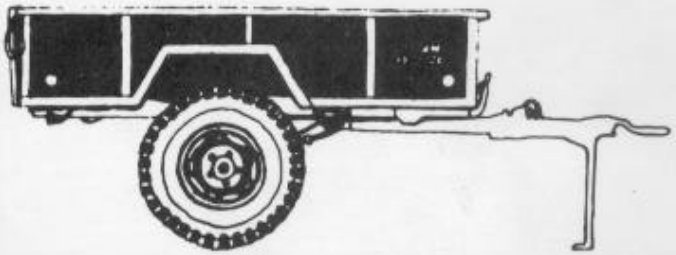
ARMY FM 10-513
AIR FORCE TO 13C7-3-51

AIRDROP OF SUPPLIES AND EQUIPMENT

RIGGING 3/4-TON CARGO TRAILER



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DEPARTMENTS OF THE ARMY AND THE AIR FORCE

FM 10-513/TO 13C7-3-51
C3

HEADQUARTERS
DEPARTMENTS OF THE ARMY
AND THE AIR FORCE
Washington, DC, 19 September 1991

CHANGE
NO. 3

AIRDROP OF SUPPLIES AND EQUIPMENT
RIGGING 3/4-TON CARGO TRAILER

This change adds the procedures for rigging the 3/4-ton cargo trailer with accompanying loads on a type V platform for low-velocity and LAPE airdrop. Also with this change, the distribution restriction statement must be added to the cover of the basic manual and the transmittal page for Change 1 as follows: DISTRIBUTION RESTRICTION. Distribution authorized to US government agencies only to protect technical or operational information from automatic dissemination under the International Exchange Program or by other means. This determination was made on 30 April 1991. Other requests for this document will be referred to Commander, US Army Quartermaster Center and School, ATTN: ATSM-DTL, Fort Lee, VA 23801-5036. DESTRUCTION NOTICE: Destroy by any method that will prevent disclosure of contents or reconstruction of the document.

FM 10-513/TO 13C7-3-51, 25 June 1979, is changed as follows:

1. New or changed material is identified by a vertical bar in the margin opposite the changed material.
2. Remove and insert pages as indicated below.

Remove old pages	Insert new pages
i through iii	i through iii
1-1 and 1-2	1-1
	4-1 through 4-70
	Glossary-1
A-1	References-1

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

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Change

No 2

DEPARTMENTS OF THE ARMY
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Washington, DC, 2 December 1983

AIRDROP OF SUPPLIES AND EQUIPMENT

RIGGING 3/4-TON CARGO TRAILER

This change adds the procedures for rigging the 3/4-ton cargo trailer with an alternate accompanying load for low-velocity airdrop.

FM 10-513/TO 13C7-3-51, 25 June 1979, is changed as follows:

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

Remove pages	Insert pages
i through iii	i through iii
2-13 and 2-14	2-13 and 2-14
2-23 and 2-24	2-23 and 2-24
2-33 and 2-34	2-33 and 2-34
2-37 through 2-40	2-37 through 2-48

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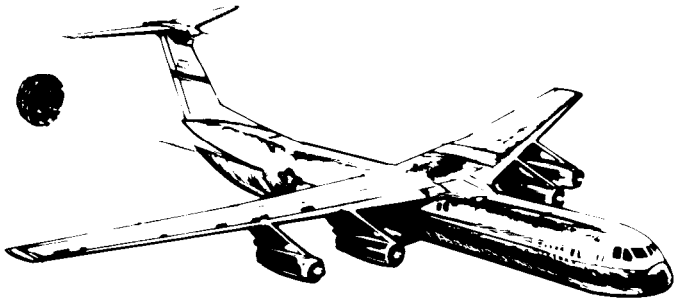

CHANGE

NO 1

DEPARTMENTS OF THE ARMY
AND THE AIR FORCE
Washington, DC, 28 February 1983

AIRDROP OF SUPPLIES AND EQUIPMENT
RIGGING 3/4-TON CARGO TRAILERS

This change adds the procedures for rigging the M101 or M101A, 3/4-ton trailer, with accompanying load on a 12-foot modular platform for low-velocity airdrop.

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

Remove pages	Insert pages
i and ii	i through iii
1-1 and 1-2	1-1 and 1-2
2-1 through 2-21	2-1 through 2-22.5
3-7 and A-1	3-7
	A-1

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FIELD MANUAL
NO 10-513
TECHNICAL ORDER
NO 13C7-3-51

HEADQUARTERS
DEPARTMENTS OF THE ARMY
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Washington, DC, 25 June 1979

AIRDROP OF SUPPLIES AND EQUIPMENT
RIGGING 3/4-TON CARGO TRAILER

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[redacted]

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*This publication supersedes FM 10-513/TO 13C7-3-51, 15 October 1974.

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CHAPTER 1

INTRODUCTION

1-1. Scope

This manual shows the equipment and gives the steps to rig the M101A, M101A1, and M101, 3/4-ton, two-wheel trailers. The trailers are rigged for low-velocity airdrop from the C-130 and C-141 aircraft and for delivery by LAPE airdrop from the C-130 aircraft. This manual also shows equipment and gives procedures to rig the CW-BW water pretreatment decontamination equipment set for low-velocity airdrop from the C-130 and C-141 aircraft.

1-2. Special Considerations

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

a. Airdrop loads may include hazardous materials. When included, they must be packaged, marked, and labeled in compliance with AFR 71-4/TM 38-250.

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

1-3. Recommended Changes

You are encouraged to report any errors or omissions and suggest ways for making this a better manual. Army personnel, send your comments on DA Form 2028 directly to:

Commander
US Army Quartermaster Center and School
ATTN: ATSM-DTL
Fort Lee, Virginia 23801-5036

Air Force personnel, send your reports on AFTO Form 22 through:

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Military Airlift Command (MAC/OXTT)
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CHAPTER 3

RIGGING THE CW-BW WATER PRETREATMENT DECONTAMINATION EQUIPMENT SET

3-1. Description of Load

The CW-BW water pretreatment decontamination equipment set is stowed in a 3/4-ton cargo trailer. The unrigged trailer with decontamination set weighs 2,925 pounds. It is 147 inches long, 71 inches wide, and 83 inches high. The height of the trailer can be reduced to 51 inches. Except for changes outlined in this chapter, the trailer is rigged as described in chapter 2, section I.

3-2. Stowing Decontamination Set and Trailer Components

a. Stowing Decontamination Set. Stow the decontamination set in the trailer as shown in figures 3-1, 3-2, and 3-3.

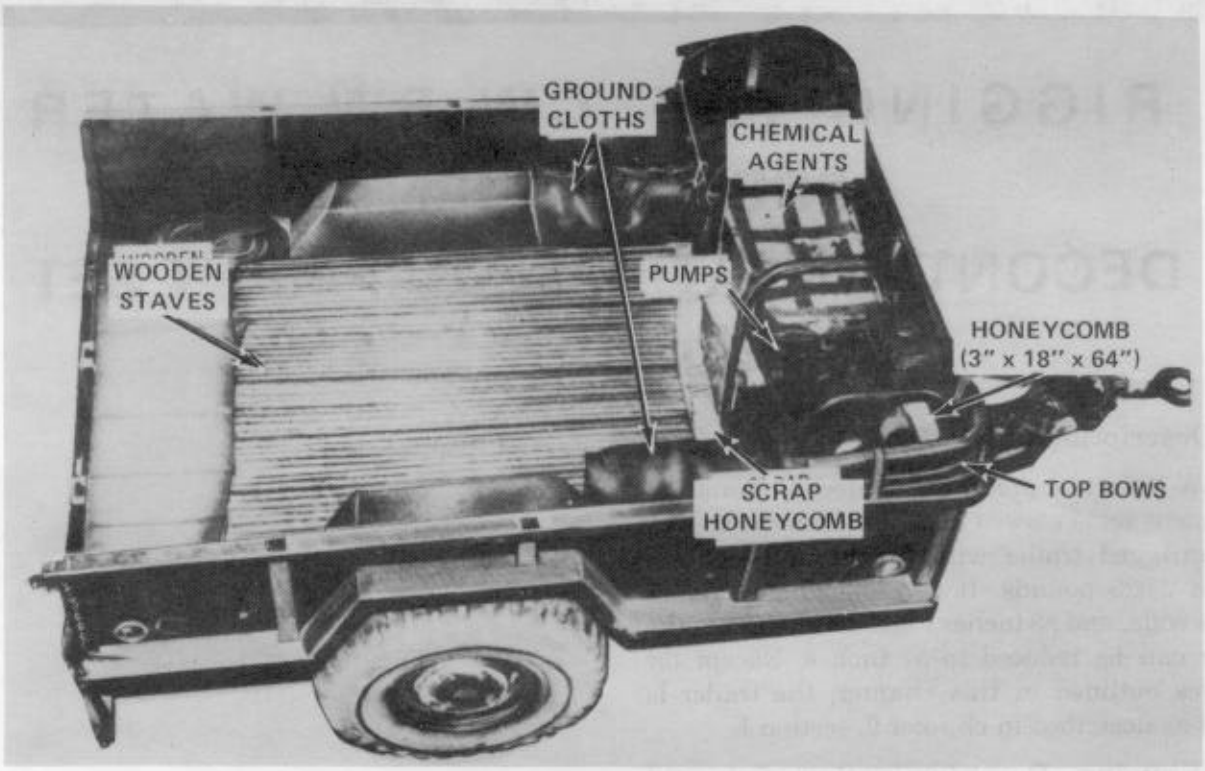
b. Stowing Trailer Components. Stow the trailer components on top of the decontamination set as shown in figures 3-4 and 3-5.

3-3. Marking Rigged Load

Mark the rigged load according to FM 10-500/TO 13C7-1-5. The rigged load weighs 3,850 pounds. It is 108 inches wide, 73 inches high, and 162 inches long. The load overhangs the front of the platform by 4 inches. The center of balance of the rigged load is 95 inches from the front edge of the platform.

3-4. Equipment Required

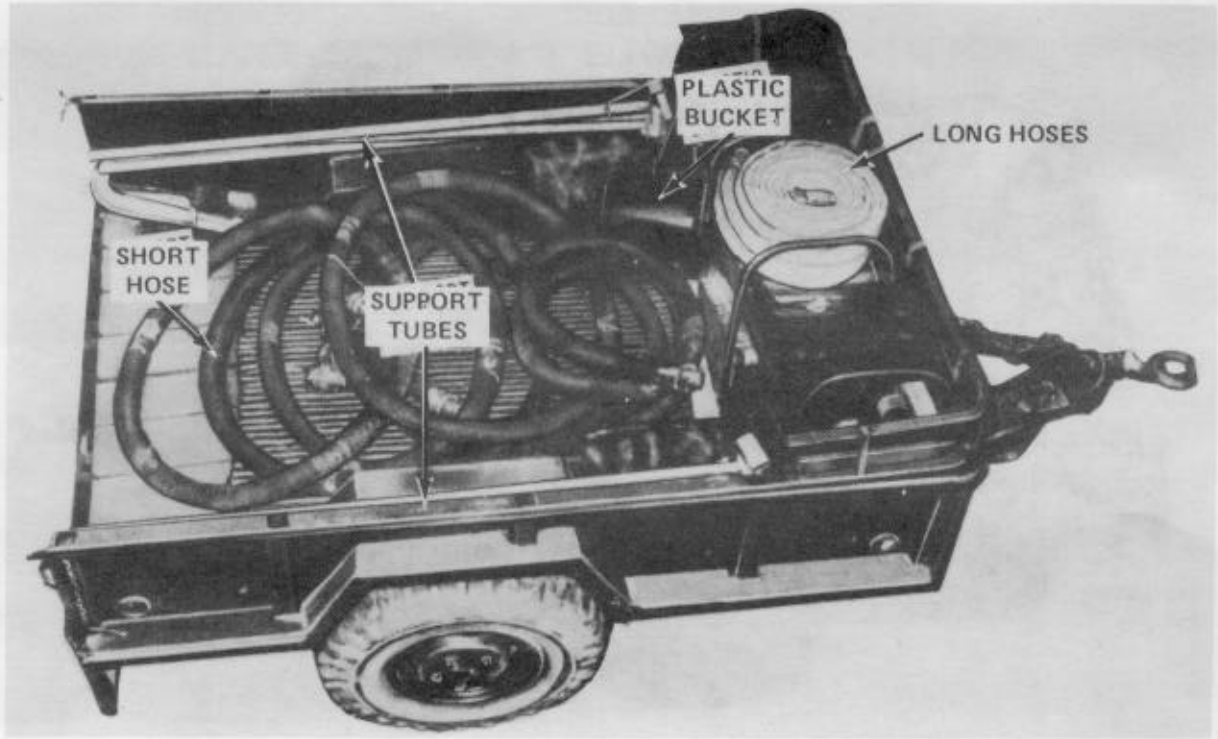
The items of equipment required to rig this load are the same as those listed in table 2-1, except for the items listed in table 3-1.



Steps:

1. Tape and place the top bows on the front edge of the trailer.
2. Place a 3- by 18- by 64-inch piece of honeycomb against the front end of the cargo bed.
3. Place the pumps against this honeycomb.
4. Place three boxes of chemical agents between the pumps and the wheel wells.
5. Fold and place ground cloths between the pumps and the wheel wells.
6. Place scrap pieces of honeycomb across the trailer bed and behind the pumps and chemical agents. Place the wooden staves on the floor of the trailer between the wheel wells and behind the scrap honeycomb.

Figure 3-1. Decontamination set stowed (steps 1 through 6).



Steps:

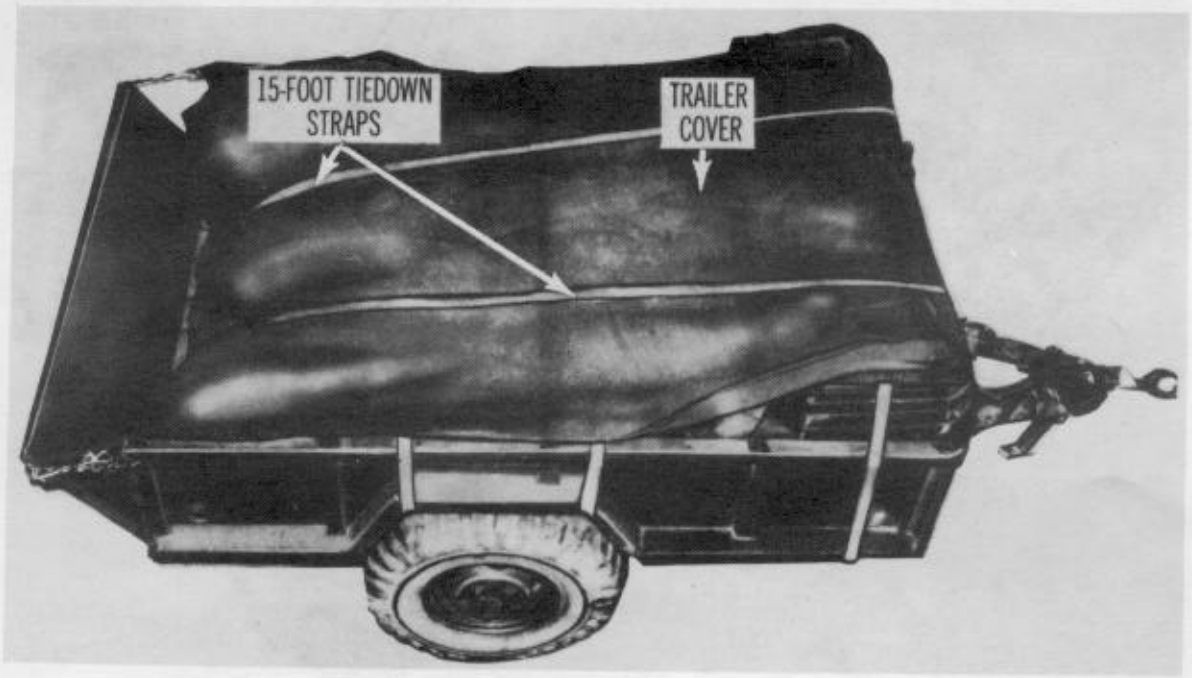
7. **Place the support tubes on each side of the trailer and secure them with type III nylon cord.**
8. **Place the plastic buckets on top of the staves and secure them with type III nylon cord.**
9. **Secure the two long hoses on top of the chemical agents with type III nylon cord.**
10. **Place the short hose on top of the staves and secure it with type III nylon cord.**

Figure 3-2. Decontamination set stowed (steps 7 through 10).

Steps:

11. Pad and wrap the small metal items in the water tanks and roll the tanks the same width as the trailer bed. Place the tanks in the trailer as shown.
12. Secure the decontamination set as shown with six 15-foot tiedown straps, six D-rings, and three load binders. Attach the D-ring end of the straps to the frame under the trailer bed.

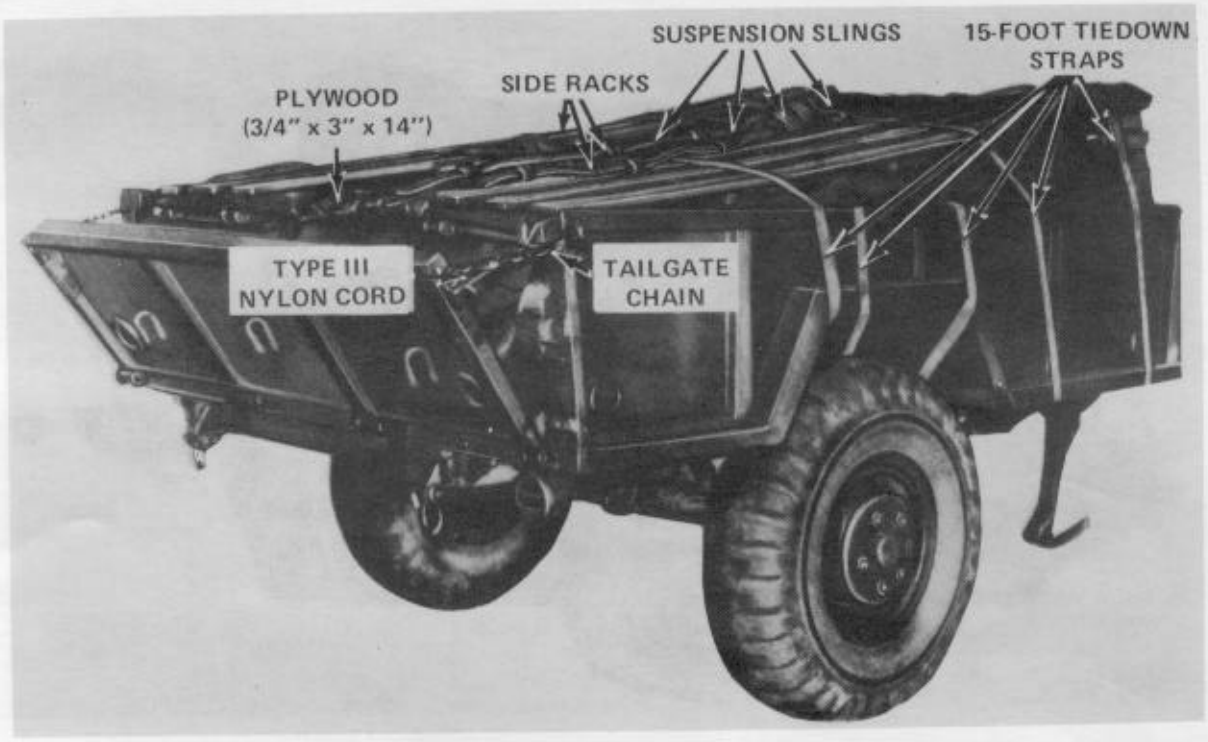
Figure 3-3. Decontamination set stowed (steps 11 and 12).



Steps:

1. Fold the trailer cover the same width as the trailer bed and place the cover over the decontamination set.
2. Lash the cover with two 15-foot tiedown assemblies.

Figure 3-4. Trailer components stowed (steps 1 and 2).



Steps:

3. Place the side and the end racks on top of the load. Place a 3/4- by 3- by 14-inch piece of plywood between the side rack posts and tape the plywood in place.
4. Lash the racks with four 15-foot tiedown straps, four D-rings, and two load binders. Attach the D-ring end of the strap to the frame under the trailer bed.

Figure 3-5. Trailer components stowed (steps 3 and 4).

Table 3-1. Equipment Required

NATIONAL STOCK NO	ITEM	QUANTITY
	ADD	
1670-00-937-0271	Tiedown Assembly, 15-ft	12
	DELETE	
1377-00-958-1048	Cartridge, time-delay, 20 sec	1
1670-00-360-0328	Cover, clevis, large	1
1670-00-799-8596	Load Coupler, 8-spool	1
1670-00-269-1107	Parachute, cargo G-11A	1
1670-00-799-8494	Release, cargo parachute, 5,000-lb	1
1670-00-753-3794	Sling, cargo, AD, 20-ft (2-loop)	2
1670-00-998-0116	Strap, parachute release w/fastener and release knife	1
8305-00-263-3591	Webbing, nylon, type VIII	6 yd

CHAPTER 4

RIGGING THE M101 OR M101A1, 3/4-TON CARGO TRAILER WITH ACCOMPANYING LOADS ON A TYPE V PLATFORM

Section I

LOW-VELOCITY AIRDROP

4-1. Description of Load

The M101 or M101A1, 3/4-ton cargo trailer (Figure 4-1) with accompanying loads is rigged on a 12-foot, type V platform for low-velocity airdrop. The 3/4-ton cargo trailer with accompanying loads, consisting of 22 boxes of 105-millimeter ammunition and weighing 2,440 pounds, is rigged with two G-11A or G-11B cargo parachutes. An accompanying load weighing a maximum of 1,500 pounds is stowed in the trailer. Additional accompanying loads of 2,500 pounds are stowed on the platform. The combined weight of the accompanying loads must be at least 1,500 pounds, but cannot exceed 4,000 pounds. The unrigged trailer weighs 1,340 pounds. It is 147 inches long and 71 inches wide. The height of the trailer is 82 inches, reducible to 51 inches.

4-2. Preparing Platform

Prepare a 12-foot, type V platform using four tandem links and 20 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.

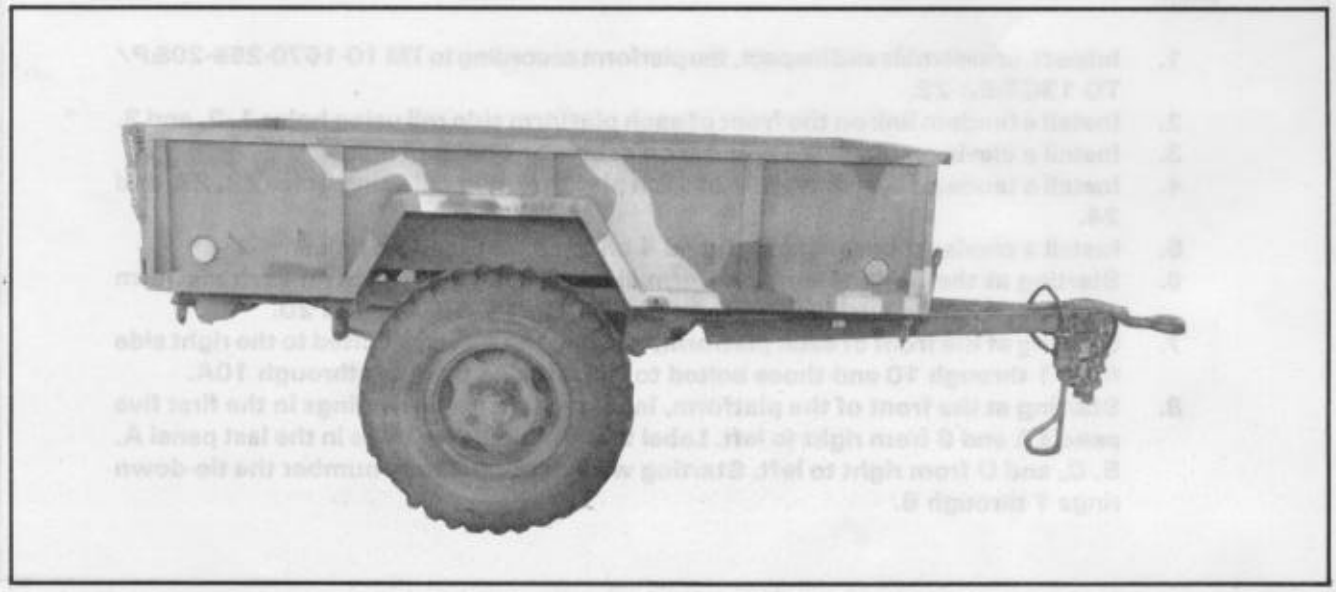
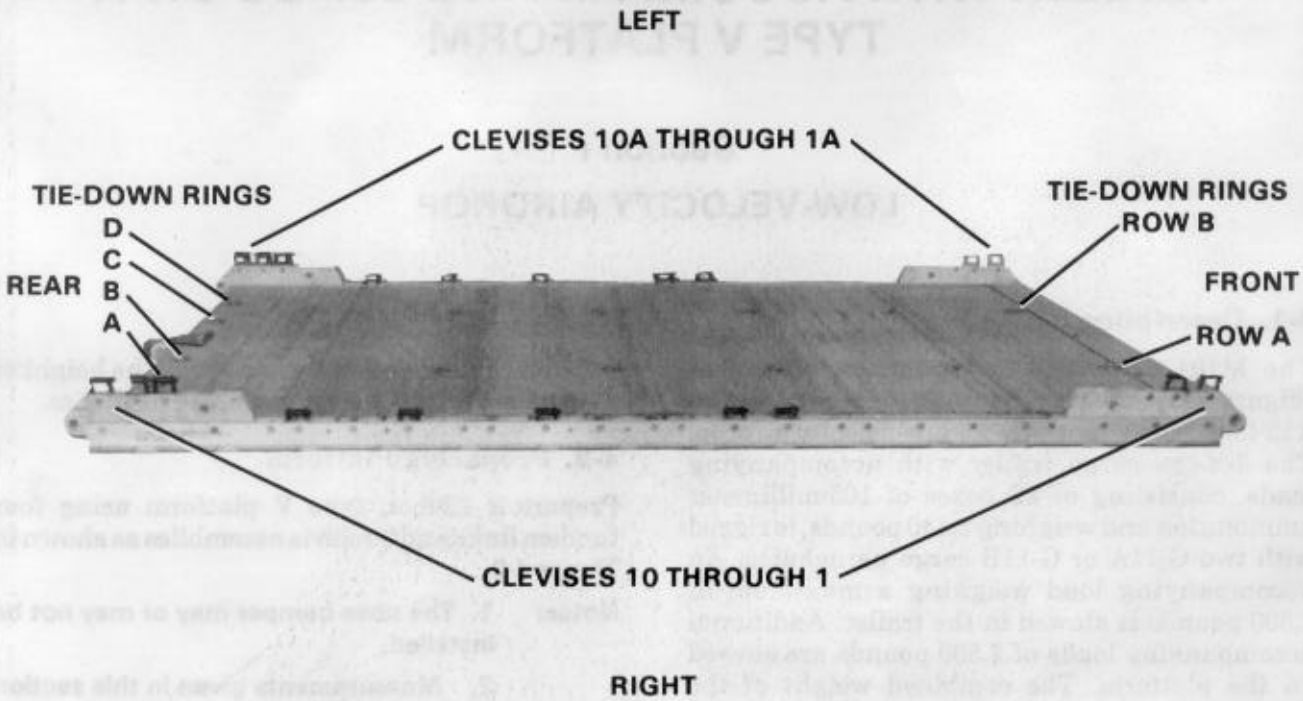


Figure 4-1. M101A1, 3/4-ton cargo trailer



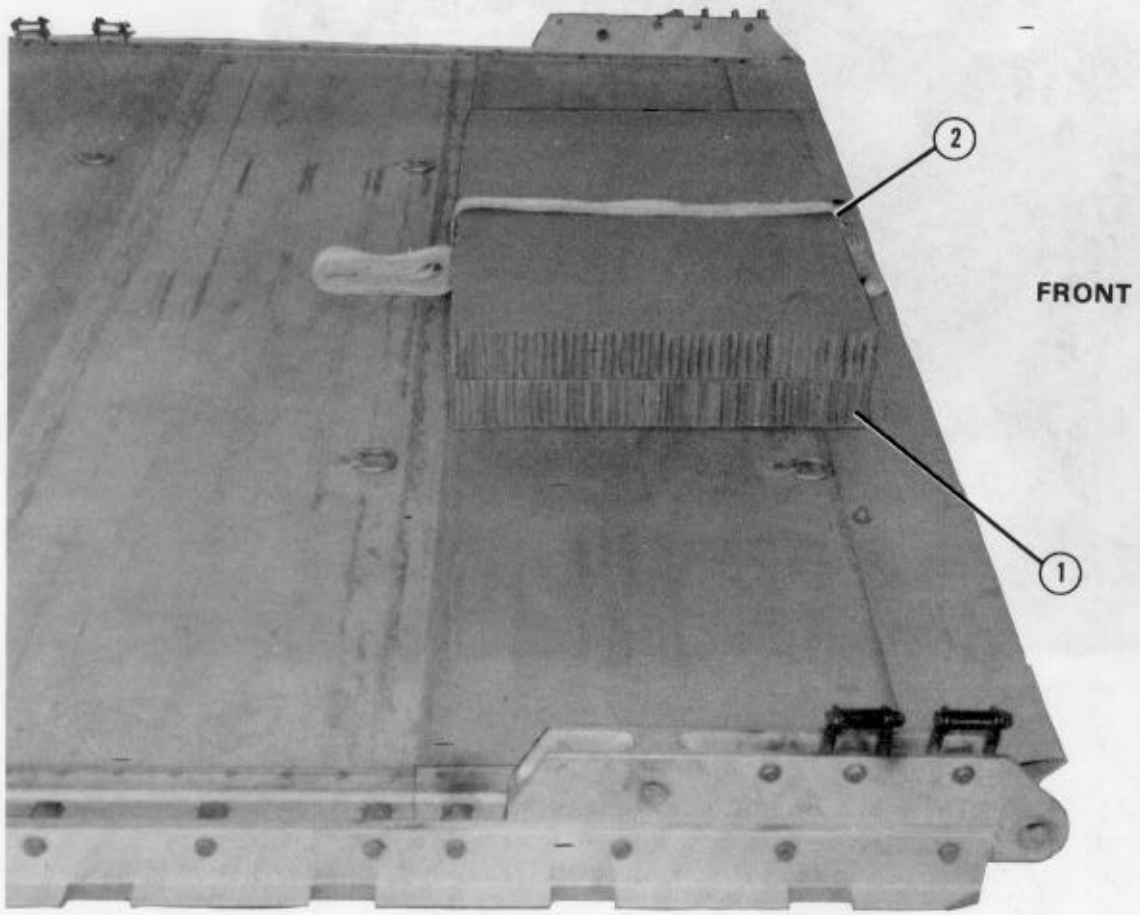
Step:

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 clevis on bushings 1 and 2 on each front tandem link.**
4. **Install a tandem link on the rear of each platform side rail using holes 22, 23, and 24.**
5. **Install a clevis on bushings 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 10, 11, 15, 18, and 20.**
7. **Starting at the front of each platform, number the clevises bolted to the right side from 1 through 10 and those bolted to the left side from 1A through 10A.**
8. **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. Positioning and Lashing Accompanying Loads on Platform

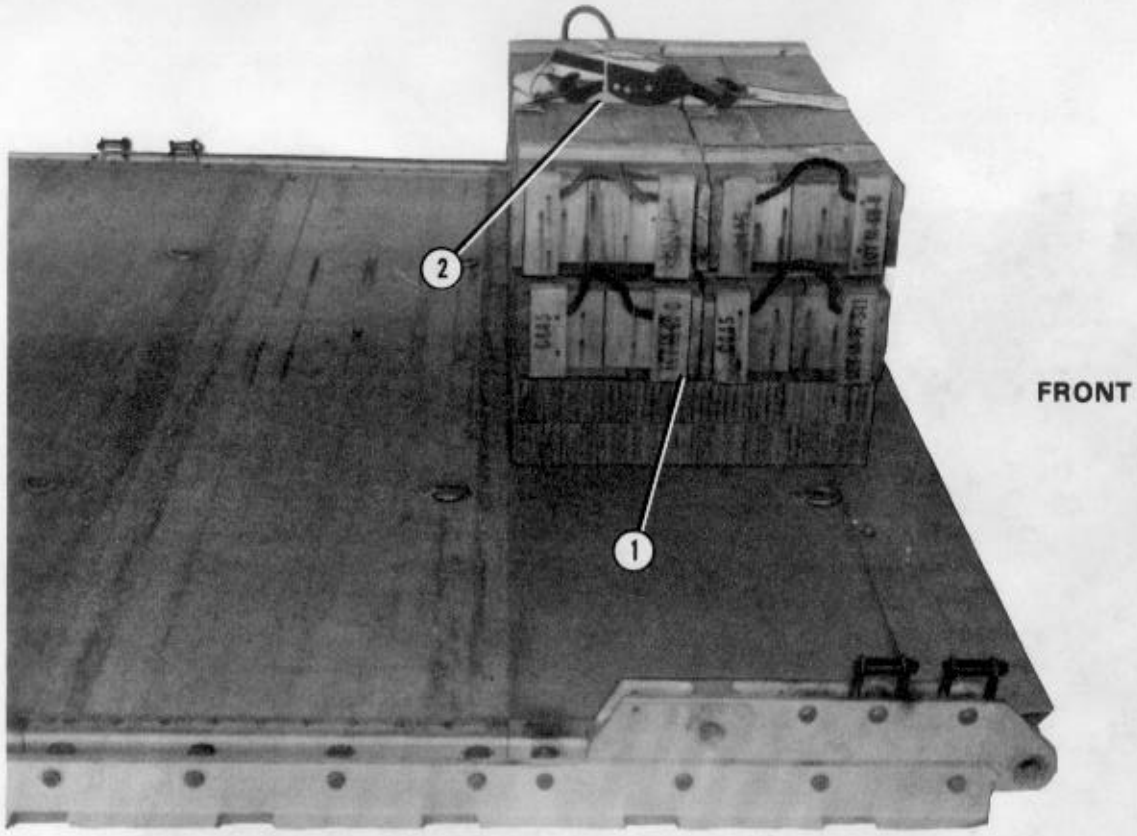
Position and lash the accompanying loads on the platform as shown in Figures 4-3 through 4-8.



(1) **Center two 36- by 24-inch pieces of honeycomb on the front edge of the platform.**

(2) **Center a 15-foot lashing from front to rear across the top piece of honeycomb.**

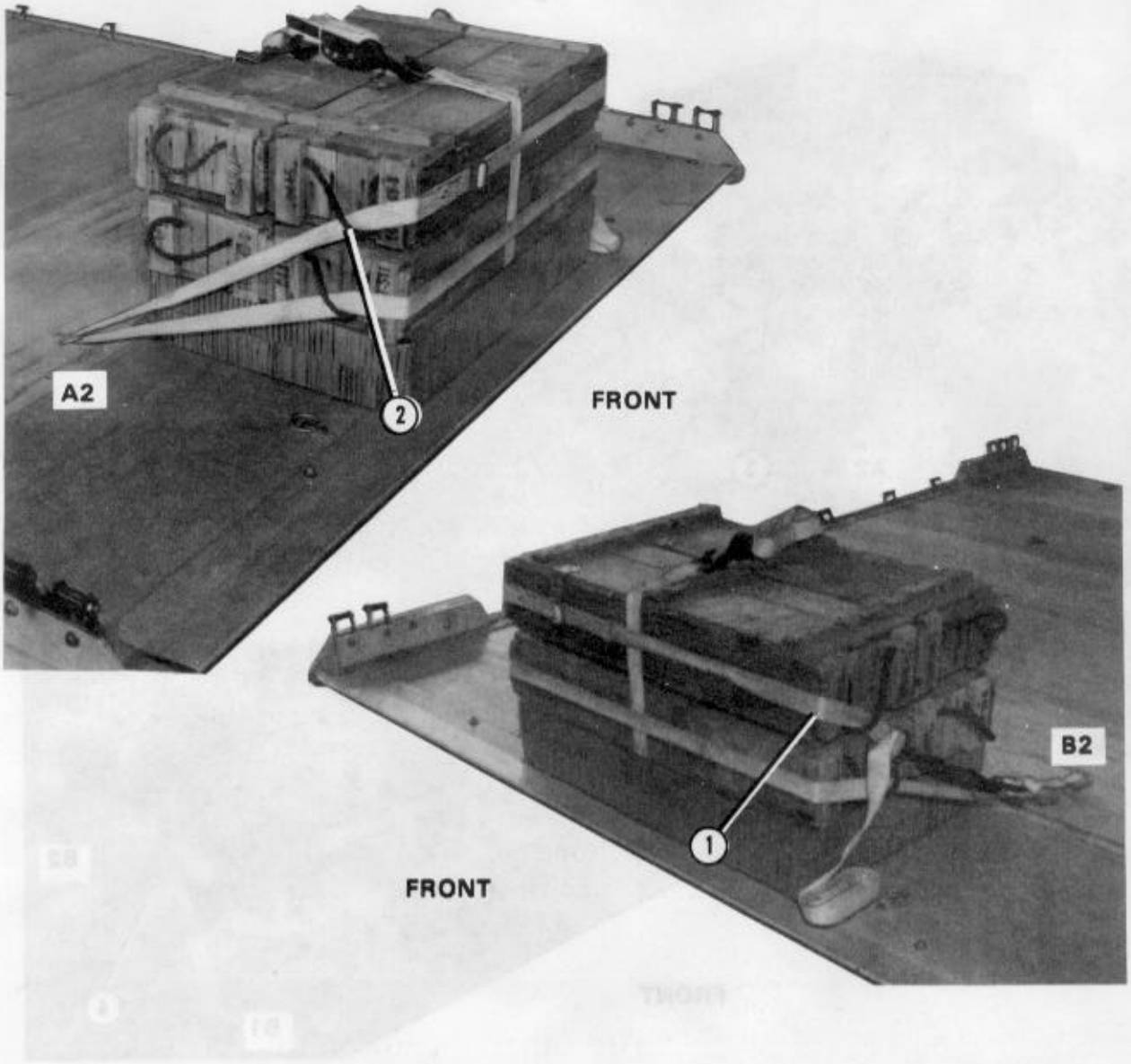
Figure 4-3. Honeycomb and lashing positioned on the front of the platform



(1) **Place four ammunition boxes in two stacks of two each on top of the honeycomb.**

(2) **Bind the boxes together using the pre-positioned lashing, a D-ring, and a load binder.**

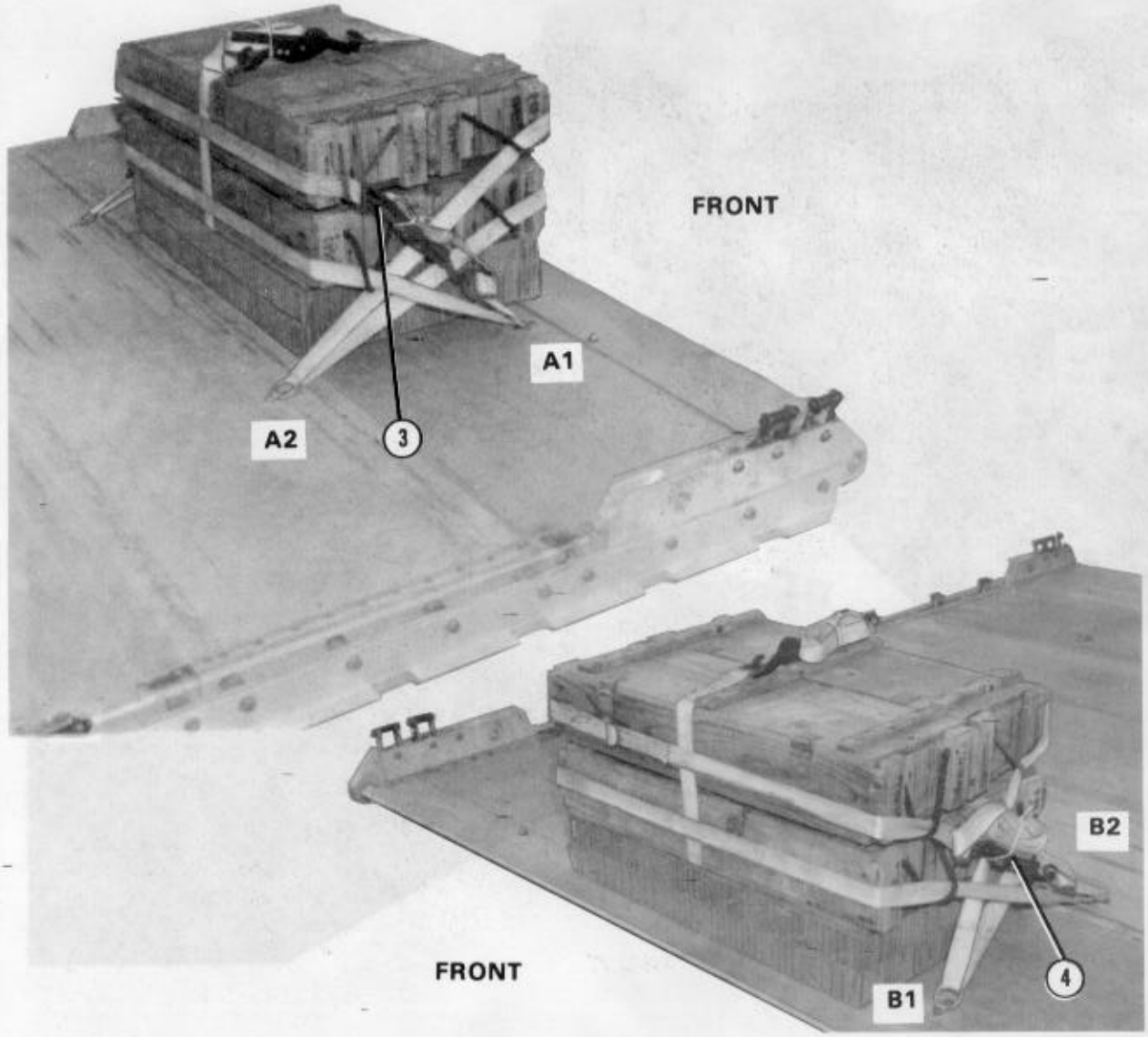
Figure 4-4. Ammunition boxes positioned on the front of the platform



(1) **Form a 30-foot lashing according to FM 10-500-2/TO 13C7-1-5. Starting on the front, pass one end through the carrying handle of the top front box on the left side. Attach a D-ring and a load binder to the end. Do not secure the lashing at this time.**

(2) **Pass the other free end of the lashing through the carrying handle of the top front box on the right side, down through tie-down ring A2, and through the carrying handle of the bottom front box on the right side. Continue to pass the lashing around the front of the bottom box, through the carrying handle of the bottom front box on the left side, and through tie-down ring B2. Attach the D-ring to the load binder. Do not secure the lashing at this time.**

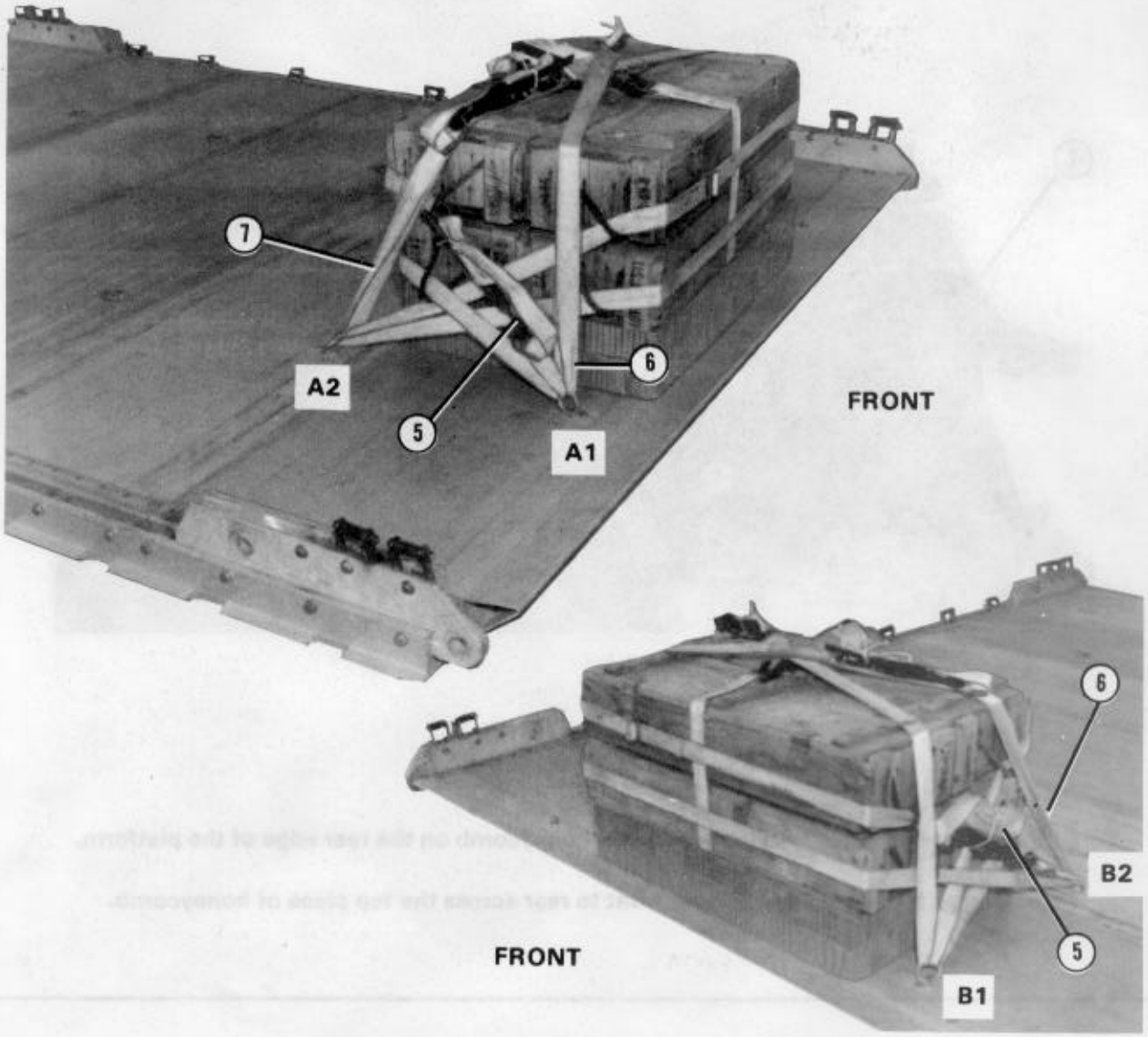
Figure 4-5. Ammunition boxes lashed and secured on the front of the platform



(3) **Starting on the right side, pass a 15-foot lashing through the carrying handle of the top rear box, around the rear of the top box, through the carrying handle of the top rear box on the left side, and through tie-down ring B1. Continue to pass the lashing through the carrying handle of the bottom rear box on the left side, around the bottom of the rear box, through the carrying handle of the bottom rear box on the right side, and through tie-down ring A1.**

(4) **Attach a D-ring and a load binder to the end. Do not secure the lashing at this time.**

Figure 4-5. Ammunition boxes lashed and secured on the front of the platform (continued)

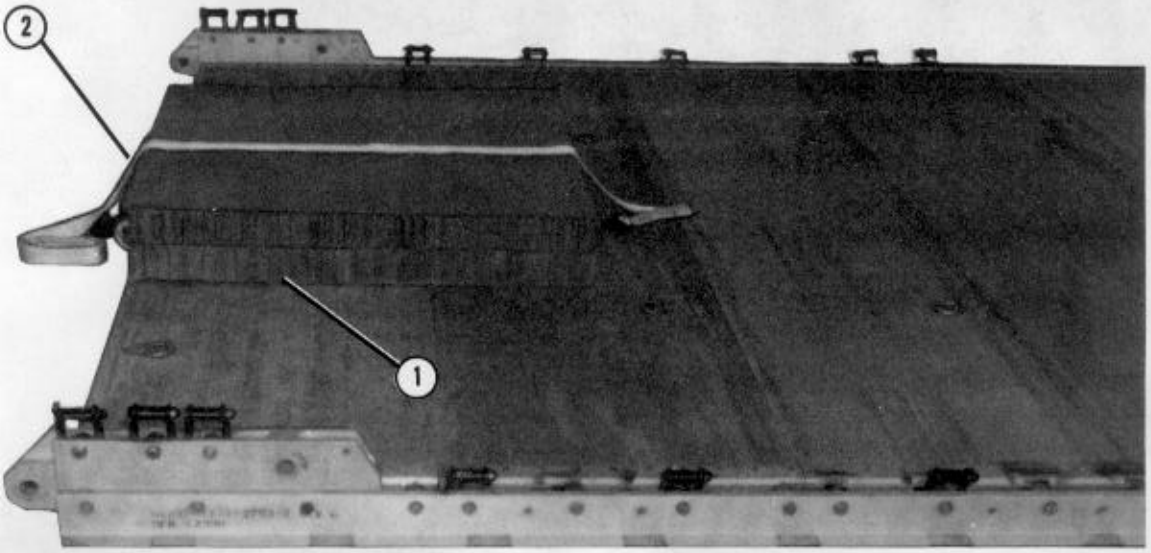


(5) **Secure each side load binder simultaneously.**

(6) **Pass a 15-foot lashing through tie-down ring A1, across the top of the boxes, and through tie-down ring B2. Secure the lashing with a D-ring and a load binder.**

(7) **Pass another 15-foot lashing through tie-down ring B1, across the top of the boxes, and through tie-down ring A2. Secure the lashing with a D-ring and a load binder.**

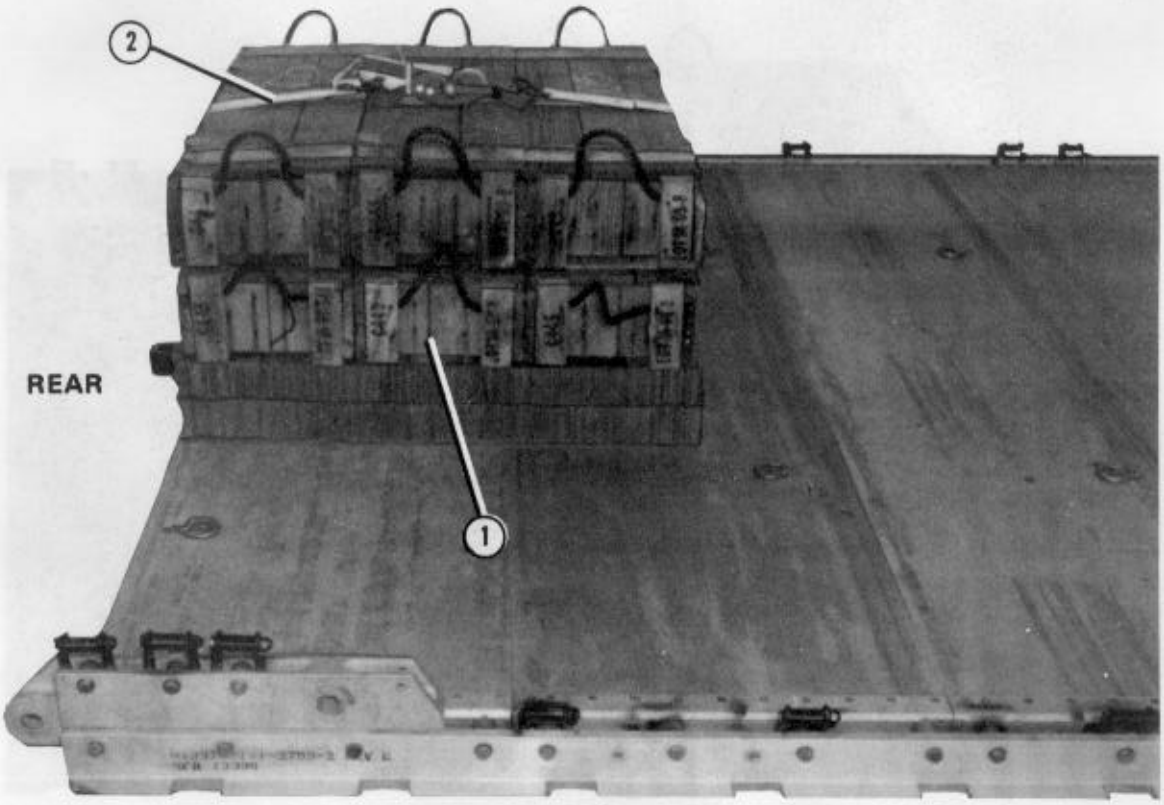
Figure 4-5. Ammunition boxes lashed and secured on the front of the platform (continued)



(1) **Center two 36- by 38-inch pieces of honeycomb on the rear edge of the platform.**

(2) **Center a 15-foot lashing from front to rear across the top piece of honeycomb.**

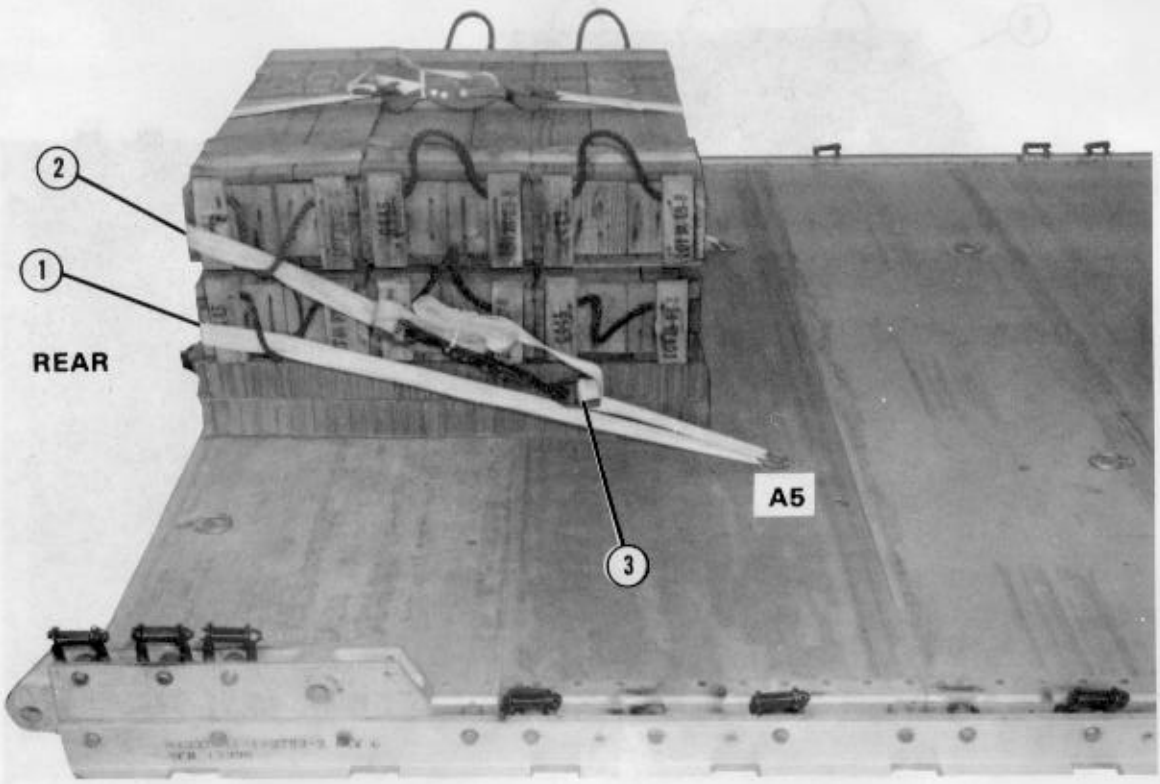
Figure 4-6. Honeycomb and lashing positioned on the rear of the platform



(1) **Place six ammunition boxes in three stacks of two each on top of the honeycomb.**

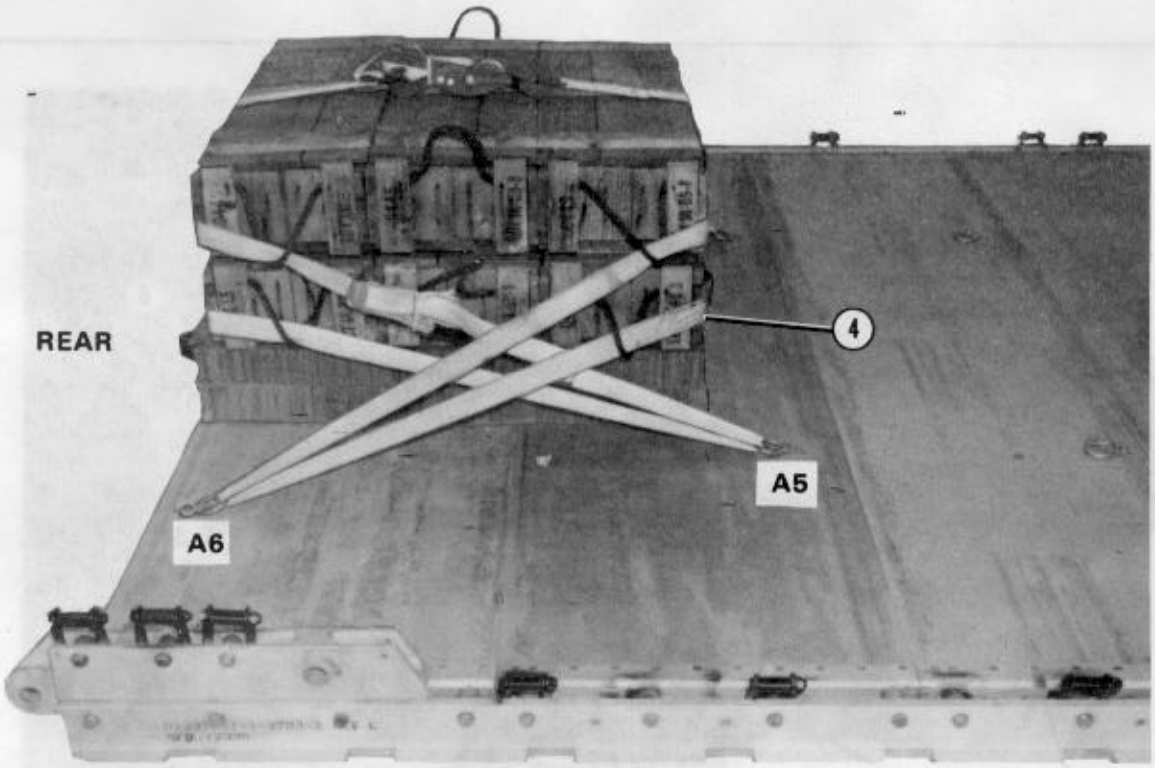
(2) **Bind the boxes together using the pre-positioned lashing, a D-ring, and a load binder.**

Figure 4-7. Ammunition boxes positioned on the rear of the platform



1. Form a 30-foot lashing according to FM 10-500-2/TO 13C7-1-5. Starting on the right rear side, run the lashing across the rear of the bottom row of boxes. Pass the free end of the lashing through the carrying handle of the bottom rear box and through tie-down ring A5.
2. Pass the other free end of the lashing on the left side through the carrying handle of the bottom rear box and through tie-down ring B5 (not shown). Continue passing the lashing up through the carrying handle of the top rear box on the left side, around the rear of the top rear box, and through the carrying handle of the top rear box on the right side.
3. Secure the lashing with a D-ring and a load binder.

Figure 4-8. Ammunition boxes lashed and secured on the rear of the platform

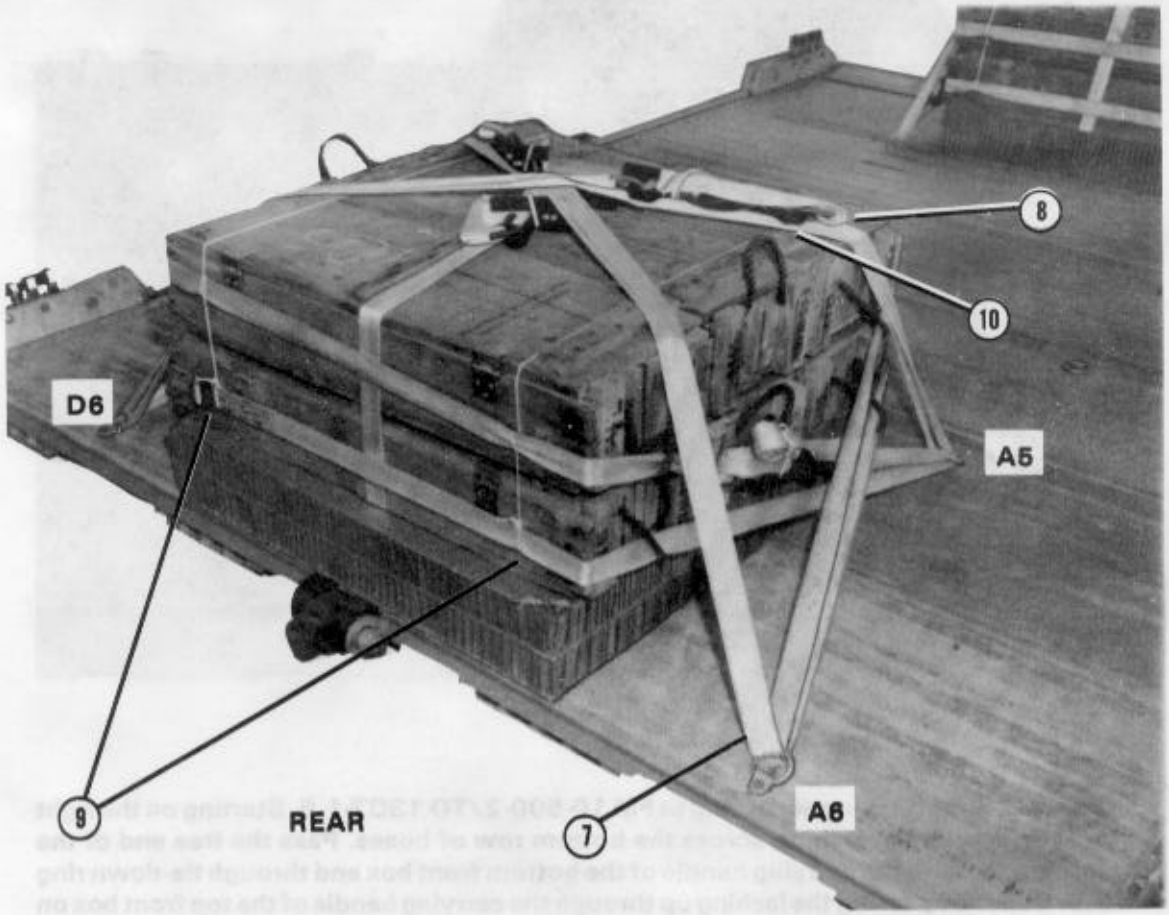


(4) **Form a 30-foot lashing according to FM 10-500-2/TO 13C7-1-5. Starting on the right front side, run the lashing across the bottom row of boxes. Pass the free end of the lashing through the carrying handle of the bottom front box and through tie-down ring A6. Continue passing the lashing up through the carrying handle of the top front box on the right side, around the front of the top front box, and through the carrying handle of the top front box on the left side.**

(5) **Pass the other free end of the lashing around the front of the bottom row of boxes and through the carrying handle of the bottom front box on the left side to tie-down ring D6 (not shown).**

(6) **Secure the lashing with a D-ring and a load binder on the left side (not shown).**

Figure 4-8. Ammunition boxes lashed and secured on the rear of the platform (continued)



(7) **Pass a 15-foot lashing from tie-down ring A6 across the top of the boxes to tie-down ring B5. Secure the lashing with a D-ring and a load binder.**

(8) **Pass another 15-foot lashing from tie-down ring A5 across the top of the boxes to tie-down ring D6. Secure the lashing with a D-ring and a load binder.**

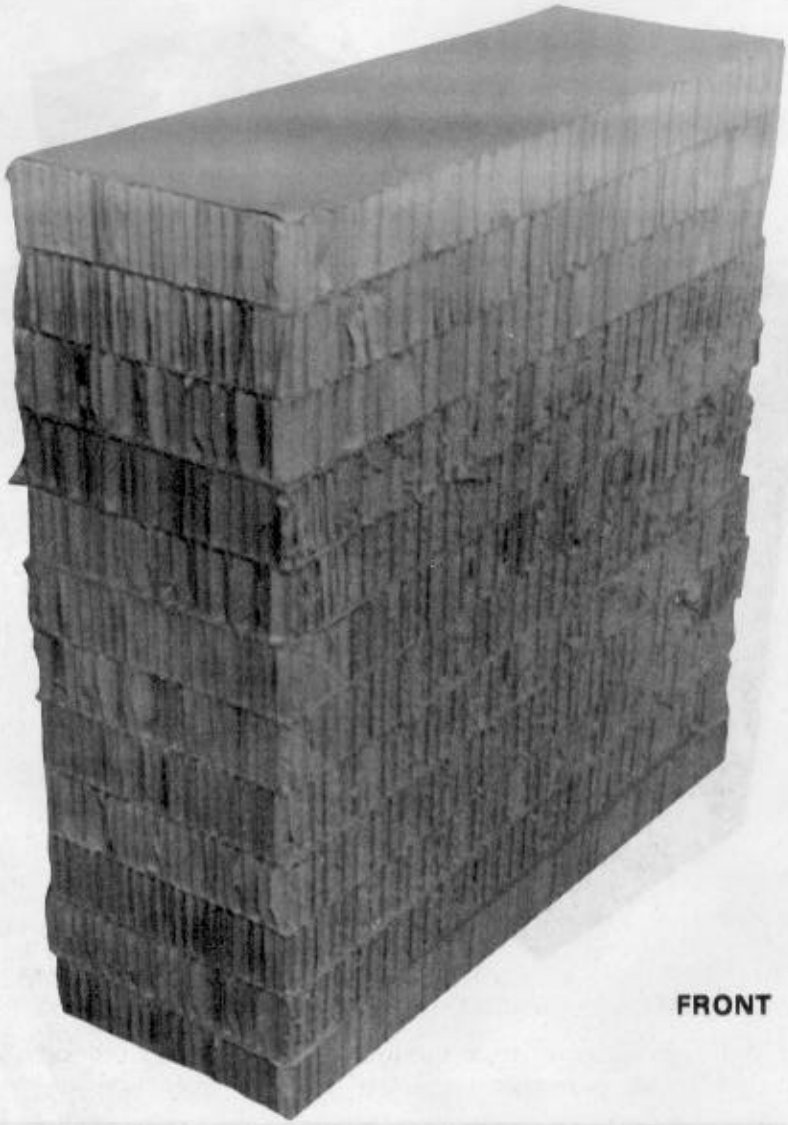
(9) **Safety the lashings in place using two lengths of type III nylon cord. Tie three alternating half hitches around the bottom lashing. Pass the cord around the top lashing, and tie another half hitch.**

(10) **Pass the free end of the cord over the top of the boxes, and form a half hitch around the top lashing of the other side. Secure the lashing to the bottom lashing using three alternating half hitches and an overhand knot on the running end.**

Figure 4-8. Ammunition boxes lashed and secured on the rear of the platform (continued)

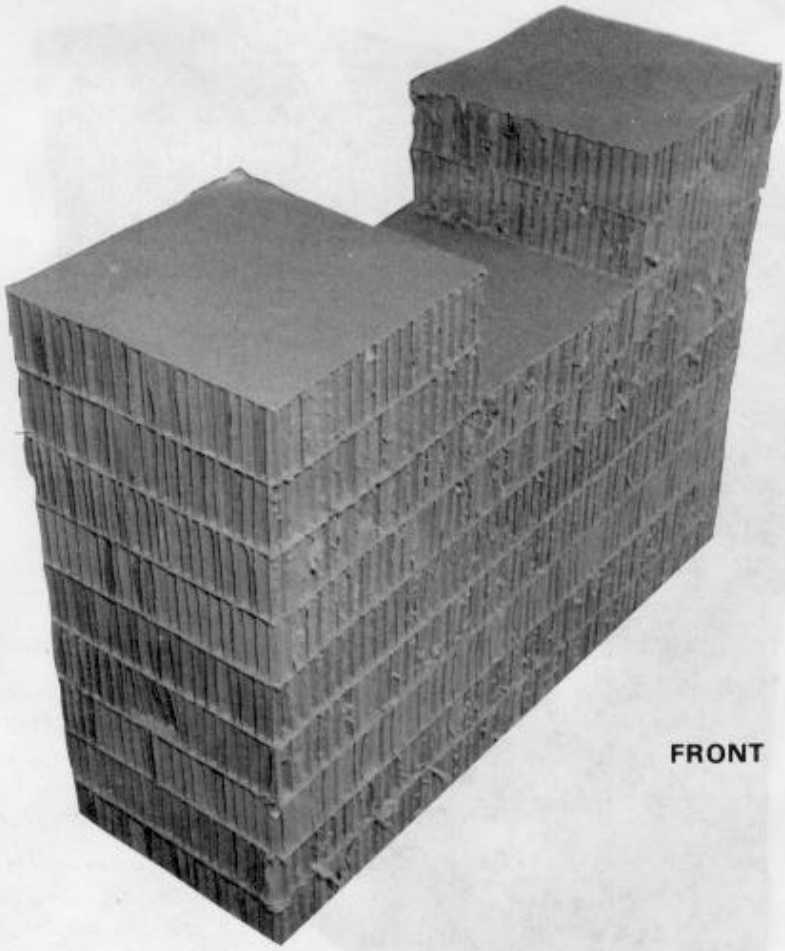
4-4. Building and Positioning Honeycomb Stacks

Build the honeycomb stacks as shown in Figures 4-9, 4-10, and 4-11. Position the honeycomb stacks on the platform as shown in Figure 4-12.



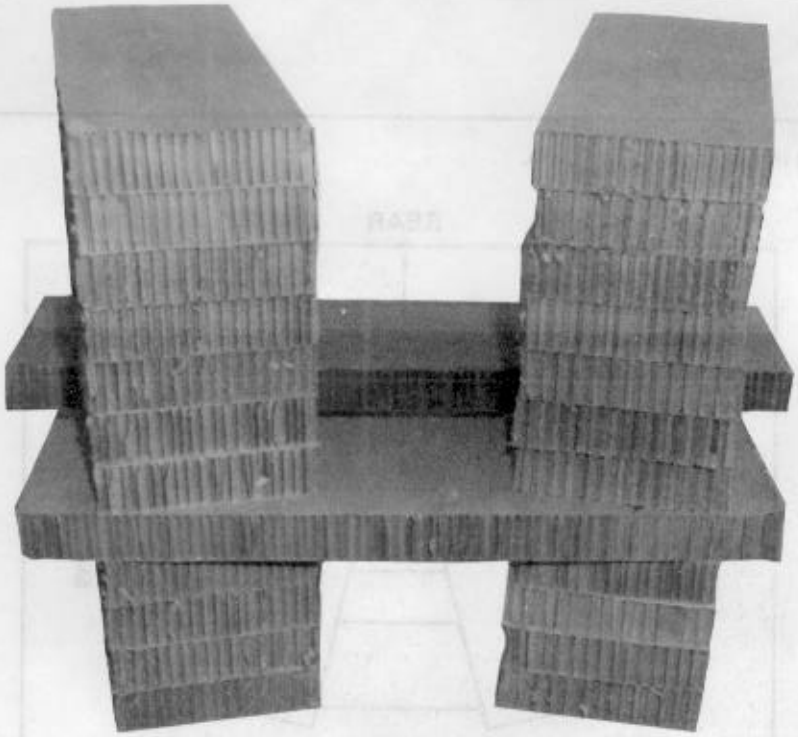
Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
1	12	36	12	Honeycomb	Form stack.

Figure 4-9. Stack 1 prepared



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
2	7	36	12	Honeycomb	Form base.
	4	12	12	Honeycomb	Stack two pieces of honeycomb flush over each side of the base.

Figure 4-10. Stack 2 preparea

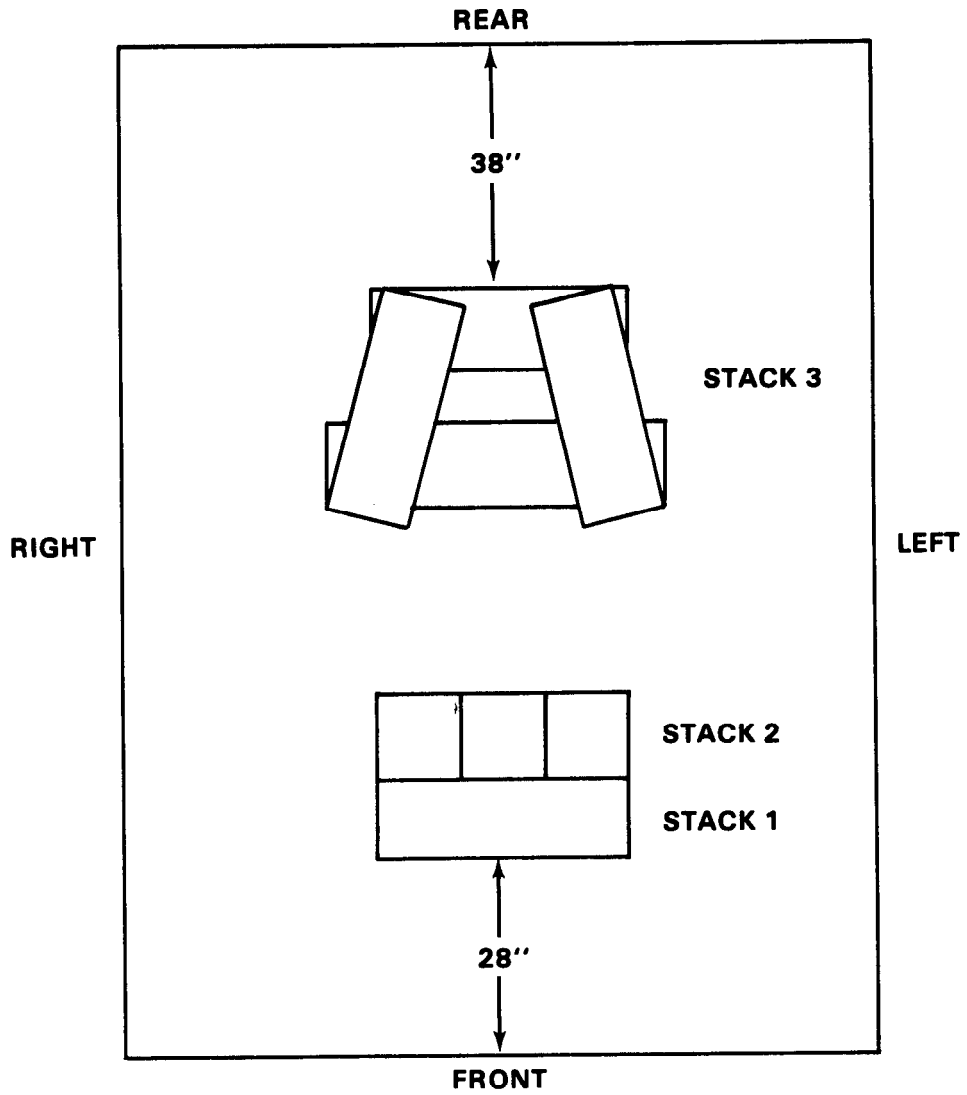


REAR

Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
3	8	12	32	Honeycomb	Form two base stacks of four layers each in a "V" shape. Place the stacks 25 inches apart in the front and 11 inches apart in the rear.
	1	48	12	Honeycomb	Place honeycomb over the front of the base stacks to form a bridge. Place the honeycomb so that the front edge of the bridge is aligned with the front outside corners of the base stacks.
	1	36	12	Honeycomb	Place honeycomb over the rear of the base stacks to form a bridge. Place the honeycomb so that the rear edge of the bridge is aligned with the rear outside corners of the base stacks.
	14	12	32	Honeycomb	Form two stacks of seven layers each. Place each stack on top of the bridge and align it with each base stack.

Figure 4-11. Stack 3 prepared

Note: This drawing is not drawn to scale.

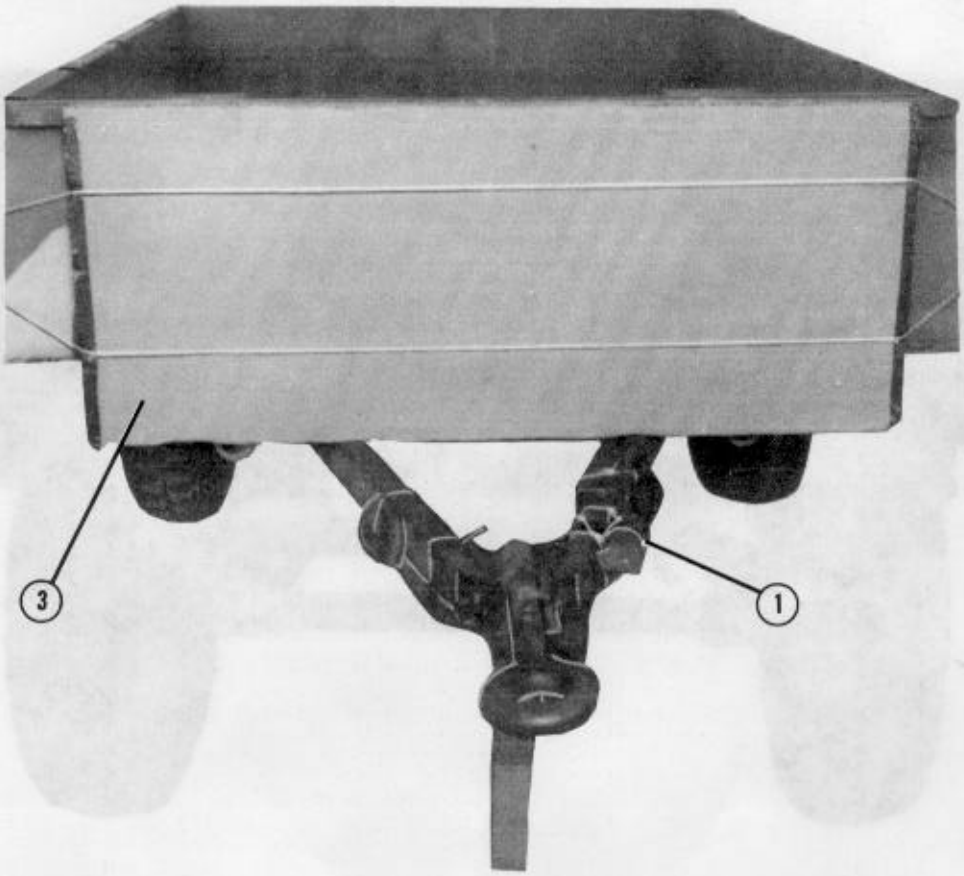


Stack Number	Position of Stack on Platform
1 2 3	Place stack: Centered 28 inches from the front edge of the platform. Centered flush against the rear of stack 1. Centered 38 inches from the rear edge of the platform.

Figure 4-12. Overhead view of honeycomb stacks positioned on platform

4-5. Preparing Trailer

Prepare the trailer as shown in Figures 4-13 and 4-14. Remove the tarpaulin, bows, and side racks according to TM 9-2330-202-14&P.



1. **Secure the safety chains and intervehicular cable to the drawbar frame with type III nylon cord or tape.**
2. **Secure the hand brake in the OFF position with two lengths of type III nylon cord (not shown).**
3. **Place a 24- by 60-inch piece of honeycomb on the drawbar frame in front of the hand brake. Secure the honeycomb with a length of type III nylon cord.**

Figure 4-13. Front of trailer prepared

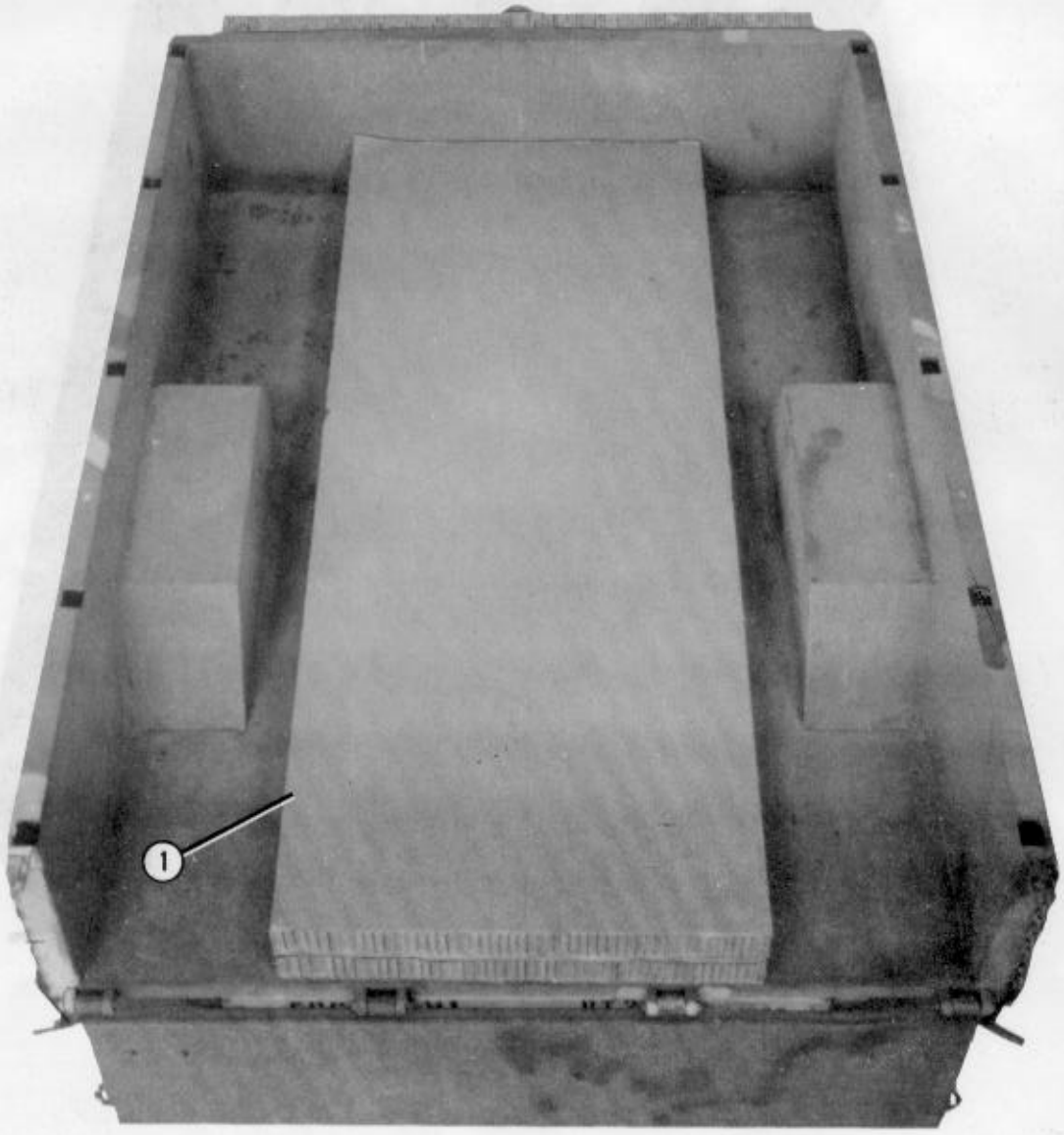
(1) **Lay two pieces of 2- by 12- by 46-inch lumber side by side between the leaf springs and the frame. Secure them with type III nylon cord. Be sure to clear the shackle bolts.**

(2) **Pad the rear spring mounted shackle with cellulose wadding (not shown).**

Figure 4-14. Rear of trailer prepared

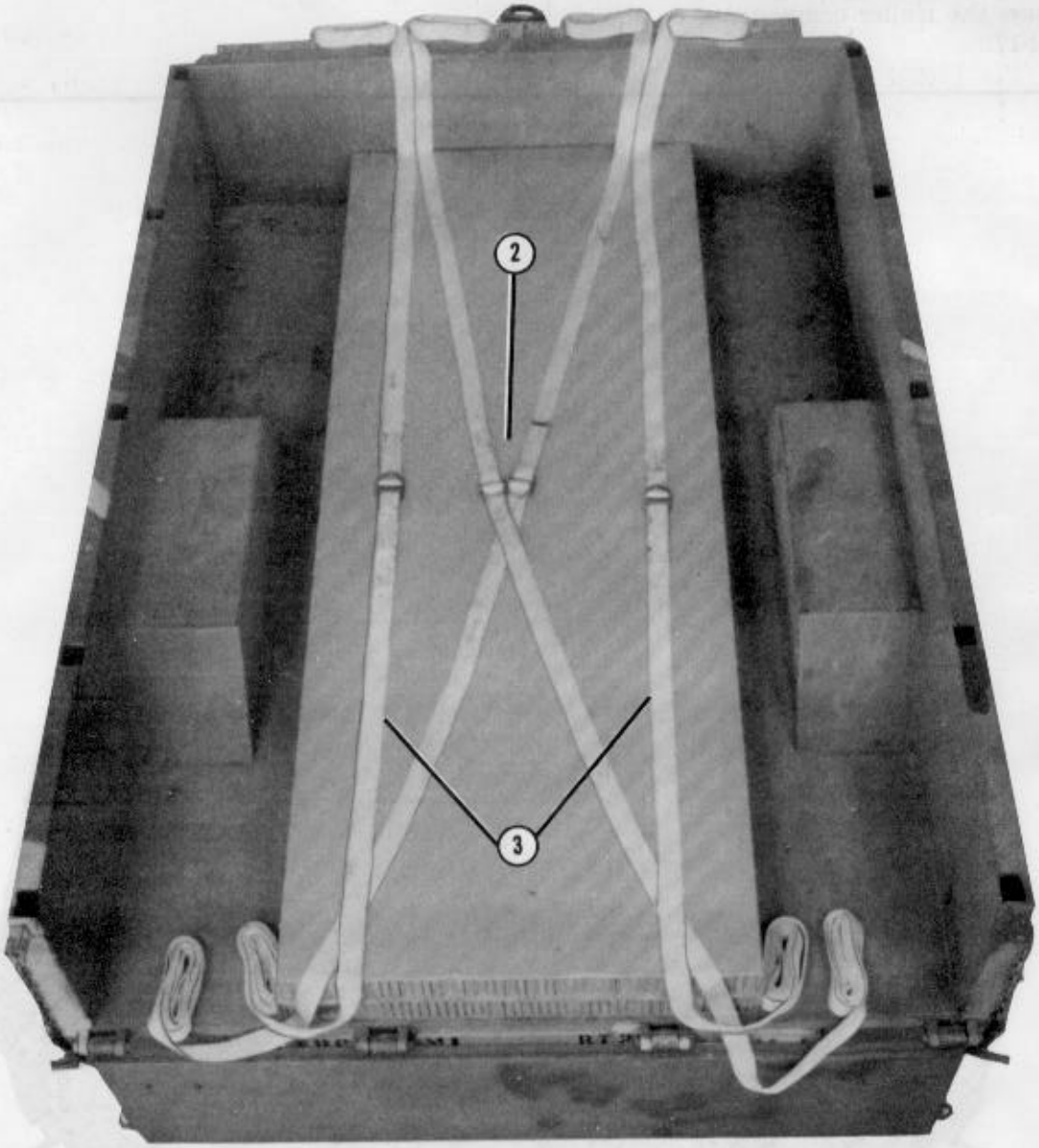
4-6. Stowing Accompanying Load and Trailer Components in Trailer

Stow the accompanying load of 12 ammunition boxes in the trailer as shown in Figures 4-15 and 4-16. Stow the trailer components as shown in Figure 4-17.



(1) **Center two 36- by 92-inch pieces of honeycomb in the trailer bed.**

Figure 4-15. Honeycomb, lashings, and endboards positioned in the trailer



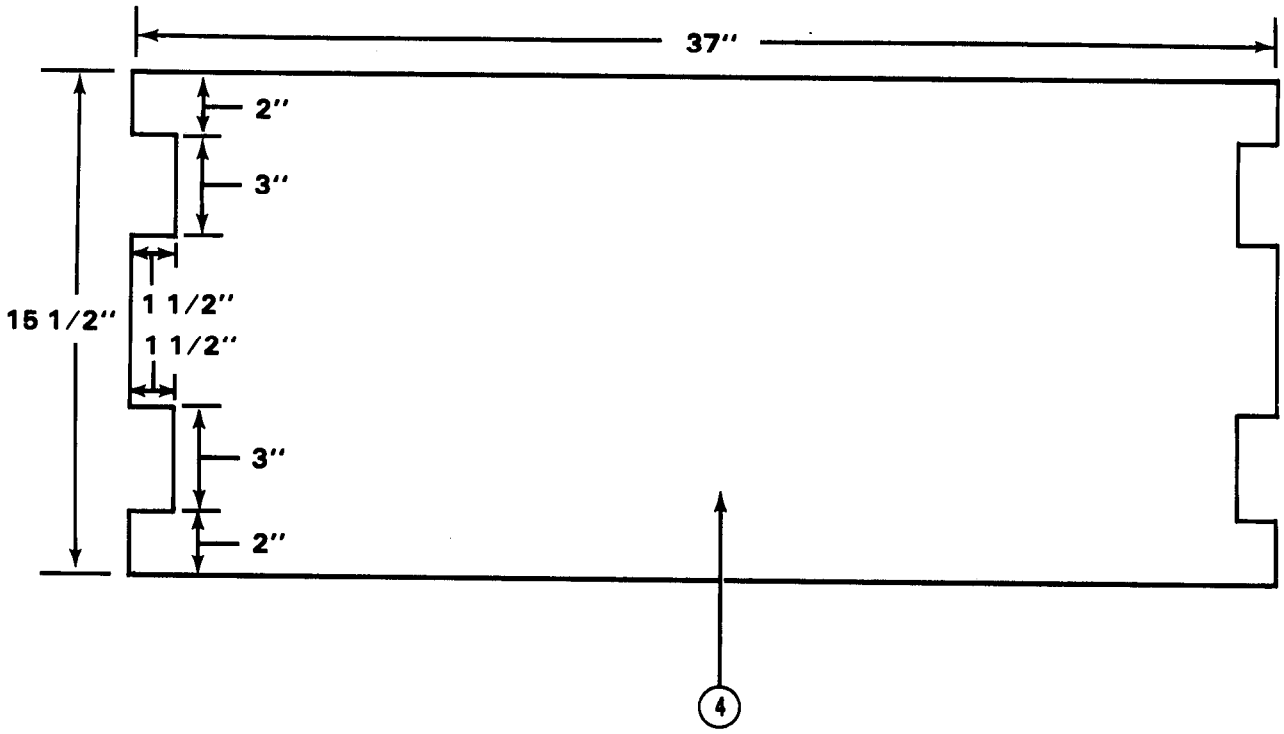
REAR

(2) Form six 30-foot lashings according to FM 10-500-2/TO 13C7-1-5. Place two 30-foot lashings on top of the honeycomb from front to rear crossing at the center.

(3) Place two 30-foot lashings on top of the honeycomb from front to rear 22 inches apart.

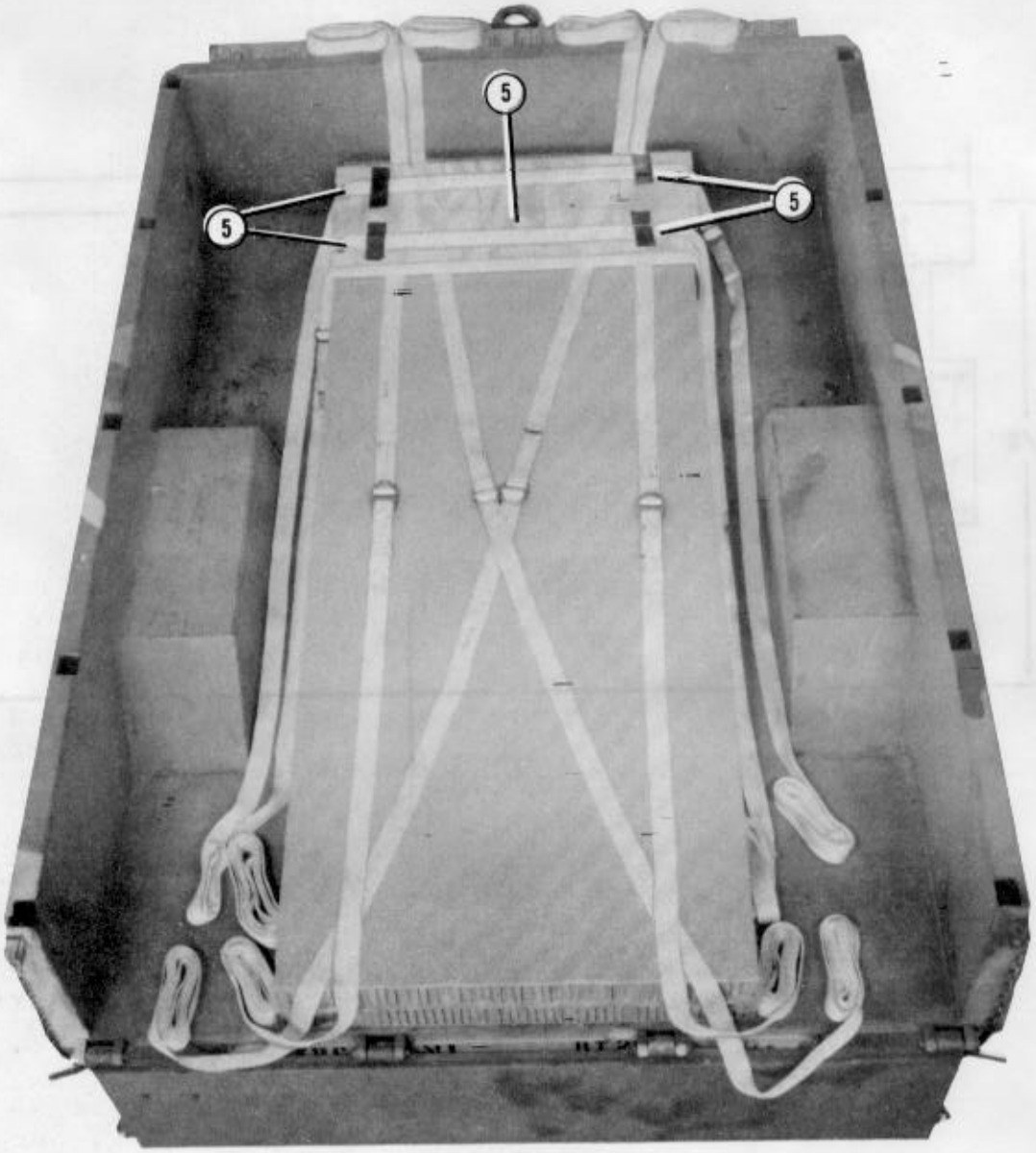
Figure 4-15. Honeycomb, lashings, and endboards positioned in the trailer (continued)

Note: This drawing is not drawn to scale.



(4) Cut two endboards as shown above using two 3/4- by 15 1/2- by 37-inch pieces of plywood.

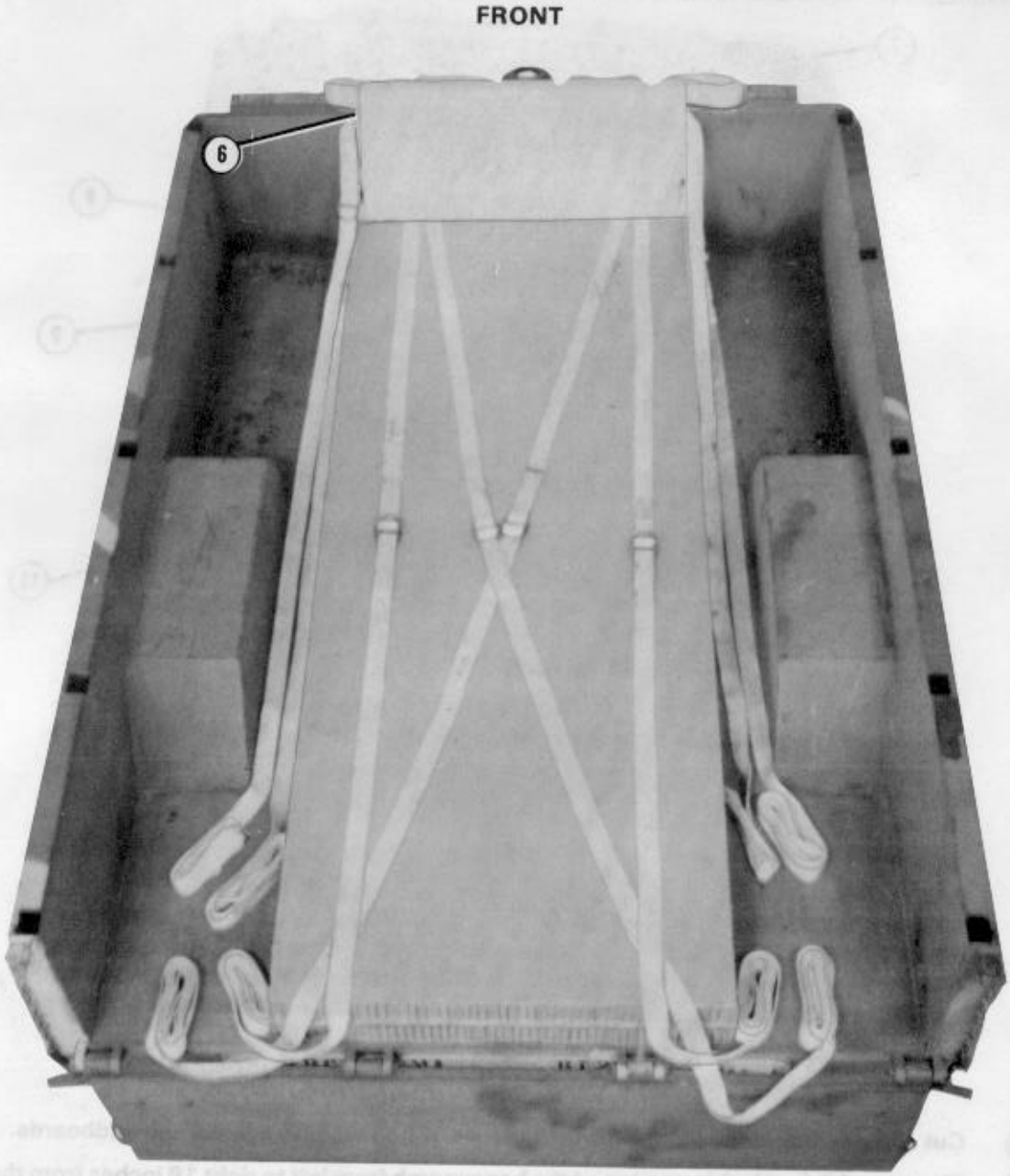
Figure 4-15. Honeycomb, lashings, and endboards positioned in the trailer (continued)



REAR

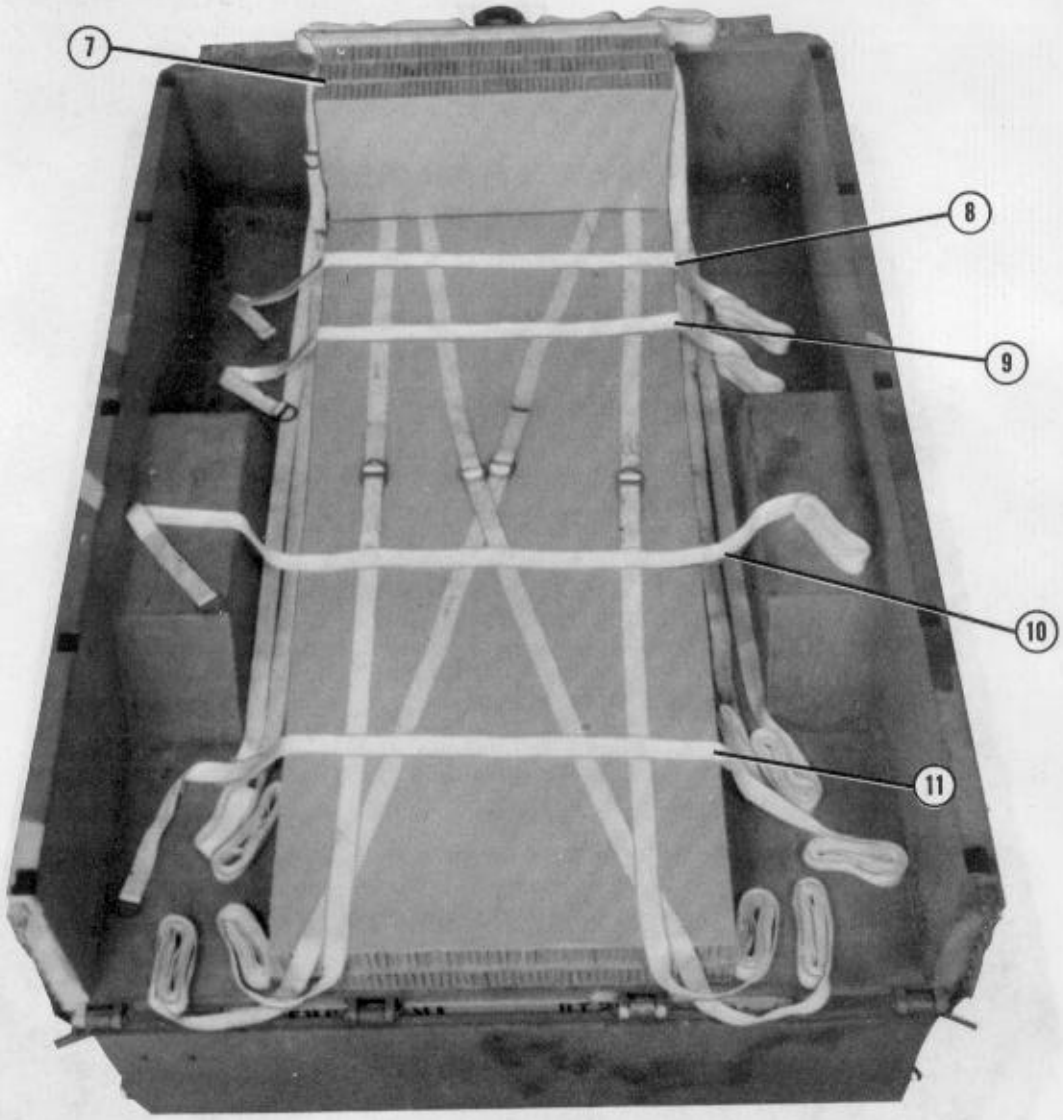
(5) **Place the endboards in the front of the trailer on top of the honeycomb. Place two 30-foot lashings on the back of the two endboards, and tape the lashings in place.**

Figure 4-15. Honeycomb, lashings, and endboards positioned in the trailer (continued)



(6) **Place the two endboards against the front of the trailer bed.**

Figure 4-15. Honeycomb, lashings, and endboards positioned in the trailer (continued)



REAR

(7) Cut and position three 15- by 36-inch pieces of honeycomb against the endboards.

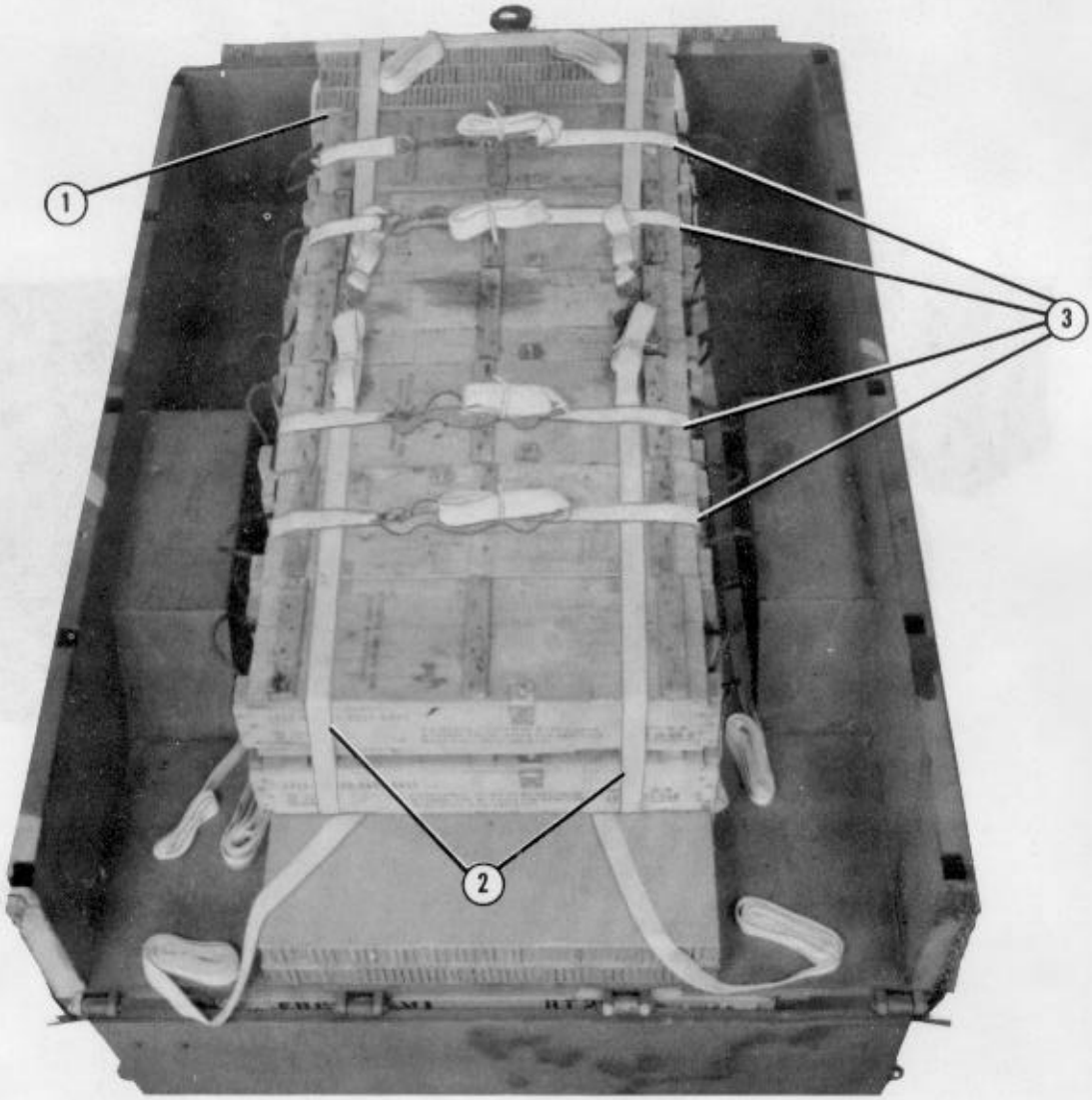
(8) Place one 15-foot lashing on top of the honeycomb from left to right 16 inches from the front of the trailer.

(9) Place one 15-foot lashing on top of the honeycomb from left to right 27 inches from the front of the trailer.

(10) Place one 15-foot lashing on top of the honeycomb from left to right 57 1/2 inches from the front of the trailer.

(11) Place one 15-foot lashing on top of the honeycomb from left to right 70 inches from the front of the trailer.

Figure 4-15. Honeycomb, lashings, and endboards positioned in the trailer (continued)



REAR

1. Place 12 ammunition boxes in two layers of six each on top of the honeycomb. Place them flush against the three pieces of honeycomb.
2. Secure the boxes in place with the two pre-positioned lashings running front to rear.
3. Secure the boxes in place with the four pre-positioned lashings running left to right.

Note: The lashings may need to be adjusted slightly after the ammunition boxes are set in place.

Figure 4-16. Ammunition boxes lashed and secured in the trailer

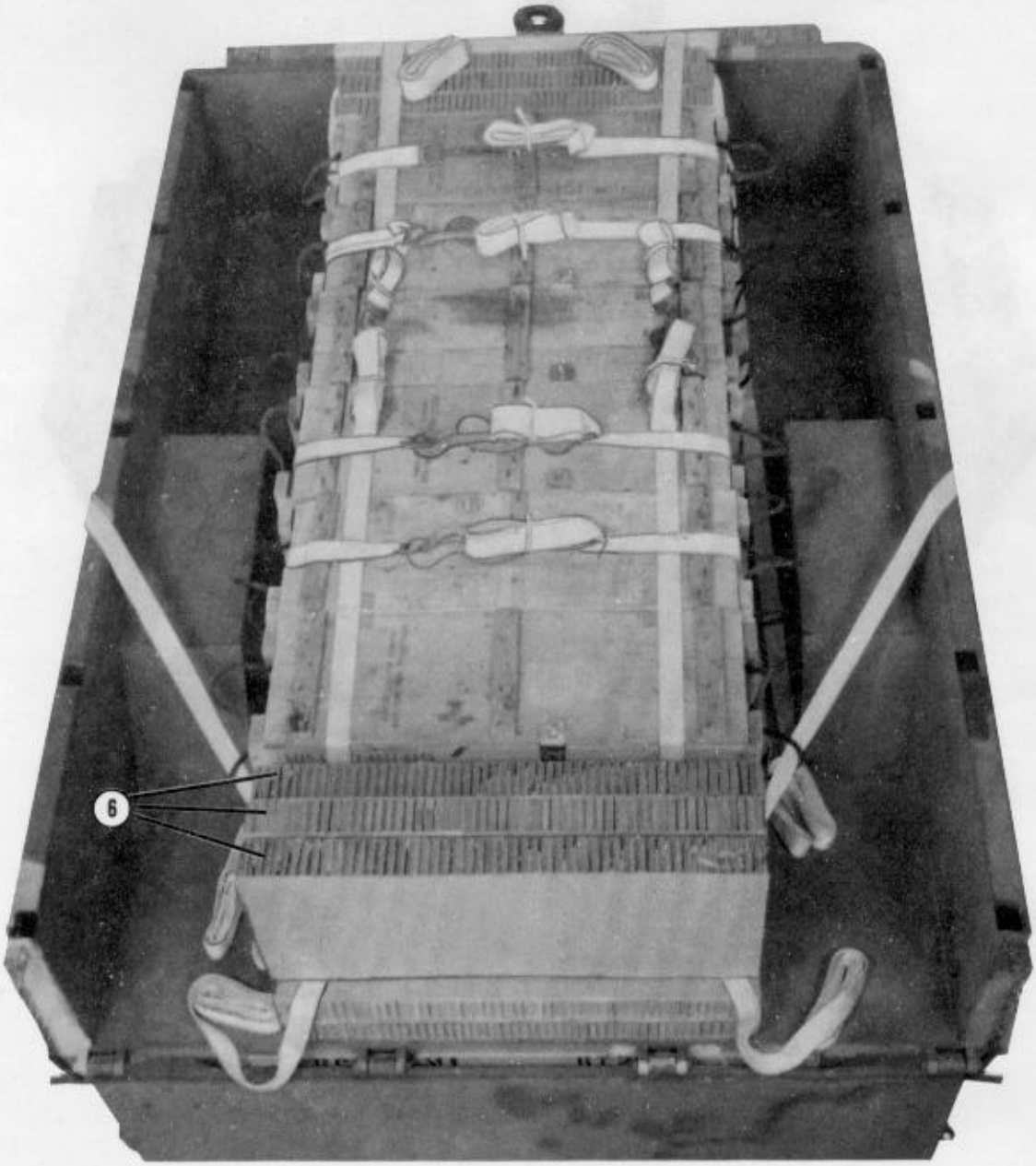
(4) **Form a 30-foot lashing according to FM 10-500-2/TO 13C7-1-5. Run the lashing across the rear bottom box. Pass each free end through the carrying handle of the rear bottom box and over the side panel of the trailer, in front of the wheel well.**

Figure 4-16. Ammunition boxes lashed and secured in the trailer (continued)

FRONT

(5) **Secure the lashing to the front of the second cross member of the trailer with two D-rings and a load binder.**

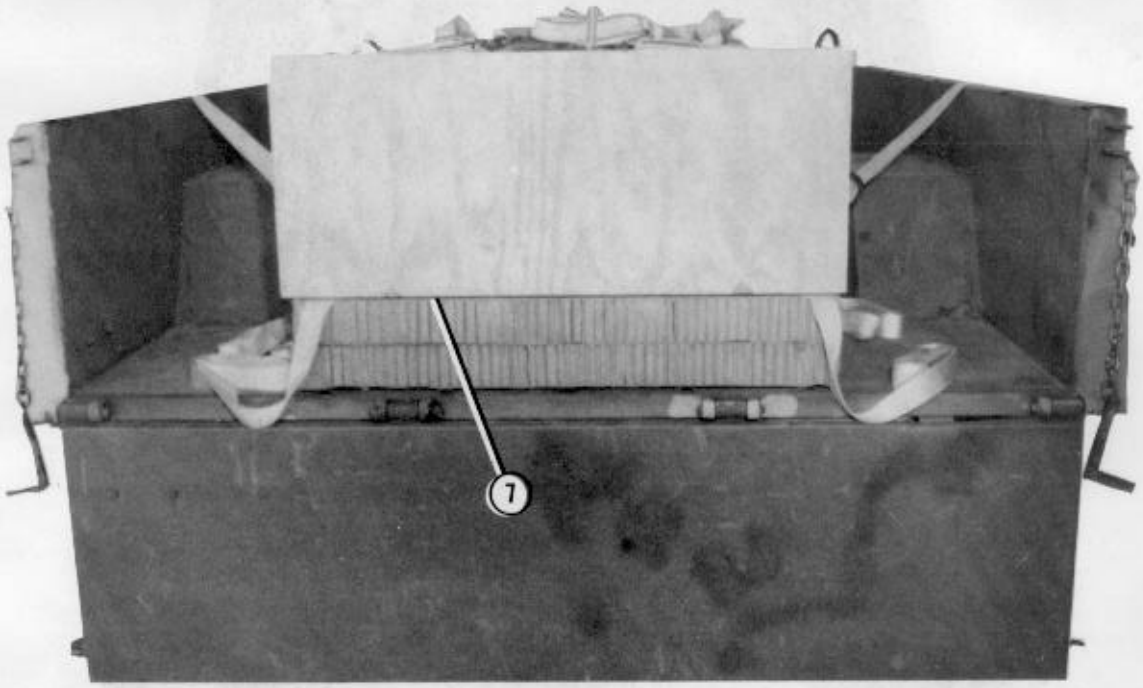
Figure 4-16. Ammunition boxes lashed and secured in the trailer (continued)



REAR

(6) **Place three 15- by 36-inch pieces of honeycomb flush against the rear ammunition boxes.**

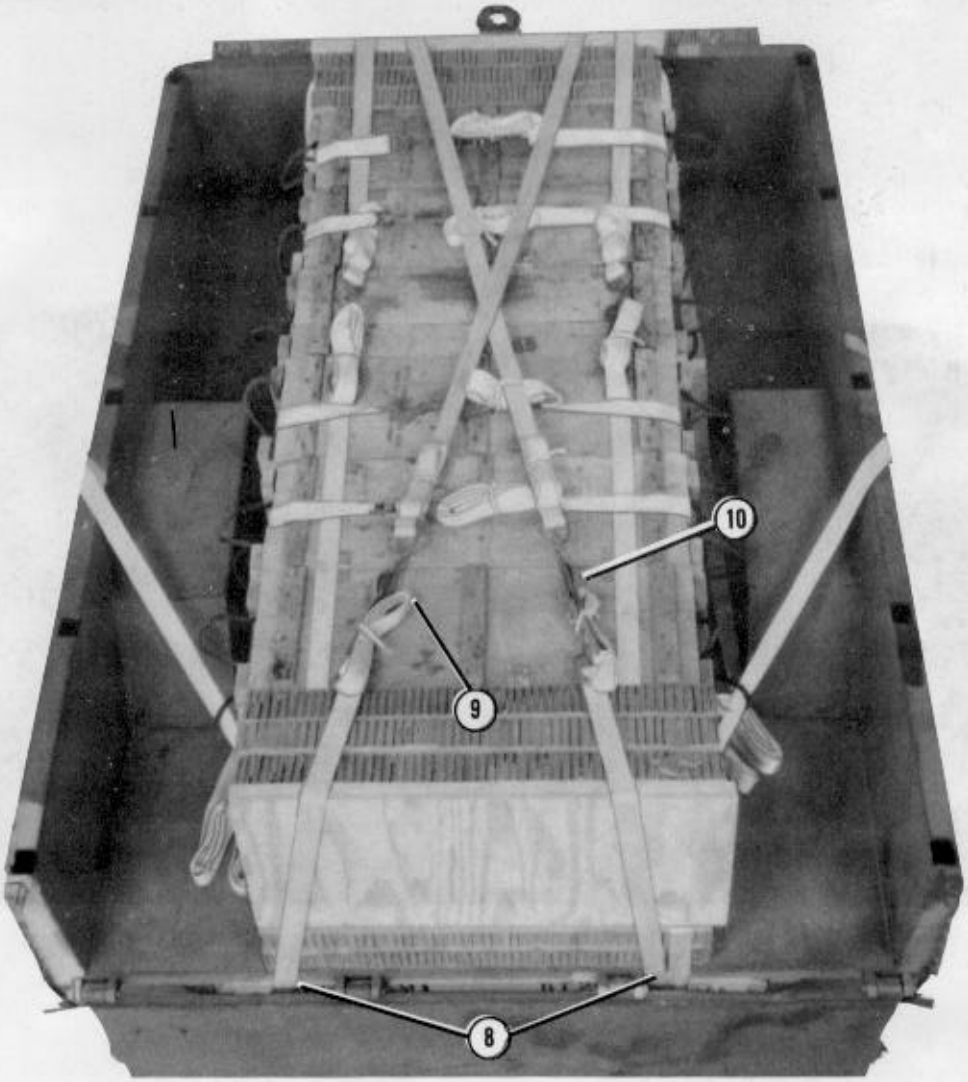
Figure 4-16. Ammunition boxes lashed and secured in the trailer (continued)



REAR

(7) **Place two 3/4- by 15- by 36-inch pieces of plywood flush against the honeycomb.**

Figure 4-16. Ammunition boxes lashed and secured in the trailer (continued)



REAR

(8) Pass the free end of each pre-positioned lashing (on the rear of the trailer) between the tailgate and cargo bed. Pass the ends around the padded rear spring mounted shackle, and back up to the top of the load.

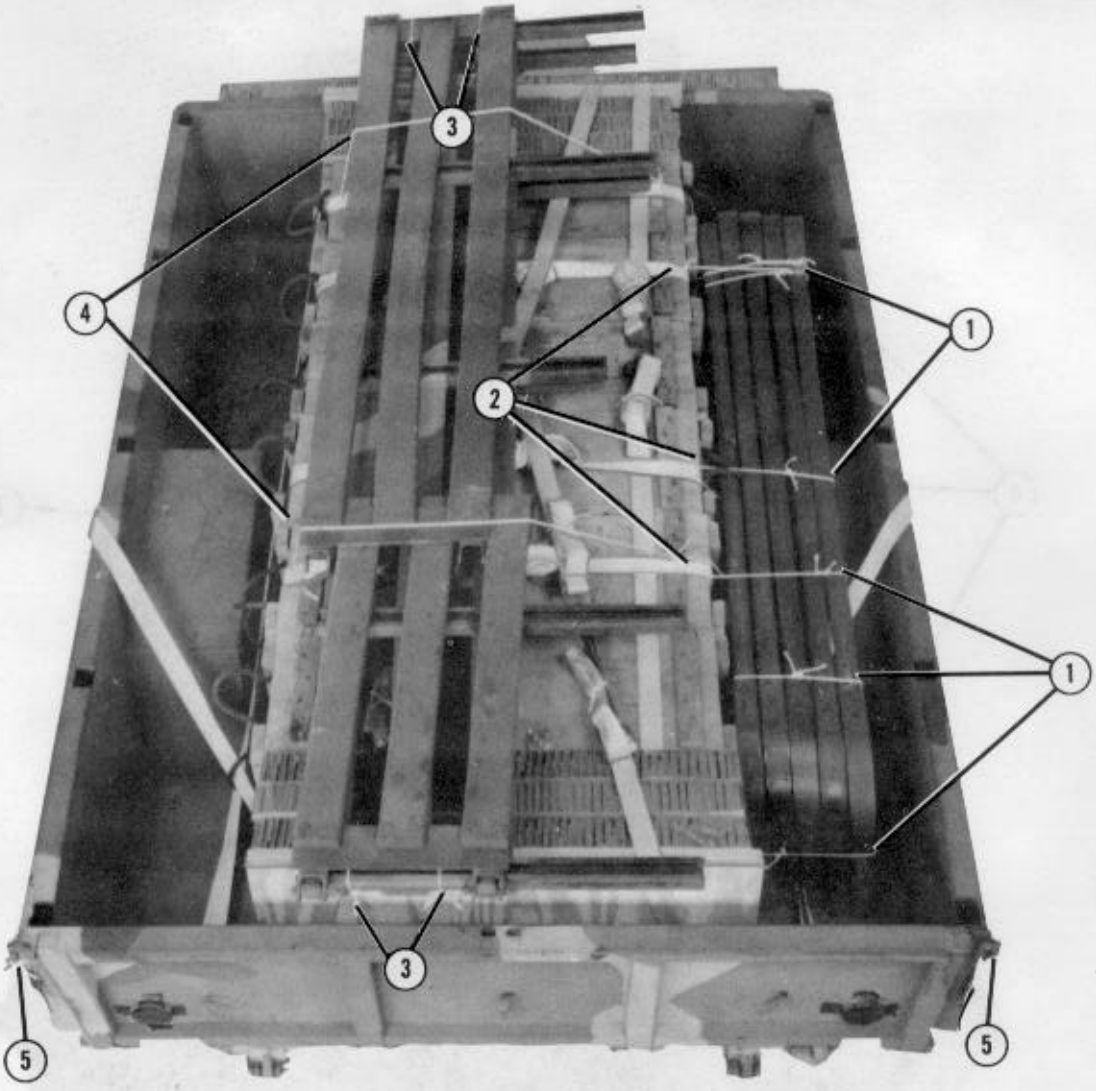
(9) Secure the left rear lashing to the right front lashing with a D-ring and a load binder.

(10) Secure the right rear lashing to the left front lashing with a D-ring and a load binder.

(11) Pass the free end of each pre-positioned 30-foot lashing (attached to the endboards) between the tailgate and the cargo bed. Run each lashing down between the mainframe and under the cargo bed. Secure the lashings with D-rings and load binders (not shown).

Note: Pad sharp areas that touch 15-foot lashings to avoid metal-to-metal contact.

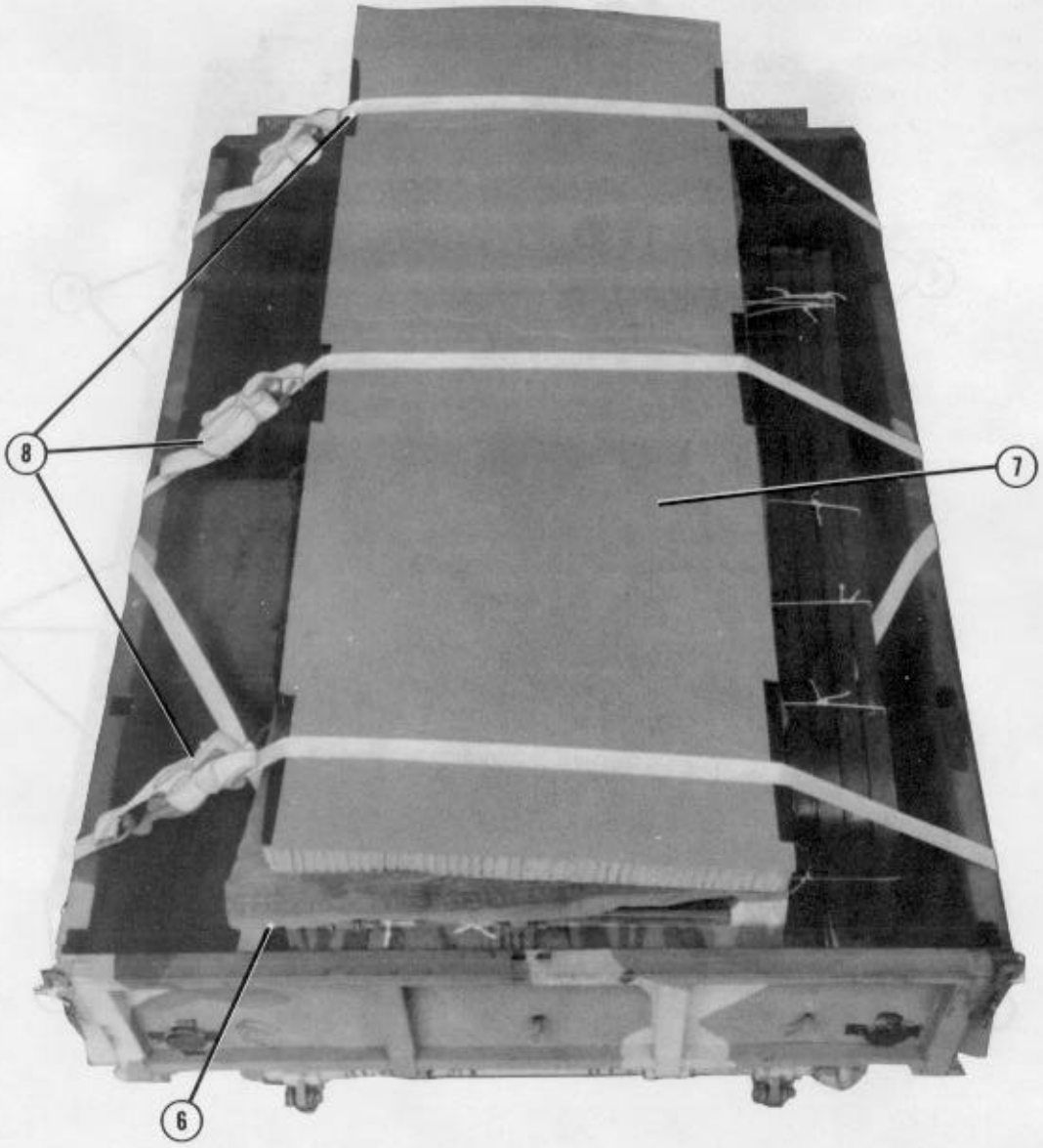
Figure 4-16. Ammunition boxes lashed and secured in the trailer (continued)



REAR

1. Tie the bows together with type III nylon cord, and place them inside the trailer on the right side.
2. Tie the bows with type III nylon cord to the lashings which run from left to right across the top of the ammunition boxes.
3. Tie the side racks together with type III nylon cord, and place them on top of the ammunition boxes.
4. Tie the side racks with type III nylon cord to the lashings which run from left to right across the top of the ammunition boxes.
5. Close the tailgate, and tie the latches with type III nylon cord.

Figure 4-17. Trailer components stowed



(6) **Fold the tarpaulin, and center it on top of the load.**

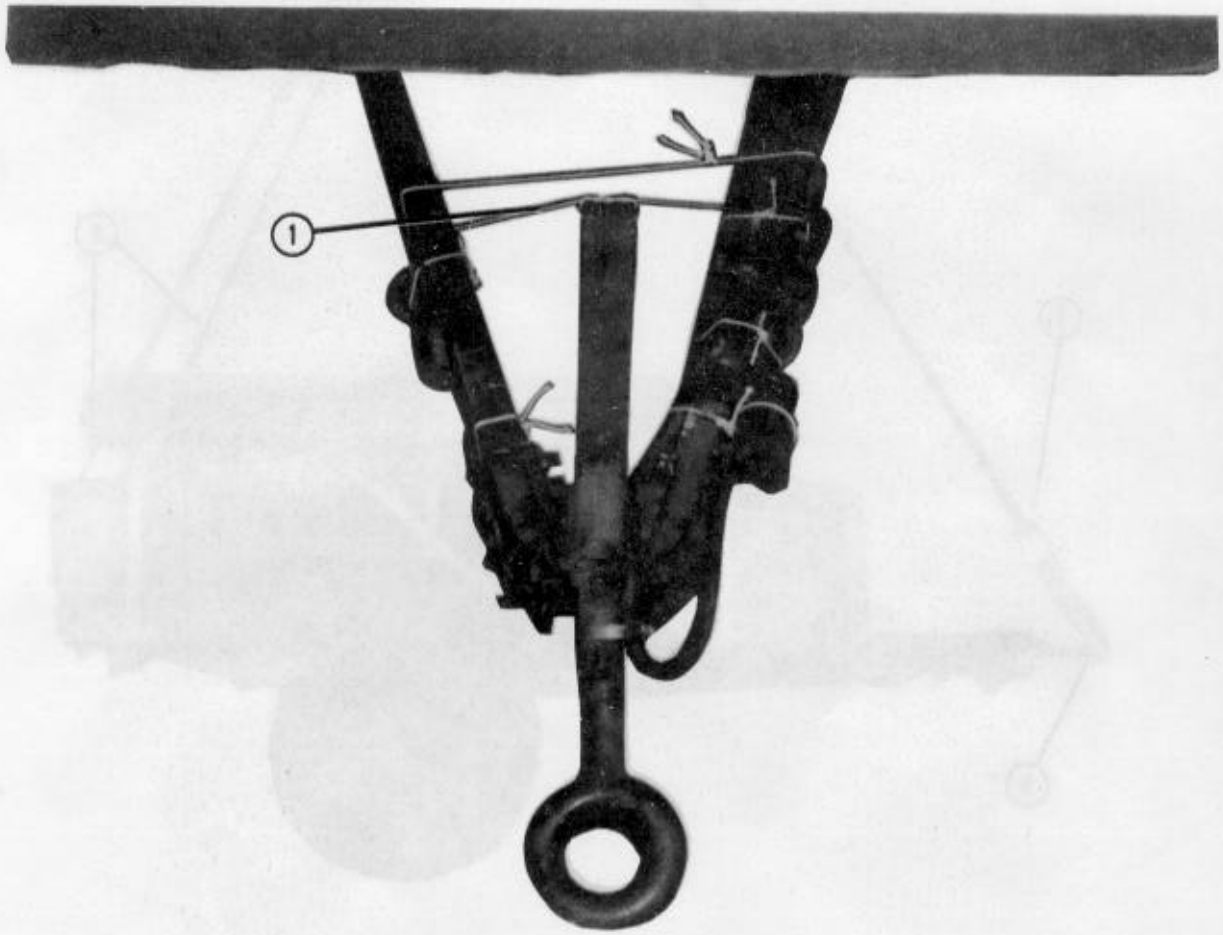
(7) **Place a 36- by 96-inch piece of honeycomb on top of the tarpaulin. Tape the edges of the honeycomb where the lashings will touch.**

(8) **Form three 30-foot lashings according to FM 10-500-2/TO 13C7-1-5. Secure the load and trailer components by passing each lashing around the trailer body and frame. Position the load binders off the honeycomb, and secure them.**

Figure 4-17. Trailer components stowed (continued)

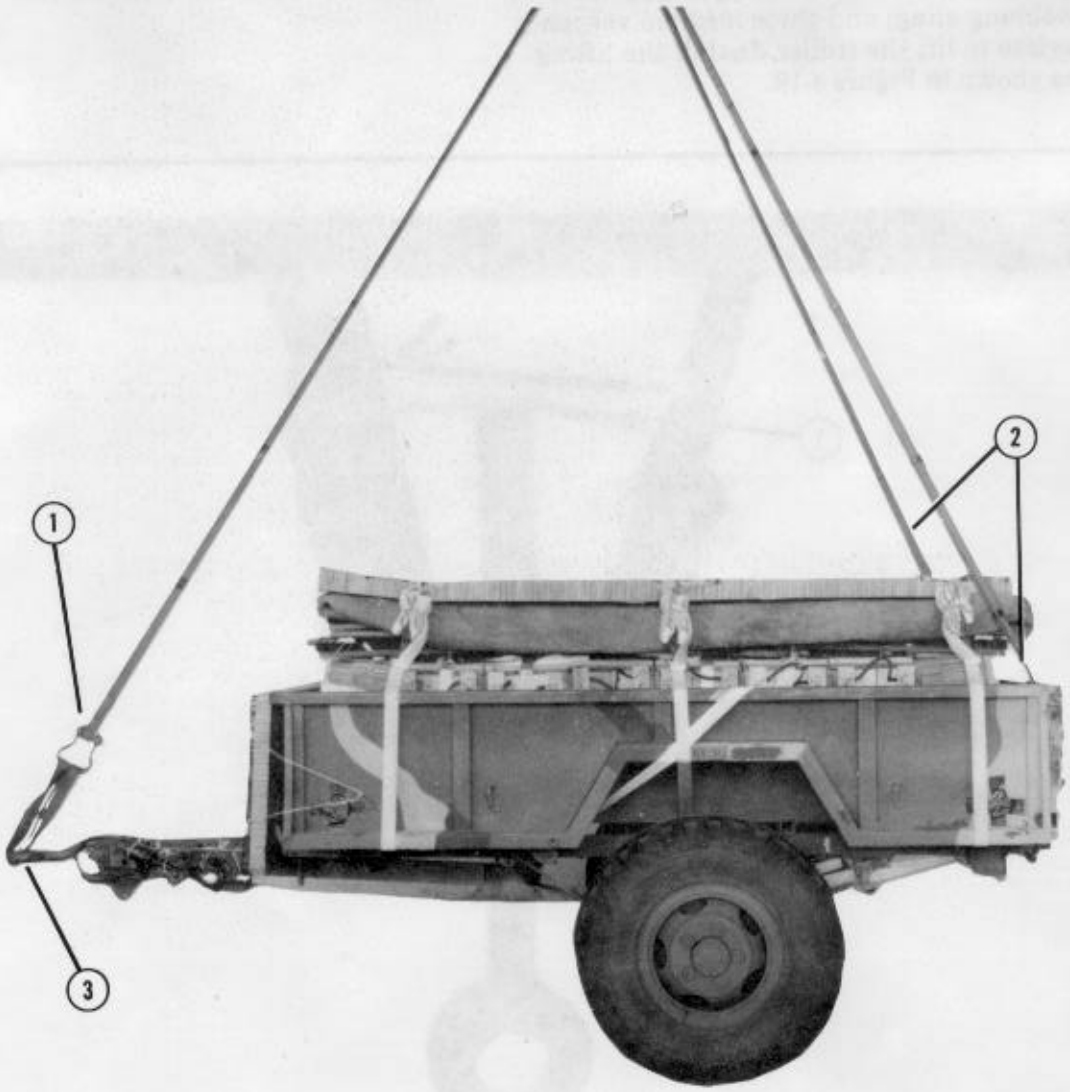
4-7. Securing Trailer Support Stand and Installing Lifting Slings

Raise and secure the trailer support stand as shown in Figure 4-18. Use three 12-foot (3-loop), type X or 12-foot (2-loop), type XXVI nylon webbing slings; one 3-foot (2-loop), type XXVI nylon webbing sling; and three medium suspension clevises to lift the trailer. Install the lifting slings as shown in Figure 4-19.



(1) **Raise the support stand, and tie it in place with 1/2-inch tubular nylon webbing.**

Figure 4-18. Trailer support stand raised and secured



(1) **Place the bell portion of each clevis in the end loop of each 12-foot sling.**

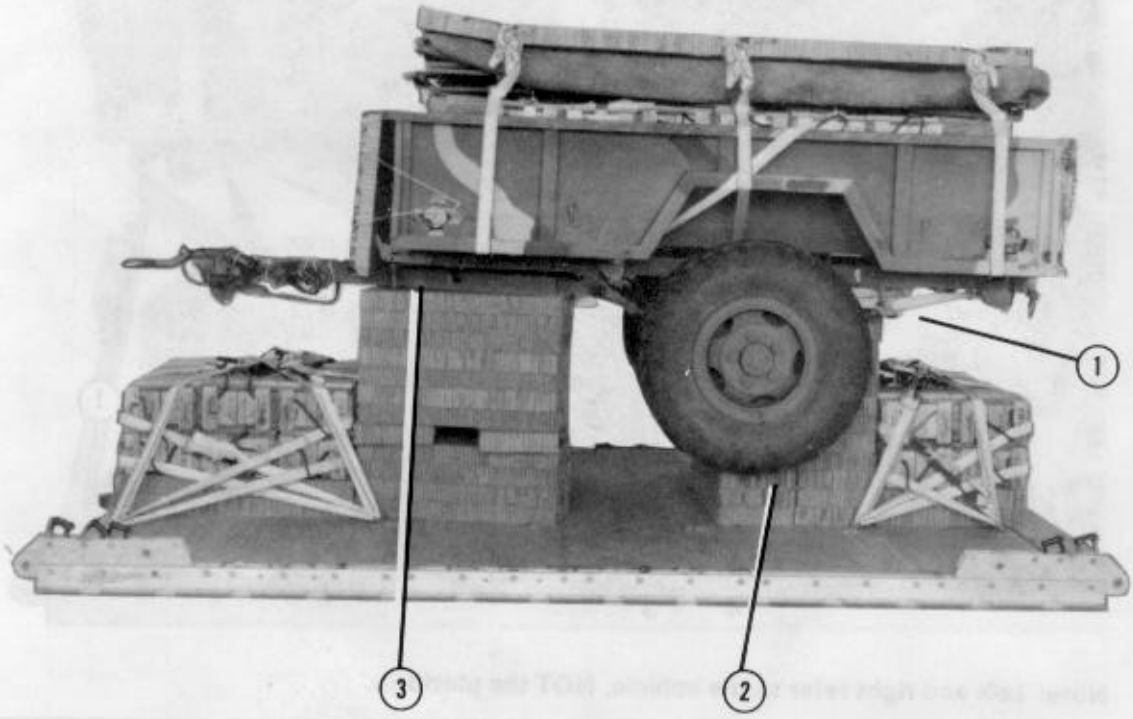
(2) **Attach the two rear lifting slings to the tie-down provisions on the rear of the trailer.**

(3) **Pass a 3-foot sling through the lunette on the trailer. Attach the 3-foot sling to the medium suspension clevis.**

Figure 4-19. Lifting slings installed

4-8. Positioning Trailer

Position the trailer on the honeycomb stacks as shown in Figure 4-20.



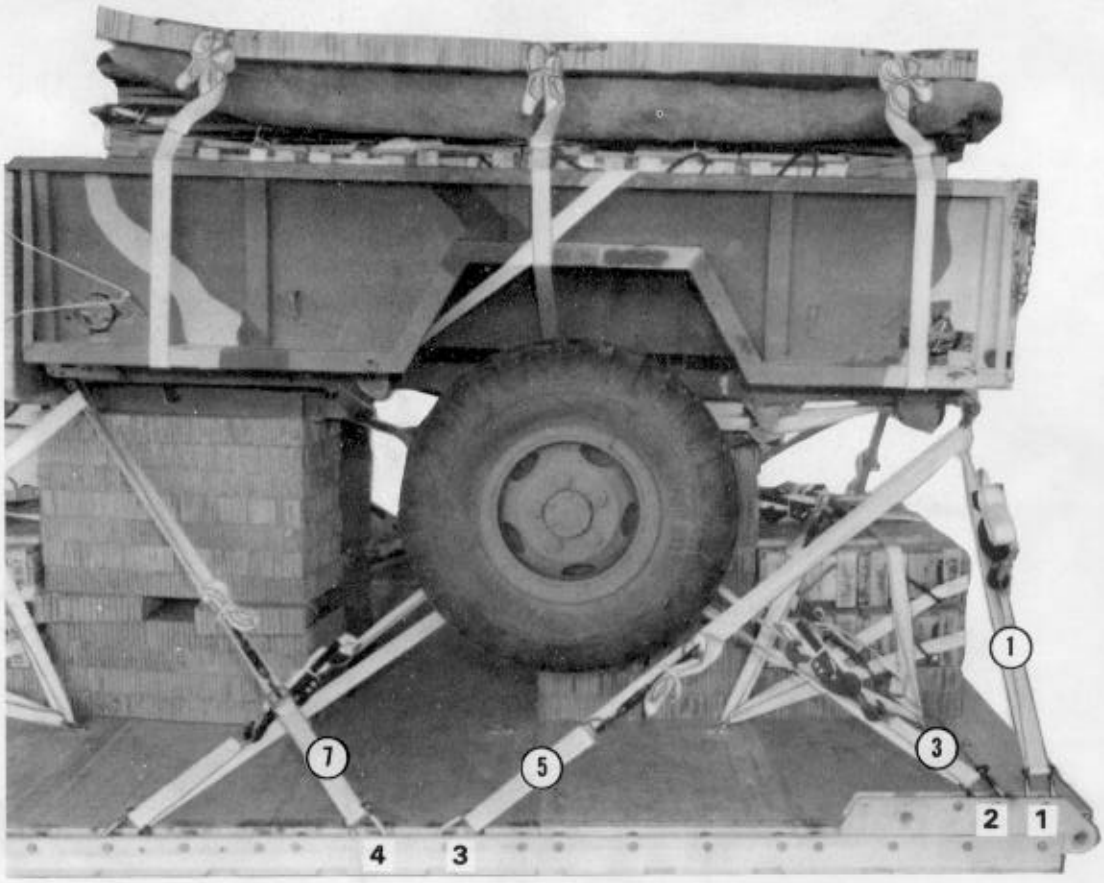
1. **Position the frame support board on stack 1.**
2. **Position the axle on stack 2.**
3. **Position the drawbar on stack 3.**

Note: Remove the lifting slings after positioning the trailer.

Figure 4-20. Trailer positioned

4-9. Lashing Trailer

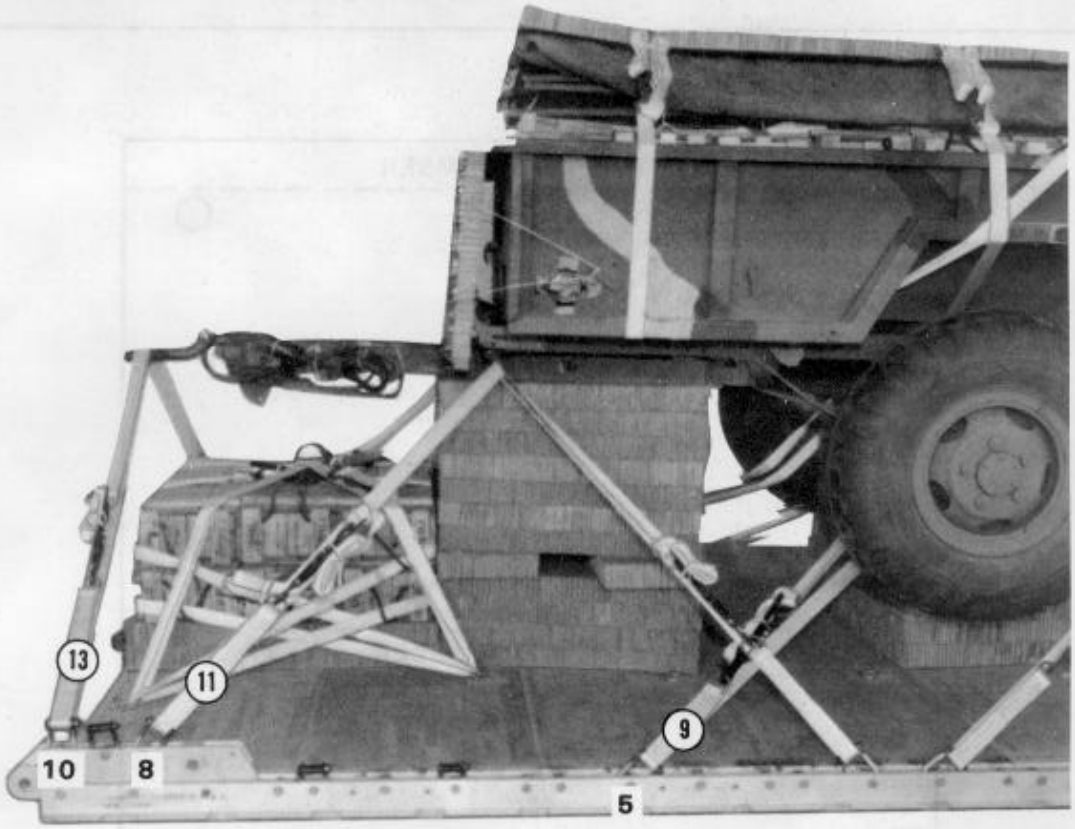
Lash the trailer to the platform according to FM 10-500-2/TO 13C7-1-5 and as shown in Figures 4-21 and 4-22 using fourteen 15-foot tie-down assemblies.



Note: Left and right refer to the vehicle, NOT the platform.

Lashing Number	Tie-down Clevis Number	Instructions
		Pass lashing:
1	1	Through the left rear lifting shackle.
2	1A	Through the right rear lifting shackle.
3	2	Around the left side of the axle.
4	2A	Around the right side of the axle.
5	3	Through the left rear lifting shackle.
6	3A	Through the right rear lifting shackle.
7	4	Through the left front lifting shackle.
8	4A	Through the right front lifting shackle.

Figure 4-21. Lashings 1 through 8 installed



Note: Left and right refer to the vehicle, NOT the platform.

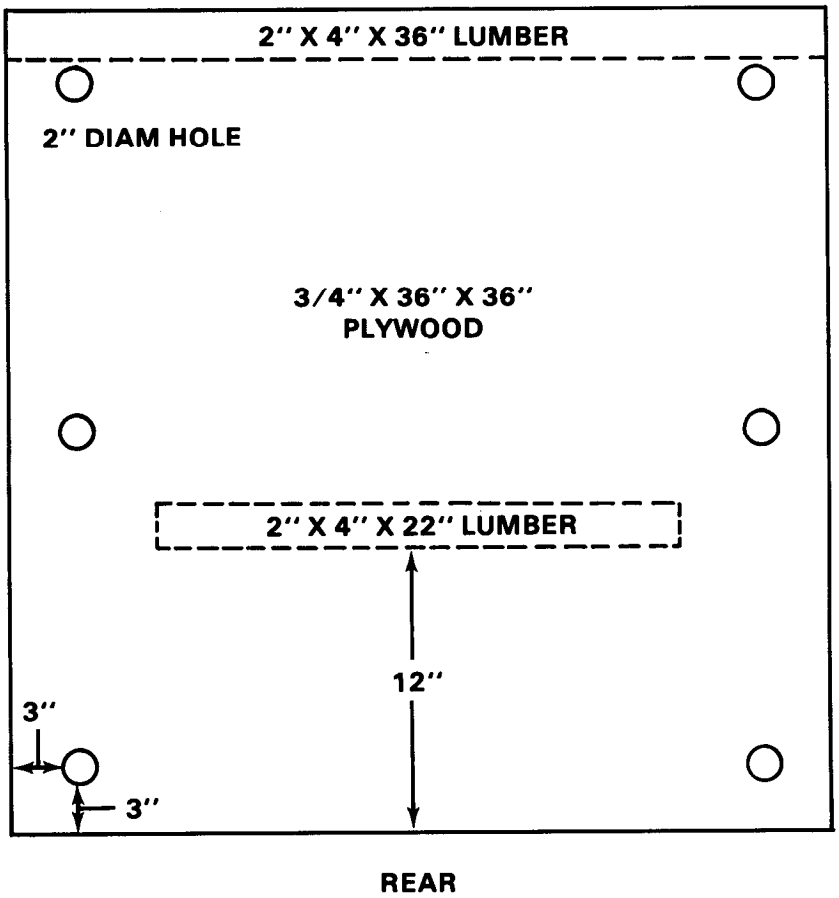
Lashing Number	Tie-down Clevis Number	Instructions
		Pass lashing:
9	5	Around the left side of the axle.
10	5A	Around the right side of the axle.
11	8	Through the left front lifting shackle.
12	8A	Through the right front lifting shackle.
13	10	Through the lunette.
14	10A	Through the lunette.

Figure 4-22. Lashings 9 through 14 installed

4-10. Building and Installing Parachute Stowage Platform

Build the parachute stowage platform as shown in Figure 4-23. Install the parachute stowage platform using four 15-foot tie-down assemblies as shown in Figure 4-24.

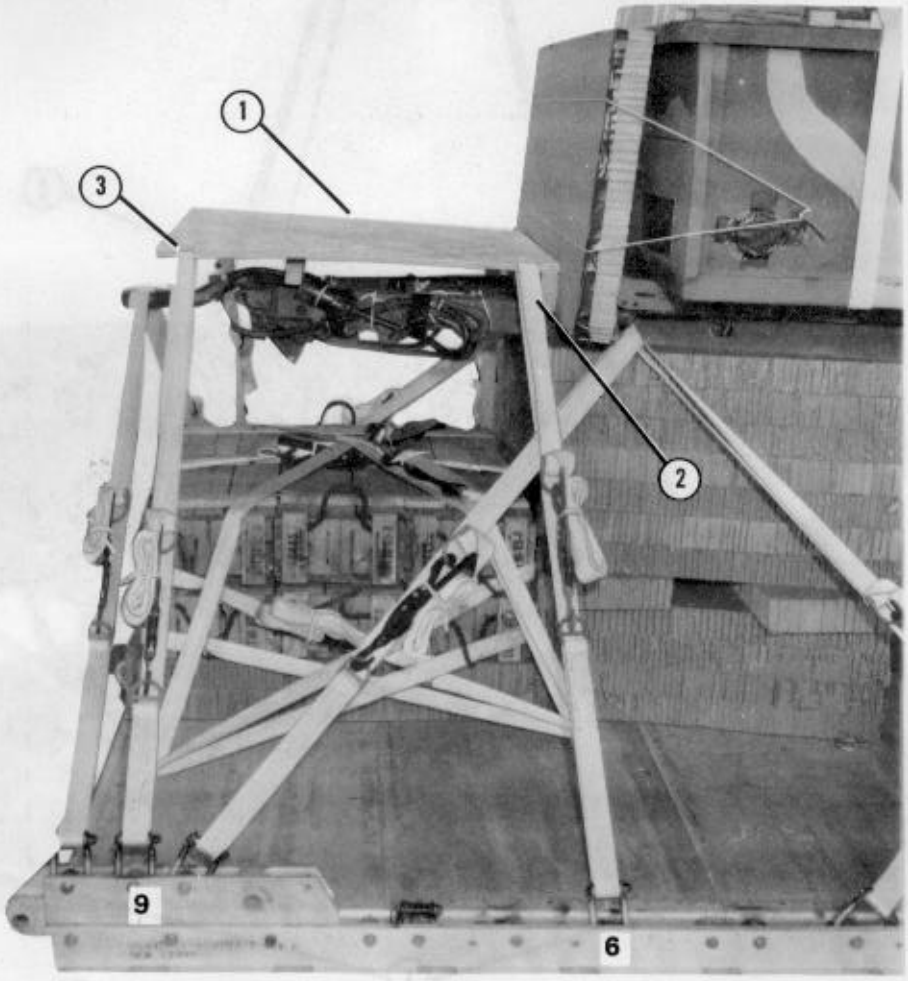
Note: This drawing is not drawn to scale.



Step:

1. **Cut a 3/4- by 36- by 36-inch piece of plywood.**
2. **Drill a 2-inch hole 3 inches from each corner of the platform.**
3. **Drill a 2-inch hole 3 inches from the side and at the center of each 36-inch side of the platform.**
4. **Nail a 2- by 4- by 36-inch piece of lumber standing on edge and flush with the front of the plywood using eightpenny nails.**
5. **Center a 2- by 4- by 22-inch piece of lumber standing on edge 12 inches from the rear edge of the plywood. Nail the lumber to the plywood using eightpenny nails.**

Figure 4-23. Parachute stowage platform built

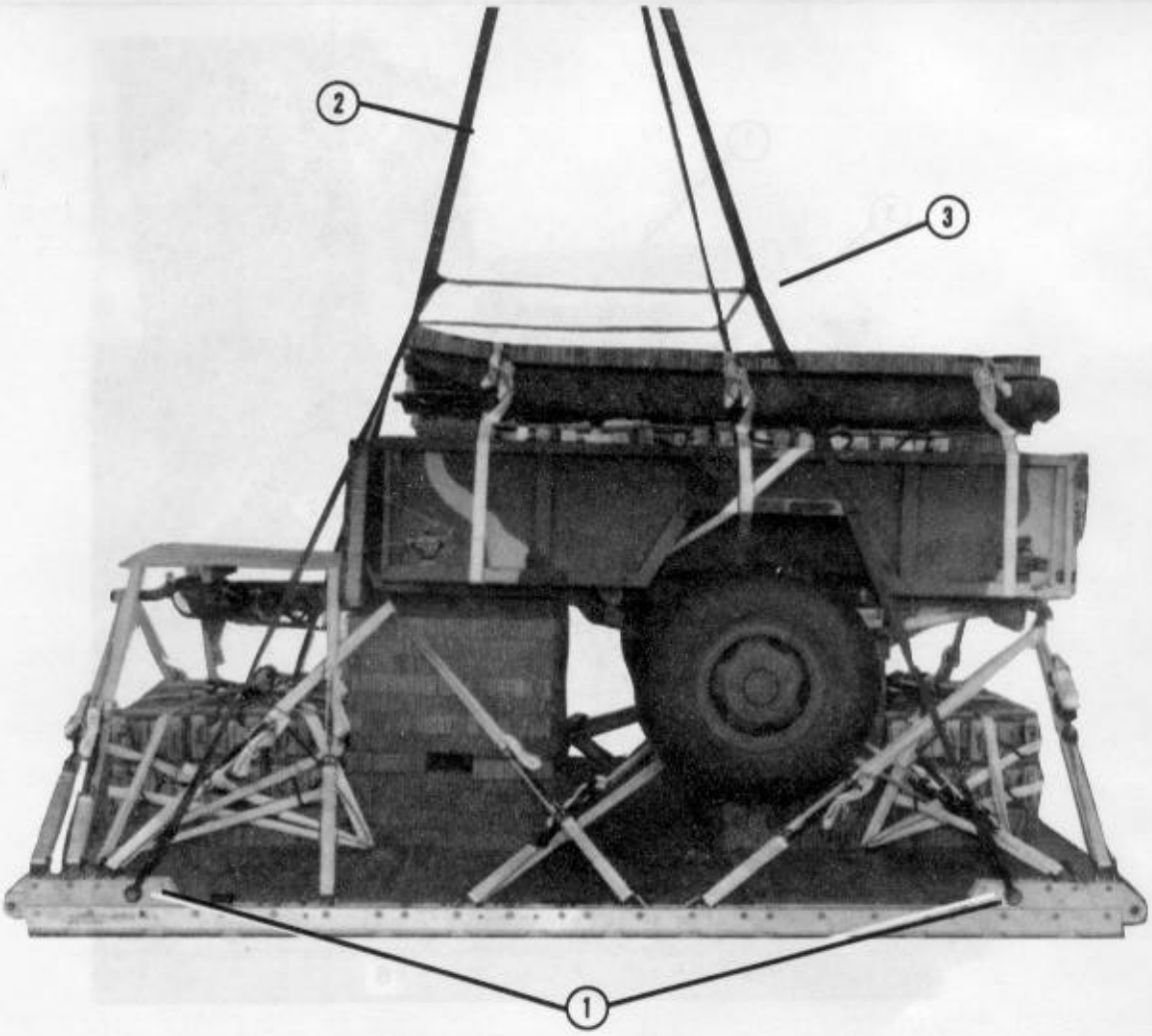


1. Place the parachute stowage platform on the drawbar frame with the 2- by 4- by 36-inch lumber facing down and to the front of the load.
2. Run the free end of a 15-foot lashing from clevis 6 through the front hole of the parachute stowage platform. Secure the lashing with a D-ring and a load binder. Repeat step for clevis 6A.
3. Run the free end of a 15-foot lashing from clevis 9 through the rear hole of the parachute stowage platform. Secure the lashing with a D-ring and a load binder. Repeat step for clevis 9A.

Figure 4-24. Parachute stowage platform installed

4-11. Installing and Safetying Suspension Slings

Install and safety four 16-foot (2-loop), type XXVI nylon webbing slings as shown in Figure 4-25.

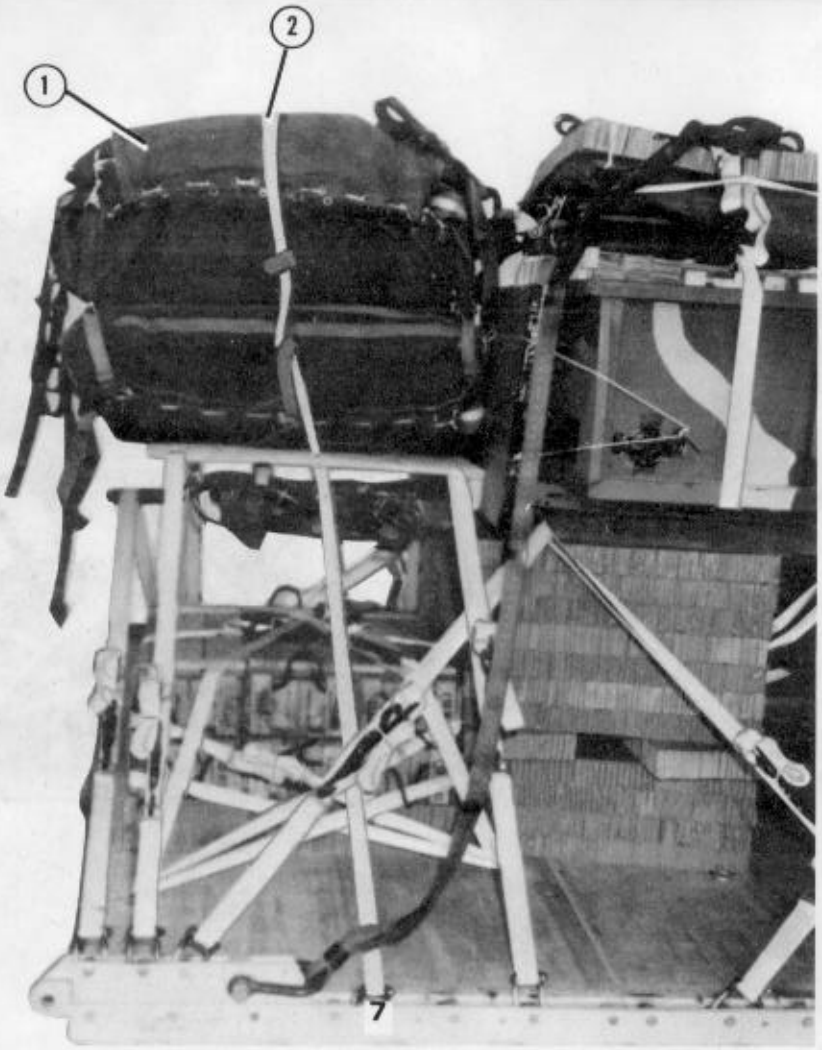


1. **Attach a 16-foot sling to each tandem link using a large suspension clevis.**
2. **Raise the suspension slings above the load.**
3. **Safety the suspension slings with a deadman's tie according to FM 10-500-2/TO 13C7-1-5.**

Figure 4-25. Suspension slings installed and safetied

4-12. Stowing and Securing Cargo Parachutes

Stow and secure two G-11A or G-11B cargo parachutes as shown in Figure 4-26.



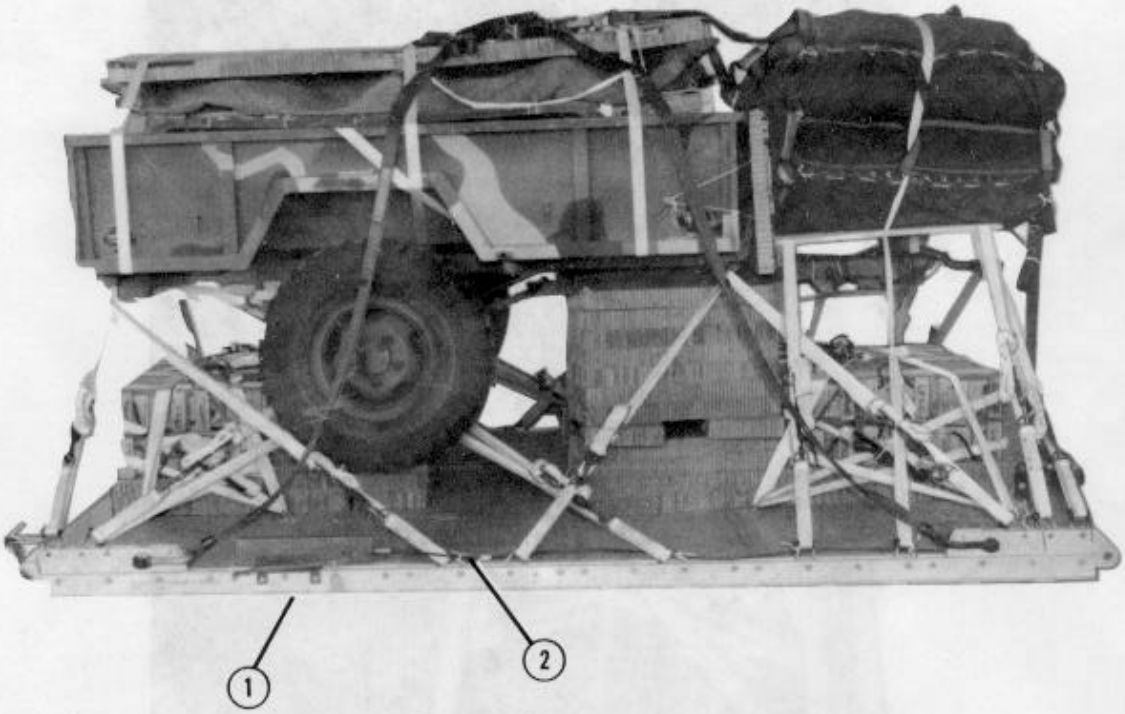
(1) **Cluster two G-11A or G-11B cargo parachutes according to FM 10-500-2/TO 13C7-1-5.**

(2) **Install an 8-yard, type VIII nylon webbing restraint strap using clevises 7 and 7A according to FM 10-500-2/TO 13C7-1-5.**

Figure 4-26. Parachutes stowed and secured

4-13. Preparing and Installing Extraction System

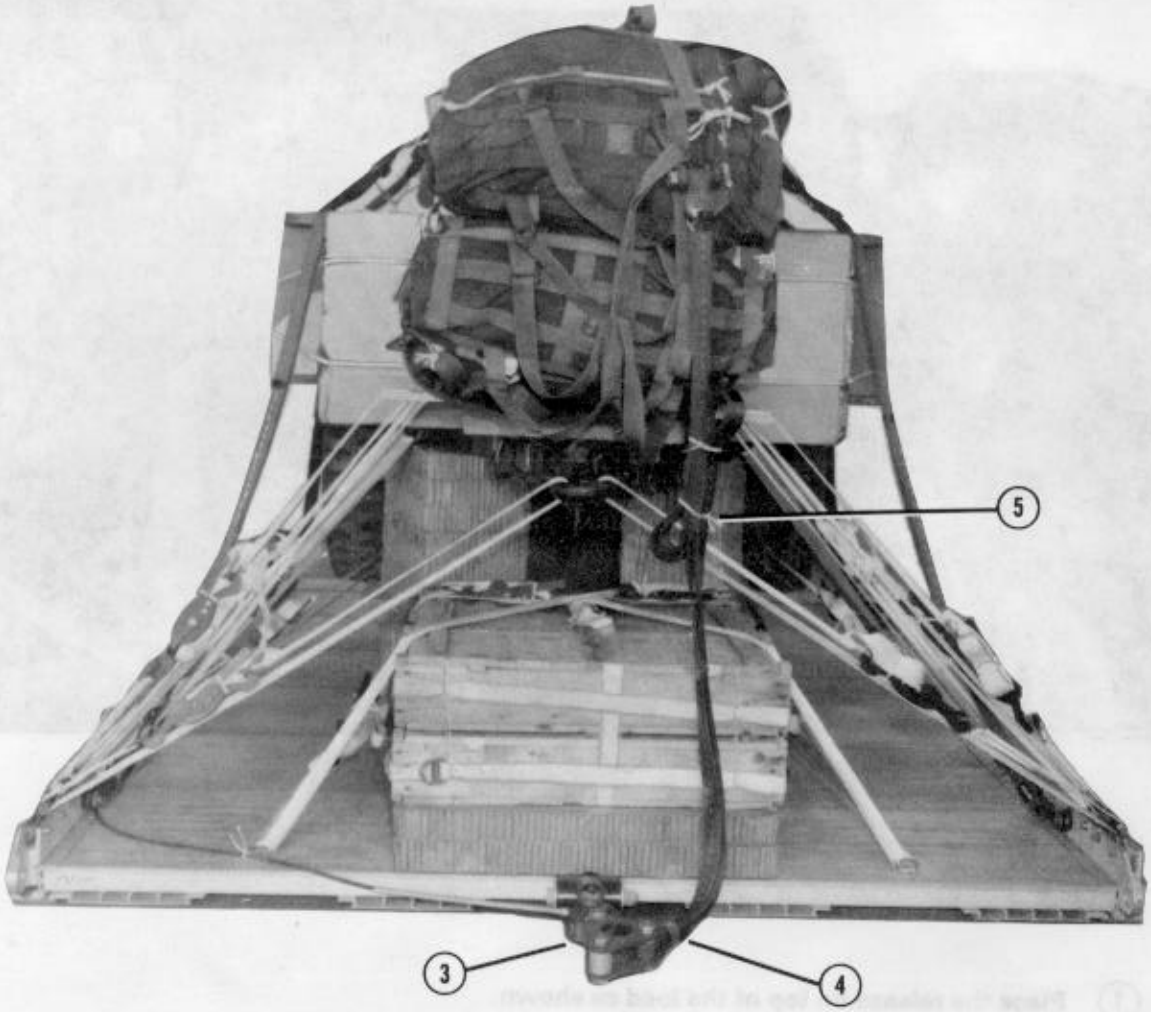
Prepare and install the EFTC extraction system according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 4-27.



(1) **Install the EFTA mounting brackets to the front mounting holes in the left platform rail. Install the actuator to the EFTA mounting brackets according to FM 10-500-2/TO 13C7-1-5.**

(2) **Attach a 12-foot cable to the actuator. Safety it to each clevis on the inside of the platform with type I, 1/4-inch cotton webbing.**

Figure 4-27. Extraction system installed



(3) **Install the latch assembly to the extraction bracket according to FM 10-500-2/TO 13C7-1-5, and attach the cable.**

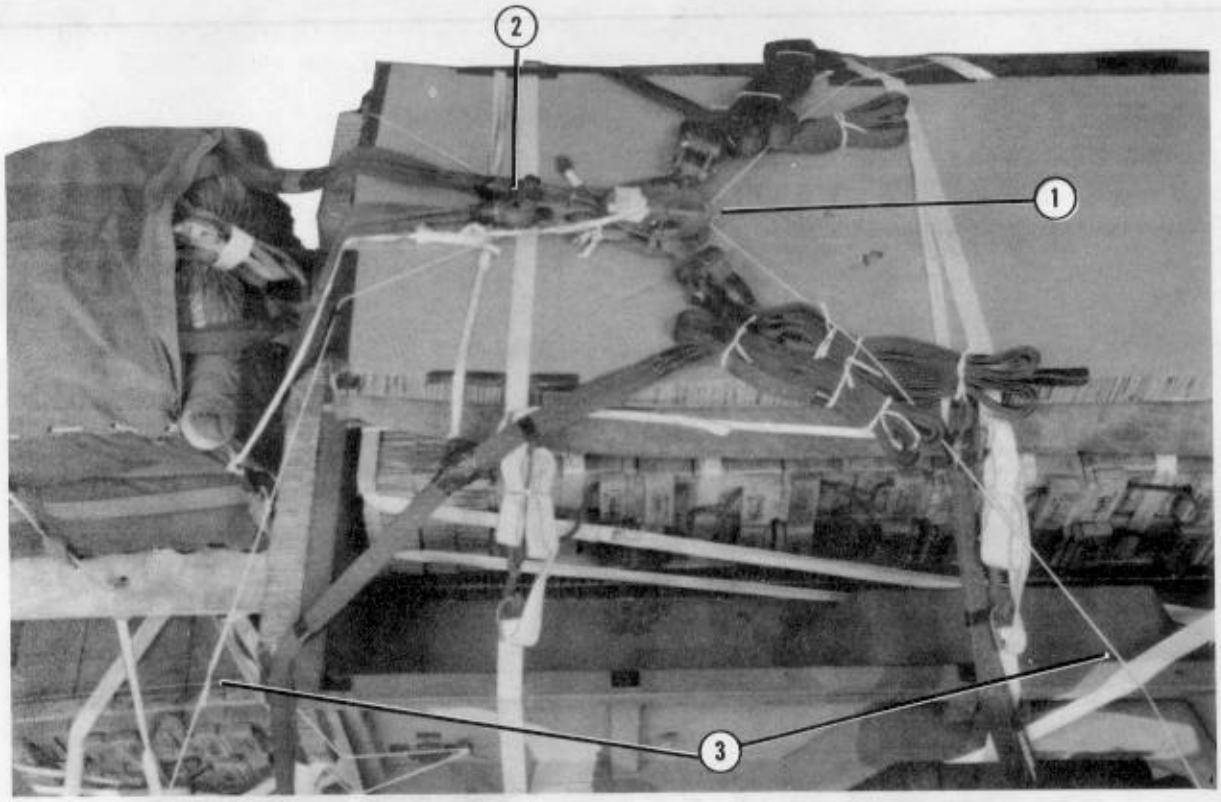
(4) **Attach a 9-foot (2-loop), type XXVI nylon deployment line to the load.**

(5) **Fold the excess deployment line. Secure the folds in place with masking tape or type I, 1/4-inch cotton webbing.**

Figure 4-27. Extraction system installed (continued)

4-14. Installing Parachute Release

Prepare, install, and safety an M-1 cargo parachute release according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 4-28.



1. **Place the release on top of the load as shown.**
2. **Attach the riser extensions of the parachutes to the connectors of the release.**
3. **Secure the release with type III nylon cord to convenient points on the load or platform.**

Figure 4-28. Release system installed

4-15. Installing Provisions for Emergency Restraints

Install the emergency restraints according to Table 3-3 or 3-4 of 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 15-foot cargo extraction parachute and a 60-foot (1-loop), type X or type XXVI nylon webbing extraction line on the load for installation in the aircraft.

b. C-141 Aircraft. Place a 15-foot cargo extraction parachute and a 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 4-29. 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 that 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.

CB

RIGGED LOAD DATA

Weight:	Load shown	5,880 pounds
	Maximum load allowed	6,500 pounds
Height		72 inches
Width		108 inches
Length		166 1/2 inches
Overhang:	Front	4 1/2 inches
	Rear	18 inches
CB (from front edge of platform)		78 inches
Extraction System		EFTC

Figure 4-29. M101A1, 3/4-ton cargo trailer with accompanying loads rigged on a type V platform for low-velocity airdrop

Table 4-1. Equipment required for rigging the M101 or M101A1, 3/4-ton cargo trailers with accompanying loads 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)	5
4030-00-090-5354	1-in (large)	4
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
1670-01-183-2678	Leaf, extraction line	2
	Line, extraction:	
1670-00-856-0265	60-ft (1-loop), type X nylon webbing (Use w 15-ft parachute.) or	1
1670-01-064-4452	60-ft (1-loop), type XXVI nylon webbing	1
1670-01-107-7652	160-ft (1-loop), type XXVI nylon webbing	1
1670-00-783-5988	Link assembly, type IV	2
	Lumber:	
5510-00-220-6146	2- by 4-in:	
	22-in	1
	36-in	1
5510-00-220-6250	2- by 12- by 46-in	2
5315-00-010-4659	Nail, steel wire, common, 8d	As required
1670-00-753-3928	Pad, energy-dissipating, honeycomb,	
	3- by 36- by 96-in:	14 sheets
	12- by 12-in	(4)
	12- by 32-in	(22)
	15- by 36-in	(6)
	24- by 60-in	(1)
	36- by 12-in	(20)
	36- by 24-in	(2)
	36- by 38-in	(2)
	36- by 92-in	(2)
	36- by 96-in	(2)
	48- by 12-in	(1)
	Parachute:	
	Cargo:	
1670-00-269-1107	G-11A or	2
1670-01-016-7841	G-11B	2
	Cargo extraction:	
1670-00-052-1548	15-ft or	1
1670-01-063-3715	15-ft	1
	Platform, AD, type V, 12-ft:	1
	Bracket:	
1670-01-162-2375	Inside EFTA	(1)
1670-01-162-2374	Outside EFTA	(1)

Table 4-1. Equipment required for rigging the M101 or M101A1, 3/4-ton cargo trailers with accompanying loads on a type V platform for low-velocity airdrop (continued)

National Stock Number	Item	Quantity
1670-01-162-2372	Clevis assembly	(20)
1670-01-162-2376	Extraction bracket assembly	(1)
1670-01-162-2381	Tandem link	(4)
5530-00-128-4981	Plywood, 3/4-in:	
	15- by 36-in	2
	15 1/2- by 37-in	2
	36- by 36-in	1
1670-01-097-8816	Release, cargo parachute, M-1	1
	Sling, cargo airdrop:	
	For deployment line:	
1670-01-062-6304	9-ft (2-loop), type XXVI nylon webbing	1
	For lifting:	
1670-01-062-6301	3-ft (2-loop), type XXVI nylon webbing	1
1670-00-823-5041	12-ft (3-loop), type X nylon webbing or	3
1670-01-062-6303	12-ft (2-loop), type XXVI nylon webbing	3
	For riser extensions:	
1670-01-062-6302	20-ft (2-loop), type XXVI nylon webbing	4
	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	2
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-inch, 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	8 yd

GLOSSARY

ACB attitude control bar

AD airdrop

AFB Air Force base

AFR Air Force regulation

AFTO Air Force technical order

ALC Air Logistics Center

ARNG Army National Guard

attn attention

C change

cap capacity

CB center of balance

CW-BW chemical warfare-biological warfare

d penny

DA Department of the Army

DC District of Columbia

DD Department of Defense

diam diameter

EFTA extraction force transfer actuator

EFTC extraction force transfer coupling

FM field manual

ft feet/foot

gal gallon

HQ headquarters

in inch

LAPE low-altitude parachute extraction

LAPES low-altitude parachute extraction system

lb pound

MAC Military Airlift Command

no number

PEFTC extraction force transfer coupling (platform)

qty quantity

rqr required

sec second

SL/CS static line/connector strap

TM technical manual

TO technical order

TRADOC United States Army Training and Doctrine Command

US United States

USAR United States Army Reserve

w with

yd yard

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25 JUNE 1979

By Order of the Secretaries of the Army and the Air Force:

BERNARD W. ROGERS
General, United States Army
Chief of Staff

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The Adjutant General

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☆U. S. Government Printing Office: 1988 — 224-869