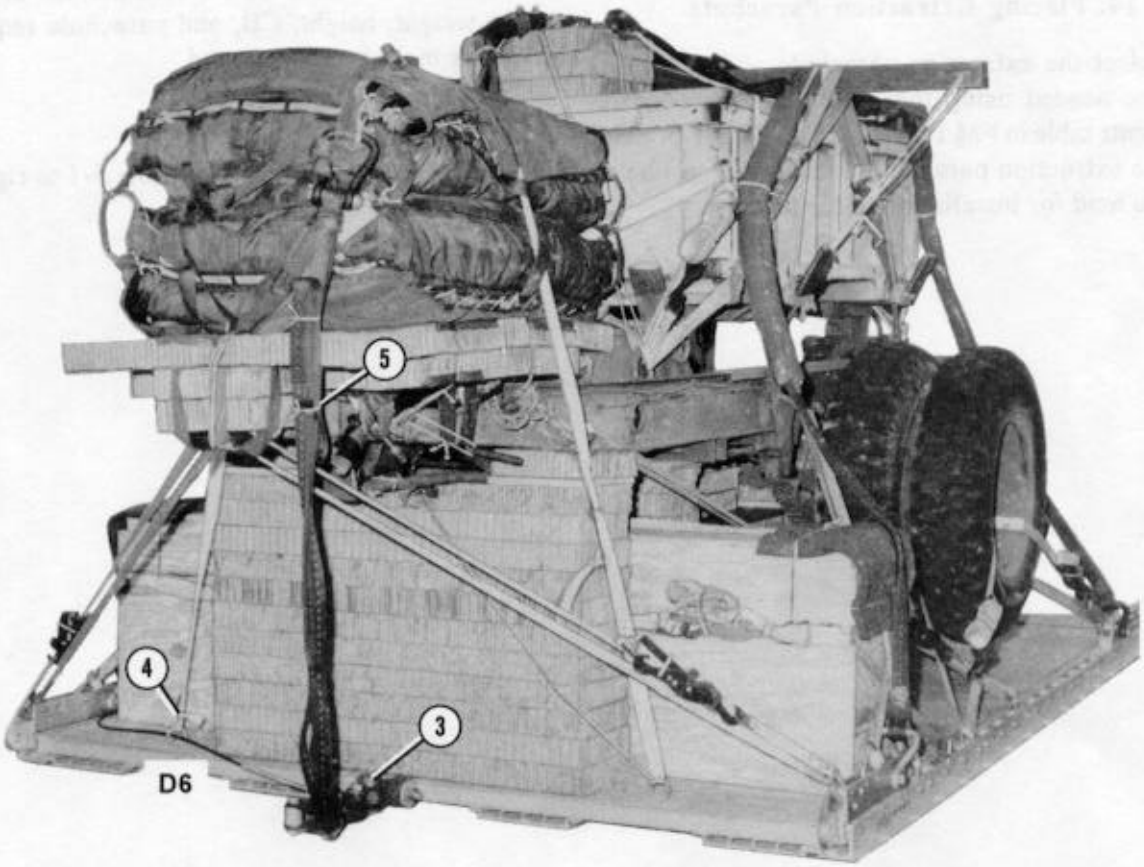
Install the EFTC extraction system according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 5-17.




(1) Attach the EFTA mounting brackets to the front mounting holes in the left platform rail.

(2) Attach a 12-foot cable to the actuator. Install the actuator to the mounting brackets. Secure the cable to the clevises using type I, 1/4-inch cotton webbing.

*Figure 5-17. EFTC installed*




(3) Install the latch assembly to the extraction bracket. Attach the release cable to the latch assembly.

(4) Tie the release cable to tie-down ring D6 with type I, 1/4-inch cotton webbing.

(5) Install a 9-foot (2-loop), type XXVI nylon webbing deployment line to the load. Fold the excess deployment line, and secure the folds with type I, 1/4-inch cotton webbing.

*Figure 5-17. EFTC installed (continued)*

### 5-13. Installing Provisions for Emergency Restraints

Install the provisions for the emergency restraints on the load according to FM 10-500-2/TO 13C7-1-5.

### 5-14. Placing Extraction Parachute

Select the extraction parachute and extraction line needed using the extraction line requirements table in FM 10-500-2/TO 13C7-1-5. Place the extraction parachute and extraction line on the load for installation in the aircraft.

### 5-15. Marking Rigged Load

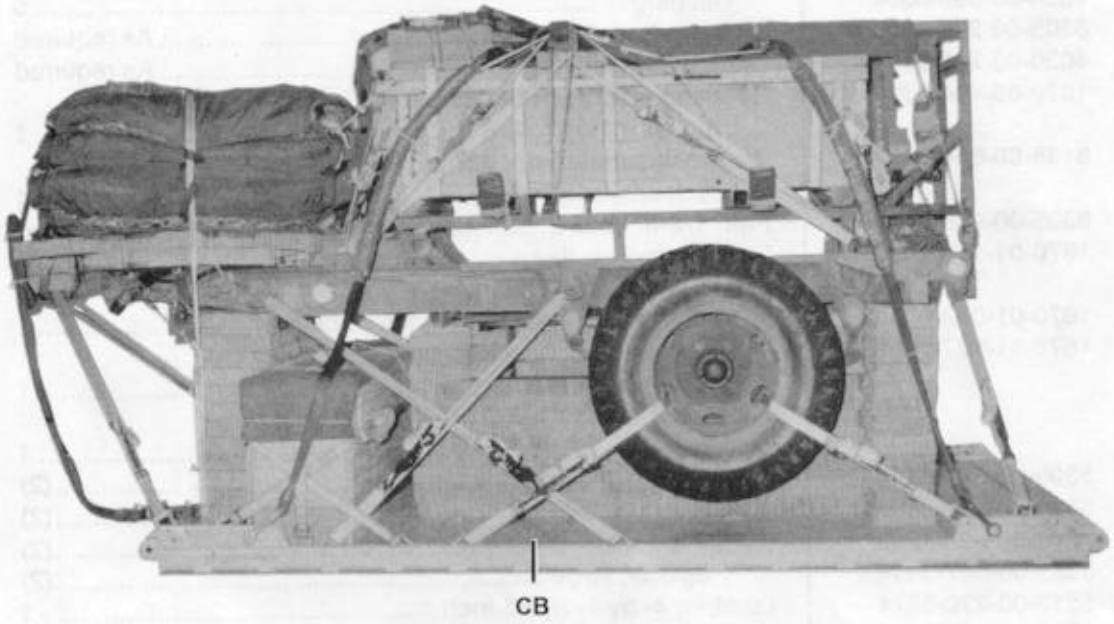
Mark the rigged load according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 5-18. Complete Shipper's Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

### 5-16. Equipment Required

Use the equipment listed in Table 5-1 to rig this load.

**CAUTION**

Make the final rigger inspection required by FM 10-500-2/TO13C7-1-5 before the load leaves the rigging site.




**RIGGED LOAD DATA**

| | |
|---|---|
| Weight: Load shown | 8,400 pounds |
| Maximum load allowed | 8,600 pounds |
| Height | 94 1/2 inches |
| Width | 108 inches |
| Length | 178 inches |
| Overhang: Front | 0 inches |
| Rear | 34 inches |
| CB (from front edge of platform) | 77 inches |

*Figure 5-18. MICLIC on 2 1/2-ton trailer rigged on a type V platform for low-velocity airdrop*

*Table 5-1. Equipment required for rigging MICLIC on 2 1/2-ton trailer on a type V platform for low-velocity airdrop*

| National Stock Number | Item | Quantity |
|---|---|---|
| 8040-00-273-8713 | Adhesive, paste,1-gal | As required |
| | Clevis, suspension: | |
| 4030-00-678-8562 | 3/4-in (medium) | 4 |
| 4030-00-090-5354 | 1-in (large) | 5 |
| 8305-00-242-3593 | Cloth, cotton duck | As required |
| 4020-00-240-2146 | Cord, nylon, type III, 550-lb | As required |
| 1670-00-434-5783 | Coupling, airdrop, extraction force transfer w 12-ft cable | 1 |
| 8135-00-664-6958 | Cushioning material, packaging, cellulose wadding | As required |
| 8305-00-958-3685 | Felt, 1/2-in thick | As required |
| 1670-01-183-2678 | Leaf, extraction line | 2 |
| | Line, extraction: | |
| 1670-01-062-6313 | 60-ft (3-loop), type XXVI nylon webbing | 1 |
| 1670-01-107-7651 | 140-ft (3-loop), type XXVI nylon webbing (use w C-141 aircraft.) | 1 |
| | Link assembly: | |
| | Two-point: | 1 |
| 5306-00-435-8994 | Bolt, 1-in diam, 4-in long | (2) |
| 5310-00-232-5165 | Nut, 1-in, hexagon | (2) |
| 1670-00-003-1953 | Plate, side, 3 3/4-in | (2) |
| 5365-00-007-3414 | Spacer, large | (2) |
| 5510-00-220-6274 | Lumber, 4- by 4- by 96-inch | 1 |
| 1670-00-753-3928 | Pad, energy-dissipating, honeycomb, 3- by 36- by 96-in: | 16 sheets |
| | Parachute: | |
| 1670-01-016-7841 | Cargo, G-11B | 2 |
| | Cargo extraction: | |
| 1670-00-687-5458 | 22-ft | 1 |
| | Platform, AD, type V, 12-ft: | 1 |
| | Bracket: | |
| 1670-01-162-2375 | Inside EFTA | (1) |
| 1670-01-162-2374 | Outside EFTA | (1) |
| 1670-01-162-2372 | Clevis assembly | (18) |
| 1670-01-162-2376 | Extraction bracket assembly | (1) |
| 1670-01-162-2381 | Tandem link | (4) |
| 5530-00-128-4981 | Plywood, 3/4-in: | 3 sheets |
| | 11 1/2- by 12-in | (2) |
| | 16- by 15-in | (1) |
| | 24- by 10-in | (2) |
| | 34- by 8-in | (1) |
| | 36- by 12-in | (1) |

*Table 5-1. Equipment required for rigging MICLIC on 2 1/2-ton trailer on a type V platform for low-velocity airdrop (continued)*

| National Stock Number | Item | Quantity |
|---|---|---|
| | 36- by 16-in | (1) |
| | 36- by 25-in | (1) |
| | 96- by 24-in | (2) |
| 1670-01-097-8816 | Release, cargo parachute, M-1 | 1 |
| | Sling, cargo airdrop: | |
| | For deployment: | |
| 1670-01-062-6304 | 9-ft (2-loop), type XXVI nylon webbing | 1 |
| | For lifting: | |
| 1670-01-062-6303 | 12-ft (2-loop), type XXVI nylon webbing | 4 |
| | For riser extension: | |
| 1670-01-062-6302 | 20-ft (2-loop), type XXVI nylon webbing | 2 |
| | For suspension: | |
| 1670-01-063-7761 | 16-ft (2-loop), type XXVI nylon webbing | 4 |
| 1670-00-040-8219 | Strap, parachute release, multicut comes w 3 knives | 1 |
| 7510-00-266-5016 | Tape, adhesive, 2-in | As required |
| 1670-00-937-0271 | Tie-down assembly, 15-ft | 32 |
| | Webbing: | |
| 8305-00-268-2411 | Cotton, 1/4-in, type I | As required |
| | Nylon: | |
| 8305-00-082-5752 | Tubular, 1/2-in | As required |
| 8305-00-263-3591 | Type VIII | As required |

# GLOSSARY

**ACB** attitude control bar
**AD** airdrop
**AFB** Air Force base
**AFJMAN** Air Force joint manual
**AFM** Air Force manual
**AFR** Air Force regulation
**AFTO** Air Force technical order
**ALC** Air Logistics Center
**attn** attention
**C** change
**CB** center of balance
**d** penny
**DA** Department of the Army
**DC** District of Columbia
**DoD** Department of Defense
**diam** diameter
**EFTA** extraction force transfer actuator
**EFTC** extraction force transfer coupling
**FM** field manual
**ft** foot/feet
**gal** gallon
**HQ** headquarters
**in** inch
**LAPE** low-altitude parachute-extraction
**LAPES** low-altitude parachute-extraction system
**lb** pound
**MICLIC** mine-clearing line charge
**no** number
**PEFTC** extraction force transfer coupling (platform)
**rel** release
**SL/CS** static line/connector strap
**TM** technical manual
**TO** technical order
**TRADOC** United States Army Training and Doctrine Command
**US** United States
**w** with
**yd** yard

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*AFJMAN 24-204/TM 38-250 has superseded AFR 71-4/TM 38-250 (15 January 1988). Change 2 reflects this change. The basic manual still references the superseded publication. You may wish to make pen and ink changes to update the old reference citations accordingly.

**FM 10-500-53/MCRP 4-3.8/TO 13C7-18-41/ has superseded FM 10-553/TO 13C7-18-41 (4 December 1981). Change 2 reflects this change. The basic manual still references the superseded publication. You may wish to make pen and ink changes to update the old reference citations accordingly.

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