

TM 4-48.13
TO 13C7-3-51



Airdrop of Supplies and Equipment: Rigging Trailers

MARCH 2016

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***TM 4-48.13/TO 13C7-3-51 (FM 4-20.113 / TO 13C7-3-51)**

Technical Manual
No. 4-48.13

Headquarters
Department of the Army
Washington, DC

Technical Order
No. 13C7-3-51

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Washington, DC
15 March 2016

AIRDROP OF SUPPLIES AND EQUIPMENT: RIGGING TRAILERS

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Preface

TM 4-48.13/TO 13C7-3-51 provides operational information on the preparation and rigging of the M101, M101A1, M101A2, M1101 3/4-ton trailer, the 1 ½-ton trailer, the 400 gallon capacity water trailer, the 15-ton tilt bed trailer, the 1 ½-ton ammunition trailer, mine-clearing line charge (MCLIC) on a 2 ½-ton trailer, the Ingersoll-Rand model 250 CFM trailer mounted air compressor, and the trailer-mounted engineer electrical tool outfit which are rigged for low-velocity airdrop from a C-130 and C-17 aircraft.

The principal audience for TM 4-48.13/TO 13C7-3-51 is all members of the profession of arms. Commanders and staffs of Army and Air Force headquarters serving as joint task force or multinational headquarters should also refer to applicable joint or multinational doctrine concerning the range of military operations and joint or multinational forces. Trainers and educators throughout the Army and Air Force will also use this publication.

Commanders, staffs, and subordinates ensure that their decisions and actions comply with applicable United States, international, and in some cases host-nation laws and regulations. Commanders at all levels ensure that their Soldiers and Airmen operate in accordance with the law of war and the rules of engagement. (See FM 27-10).

TM 4-48.13/TO 13C7-3-51 does not implement any STANAGs.

TM 4-48.13/TO 13C7-3-51 uses joint terms where applicable. Selected joint and Army terms and definitions appear in both the glossary and the text. Terms for which TM 4-48.13/TO 13C7-3-51 is the proponent publication (the authority) are italicized in the text and marked with an asterisk (*) in the glossary. Terms and definitions for which TM 4-48.13/TO 13C7-3-51 is the proponent publication are boldfaced in the text. For other definitions shown in the text, the term is italicized and the number of the proponent publication follows the definition.

TM 4-48.13/TO 13C7-3-51 applies to the Active Army, Army National Guard/Army National Guard of the United States, United States Army Reserve, and Air Force unless otherwise stated.

The proponent of TM 4-48.13/TO 13C7-3-51 is the United States Army Quartermaster School. The preparing agency is the G-3 Doctrine Division, USACASCOM. Send comments and recommendations on DA Form 2028 (Recommended Changes to Publications and Blank Forms) to Commander, United States Army Combined Arms Support Command and Fort Lee, ATTN: ATCL-TS, 2221 A Avenue, Fort Lee, Virginia 23801 or submit an electronic DA Form 2028 by e-mail to: usarmy.lee.tradoc.mbx.lee-cascom-doctrine@mail.mil. In addition to submission of DA Form 2028, provide same comments and recommendations in MilWiki for rapid dissemination to doctrine authors and for universal review at <https://www.milsuite.mil>.

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Introduction

Publication of TM 4-48.13/TO 13C7-3-51 (FM 4-20.113/TO 13C7-3-51) Airdrop of Supplies and Equipment: Rigging Trailers supersedes FM 4-20.113/TO 13C7-3-51, Airdrop of Supplies and Equipment: Rigging 3/4 – Ton Cargo Trailers, 27 March 2009. TM 4-48.13 combines FM 4-20.113, FM 10-532, FM 10-540, FM 10-555, FM 10-569, and FM 10-591 into one manual, as well as, adding the M1101 High Mobility Trailer, Light (HMT-L) ¾-ton trailer.

This special revision to the TM publishing medium/nomenclature has been accomplished to comply with U.S. Army Training and Doctrine Command doctrine restructuring requirements. The title and content of the manual(s) is identical to that of the superseded manual(s) unless specifically noted changes are identified. This special revision does not integrate any changes in Army doctrine since 27 March 2009 and does alter the publication's original references. For the status of official Department of the Army (DA) publications, consult DA Pam 25-30, Consolidated Index of Army Publications and Blank Forms, at <http://armypubs.army.mil/2530.html>. DA Pam 25-30 is updated as new and revised publications, as well as changes to publications are published.

Chapter 1

General Information

DESCRIPTION OF ITEMS

1-1. The description and unrigged data for the items covered in this manual are described below.

- **M101, M101A1, or M101A2, ¾-Ton Cargo Trailer.** The M101, M101A1, or M101A2, ¾-ton cargo trailer weighs 1,340 pounds. The unrigged trailer is 147 inches long and 71 inches wide. The height of the trailer is 82 inches (reducible to 51 inches). An accompanying load, which consists of 22 boxes of 105-millimeter ammunition, is also rigged with the load. The ammunition weighs 2,440 pounds.
- **High Mobility Trailer, Light.** The high mobility trailer, light weighs 1,360 pounds. The unrigged trailer is 135 inches long and 87 ½ inches wide. The height of the trailer is 99 ½ inches (reducible to 52 ½ inches). An accompanying load is also rigged in the trailer bed. The accompanying load must not exceed 2,040 pounds.
- **1 ½-Ton Cargo Trailer.** The 1 ½-ton cargo trailer weighs 2,650 pounds. The unrigged trailer is 166 ½ inches long and 83 inches wide. The height of the trailer is 98 inches (reducible to 55 inches). An accompanying load, which consists of 24 boxes of ammunition, is also rigged with the load. The ammunition weighs 2,280 pounds and must not exceed 3,000 pounds.
- **400-Gallon Capacity Water Trailer.** The 400-gallon capacity water trailer (model numbers M107A1, M107A2, M149A1, and M149A2) weighs 2,720 pounds empty and 6,150 when filled. The unrigged trailer is 162 inches long and 81 inches wide. The height of the trailer is 79 inches empty and 75 inches filled.
- **1 ½-Ton Ammunition Trailer.** The 1 ½-ton ammunition trailer weighs 2,660 pounds. The unrigged trailer is 148 inches long and 85 inches wide. The height of the trailer is 64 inches (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.
- **Mine Clearing Line Charge.** The mine clearing line charge in its container weighs 2,855 pounds. It is mounted on a 2 ½-ton M200A1 trailer. The rocket projectile, in its shipping container, weighs 270 pounds and is rigged on the platform.
- **15-Ton Tilt Bed Trailer.** The 15-ton tilt bed trailer weighs 8,630 pounds. The unrigged trailer is 292 inches, long, however the length may vary by 2 inches, and 96 inches wide. The height of the trailer is 52 inches.
- **The Ingersol-Rand Model, 250-CFM, Trailer-Mounted Air Compressor.** The Ingersol-Rand model, 250-CFM, trailer mounted air compressor weighs 7,345 pounds with the fuel tank ½ full. The unrigged trailer is 204 inches, long and 96 inches wide. The height of the trailer is 77 inches.
- **The Trailer-Mounted Engineer Electrical Tool Outfit.** The trailer-mounted engineer electrical tool outfit weighs 2,720 pounds. The unrigged trailer is 147 inches, long and 75 inches wide. The height of the trailer is 71 inches. Other trailer-mounted engineer electrical tool outfits may also be rigged for airdrop by adapting these procedures.

SPECIAL INSTRUCTIONS

1-2. Special considerations for this manual are given below.

- The loads covered in this manual may include hazardous materials as defined in AFMAN 24-204(I)/TM 38-250/NAVSUP PUB 505/MCO P 4030.191/DLAI4145.3. If included, the

hazardous materials must be packaged, marked, and labeled as required by AFMAN 24-204(I)/TM 38-250/ NAVSUP PUB 505/MCO P 4030.19I/DLAI4145.3.

- A copy of this manual must be available to the joint airdrop inspectors during the before- and after-loading inspection.
- All mounting bolts holding the compressor unit to the trailer must be the correct size and properly installed.

CAUTION

Only ammunition listed in TM 4-48.16/MCRP 4-11.3B/TO 13C7-18-41 may be airdropped.

Chapter 2

Rigging the M101, M101A1, or M101A2, ¾-Ton Cargo Trailer for Low-Velocity Airdrop

DESCRIPTION OF LOAD

2-1. The M101, M101A1 or M101A2, ¾-ton cargo trailer (Figure 2-1) with accompanying loads is rigged on a 12-foot type V platform for low velocity airdrop. The load shown is rigged with an accompanying load consisting of 22 boxes of 105-millimeter ammunition and weighing 2,440 pounds. The ¾-ton cargo trailer is rigged with one or two G-11B cargo parachutes depending on the rigged weight. The ¾-ton cargo trailer may also be rigged with an accompanying load weighing a maximum of 1,500 pounds which is stowed in the trailer. Additional accompanying loads may be stowed on the platform as long as the maximum rigged weight does not exceed 8,000 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.

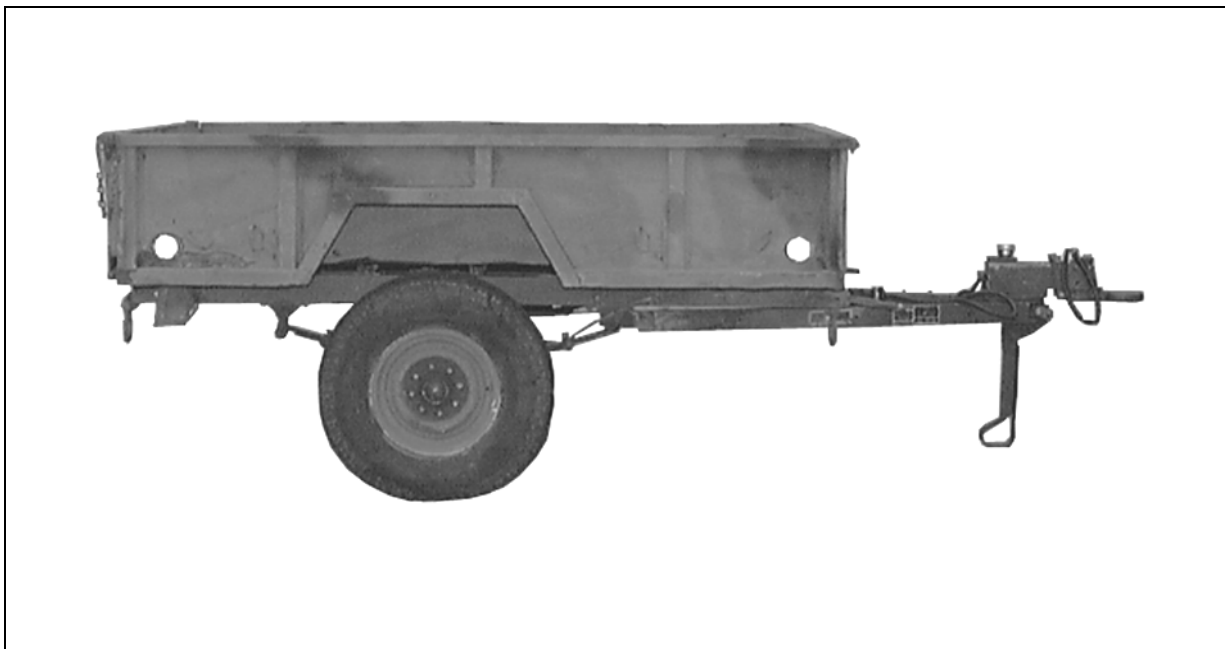


Figure 2-1. M101A2, ¾-Ton Cargo Trailer

PREPARING PLATFORM

2-2. Prepare a 12-foot, type V platform using two tandem links and 20 tie-down clevises as shown in Figure 2-2.

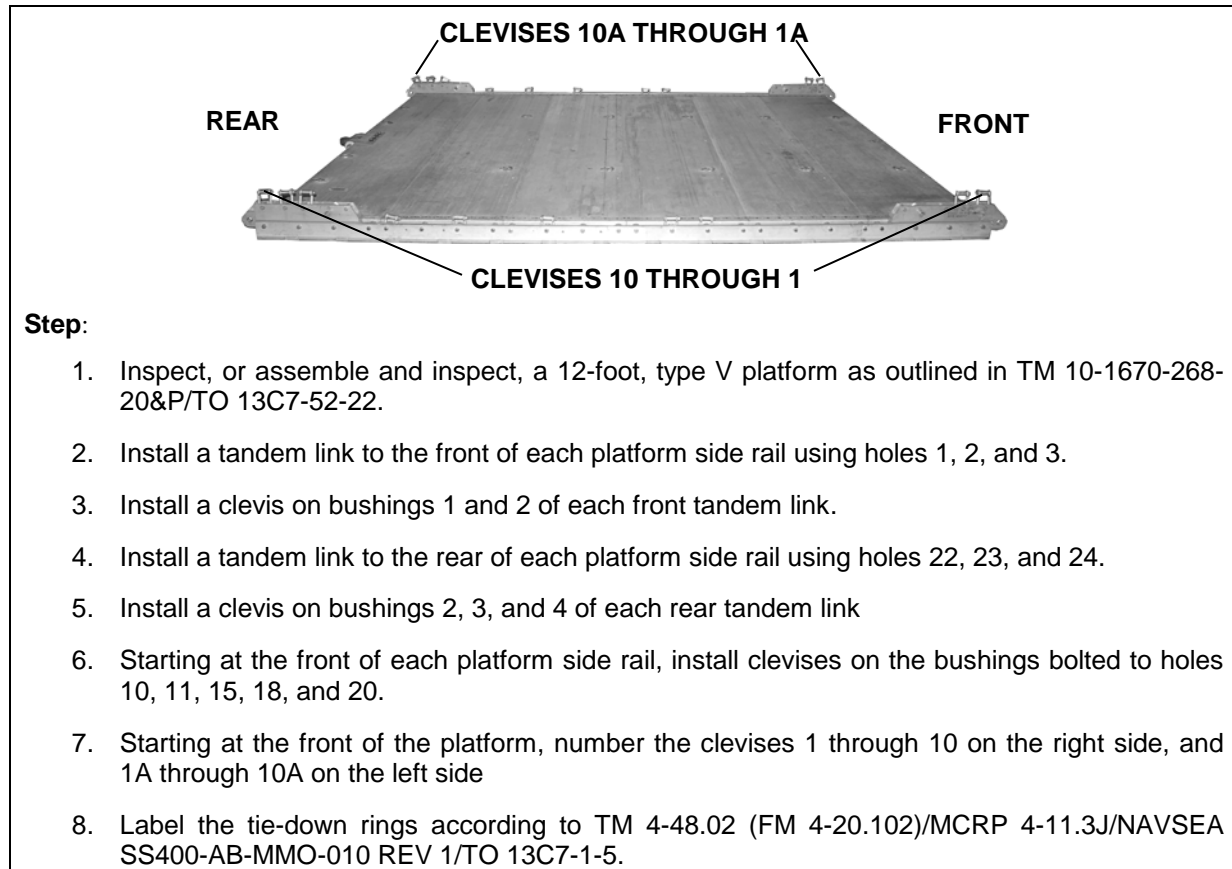


Figure 2-2. Platform Prepared

POSITIONING AND LASHING ACCOMPANYING LOADS ON THE PLATFORM

2-3. Position and lash the accompanying loads on the platform as shown in Figures 2-3 through 2-6.

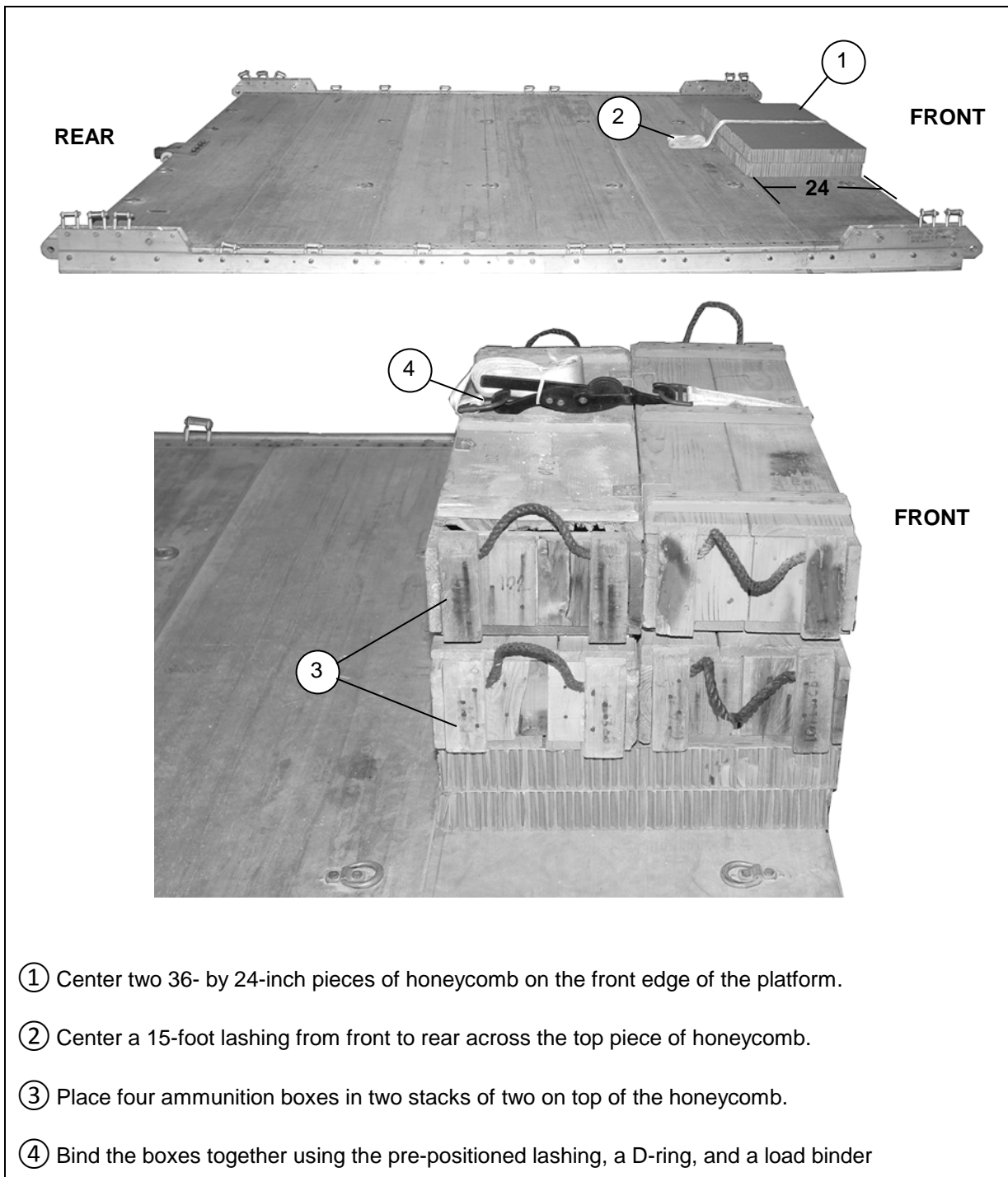
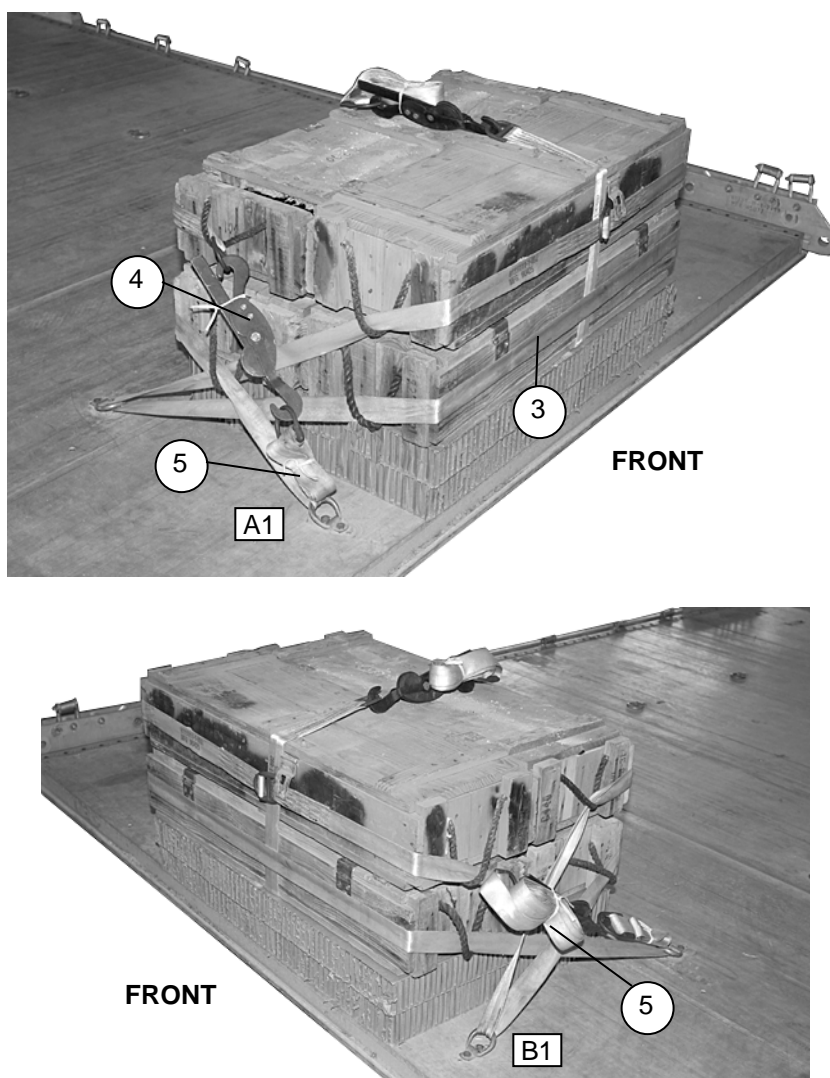


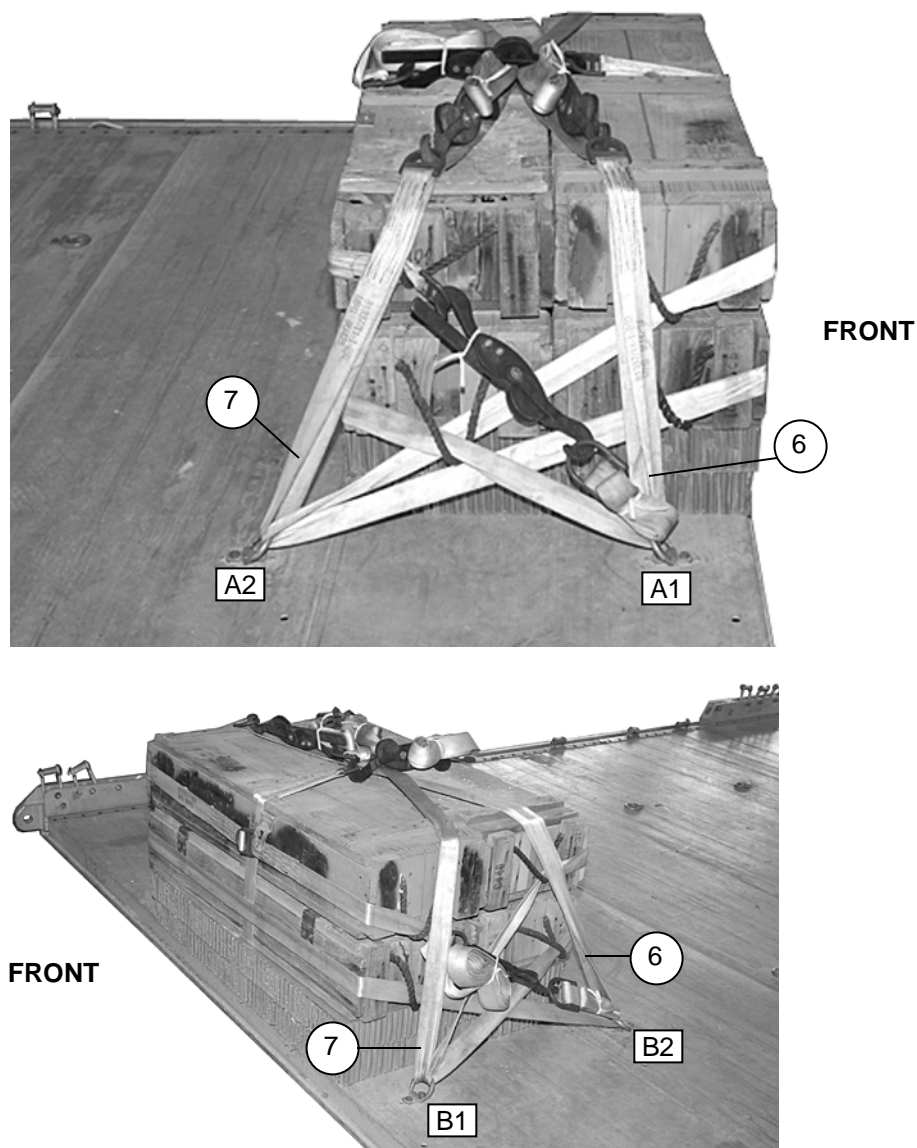
Figure 2-3. Ammunition Boxes Positioned on the Front of the Platform





- 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.
- ⑤ Secure each front and rear load binder simultaneously.

Figure 2-4. Ammunition Boxes Lashed and Secured on the Front of the Platform (Continued)



- 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. Attach a D-ring and a load binder to the end. Do not secure the lashing at this time.
- 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 2-4. Ammunition Boxes Lashed and Secured on the Front of the Platform (Continued)

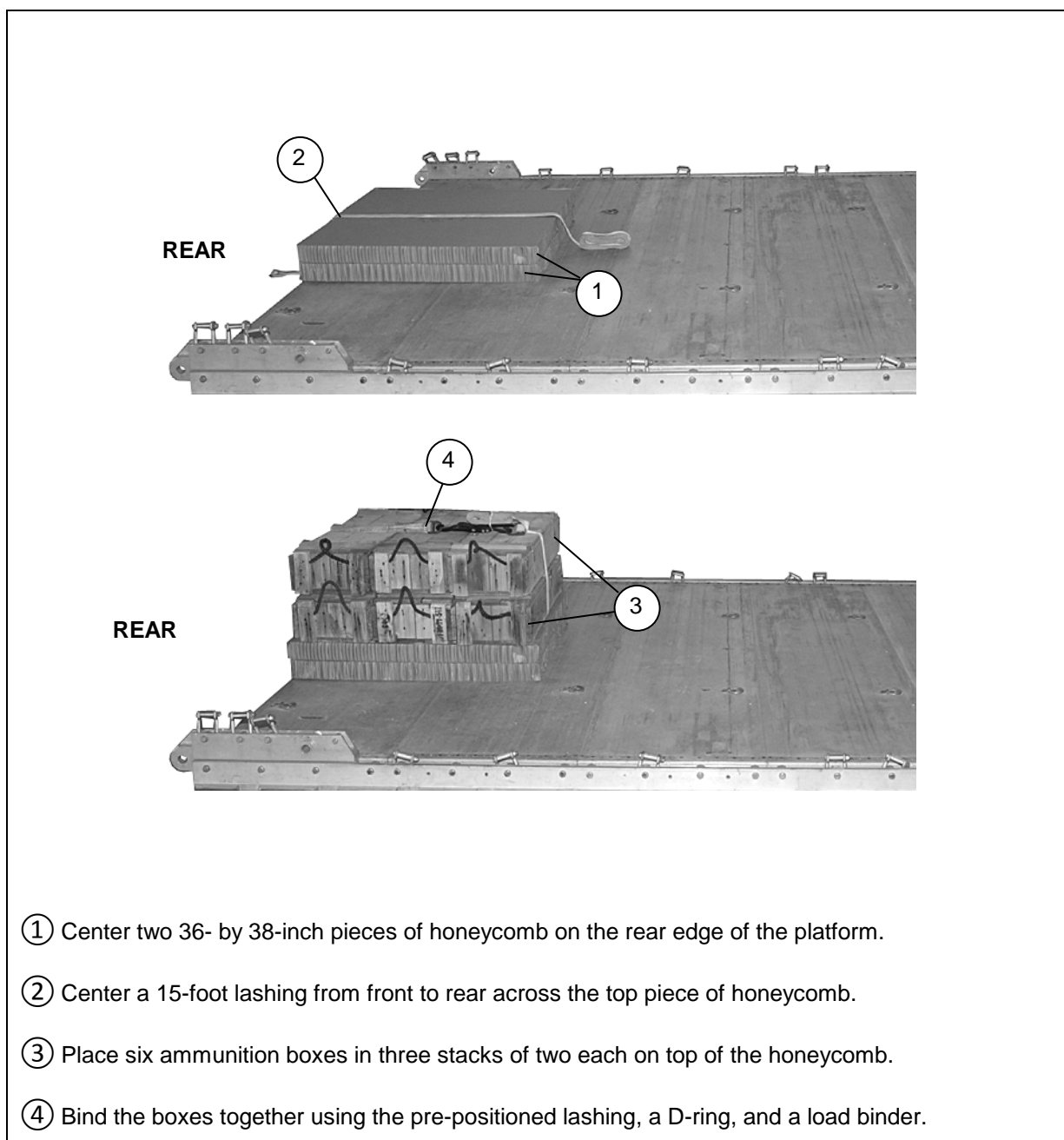


Figure 2-5. Ammunition Boxes Positioned on the Rear of the Platform

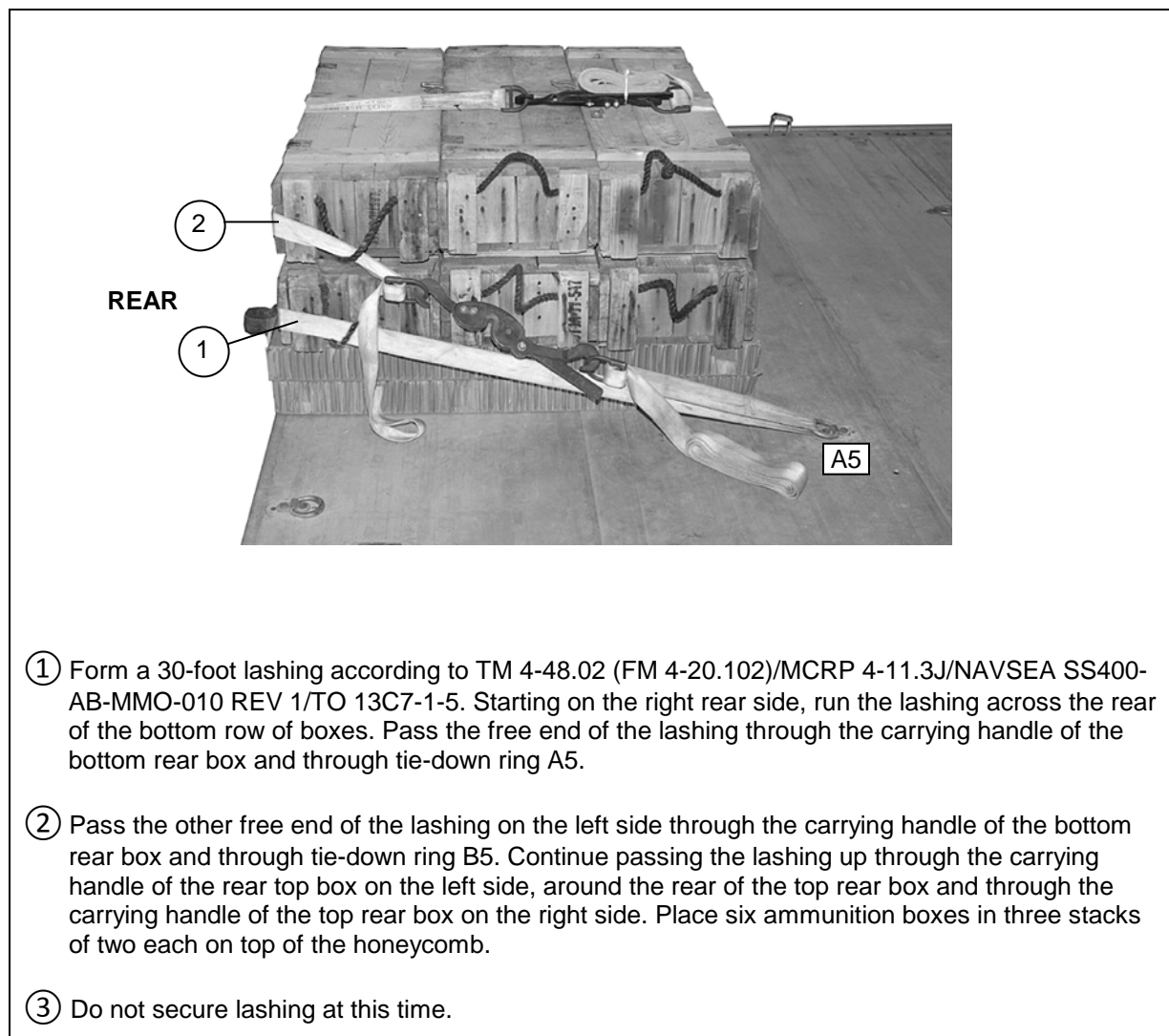
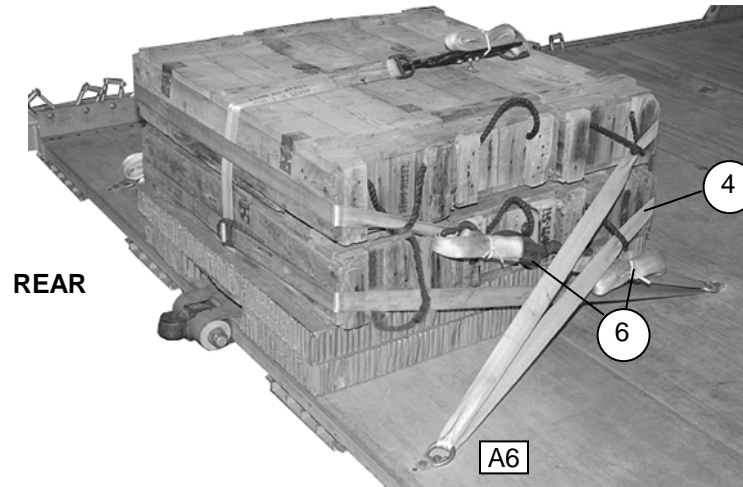
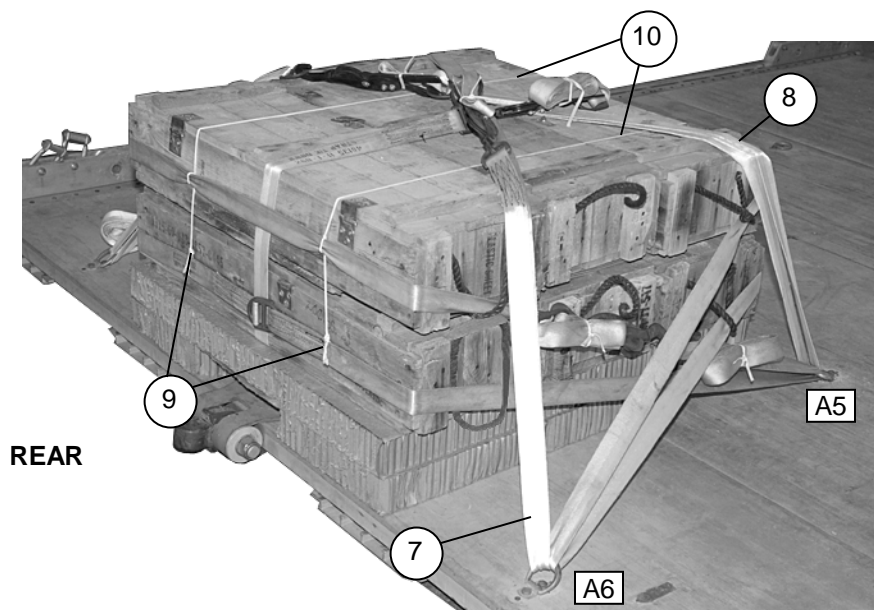


Figure 2-6. Ammunition Boxes Lashed and Secured on the Rear of the Platform



- ④ Form a 30-foot lashing according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/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 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 each side load binder simultaneously.

Figure 2-6. 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 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 load binder.
- ⑨ Safety tie the lashings in place using two lengths of type III nylon cord. Tie three alternating half hitches around the bottom of the lashing. Pass the cord around the top of the 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 of the lashing on the other side. Secure the lashing to the bottom lashing using three alternating half hitches and an overhand knot on the running end.

Figure 2-6. Ammunition Boxes Lashed and Secured on the Rear of the Platform (Continued)

BUILDING AND POSITIONING HONEYCOMB STACKS

2-4. Prepare the honeycomb stacks as shown in Figures 2-7 through 2-9. Position the stacks as shown in Figure 2-10.

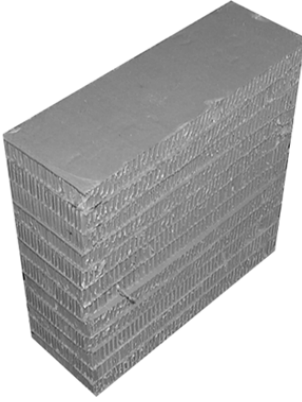
					
<i>Stack Number</i>	<i>Pieces</i>	<i>Width (Inches)</i>	<i>Length (Inches)</i>	<i>Material</i>	<i>Instructions</i>
1	12	36	12	Honeycomb	Glue to form base stack.

Figure 2-7. Honeycomb Stack Number 1 Prepared

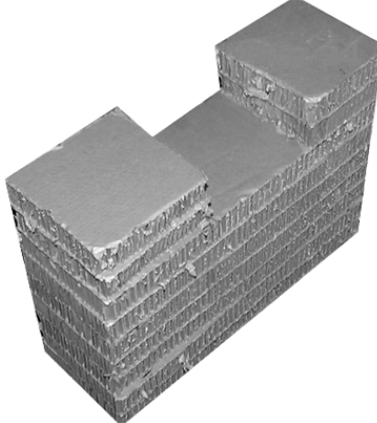
					
<i>Stack Number</i>	<i>Pieces</i>	<i>Width (Inches)</i>	<i>Length (Inches)</i>	<i>Material</i>	<i>Instructions</i>
2	7	36	12	Honeycomb	Glue to form base stack.
	4	12	12	Honeycomb	Glue two pieces flush on each side of the base.

Figure 2-8. Honeycomb Stack 2 Prepared

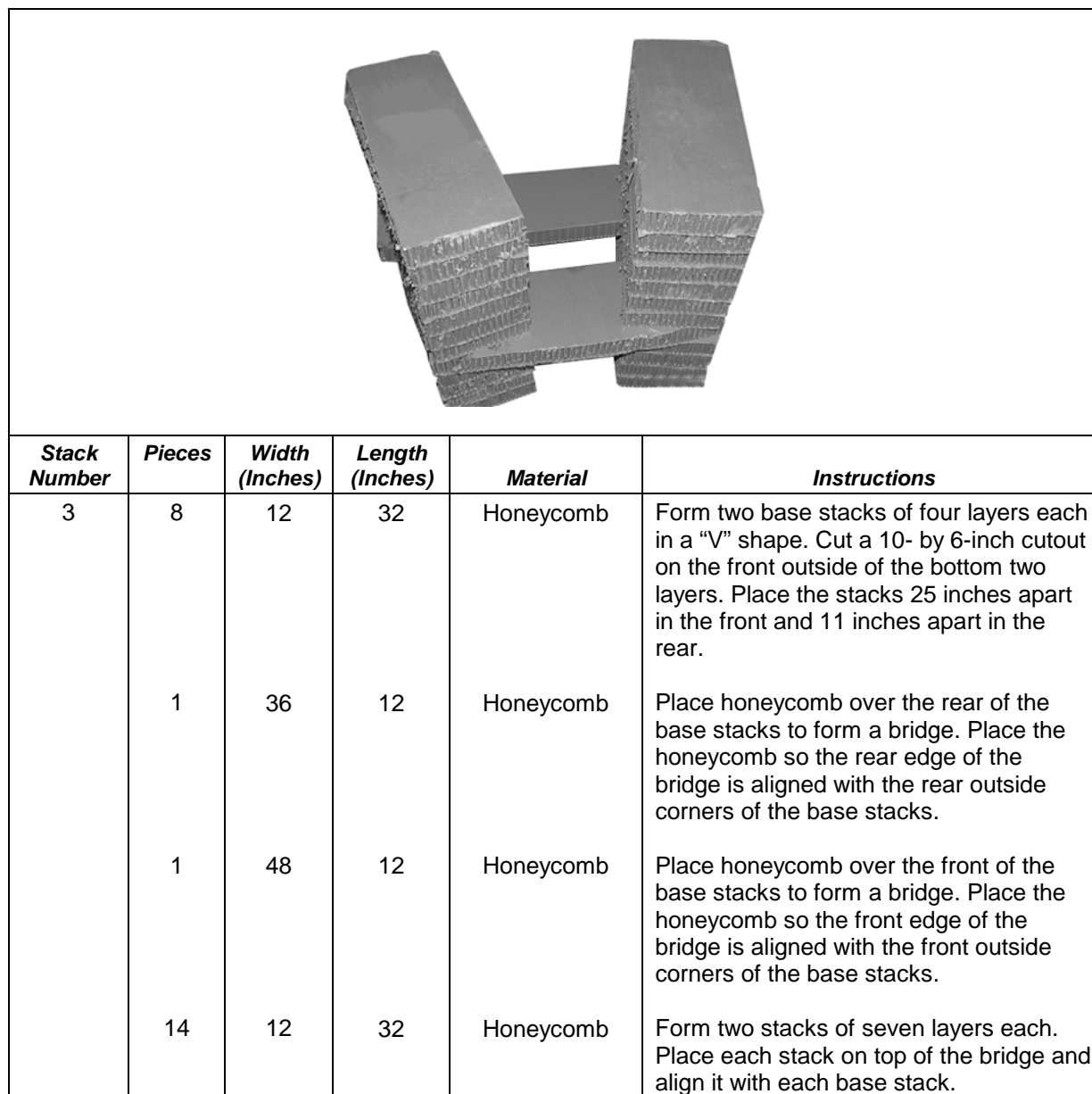
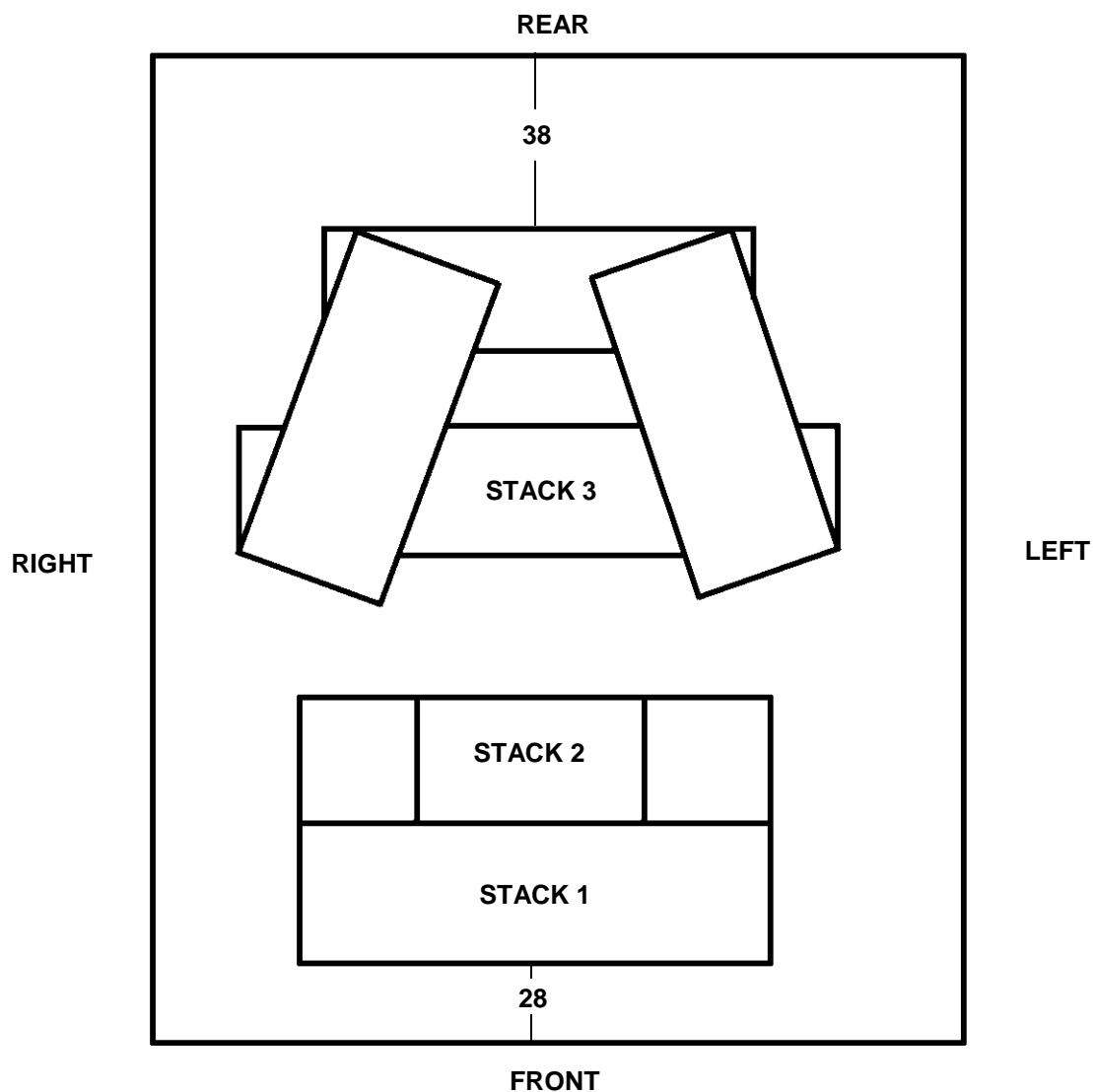


Figure 2-9. Honeycomb Stack 3 Prepared

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



Step:

1. Center the stack one 28 inches from the front edge of the platform.
2. Center stack 2 flush against the rear of stack 1.
3. Center stack three 38 inches from the rear edge of the platform.

Figure 2-10. Honeycomb Stacks Positioned on the Platform

PREPARING THE TRAILER

2-5. Prepare the trailer as shown in Figures 2-11 and 2-12. Remove the tarpaulin, bows, and side racks according to TM 9-2330-202-13&P.

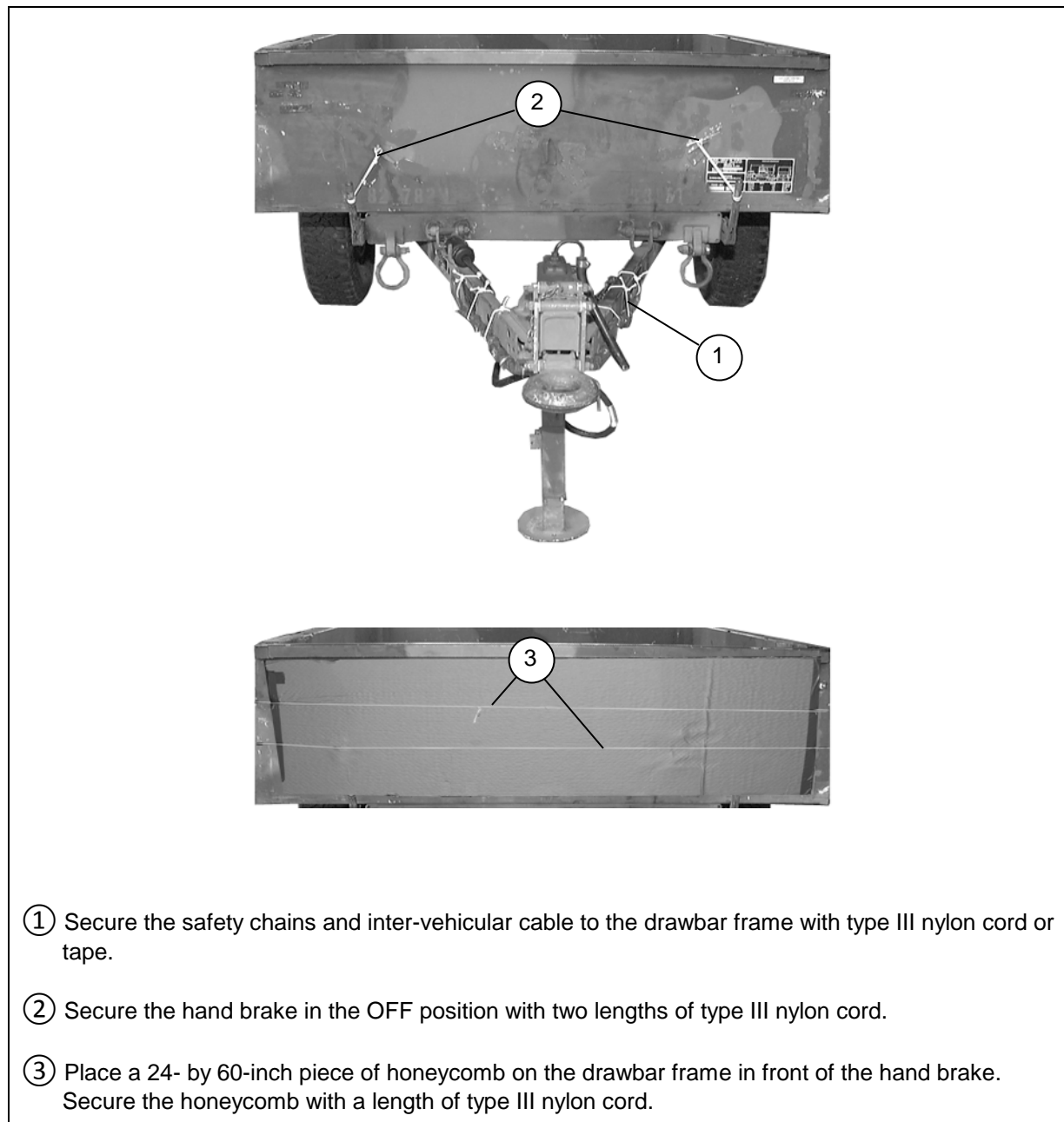
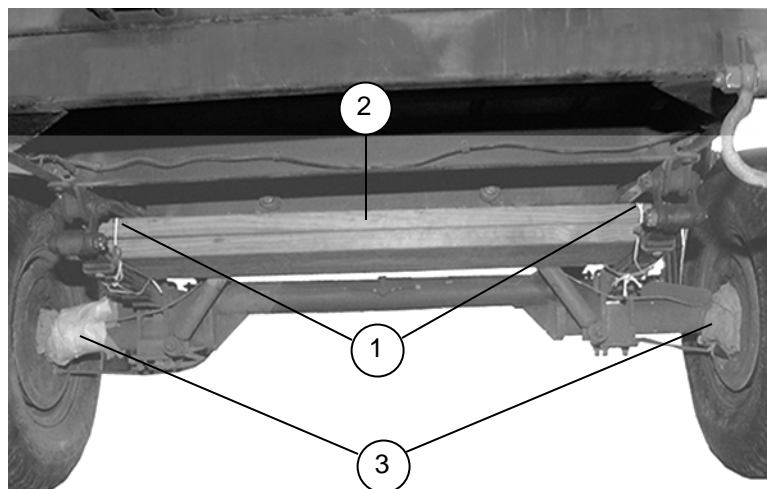


Figure 2-11 Front of Trailer Prepared



- ① Lay a piece of 2- by 8- by 46-inch lumber on top of the leaf springs and the frame.
- ② Place a piece of 2- by 12- by 46-inch lumber on top and centered on the 2- by 8- by 46-inch piece of lumber. Secure them with type III nylon cord.
- ③ Pad axles with cellulose wadding.
- ④ Tie the rear leg up to the frame with a length of type III nylon cord (not shown).

Figure 2-12. Rear of Trailer Prepared

STOWING ACCOMPANYING LOAD AND TRAILER COMPONENTS IN TRAILER

2-6. Stow the accompanying load of 12 ammunition boxes in the trailer as shown in Figures 2-13 and 2-14. Stow the trailer components as shown in Figure 2-15.

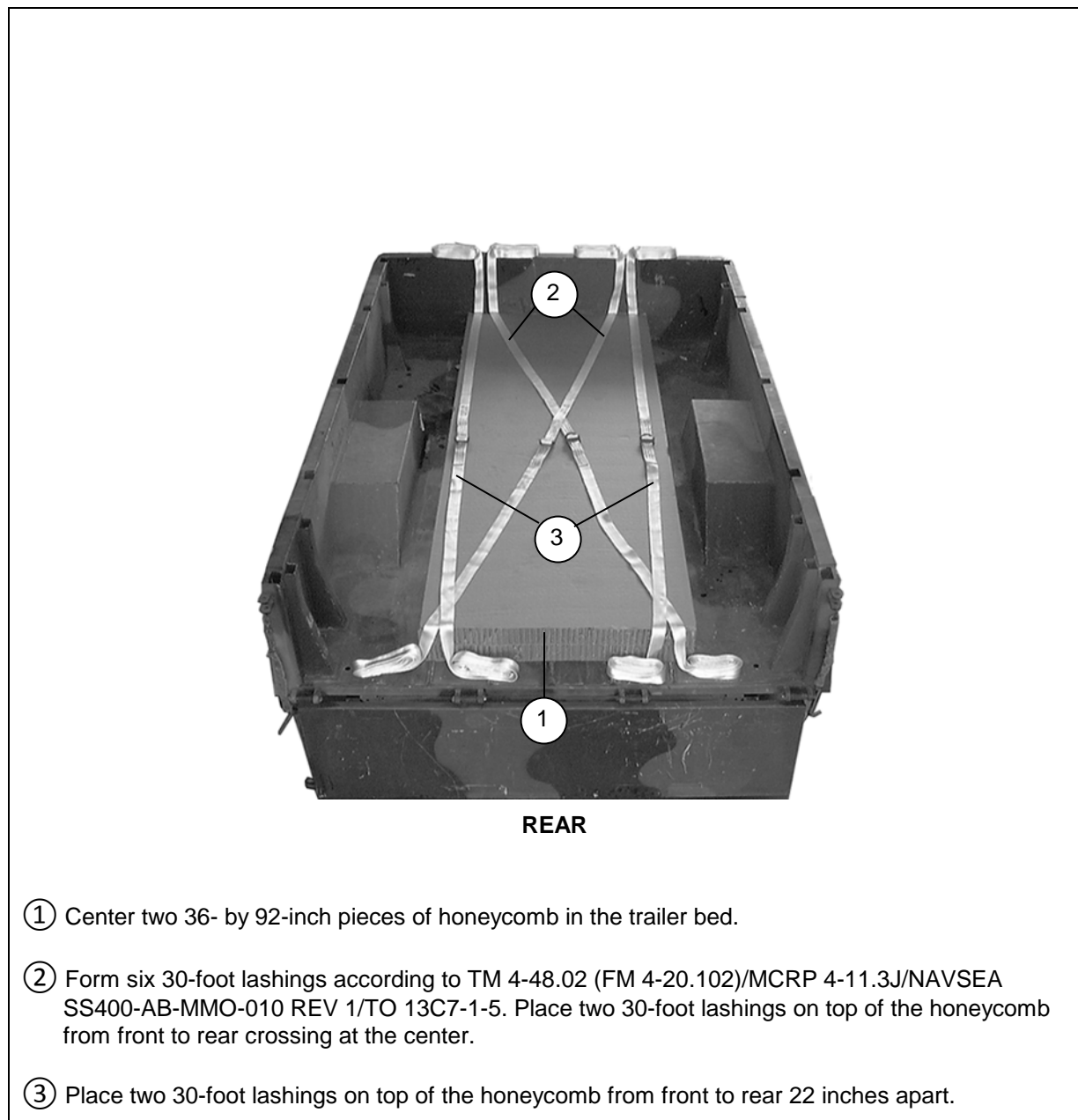
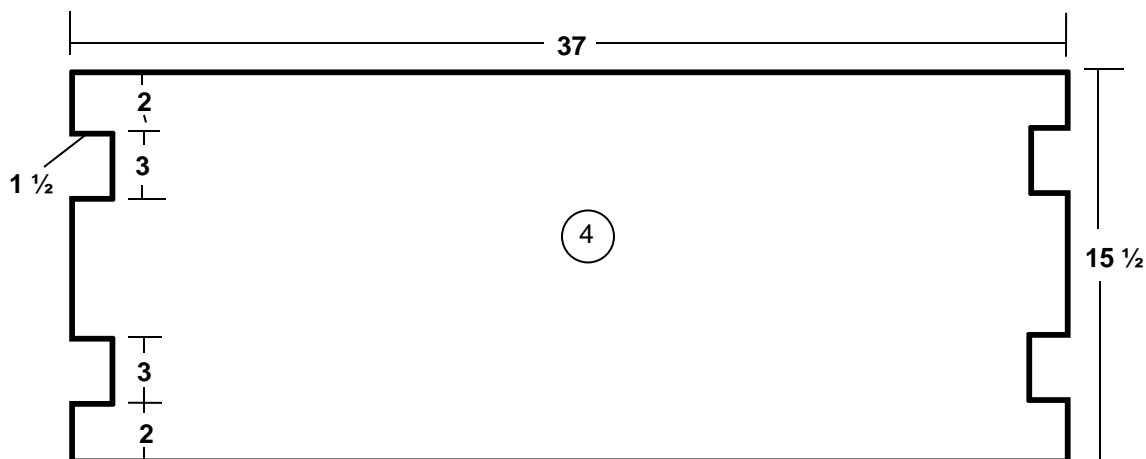
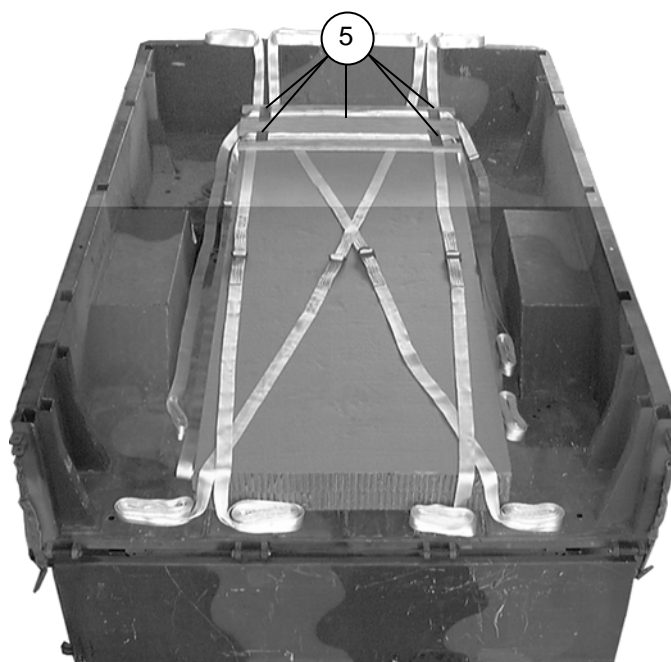


Figure 2-13. Honeycomb, Lashings, and End Boards Positioned in the Trailer

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

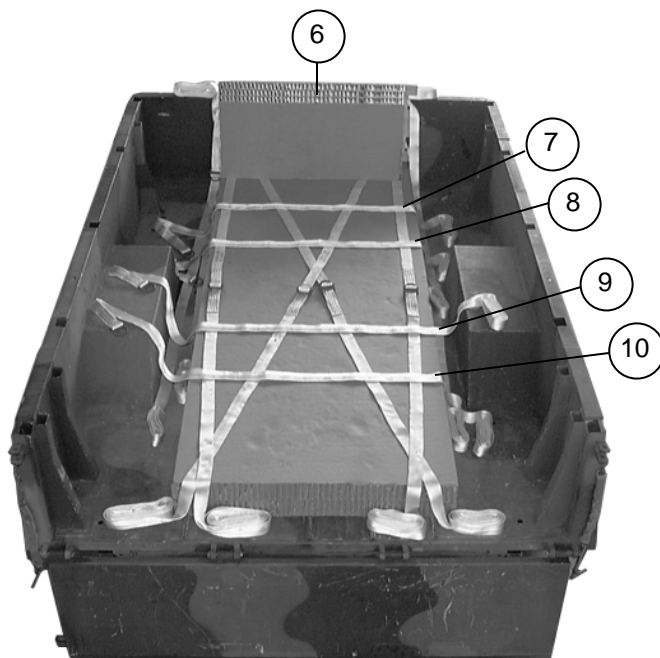


- ④ Cut two end boards as shown above using 3/4-inch piece of plywood.



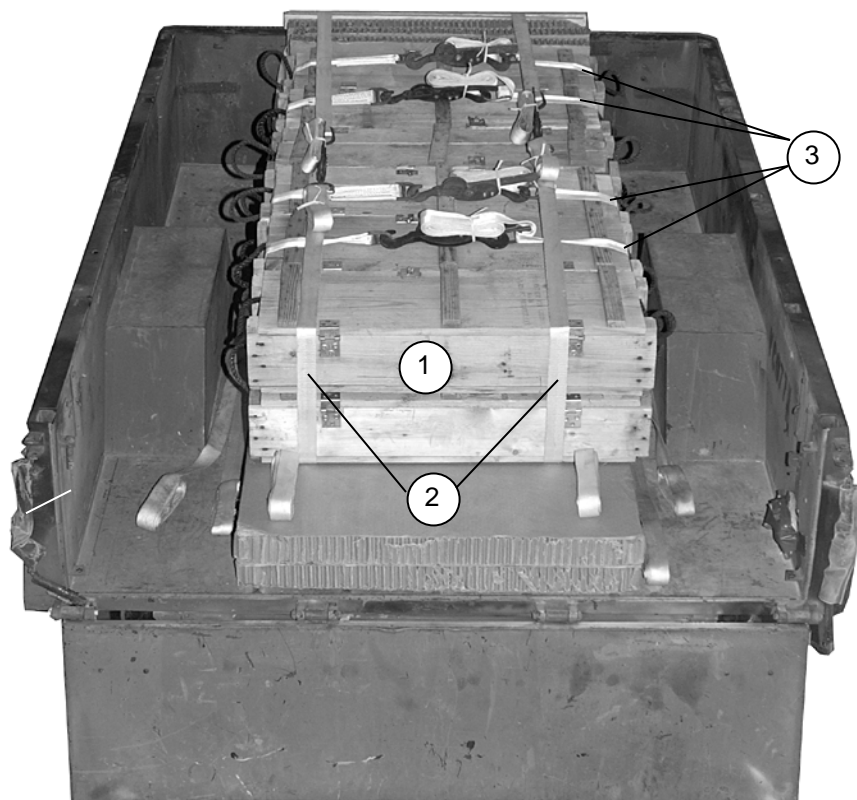
- ⑤ Place end boards in the front of the trailer on top of the honeycomb. Place two 30-foot lashings on the back of the two end boards, and tape the lashings in place.

Figure 2-13. Honeycomb, Lashings, and End Boards Positioned in the Trailer (Continued)



- ⑥ Place the end boards against the front of the trailer bed. Cut and position three 15- by 36-inch pieces of honeycomb against the end board.
- ⑦ Place one 15-foot lashing on the top of the honeycomb from left to right 16 inches from the front of the trailer.
- ⑧ Place one 15-foot lashing on the top of the honeycomb from left to right 27 inches from the front of the trailer.
- ⑨ Place one 15-foot lashing on the top of the honeycomb from left to right 57 1/2 inches from the front of the trailer.
- ⑩ Place one 15-foot lashing on the top of the honeycomb from left to right 70 inches from the front of the trailer.

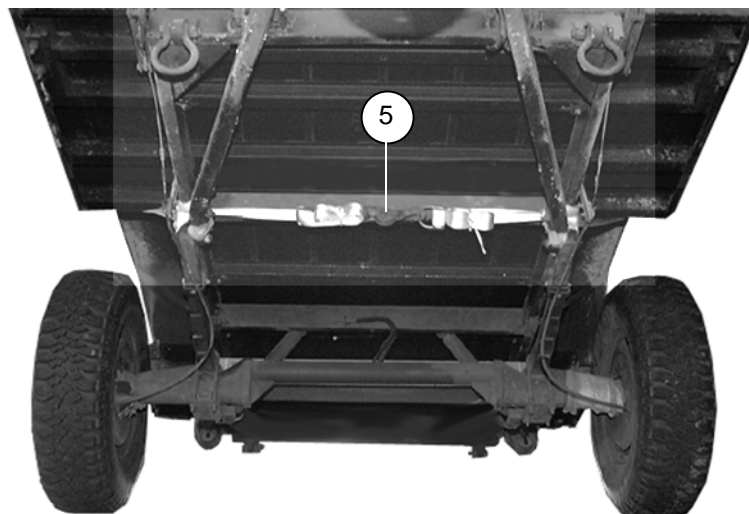
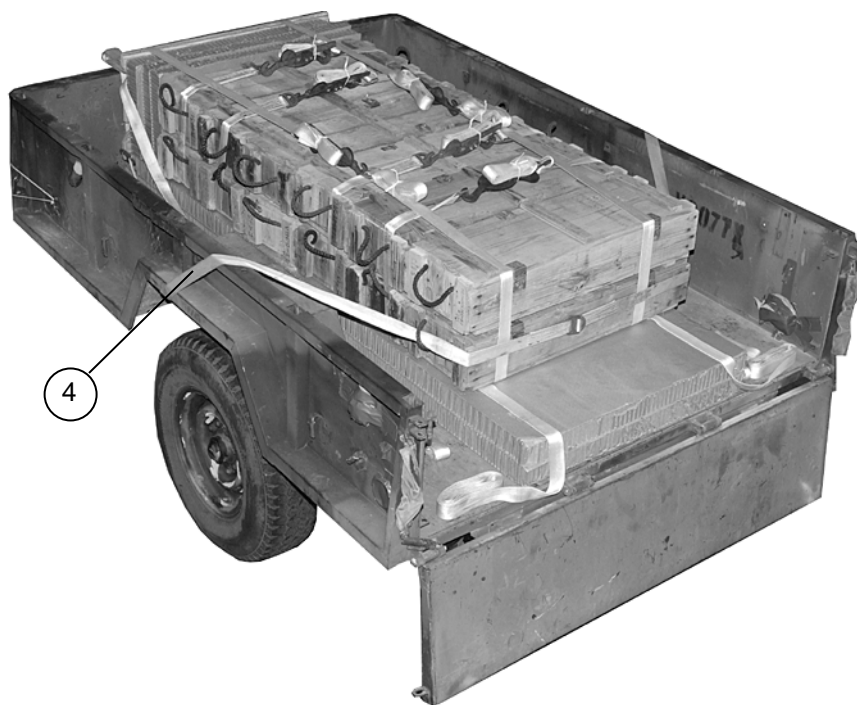
Figure 2-13. Honeycomb, Lashings, and End Boards Positioned in the Trailer (Continued)



- 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.

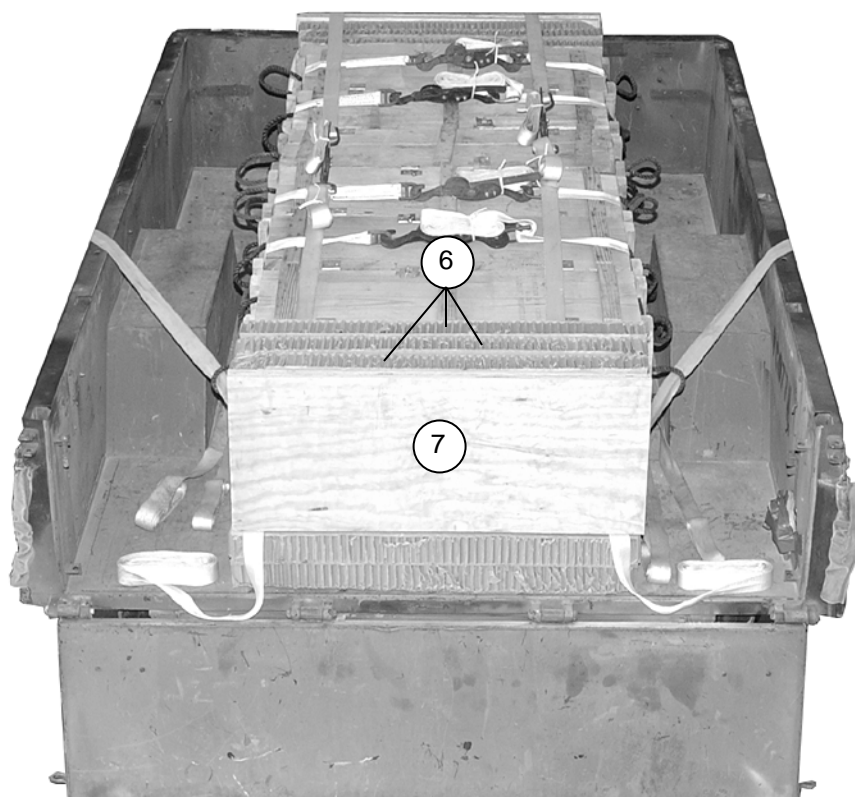
Note. The lashings may need to be adjusted slightly after the ammunition boxes are set in place.

Figure 2-14. Ammunition Boxes Lashed and Secured in the Trailer



- ④ Form a 30-foot lashing according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/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.
- ⑤ Secure the lashing in front of the second cross member of the trailer with two D-rings and a load binder.

Figure 2-14. Ammunition Boxes Lashed and Secured in the Trailer (Continued)



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

⑦ Cut and place two 3/4- by 15- by 36-inch pieces of plywood flush against the honeycomb.

Figure 2-14. Ammunition Boxes Lashed and Secured in the Trailer (Continued)

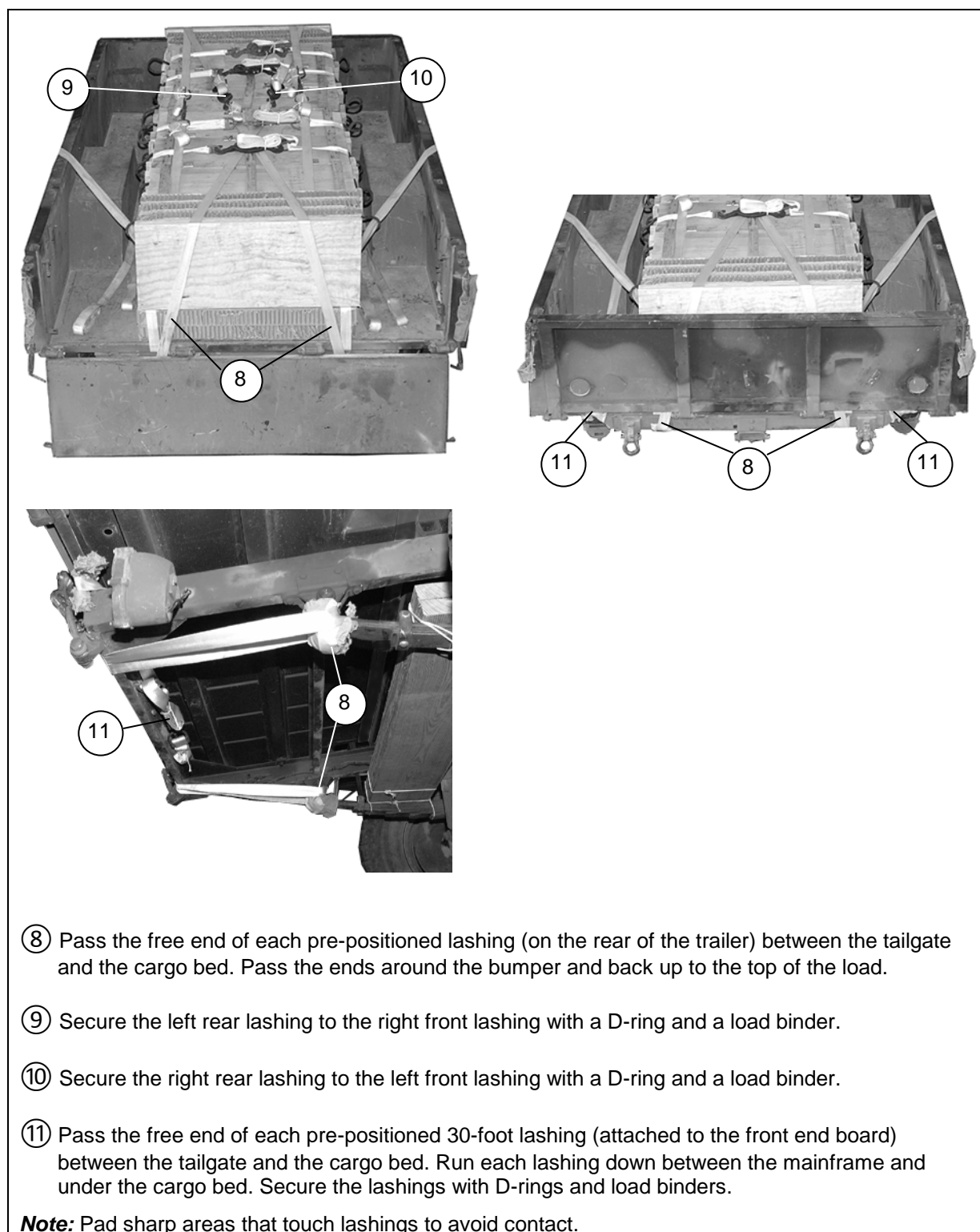
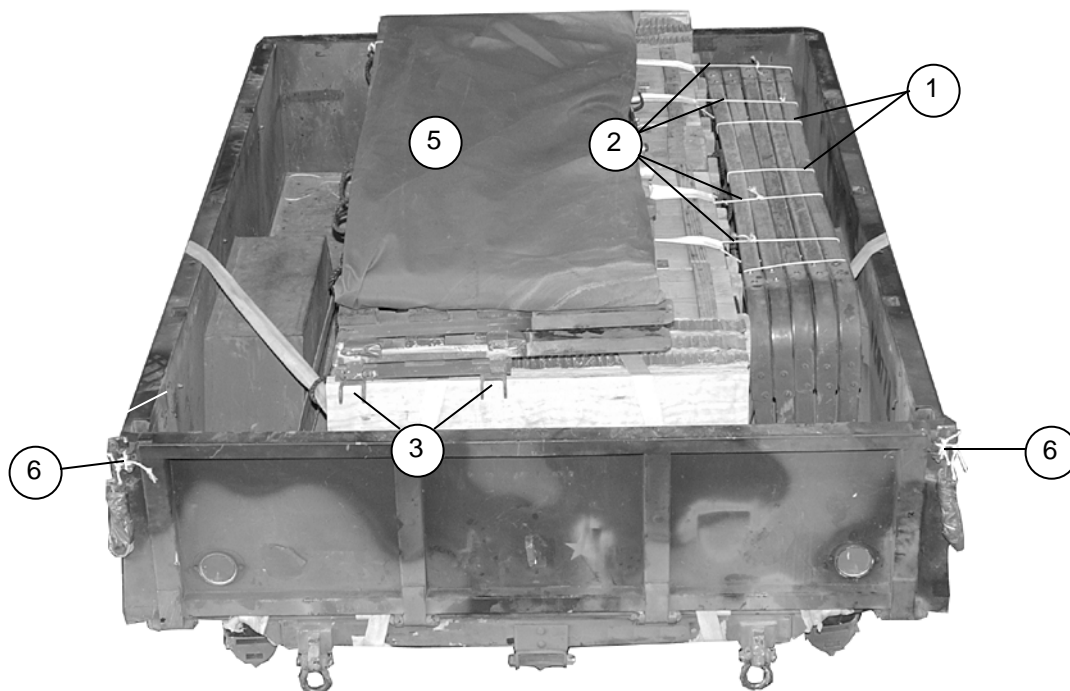


Figure 2-14. Ammunition Boxes Lashed and Secured in the Trailer (Continued)



- 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 Cover the ends of the side racks with cellulose wadding and tape. 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 (not shown).
- ⑤ Fold the tarpaulin and center it on top of the accompanying load.
- ⑥ Close the tailgate, and tie the latches with type III nylon cord.

Figure 2-15. Trailer Components Stowed.

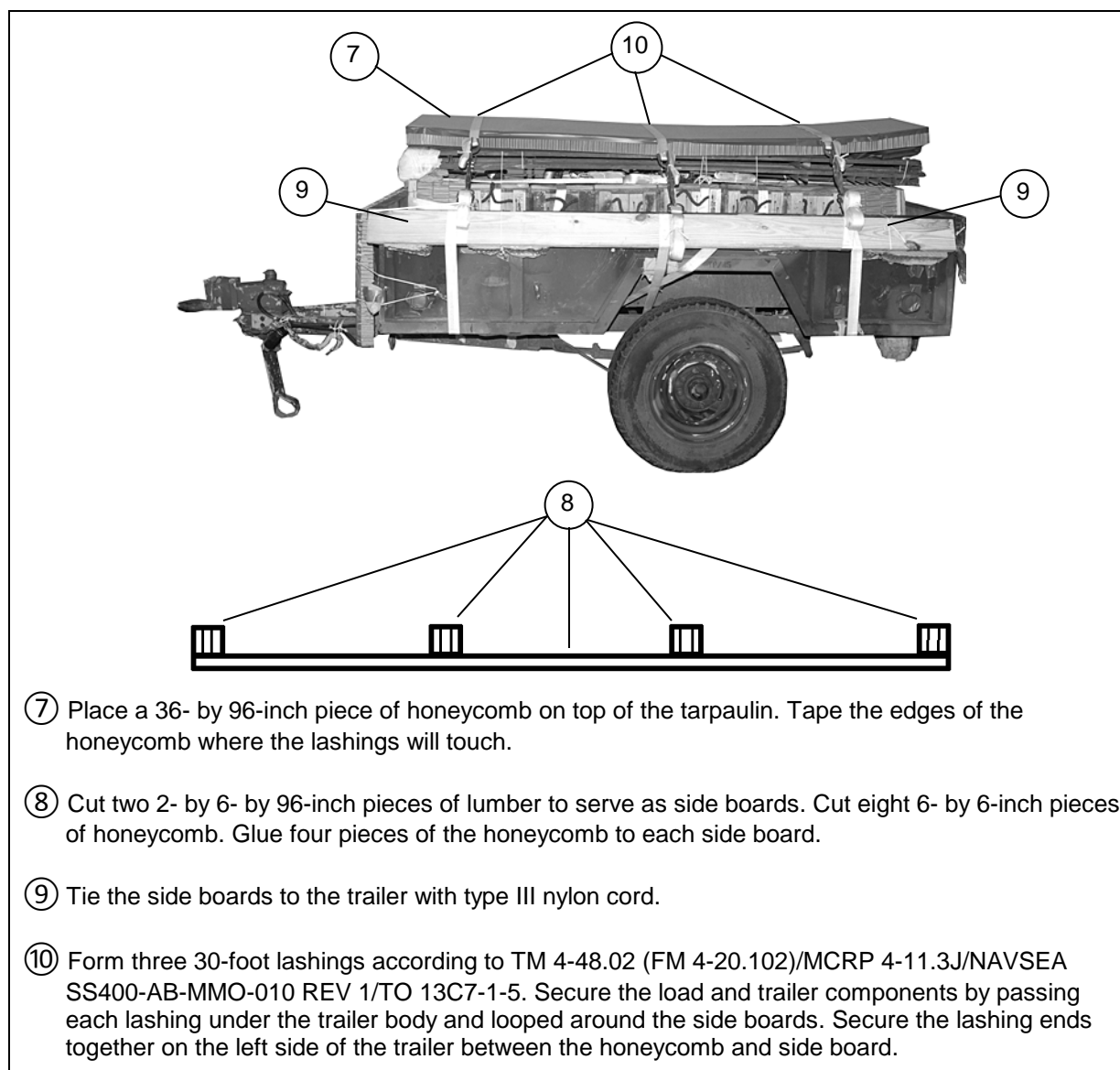


Figure 2-15. Trailer Components Stowed (Continued)

INSTALLING SUSPENSION SLINGS

2-7. Raise and secure the trailer support stand as shown in Figure 2-16. Use three 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.

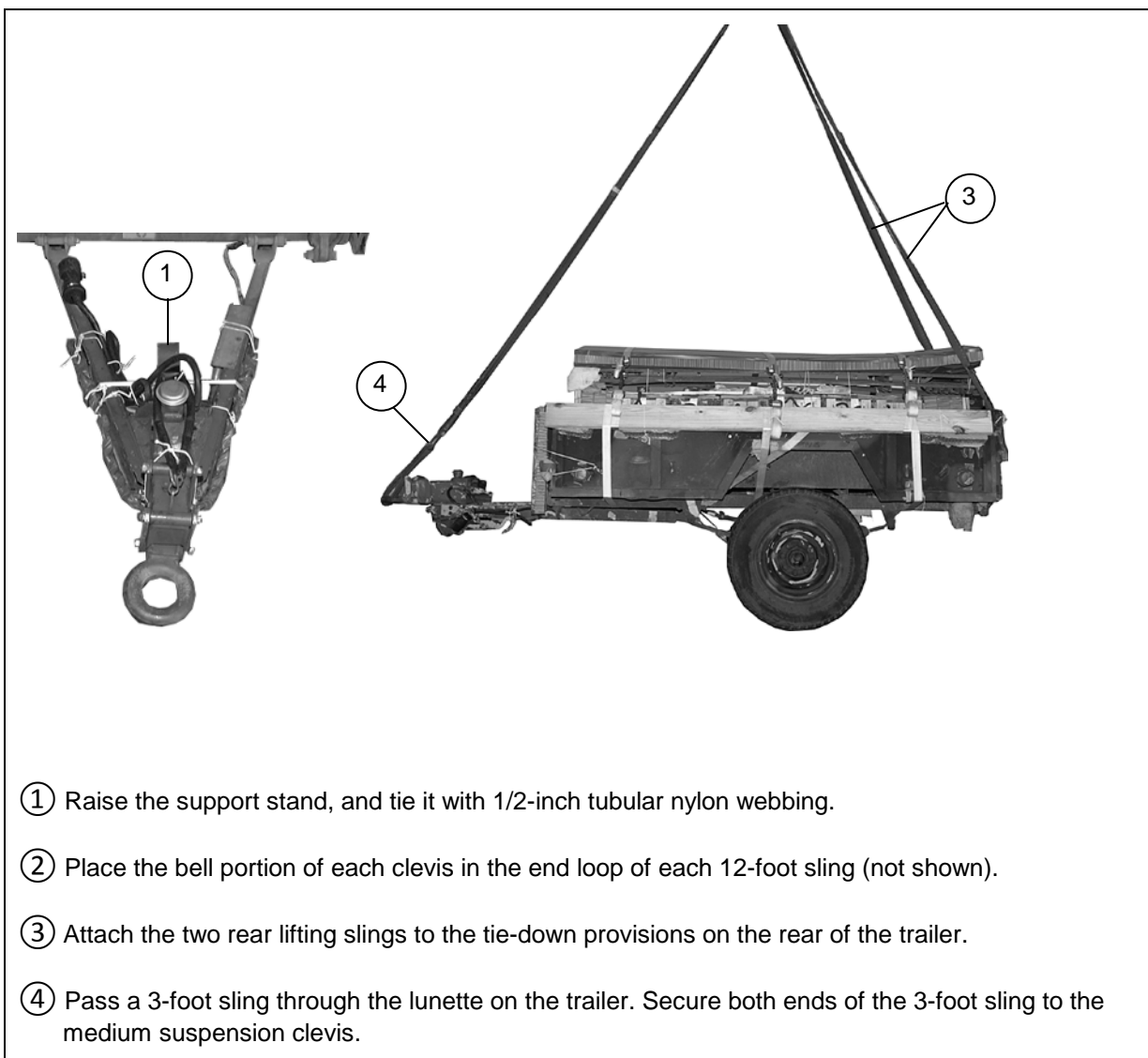


Figure 2-16. Lifting Slings Installed

LIFTING AND POSITIONING TRAILER

2-8. Lift the trailer using the slings and position it on the honeycomb stacks as shown in Figure 2-17.

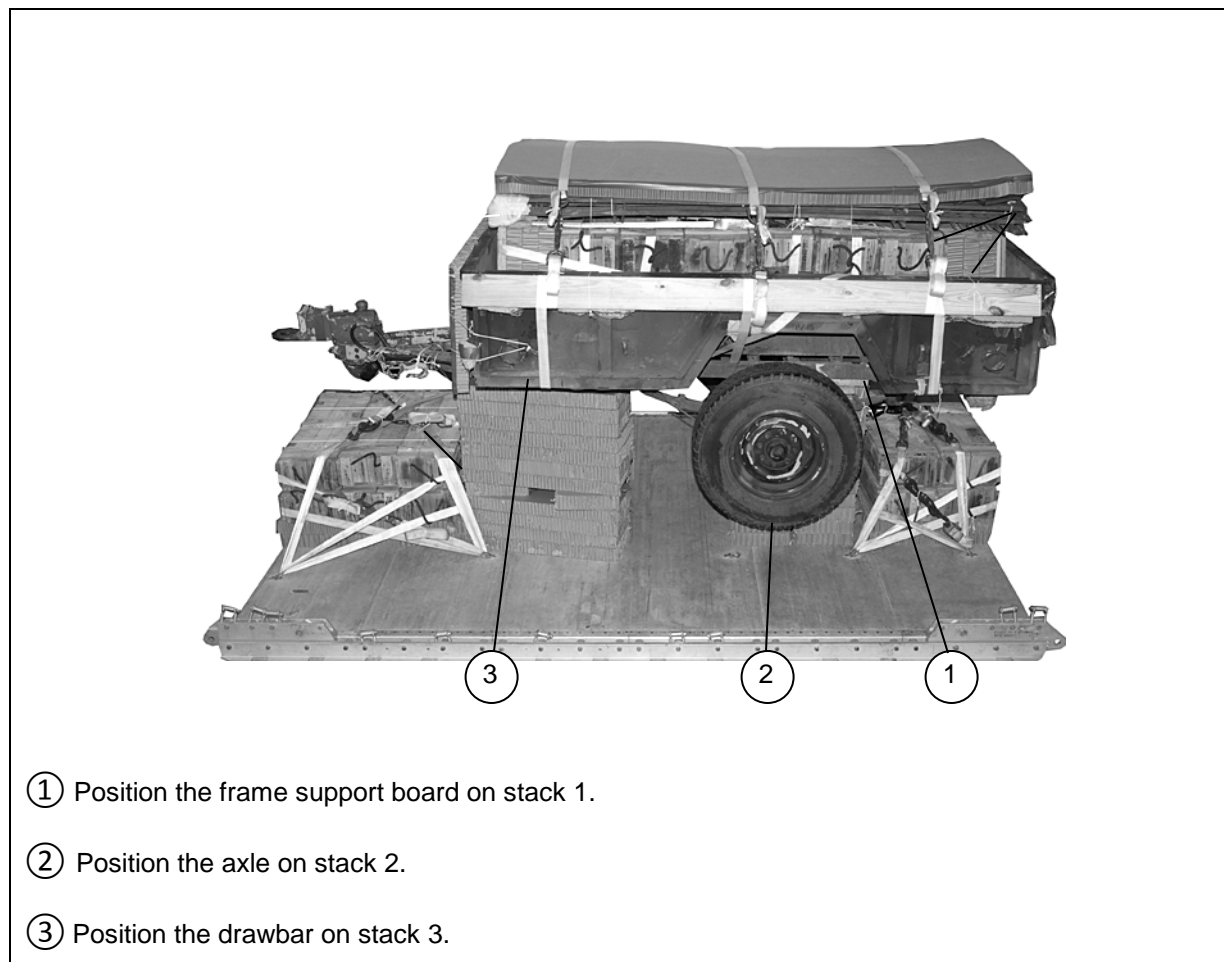
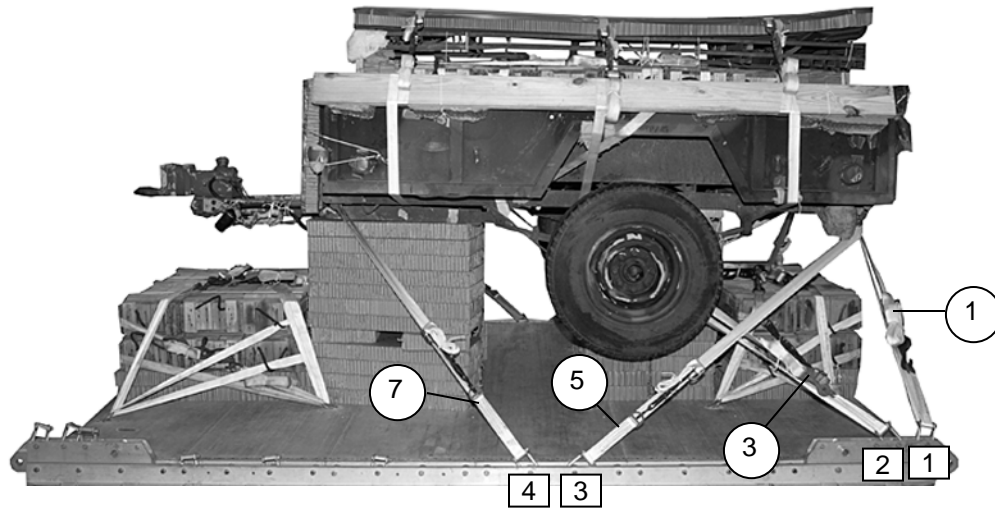


Figure 2-17. Trailer Positioned

LASHING TRAILER

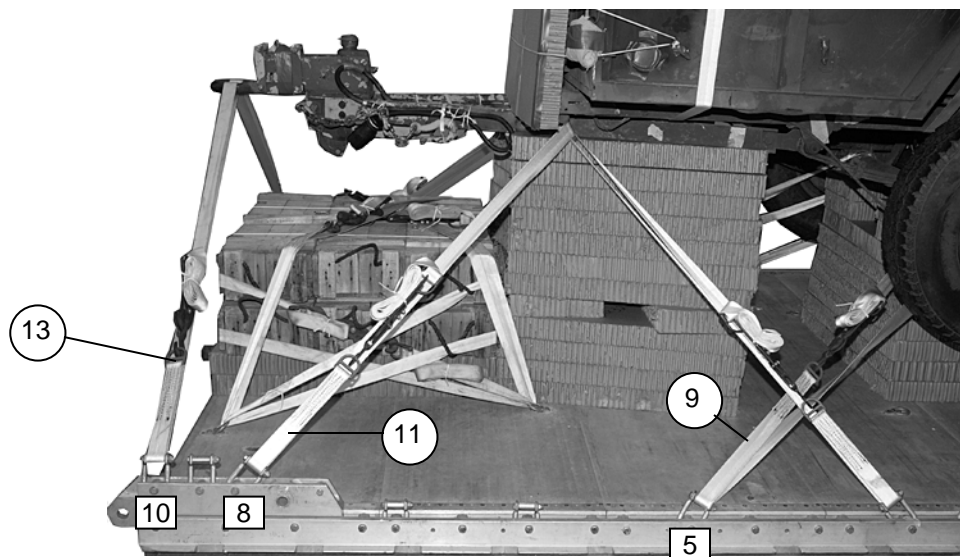
2-9. Lash the trailer to the platform according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figures 2-18 and 2-19.



Note: Left and right refer to the vehicle not the platform.

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

Figure 2-18. Lashings 1 through 8 Installed



Note: Left and right refer to the vehicle not the platform.

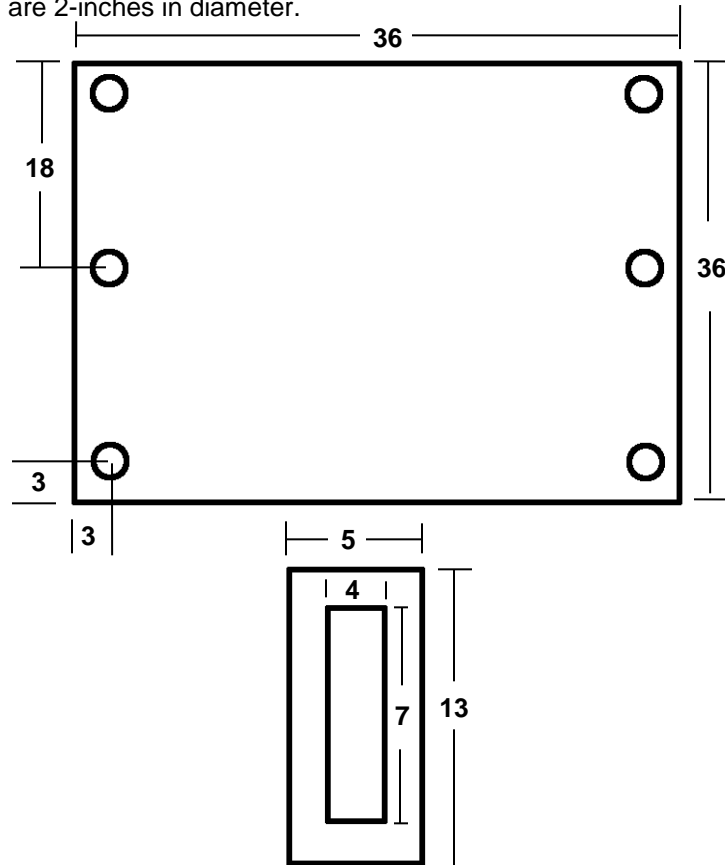
<i>Lashing Number</i>	<i>Tie-down Clevis Number</i>	<i>Instructions</i>
9	5	Pass lashing: Around the left side of the axle.
10	5A	Around the right side of the axle.
11	8	Through the left front lifting shackle.
12	8A	Through the right front lifting shackle.
13	10	Through the lunette.
14	10A	Through the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

Figure 2-19. Lashings 9 through 14 Installed

BUILDING AND INSTALLING PARACHUTE STOWAGE PLATFORM

2-10. Build the parachute stowage platform as shown in Figure 2-20. Install the parachute stowage platform using four 15-foot tie-down assemblies as shown in Figure 2-21.

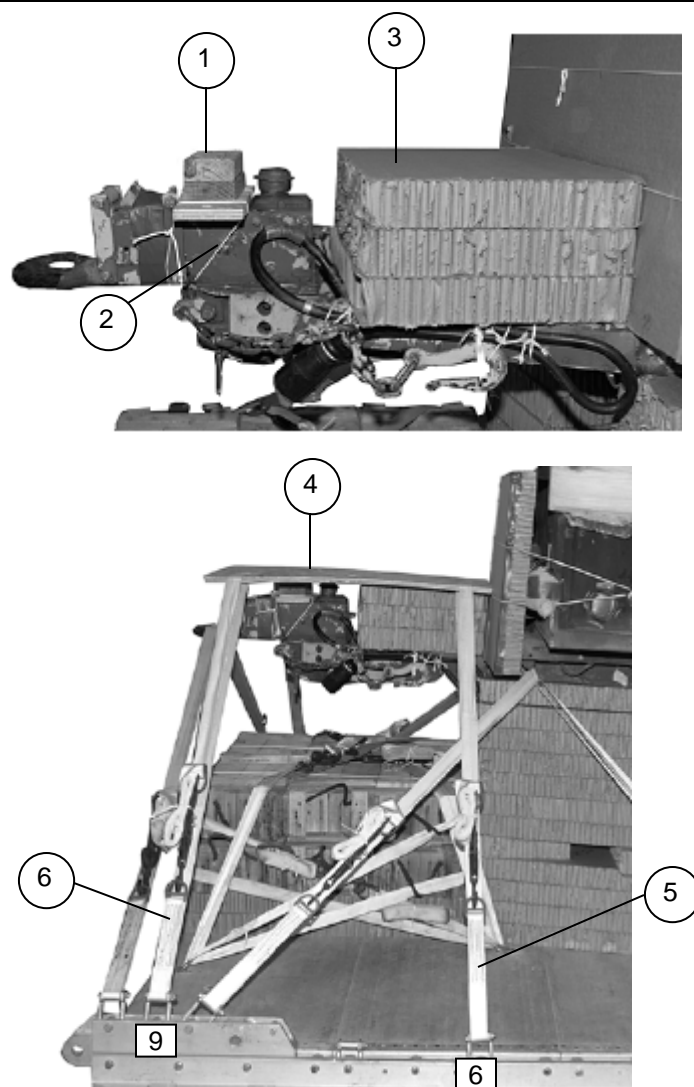
- Notes.** 1. All measurements are given in inches.
2. This drawing is not drawn to scale.
3. All holes are 2-inches in diameter.



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 center of the left and right side of the platform.
4. Cut a 3/4- by 5- by 13-inch piece of plywood.
5. Cut two 2- by 4- by 7-inch pieces of lumber and nail together using 16d nails.
6. Center the two 2- by 4- by 7-inch pieces of lumber on top of the 3/4- by 5- by 13-inch piece of plywood and nail together using 16d nails.

Figure 2-20. Parachute Stowage Platform Built



- ① Place the wooden support on top of the brake housing.
- ② Secure the wooden support down to the brake housing with type III nylon cord.
- ③ Cut and position three 17- by 22-inch pieces of honeycomb on top of the drawbar flush against the honeycomb on the front of the trailer.
- ④ Place the parachute stowage platform on top of the honeycomb with the smooth side of plywood facing up.
- ⑤ Run the free end of a 15-foot lashing from clevis 6 through the front hole of parachute stowage platform. Secure with D-ring and a load binder. Repeat for clevis 6A.
- ⑥ Run the free end of a 15-foot lashing from clevis 9 through the rear hole of parachute stowage platform. Secure with D-ring and a load binder. Repeat for clevis 9A.

Figure 2-21 Parachute Stowage Platform Installed

INSTALLING AND SAFETY TIEING SUSPENSION SLINGS

2-11. Install and safety tie the suspension slings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figures 2-22.

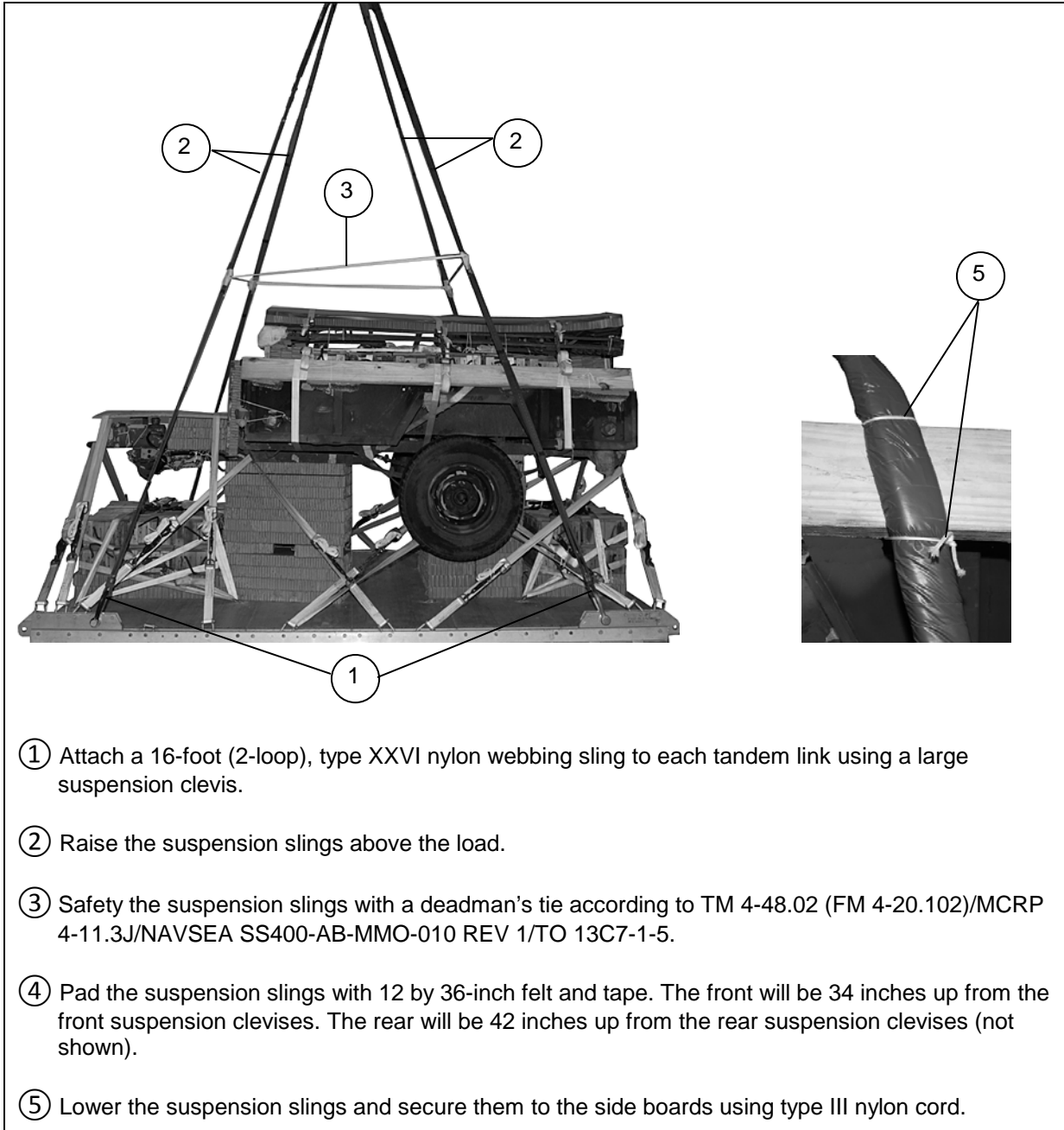


Figure 2-22 Suspension Slings Installed and Safety Tied

STOWING CARGO PARACHUTES

2-12. Stow and restrain two G-11B cargo parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 2-23.

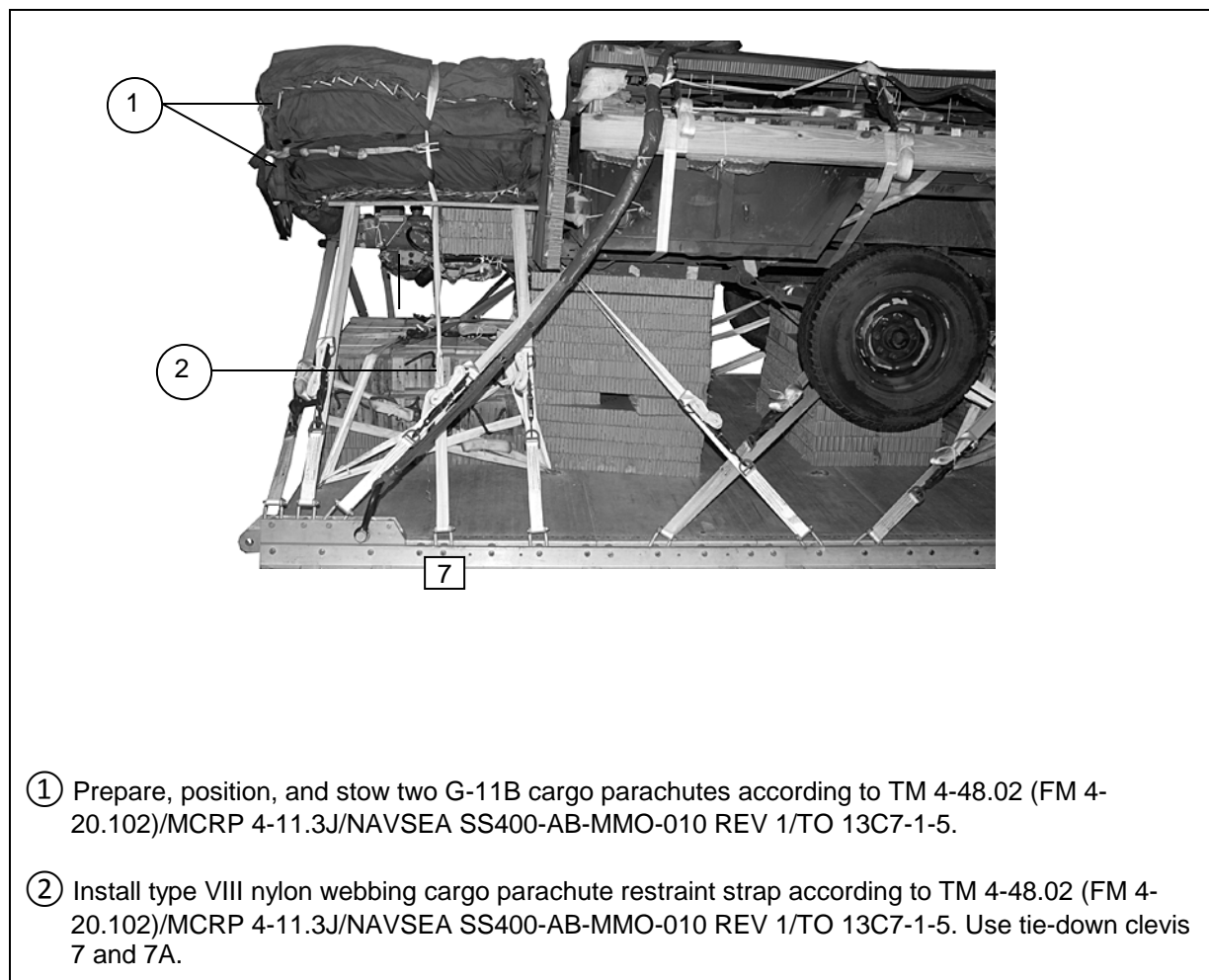


Figure 2-23. Cargo Parachutes Stowed

INSTALLING THE EXTRACTION SYSTEM

2-13. Install the extraction force transfer coupler (EFTC) extraction system according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 2-24.

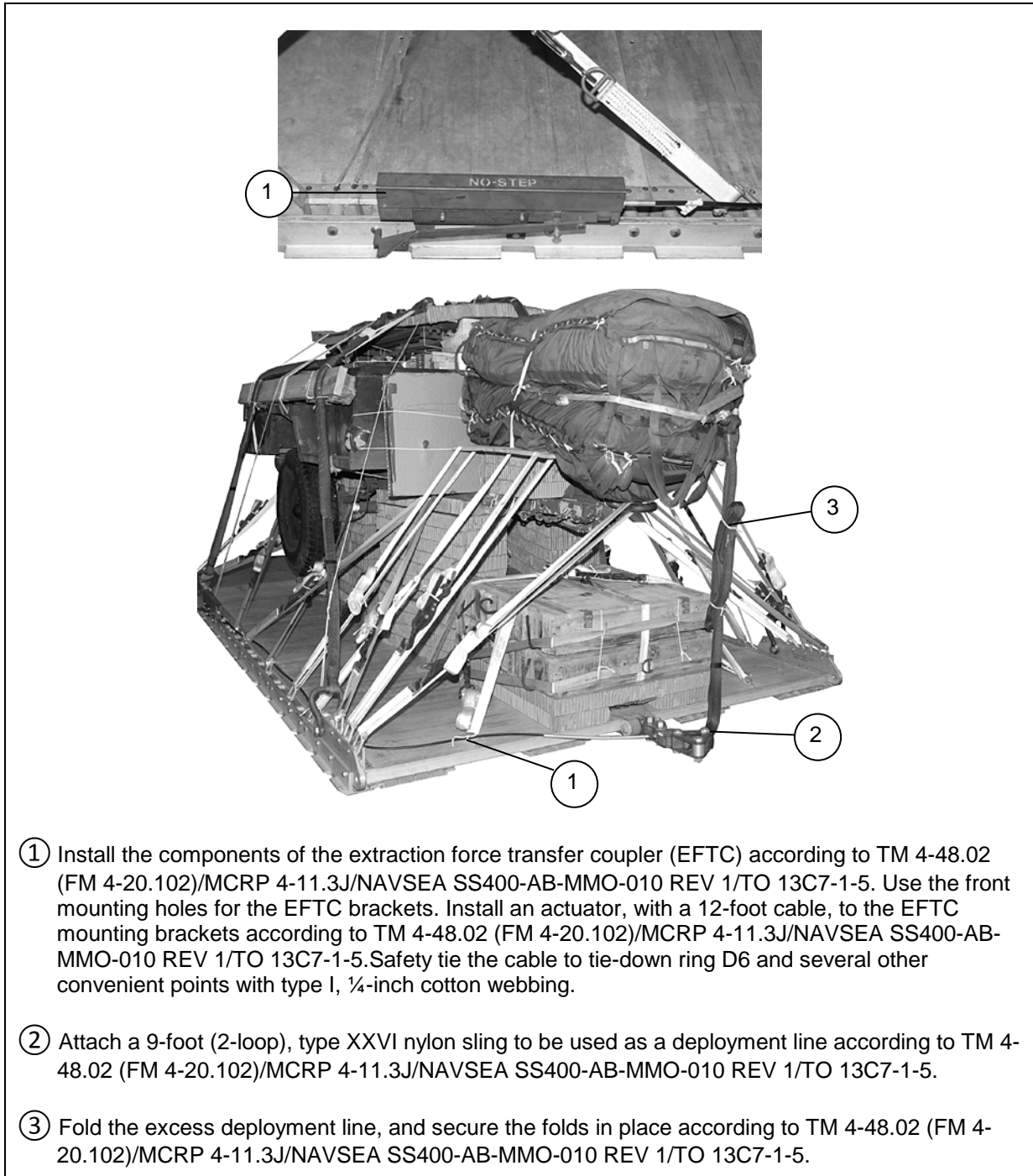
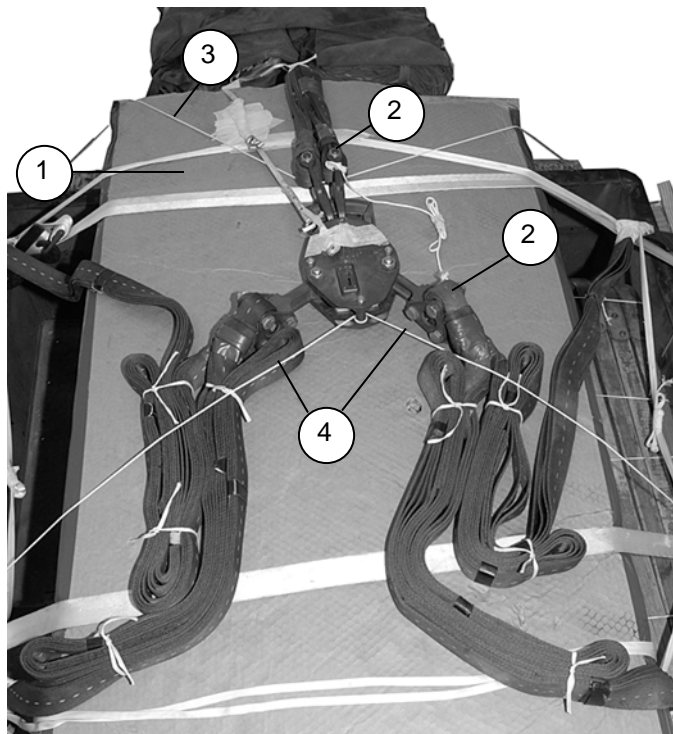


Figure 2-24. Extraction System Installed

INSTALLING THE RELEASE SYSTEM

2-14. Prepare the M-1 cargo parachute release assembly according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Install the release assembly as shown in Figure 2-25.



- ① Place the M-2 cargo parachute release assembly on top of the accompanying load and install it according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.
- ② Attach the riser extensions to the upper suspension links and the suspension slings to the lower suspension links of the M-1 parachute release assembly.
- ③ Safety tie the top of the release assembly with type III nylon cord according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.
- ④ Safety tie the bottom of the release assembly with type III nylon cord according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

Figure 2-25. M-1 Cargo Parachute Release Assembly Installed

INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

2-15. Install the provisions for emergency restraints on the load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

PLACING EXTRACTION PARACHUTE

2-16. Select the extraction parachute and extraction line needed using the extraction line requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Rig the extraction line in an extraction line bag according to TM 10-1670-286-20/TO 13C5-2-41. Place the extraction parachute and extraction line on the load for installation in the aircraft.

MARKING RIGGED LOAD

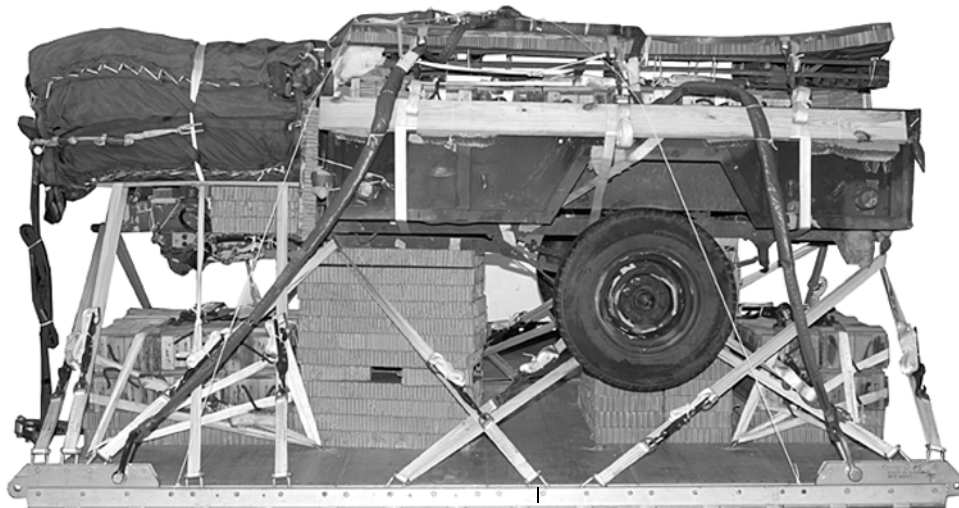
2-17. Mark the rigged load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 2-26. Complete Shipper's Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, Center of Balance (CB), and parachute requirements must be recomputed.

EQUIPMENT REQUIRED

2-18. Use the equipment listed in Table 2-1 to rig this load.

CAUTION

Make the final rigger inspection required by AR 59-4 and TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 before the load leaves the rigging site.



Center of Balance (CB)

RIGGED LOAD DATA

Weight: Load Shown.....5,920 pounds
 Maximum Allowed.....8,000 pounds
 Height.....72 inches
 Width.....108 inches
 Overall Length163 inches
 Overhang: Front.....0
 Rear.....0
 Center of Balance (CB) (from front edge of the platform).....70 inches
 Extraction System with 12-foot cable (adds 18 inches to the length of the load)

Figure 2-25. M101A2, ¾-Ton Trailer and Accompanying Load on a Type V Platform Rigged for Low-Velocity Airdrop

Table 2-1. Equipment Required for Rigging the M101, M101A1, and M101A2, ¾ Ton Cargo Trailer for Low-Velocity Airdrop

<i>National Stock Number</i>	<i>Item</i>	<i>Quantity</i>
8040-00-273-8713	Adhesive paste, 1-gal.	As required
4030-00-090-5354	Clevis, suspension, 1-inch (large)	5
4030-00-678-8562	Clevis, suspension, 3/4-inch (medium)	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
1670-00-360-0328	Cover, clevis	2
8135-00-664-6958	Cushioning material (Cellulose wadding)	As required
8305-00-958-3685	Felt, 1/2-inch thick	As required
1670-00-003-4391	Knife, miniature, cutter	1
1670-01-183-2678	Leaf, extraction line (line bag) (add 2 for C-17)	2
	Line extraction:	
1670-01-064-4452	60-foot (1-loop), type XXVI (for C-130)	1
1670-01-107-7652	160-foot (1-loop), type XXVI (for C-17)	1
1670-01-064-4452	60-foot (1-loop), type XXVI (for C-17), (drogue line)	1
1670-00-783-5988	Link assembly, type IV (C-17 only)	1
1670-01-493-6418	Link assembly, two-point, small, 3 ¾-inch	1
	Lumber:	
5510-00-220-6146	2- by 4- 96-inch	1
5510-00-220-6148	2- by 6- by 96-inch	3
5510-00-220-6250	2- by 12- by 96-inch	1
5315-00-753-3885	Nail, steel, common, 16D	As required
1670-00-753-3928	Pad, energy-dissipating (honeycomb)	20 sheets
1670-01-016-7841	Parachute, cargo, G-11B	2
	Parachute, cargo, extraction:	
1670-01-063-3715	15-foot (add one for C-17)	1
	Platform, airdrop, type V, 12-foot:	
1670-01-162-2372	Clevis assembly (type V)	20
1670-01-162-2376	Extraction bracket assembly	1
1670-01-162-2381	Tandem link assembly (Multipurpose link)	4
5530-00-128-4981	Plywood, 3/4-inch	1 sheet
Legend:	gal= gallon, lb = pound, ft = feet, D = penny	

Table 2-1. Equipment Required for Rigging the M101, M101A1, and M101A2, $\frac{3}{4}$ Ton Cargo Trailer for Low-Velocity Airdrop (Continued)

<i>National Stock Number</i>	<i>Item</i>	<i>Quantity</i>
1670-01-097-8816	Release, cargo parachute, M-1	1
	Sling, cargo, airdrop:	
1670-01-062-6301	3-foot (2-loop), type XXVI	1
1670-01-062-6304	9-foot (2-loop), type XXVI	1
1670-01-062-6303	12-foot (2-loop), type XXVI	3
1670-01-063-7761	16-foot (2-loop), type XXVI	4
1670-01-062-6302	20-foot (2-loop), type XXVI	2
5340-00-040-8219	Strap, parachute, release, multi-knife	2
7501-00-266-5016	Tape, adhesive, 2-inch	As required
1670-00-937-0271	Tie-down assembly, 15-foot	55
1670-01-483-8259	Towplate release mechanism (H-block) (C-17 only)	1
	Webbing:	
8305-00-268-2411	Cotton, 1/4-inch, type I	As required
8305-00-082-5752	Nylon, tubular, 1/2-inch	As required
8305-00-263-3591	Nylon, type VIII	As required
8305-00-268-2455	Nylon, tubular, 1-inch, OD 7	As required

Chapter 3

Rigging the M1101 Trailer on a 12-Foot, Type V Platform for Low-Velocity Airdrop

DESCRIPTION OF THE LOAD

3-1. The M1101 HMT-L (Figure 3-1) is rigged on a 12-foot, type V airdrop platform using two G-11-B cargo parachutes. The M1101 HMT-L is 99 ½ inches high (reducible to 52 ½ inches), 87 ½ inches wide, 135 inches long, and weighs 1,360 pounds. The trailer must be rigged with an accompanying load. The accompanying load must not weigh more than 2,040 pounds. The accompanying load shown in this chapter consists of 24 ammunition boxes weighing approximately 1,800 pounds.

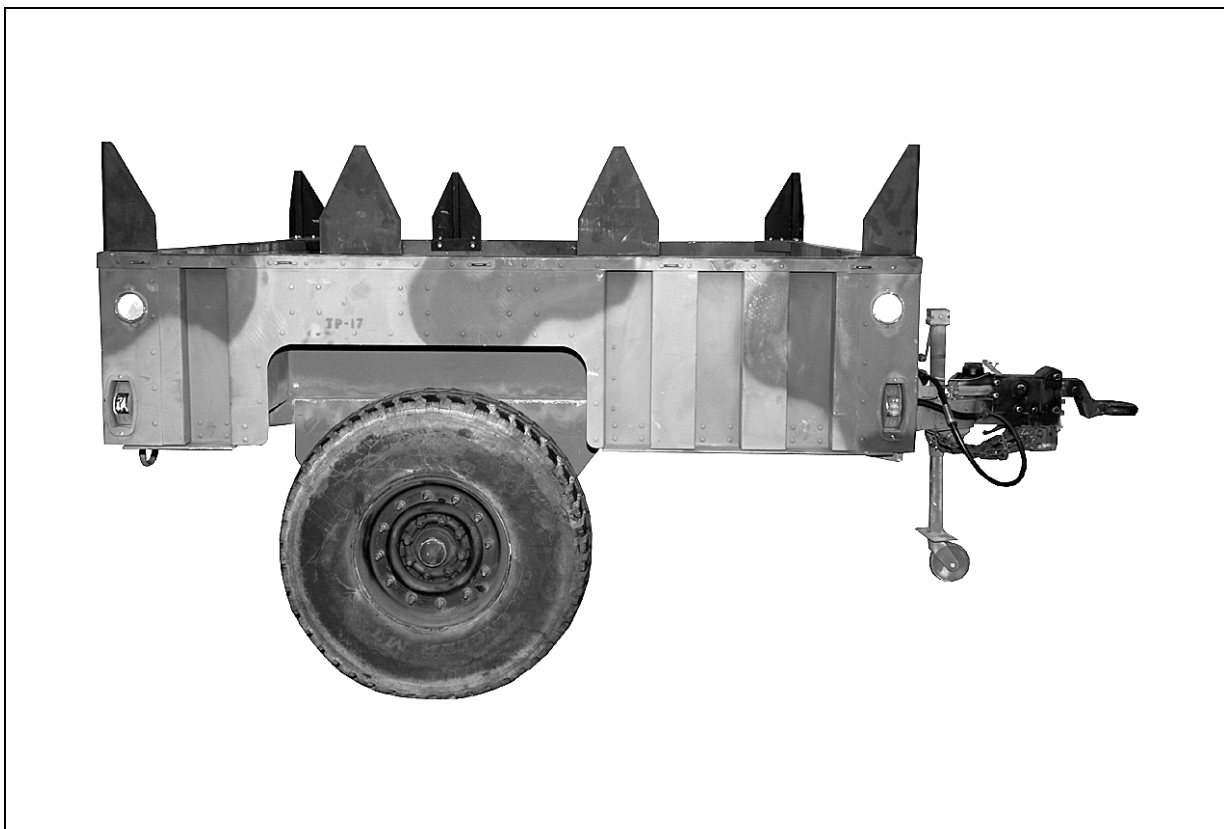


Figure 3-1. M1101 HMT-L ¾-Ton Trailer

PREPARING PLATFORM

3-2. Prepare a 12-foot, type V airdrop platform as shown in Figure 3-2.

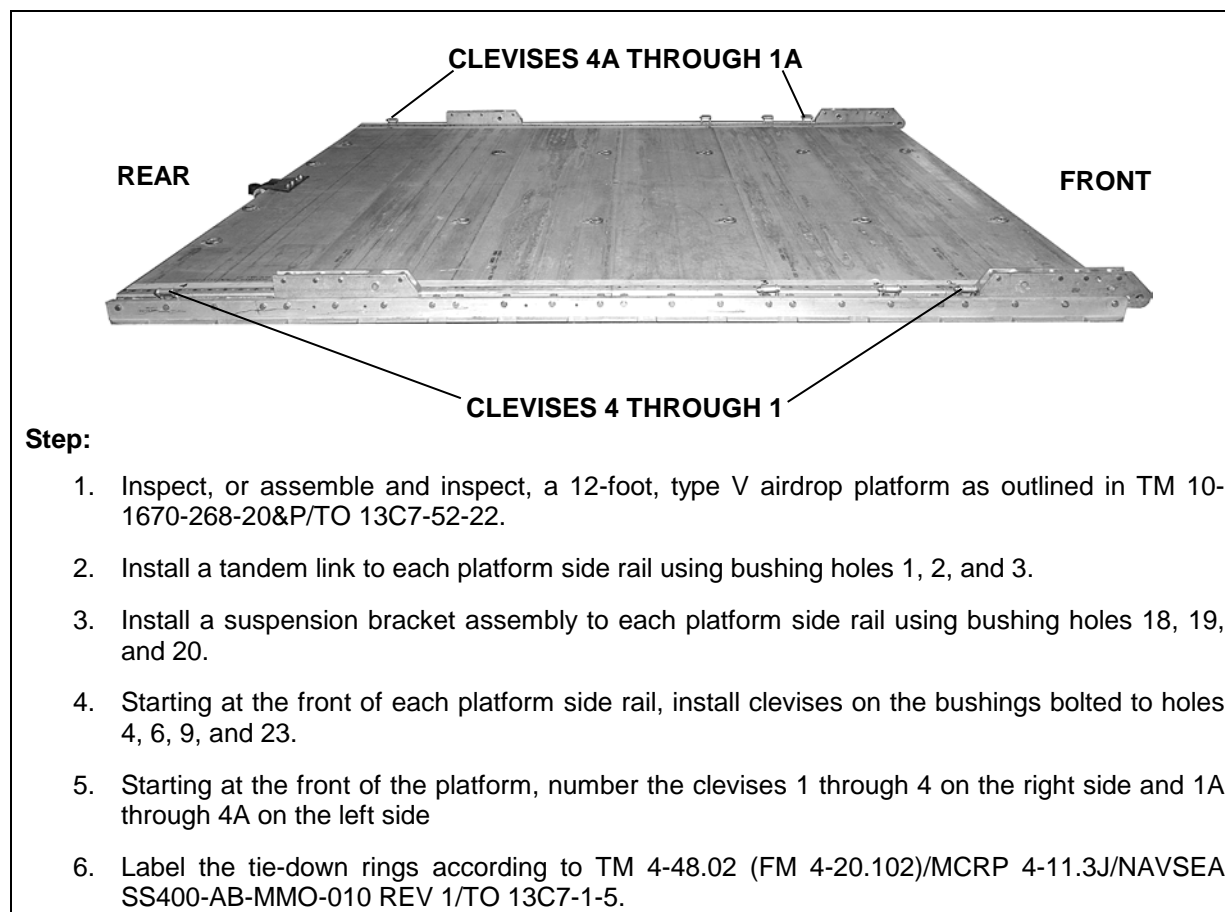


Figure 3-2. Platform Prepared

BUILDING AND POSITIONING HONEYCOMB STACKS

- 3-3. Build the honeycomb stacks as shown in Figures 3-3 and 3-4. Position the stacks as shown in Figure 3-5.

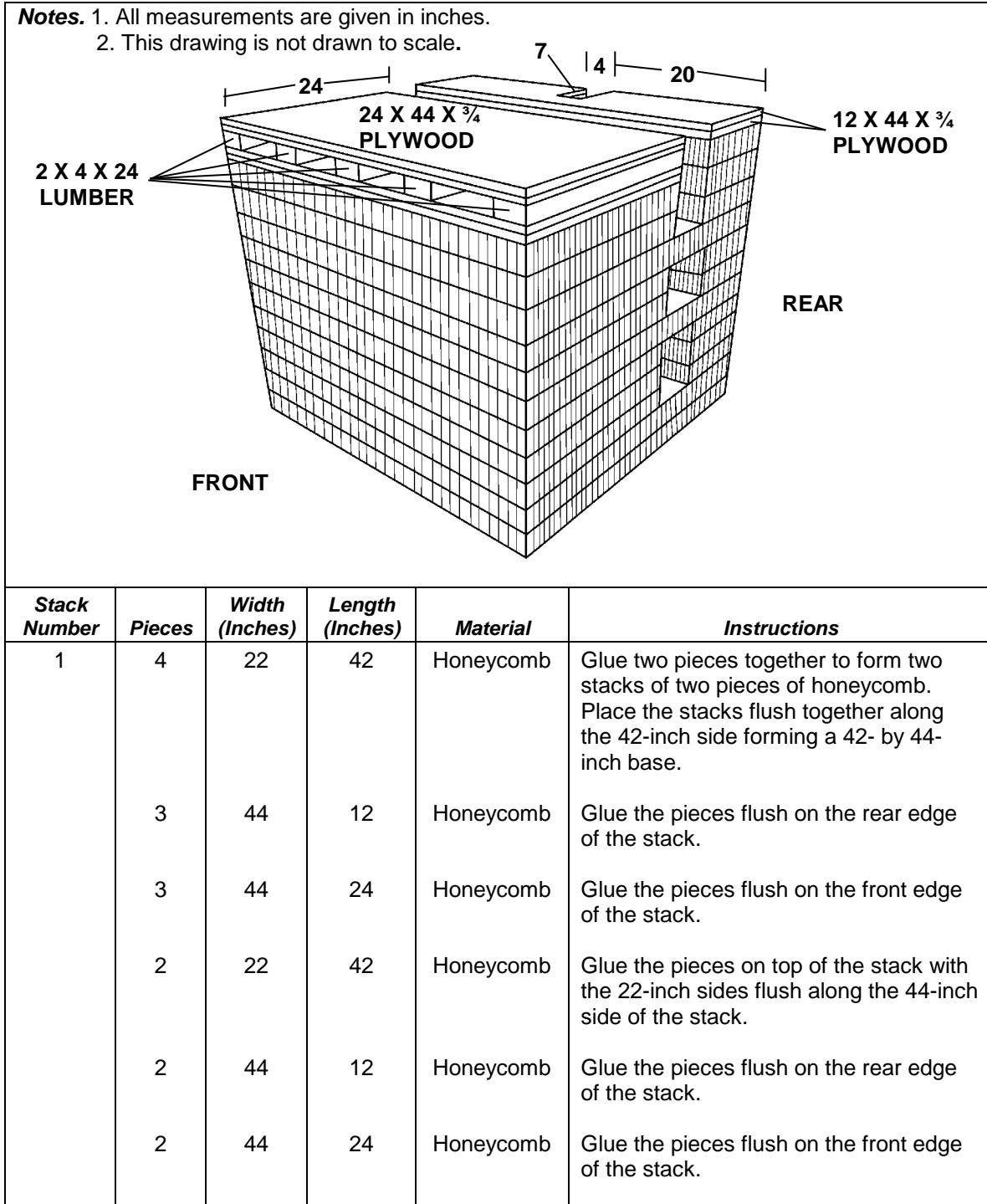
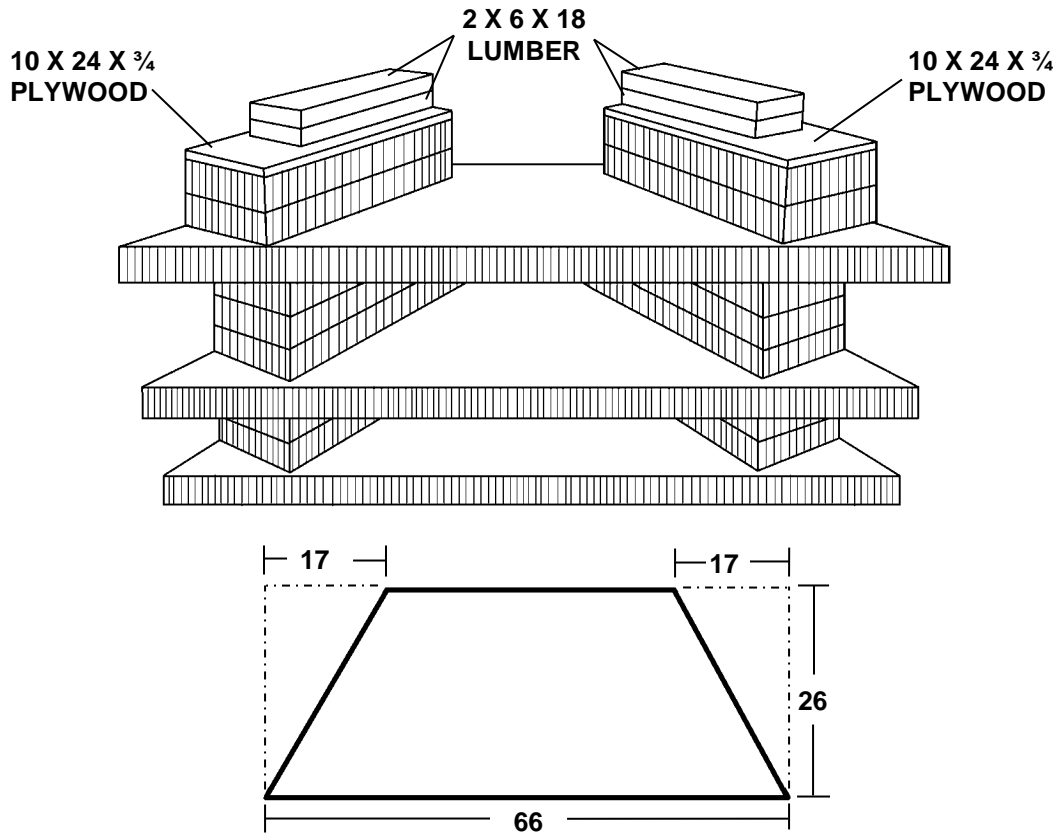


Figure 3-3. Honeycomb Stack 1 Prepared

Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
1	2	22	42	Honeycomb	Glue the pieces on top of the stack with the 22-inch sides flush along the 44-inch side of the stack.
	2	44	12	Honeycomb	Glue the pieces flush on the rear edge of the stack.
	2	44	24	Honeycomb	Glue the pieces flush on the front edge of the stack.
	1	44	12	Honeycomb	Cut a 4- by 7-inch cutout, 20 inches from the end of the honeycomb. Glue the honeycomb flush on the rear of the stack with the cutout toward the rear.
	2	44	12	¾-Inch Plywood	Cut a 4- by 7-inch cutout, 20 inches from the end of the plywood. Glue the plywood flush on the rear of the stack with the cutout toward the rear.
	4	44	24	¾-Inch Plywood	Glue two pieces of 44- by 24- by ¾-inch plywood together flush.
	5		24	2- by 4-Inch Lumber	Nail a 2- by 4- by 24-inch piece of lumber flush along each 24-inch side of the plywood. Nail a third piece of 2-by 4-by 24-inch lumber centered between the outside pieces of lumber. Nail the remaining two pieces of 2- by 4- by 24-inch lumber 11 ½ inches in from each 24 inch side of the plywood.

Figure 3-3. Honeycomb Stack 1 Prepared (Continued)

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



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
2	3	66	26	Honeycomb	Cut the three pieces as shown above. Use one piece as the base and place the others to the side.
	14	10	24	Honeycomb	<p>Glue four pieces together to form two stacks of two layers. Glue the stacks with the 24-inch side flush along the 26-inch side and back corner of the base.</p> <p>Glue another 26- by 66-inch piece of honeycomb, flush on top of the stack.</p> <p>Glue six pieces together to form two stacks of three layers. Glue the stacks with the 24-inch side flush along the 26-inch side and back corner of the base.</p>

Figure 3-4. Honeycomb Stack 2 Prepared

Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
2					Glue the 26- by 66-inch piece of honeycomb, flush on top of the stack
	2	10	24	$\frac{3}{4}$ -Inch Plywood	Glue four pieces together to form two stacks of two layers. Glue the stacks with the 24-inch side flush along the 26-inch side and back corner of the base.
	4		18	2- by 6-Inch Lumber	Center two pieces of lumber, flush, with the 6 inch side of the lumber along the 10 inch side of the plywood. Make two stacks. Glue the lumber stacks on top of the two pieces of honeycomb.

Figure 3-4. Honeycomb Stack 2 Prepared (Continued)

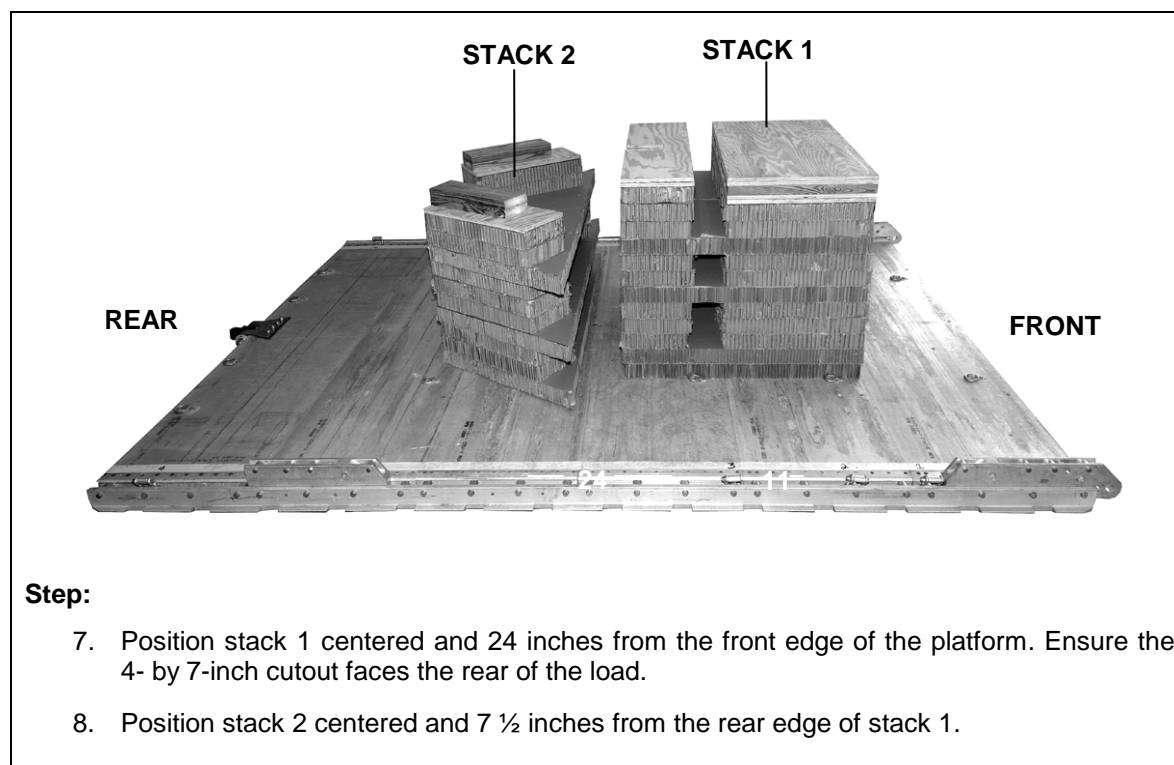


Figure 3-5. Honeycomb Stacks Positioned on Platform

PREPARING THE TRAILER AND ACCOMPANYING LOAD ENDBOARDS

3-4. Prepare the trailer as shown in Figure 3-6. Build and position the accompanying load endboards as shown in Figures 3-7 and 3-8.

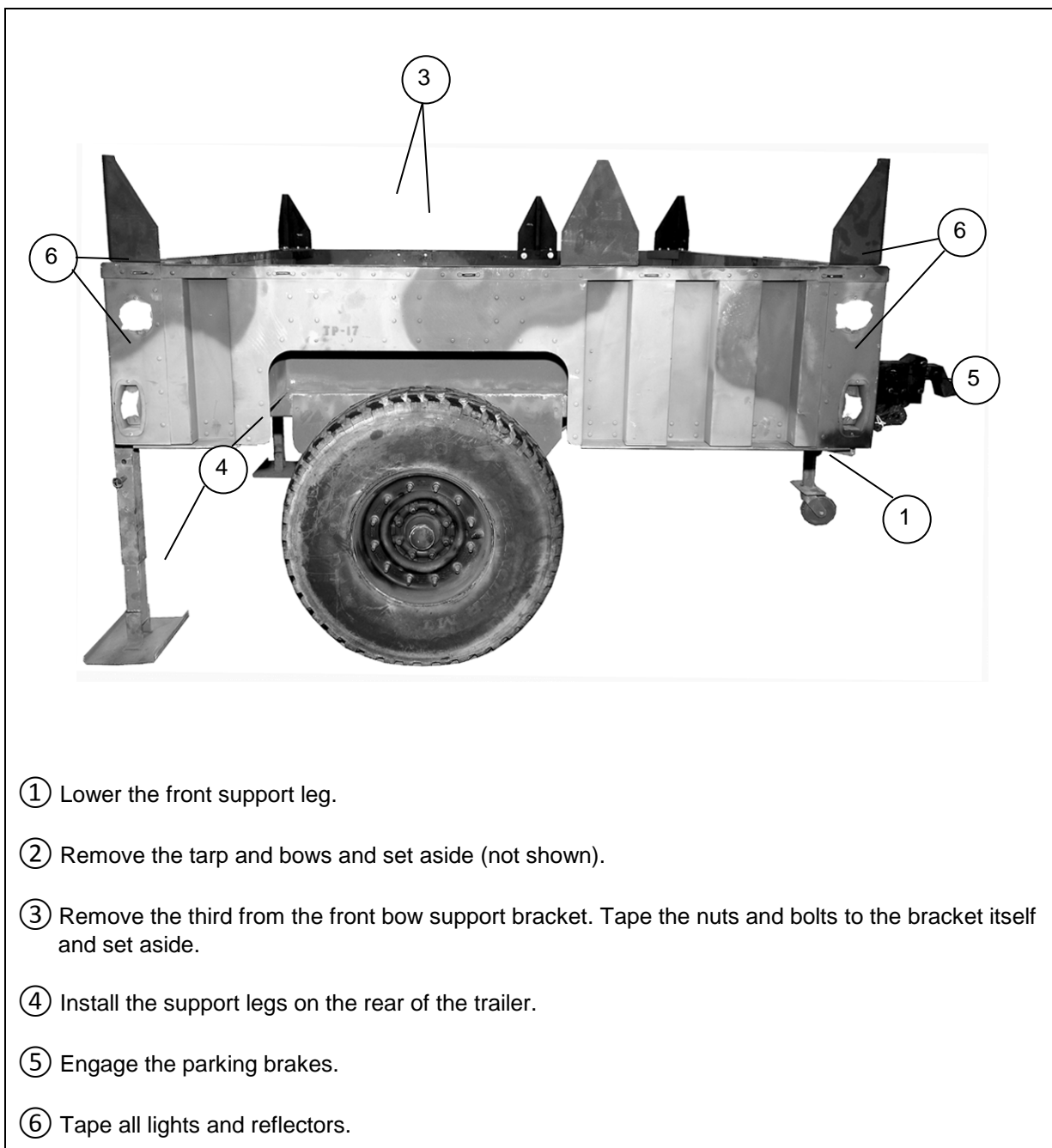
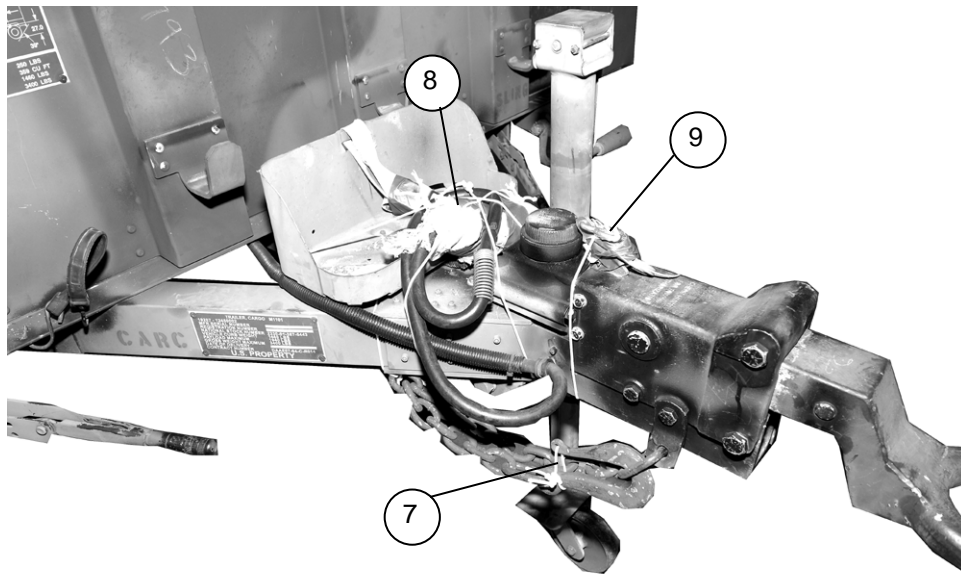


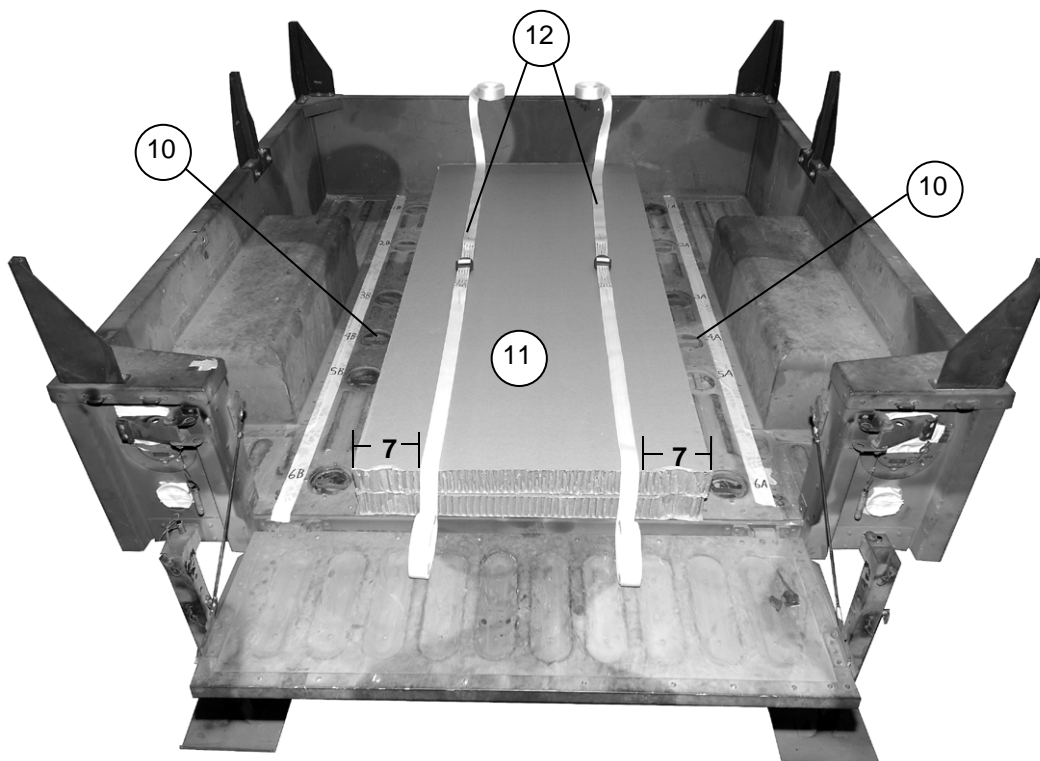
Figure 3-6. Trailer Prepared



- ⑦ Safety-tie the chain hook to themselves using a length of type III, nylon cord. Secure the excess chain to the drawbar with type III nylon cord.
- ⑧ Pad the electrical cable coupler with cellulose padding and tape. Secure the coupler to the drawbar with type III, nylon cord.
- ⑨ S-fold the break-away cable and secure the excess cloth-backed tape. Secure the cable to the drawbar with type III, nylon cord.

Figure 3-6. Trailer Prepared (Continued)

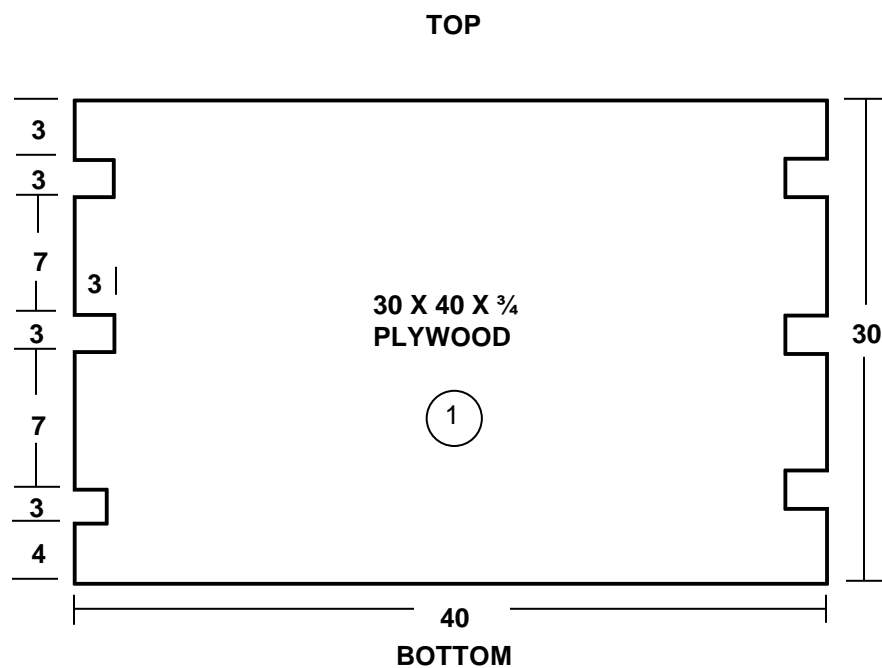
Note. All measurements are given in inches.



- ⑩ Starting at the front of the trailer, number the tie-down provisions 1A through 6A on the right side of the trailer bed and 1B through 6B on the left side of the trailer.
- ⑪ Place two 36- by 86-inch pieces of honeycomb stacked, centered and flush against the bulkhead (front of the trailer).
- ⑫ Center the 30-foot lashings 7-inches from each 86-inch edge on the honeycomb. Roll the excess lashing and place on top of the bulkhead and tailgate.

Figure 3-6. Trailer Prepared (Continued)

- Notes.** 1. All measurements are given in inches.
2. This drawing is not drawn to scale.
3. Do not nail the plywood pieces together.



- ① Cut four 30- by 40- by $\frac{3}{4}$ -inch plywood endboards as shown.
② Pad the cutouts with cellulose padding and tape (not shown).

Figure 3-7. End Boards Built

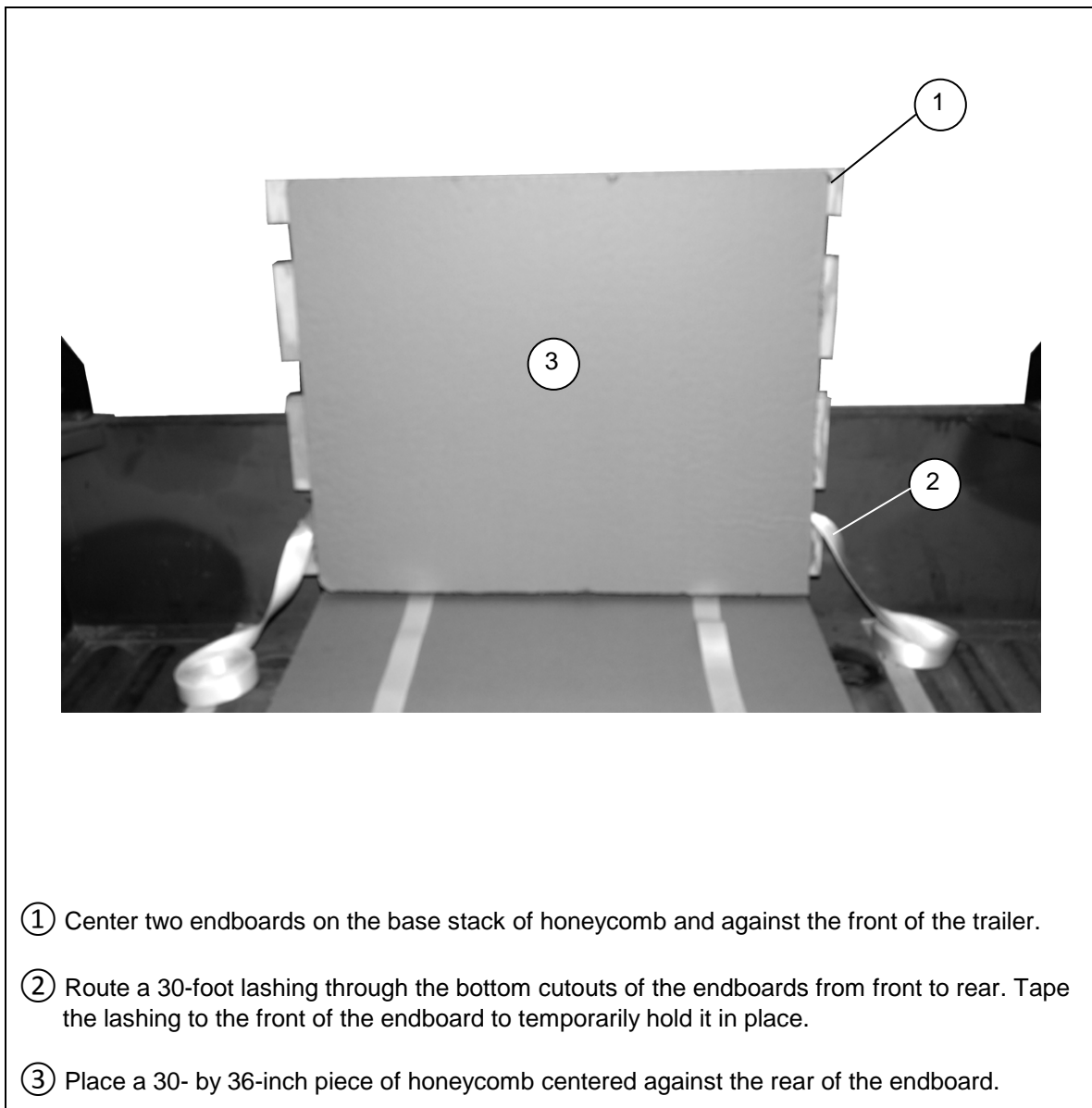


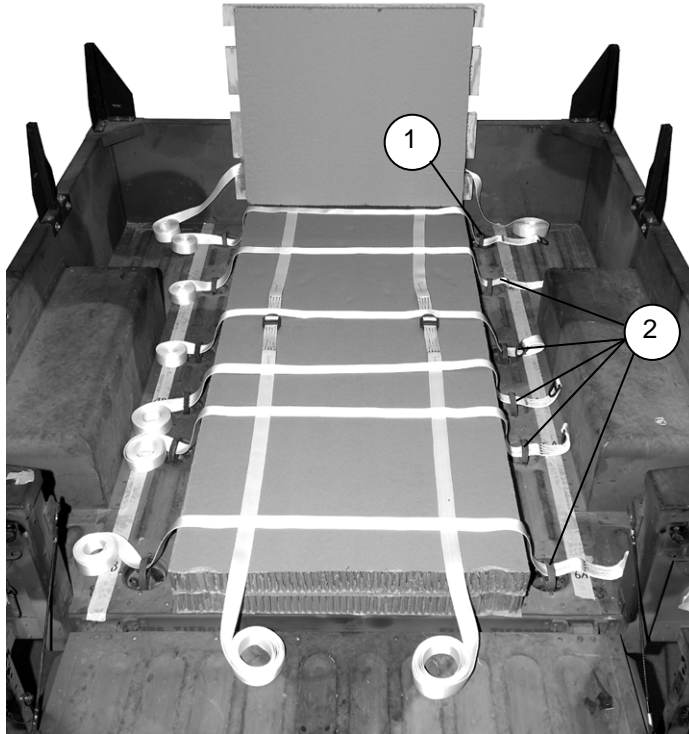
Figure 3-8. Front End Board Positioned

POSITION THE ACCOMPANYING LOAD IN THE TRAILER

3-5. Stow the accompanying load of 24 ammunition boxes in the trailer as shown in Figure 3-9 through 3-11. The accompanying load must not weigh more than 2,040 pounds. If the load includes a hazardous material, it must be packaged, marked, and labeled in compliance with AFMAN 24-204(I)/TM 38-250/NAVSUP PUB 505/MCO P 4030.19I/DLAI4145.3. The load must comply with the restrictions and meet the requirements outlined in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. The accompanying load shown in these procedures are 1,800 pounds of ammunition stowed in the trailer.

CAUTION

Only ammunition listed in TM 4-48.16/MCRP 4-11.3B/TO 13C7-18-41 may be airdropped.



- ① Route a 15-foot lashing through trailer tiedown ring 1A to a point 8 inches from the D-ring, over the previously positioned honeycomb, and through trailer tie-down ring 1B.
- ② Repeat step one for trailer tiedown rings 2A and 2B, 3A and 3B, 4A and 4B, 5A and 5B, and 6A and 6B.

Figure 3-9. Lashings Pre-Positioned on the Trailer Bed

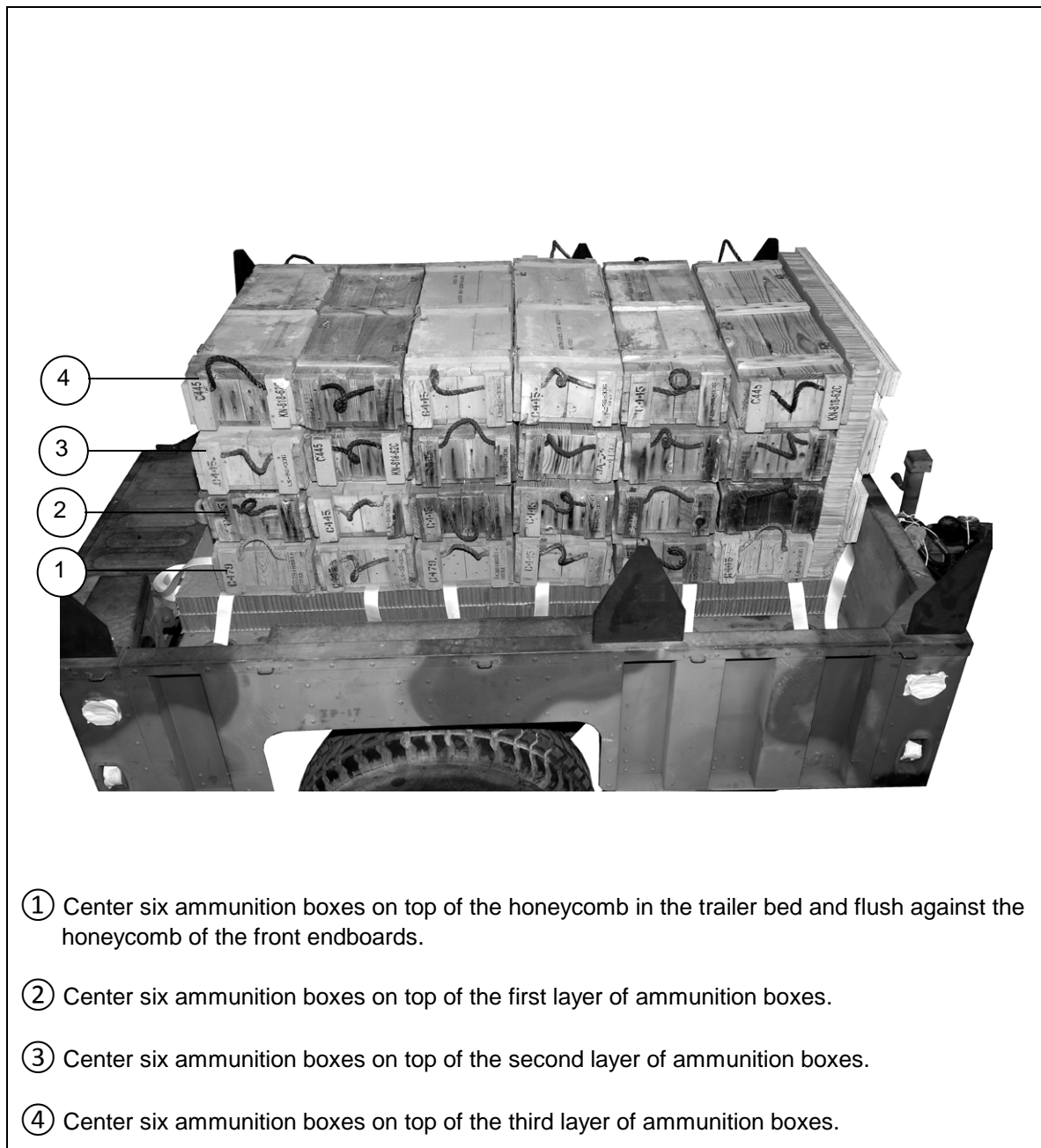
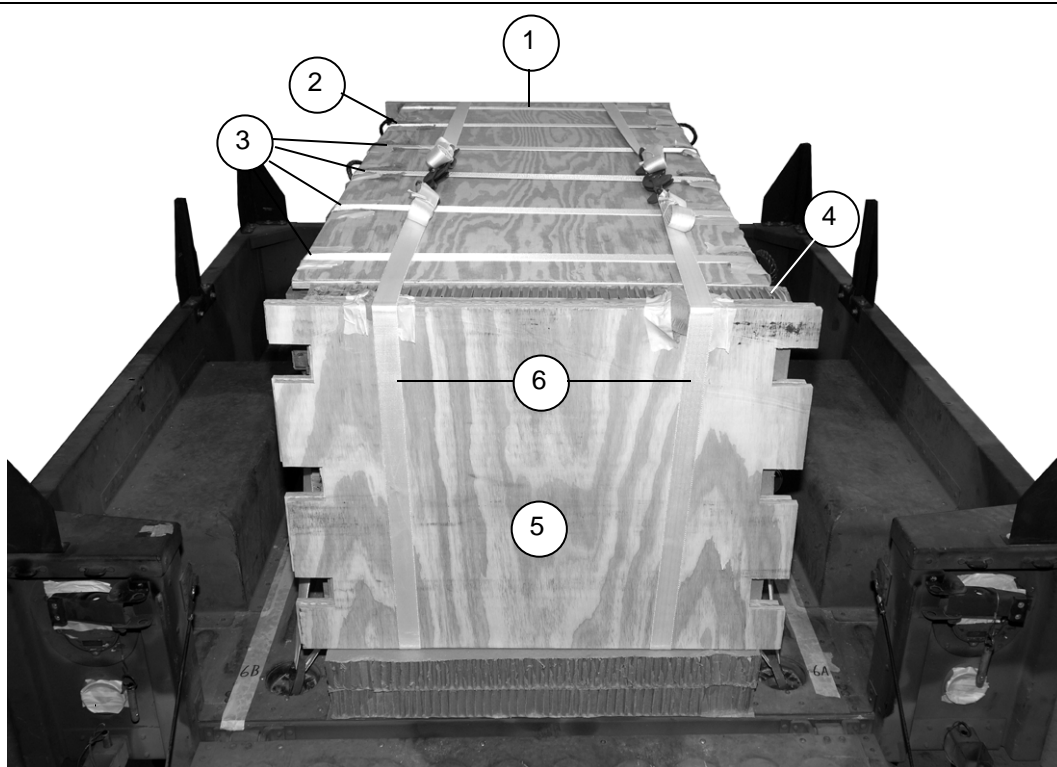


Figure 3-10. Accompanying Load Positioned

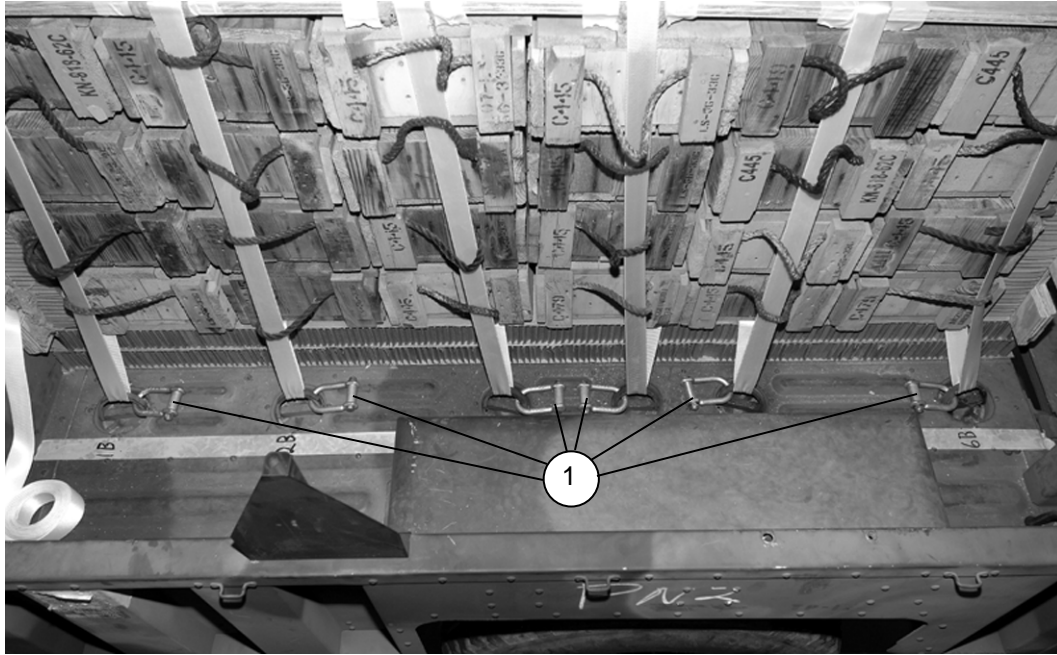


- ① Place a 36- by 74- by $\frac{3}{4}$ -inch piece of plywood lengthwise on top of the ammunition boxes. Pad the plywood with cellulose padding and tape where the lashings cross the plywood.
- ② Route the running end of the pre-positioned lashing from trailer tie-down provision 1B up through the carrying handles of the ammunition stack, over the top of the plywood, down through the carrying handles on the opposite side and secure with a D-ring and load binder.
- ③ Repeat step two for the pre-positioned lashings at 2B to 2A, 3B to 3A, 4B to 4A, 5B to 5A, and 6B to 6A.
- ④ Place a 30- by 36-inch piece of honeycomb flush against the rear of the ammunition boxes.
- ⑤ Position the two remaining endboards centered and flush against the rear of the honeycomb piece.
- ⑥ Route the pre-positioned 30-foot lashing on the right side, beneath the ammunition stack, over the front and rear endboards and secure on top of the load using two D-rings and a load binder. Repeat for the pre-positioned lashing on the left side of the ammunition stack.

Figure 3-11. Accompanying Load Secured

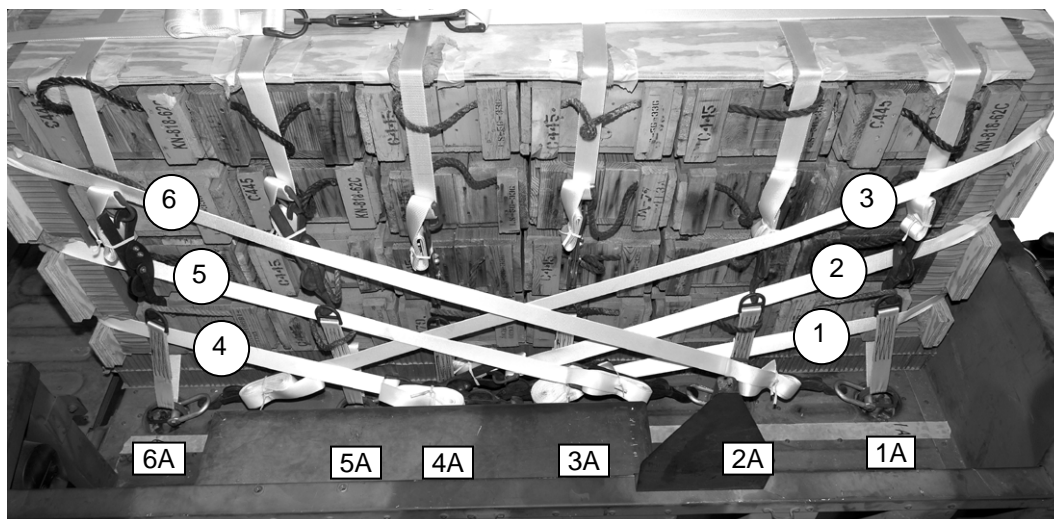
LASH THE AMMUNITION IN THE TRAILER

3-6. Lash the accompanying load of 24 ammunition boxes in the trailer as shown in Figures 3-12 through 3-14.



- ① Attach a type V, platform clevis to each trailer tie-down provision. Face the clevises on 1A, 2A, 3A, 1B, 2B and 3B toward the rear of the trailer. Face the clevises on 4A, 5A, 6A, 4B, 5B and 6B toward the front of the trailer.

Figure 3-12. Type V Platform Clevises Installed



Lashing Number	Trailer Tiedown Ring Number	Instructions
1	4A and 4B	Route the pre-positioned 30-foot lashing from the bottom cutouts of the front endboards to the trailer tiedown rings. Secure the ends to the tiedown rings with a D-ring and loadbinder.
2	5A and 5B	Route a 30-foot lashing from the center cutouts of the front endboards to the trailer tiedown rings. Secure the ends to the tiedown rings with a D-ring and loadbinder.
3	6A and 6B	Route a 30-foot lashing from the center cutouts of the front endboards to the trailer tiedown rings. Secure the ends to the tiedown rings with a D-ring and loadbinder.
4	3A and 3B	Route a 30-foot lashing from the bottom cutouts of the rear endboards to the trailer tiedown rings. Secure the ends to the tiedown rings with a D-ring and loadbinder.
5	2A and 2B	Route a 30-foot lashing from the center cutouts of the rear endboards to the trailer tiedown rings. Secure the ends to the tiedown rings with a D-ring and loadbinder.
6	1A and 1B	Route a 30-foot lashing from the top cutouts of the rear endboards to the trailer tiedown rings. Secure the ends to the tiedown rings with a D-ring and loadbinder.

Figure 3-13. Lashings 1 through 6 Installed on Accompanying Load

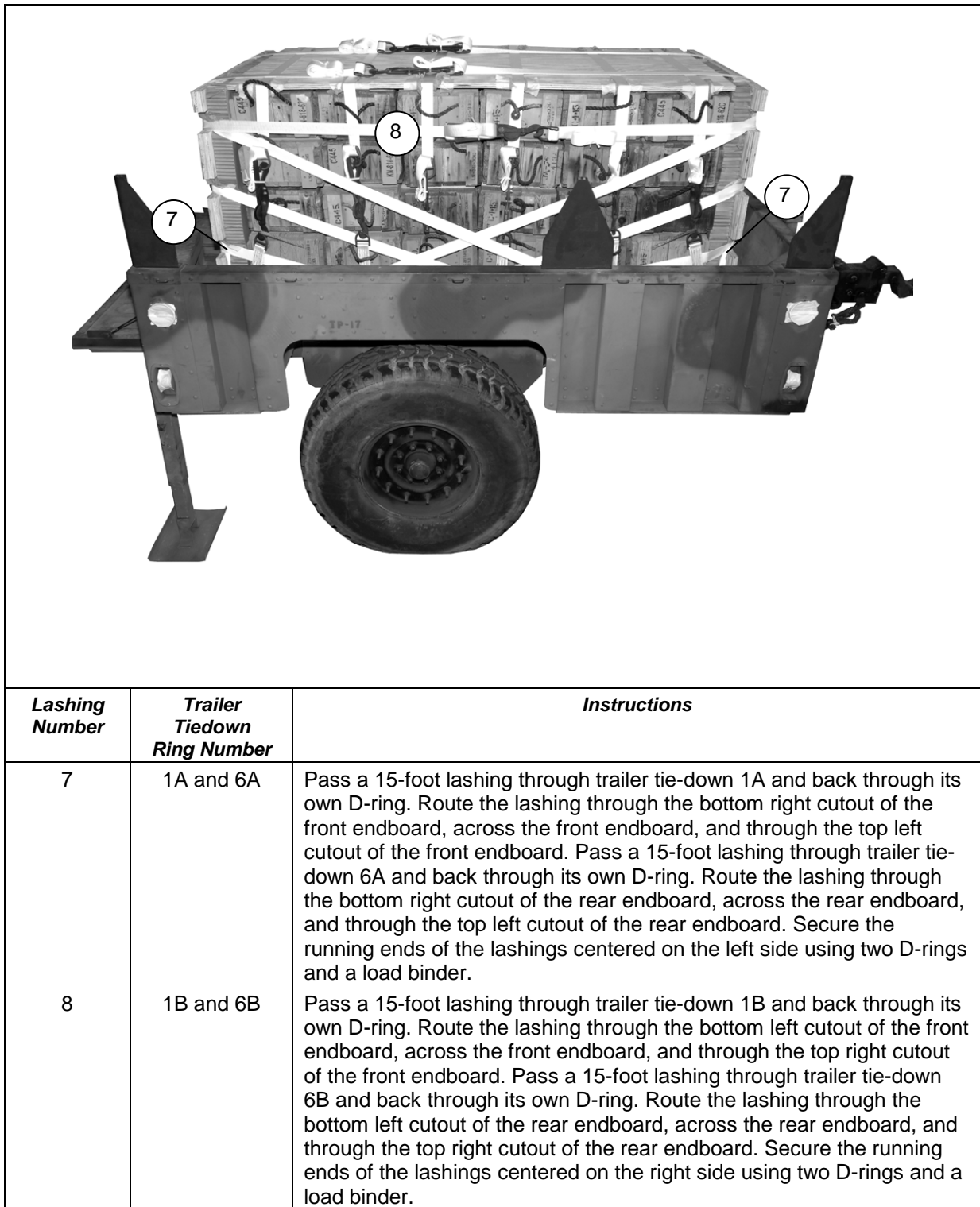
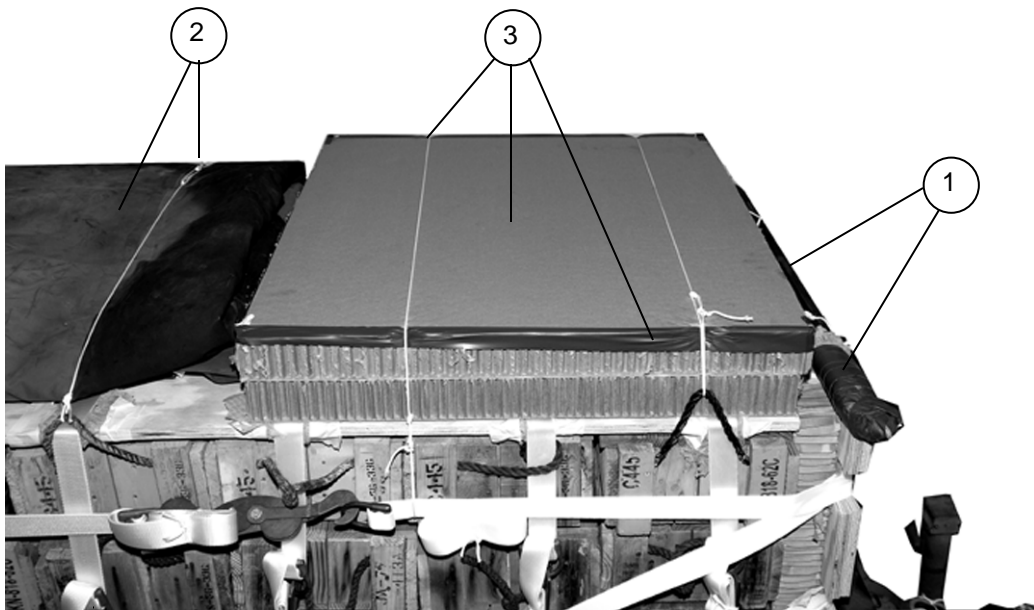


Figure 3-14. Lashings 7 and 8 Installed on Accompanying Load

POSITIONING AND SECURING THE BOWS AND TARP AND PREPARING THE TRAILER

3-7. Position and secure the bows and tarp as shown in Figure 3-15. Finish preparing the trailer as shown in Figure 3-16



- ① Tie the support bows together with type III, nylon cord. Pad and tape the ends of the bows with cellulose padding and tape. Tie the support bows on top of the load with type III nylon cord.
- ② Fold the tarp to approximately 32-inches wide and 44-inches in long. Place the previously removed bow support brackets inside the tarp. Place the tarp between the support bows on the rear of the stack and secure with type III nylon cord.
- ③ Place two 36- by 34-inch pieces of honeycomb between the bows to the front of the tarp. Secure the honeycomb to load with type III, nylon cord. Tape the edges of the honeycomb where the type III nylon cord makes contact.

Figure 3-15. Support Bows and Tarp Positioned and Secured

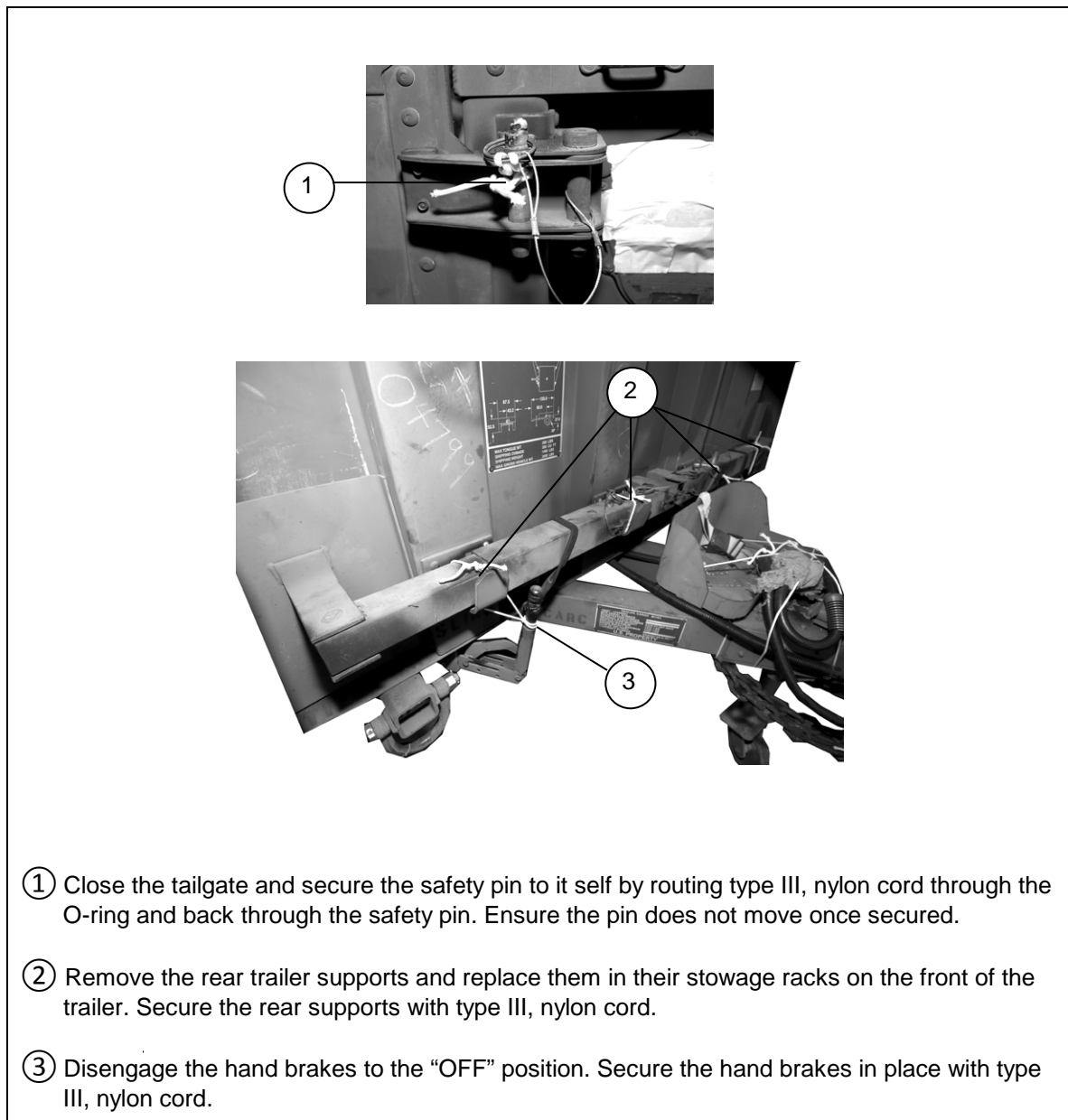
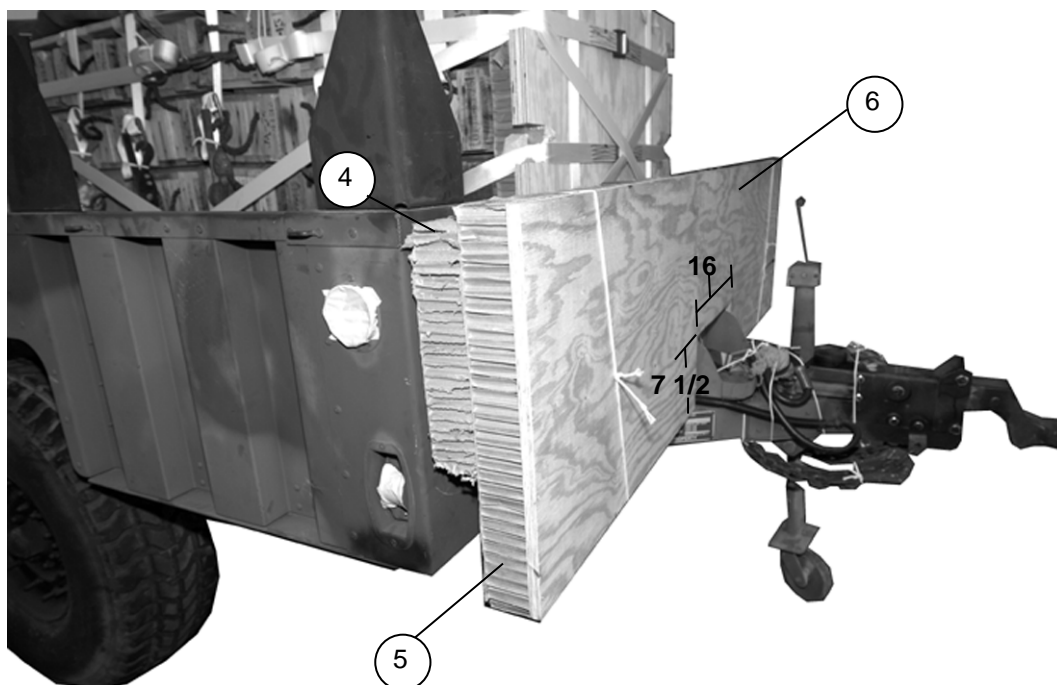


Figure 3-16. Trailer Prepared

Note. All measurements are given in inches.



- ④ Place a 14- by 86-inch piece of honeycomb flush with the top of the front of the trailer.
- ⑤ Make a 7 ½- high by 16-inches long cutout, centered on the bottom edge, of a 22 ½- by 86-inch piece of honeycomb. Place the honeycomb flush with the top of the honeycomb in step 4.
- ⑥ Make a 7 ½- high by 16-inches long cutout, centered on the bottom edge, of a 22 ½- by 86- by ¾-inch piece of plywood. Place the plywood flush with the top of the honeycomb in step 5. Secure all the pieces of honeycomb and plywood with several lengths of type III nylon cord to places on the load.

Figure 3-16. Trailer Prepared (Continued)

LIFTING AND POSITIONING THE TRAILER

3-8. Install the lifting slings and position the trailer as shown in Figures 3-17 and 3-18.

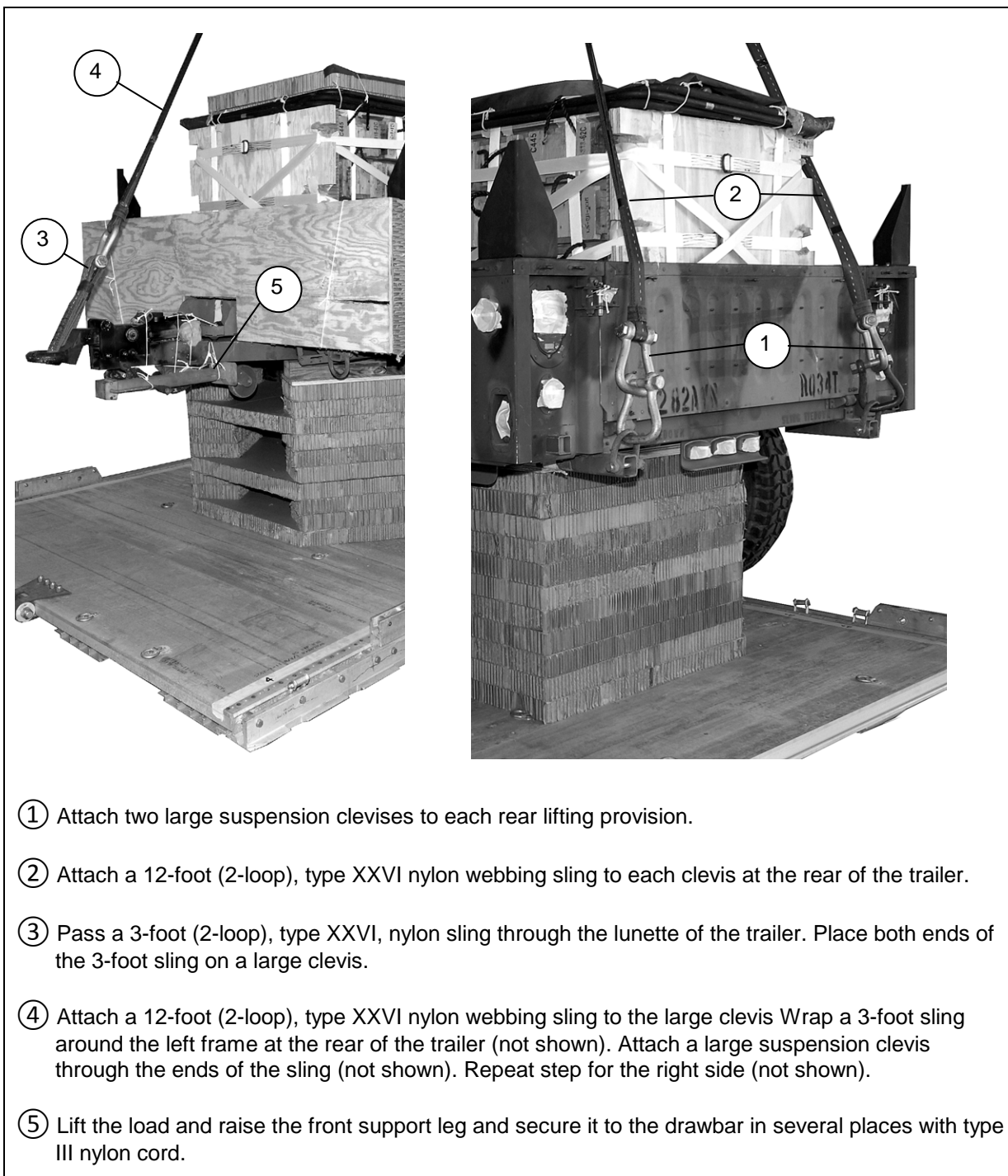


Figure 3-17. Trailer Lifting Slings Installed

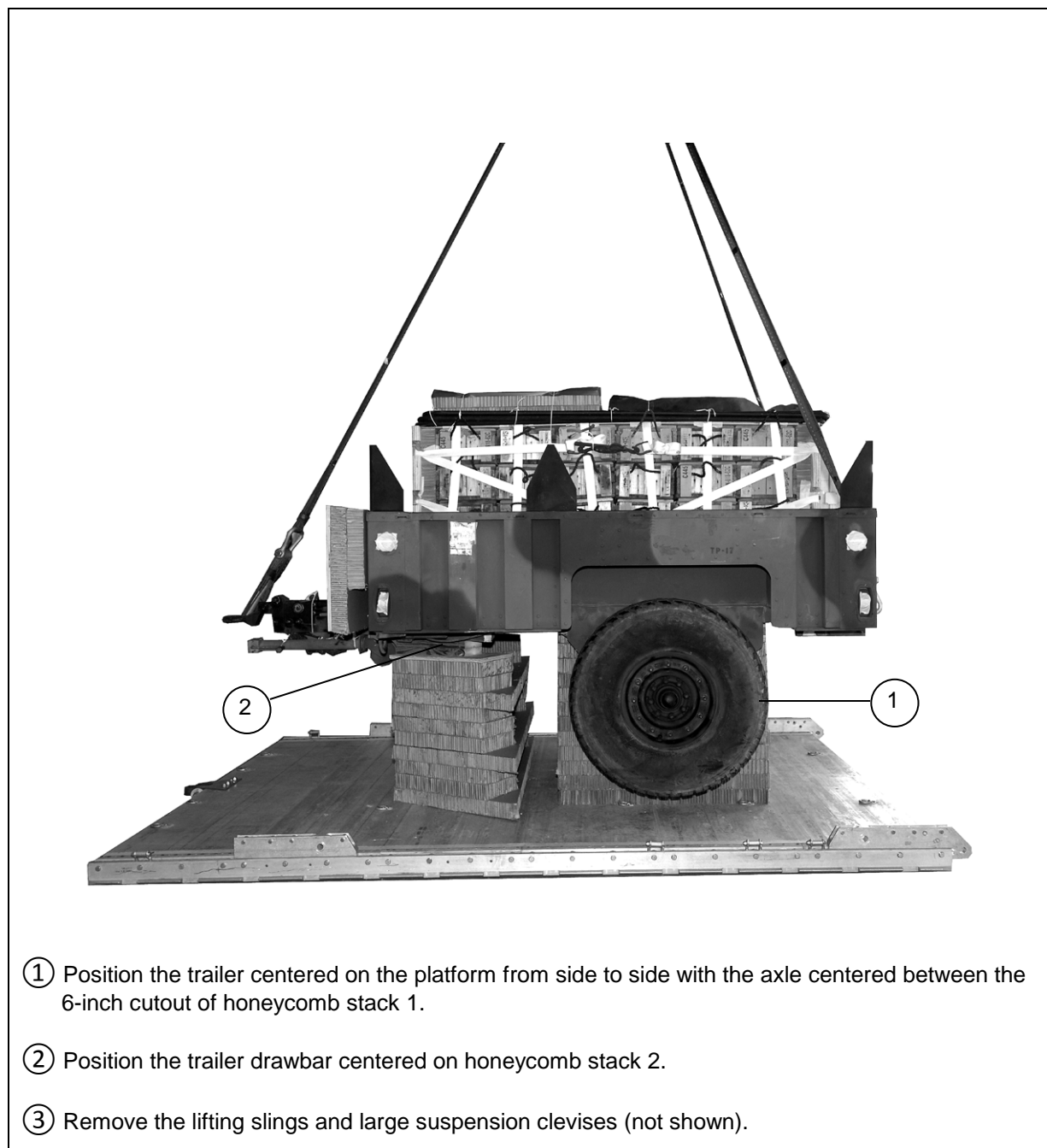


Figure 3-18. Trailer Positioned

INSTALLING SIDE BOARDS

3-9. Install the side boards as shown in Figure 3-19.

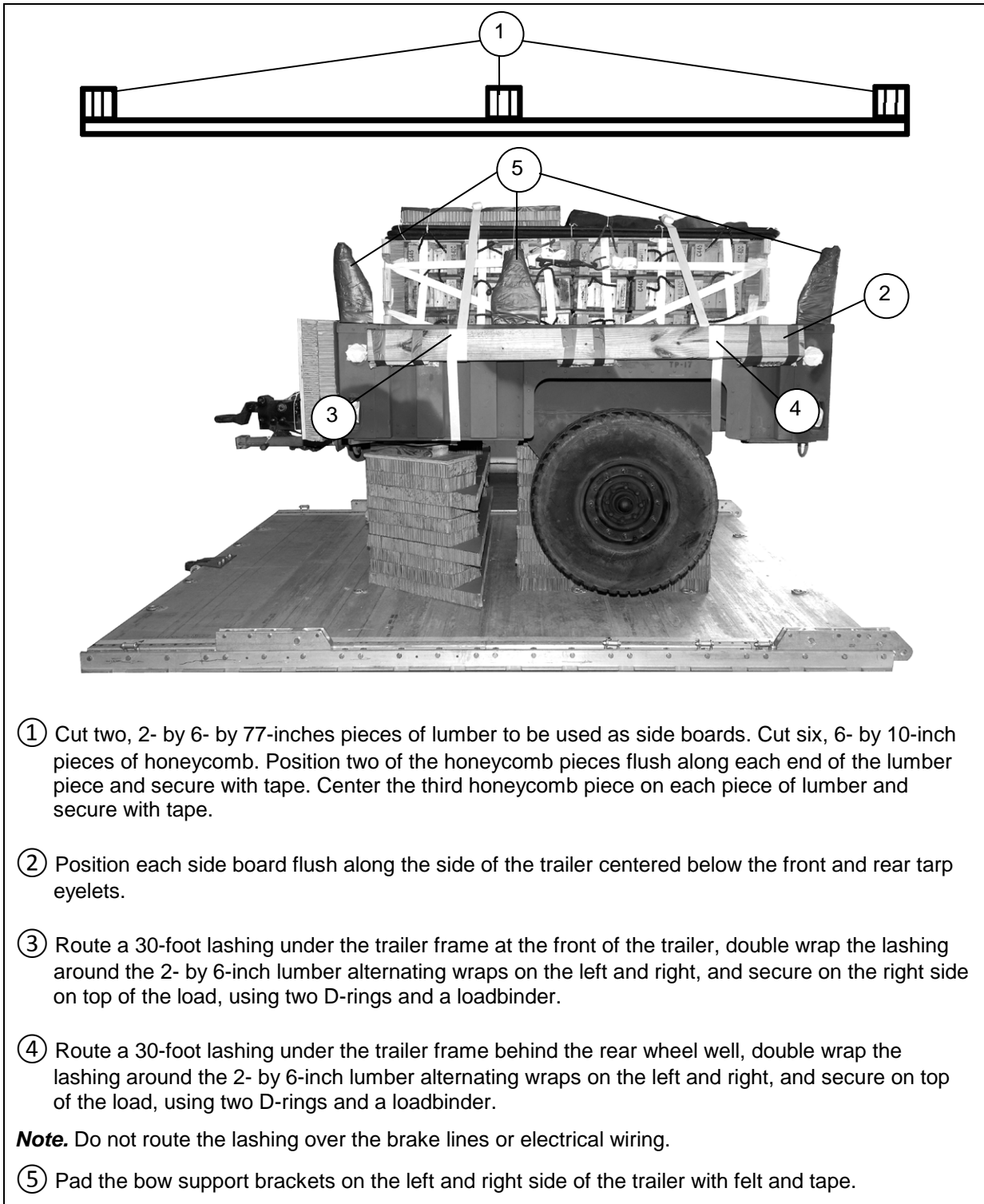


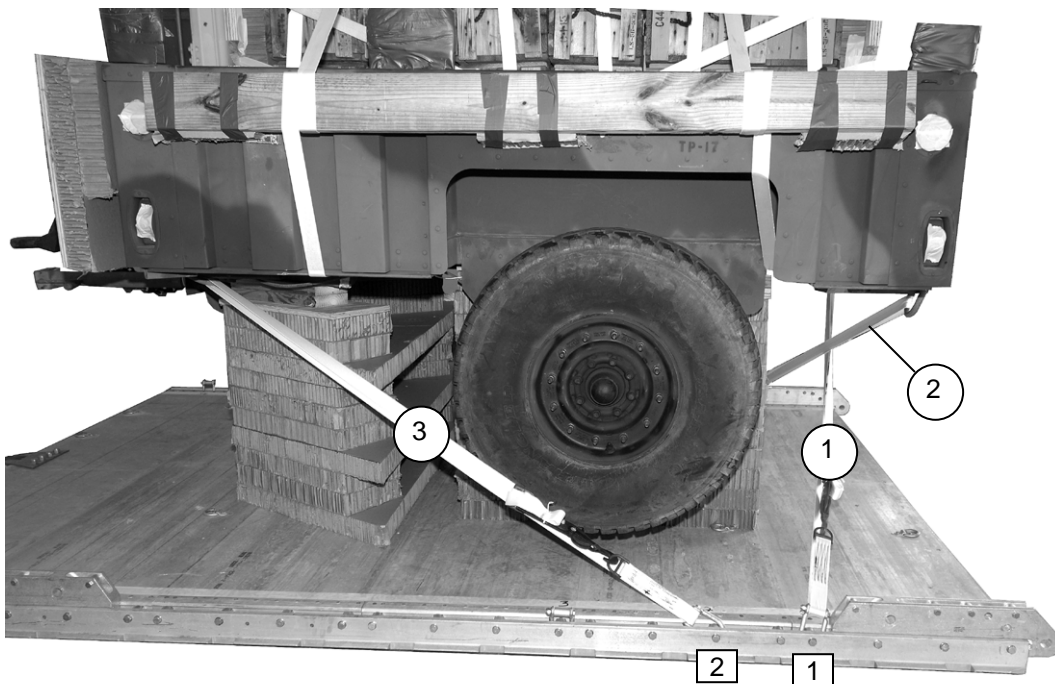
Figure 3-19. Side Boards Installed

LASHING LOAD TO PLATFORM

3-10. Lash trailer to the platform according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 3-20.

Note. Pad any sharp edges on the load where a lashing may pass. Use cellulose padding and masking tape.

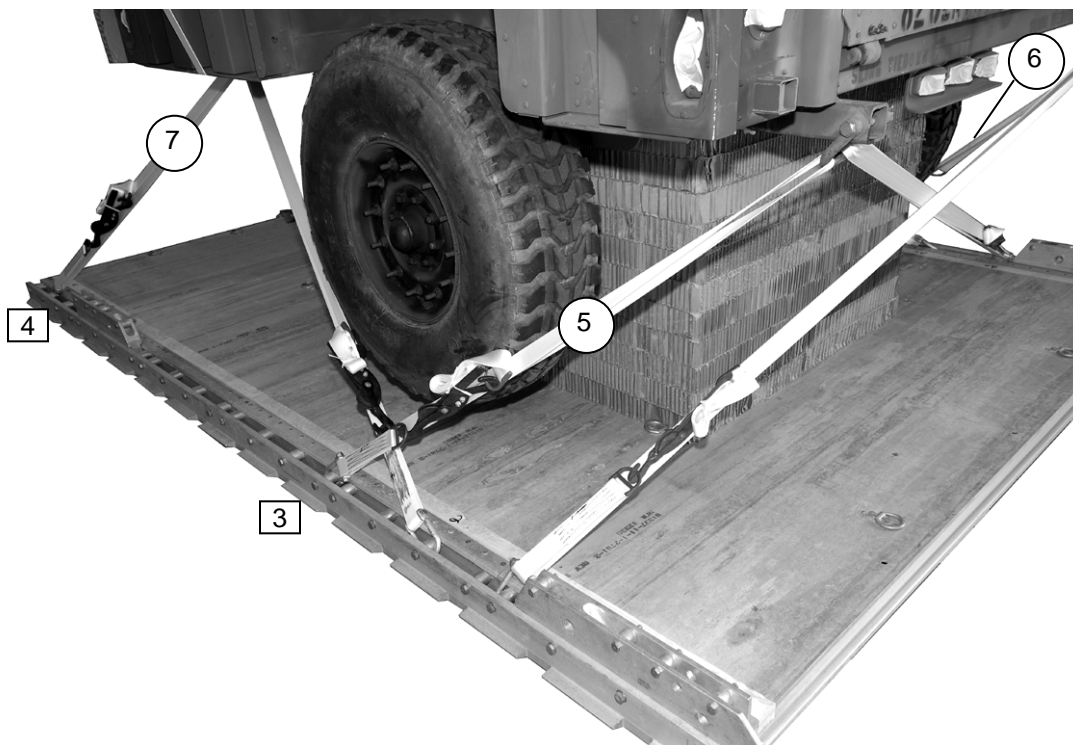
Note. Left, right, front, and rear refer to the trailer, NOT the platform.



Lashing Number	Clevis Number	Instructions
1	1	Pass lashing: Through the trailers right rear shackle.
2	1A	Through the trailers left rear shackle.
3	2	Through the trailers left front shackle.
4	2A	Through the trailers right front shackle.

Figure 3-20. Trailer Lashed to Platform

Note. Left, right, front, and rear refer to the trailer, NOT the platform.



<i>Lashing Number</i>	<i>Clevis Number</i>	<i>Instructions</i>
5	3	Pass lashing:
6	3A	Through the trailers left rear shackle.
7	4	Through the trailers right rear shackle.
8	4A	Through the trailers left front shackle.
		Through the trailers right front shackle.

Figure 3-20. Trailer Lashed to Platform (Continued)

BUILDING AND INSTALLING THE PARACHUTE STOWAGE PLATFORM

3-11. Build the parachute stowage platform as shown in Figure 3-21. Install the parachute stowage platform as shown in Figure 3-22.

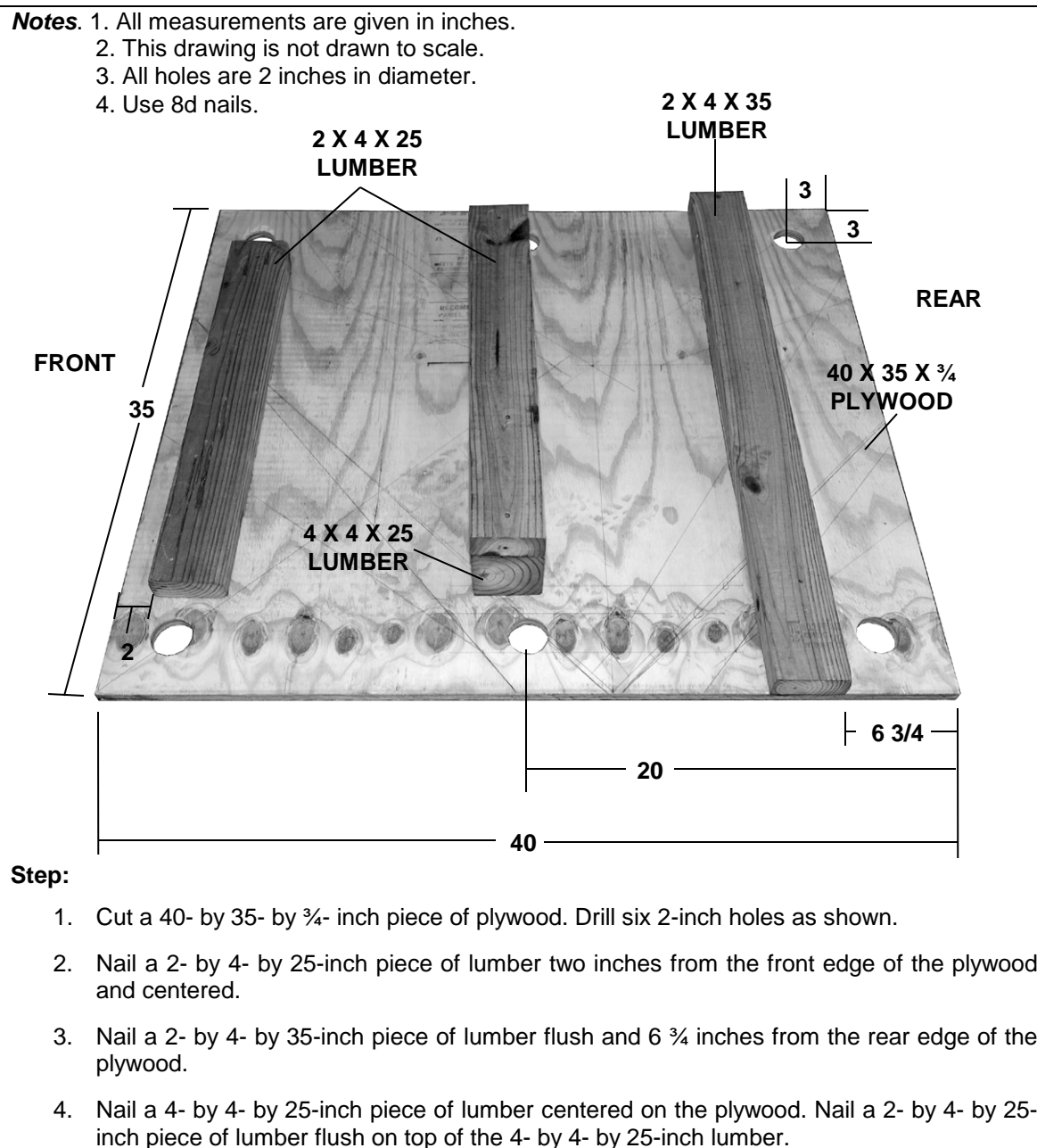
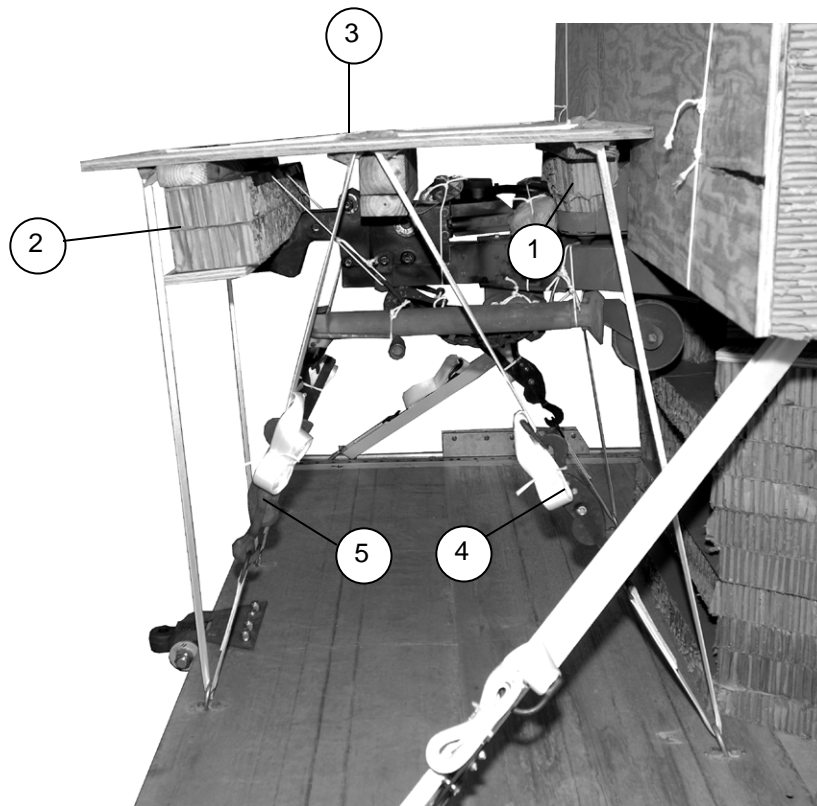


Figure 3-21. Parachute Stowage Platform Built



- ① Place a 14- by 4 ½-inch piece of honeycomb inside the fuel can support bracket. Center a 14- by 7-inch piece of honeycomb on top of the first piece of honeycomb.
- ② Place a 6- by 35- by ¾-inch piece of plywood centered on top of the lunette. Place two 6- by 35- inch pieces of honeycomb on top of the plywood. Secure the plywood and honeycomb in several places with type III nylon cord. Tape the edges of the honeycomb where the type III nylon cord makes contact.
- ③ Center the parachute stowage platform on top of the previously positioned pieces, flush against the plywood on the trailer bulkhead. Ensure the 2- by 4-inch lumber on the bottom of the platform is sitting on the honeycomb stacks. Pad the holes in the parachute stowage platform with cellulose padding and tape.
- ④ Route a 15-foot lashing through platform tiedown ring A5, through the right front hole of the stowage platform, over the top, down through the center hole, and secure to it self using a D-ring and loadbinder. Repeat this step on the left side using tiedown ring B5.
- ⑤ Route a 15-foot lashing through platform tiedown ring B6, through the right front hole of the stowage platform, over the top, down through the center hole, and secure to it self using a D-ring and loadbinder. Repeat this step on the left side using tiedown ring C6.

Figure 3-22. Parachute Stowage Platform Secured

INSTALLING AND SAFETY TIEING THE SUSPENSION SLINGS

3-12. Install and safety tie the suspension slings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 3-23.

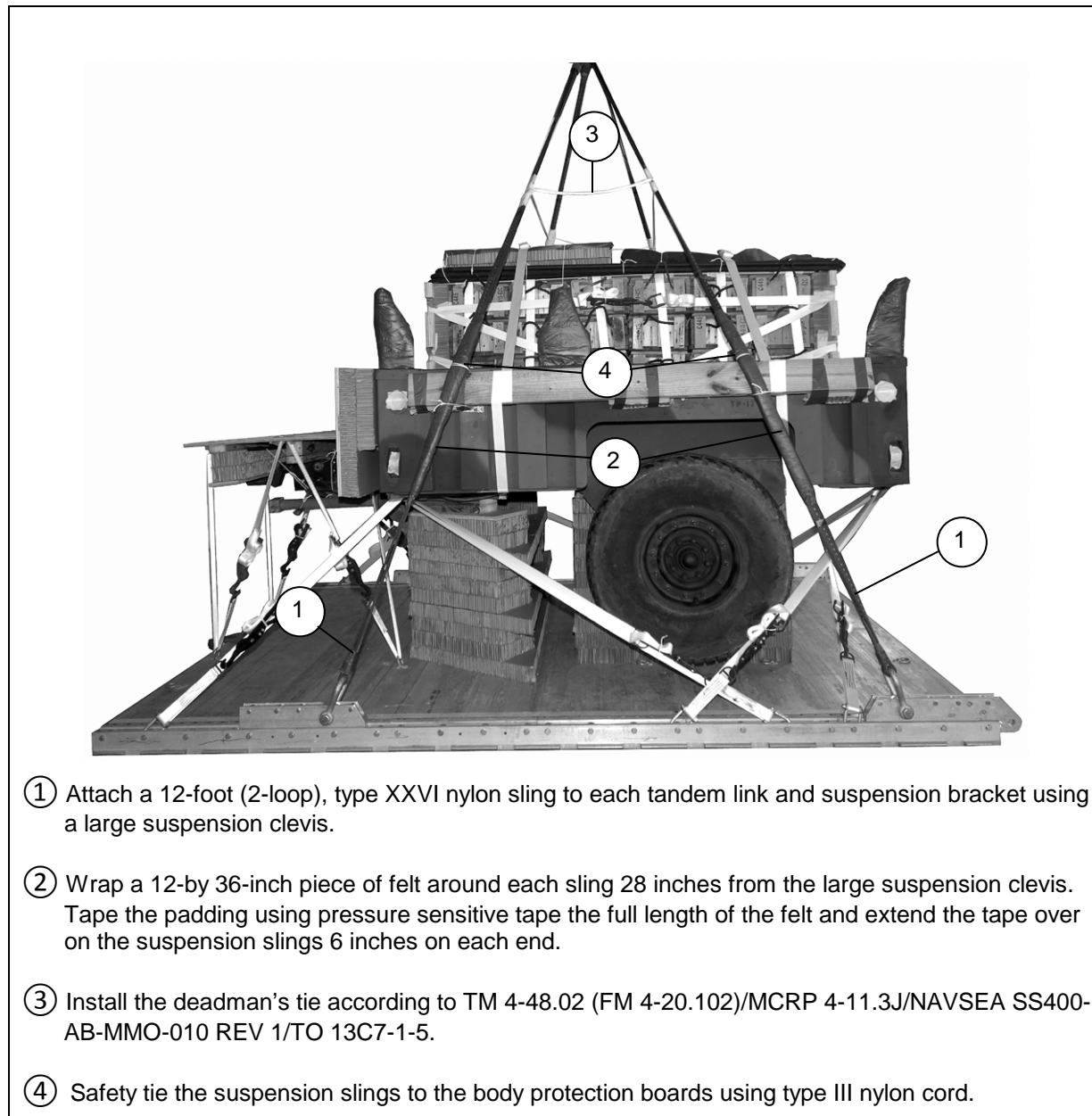


Figure 3-23. Suspension Slings Installed and Safety Tied

STOWING CARGO PARACHUTES

3-13. Prepare, stow, and restrain two G-11B cargo parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 3-24.

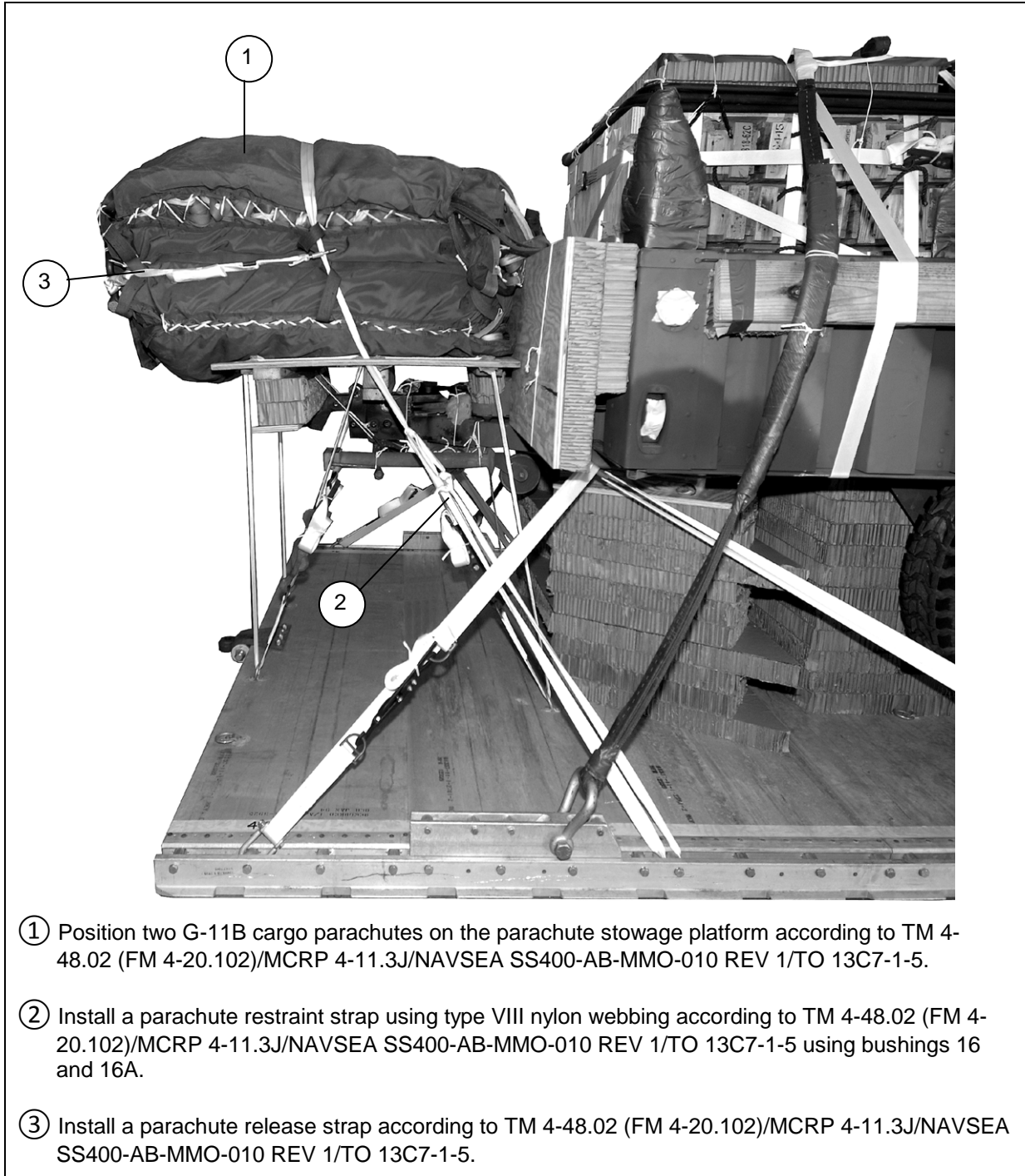
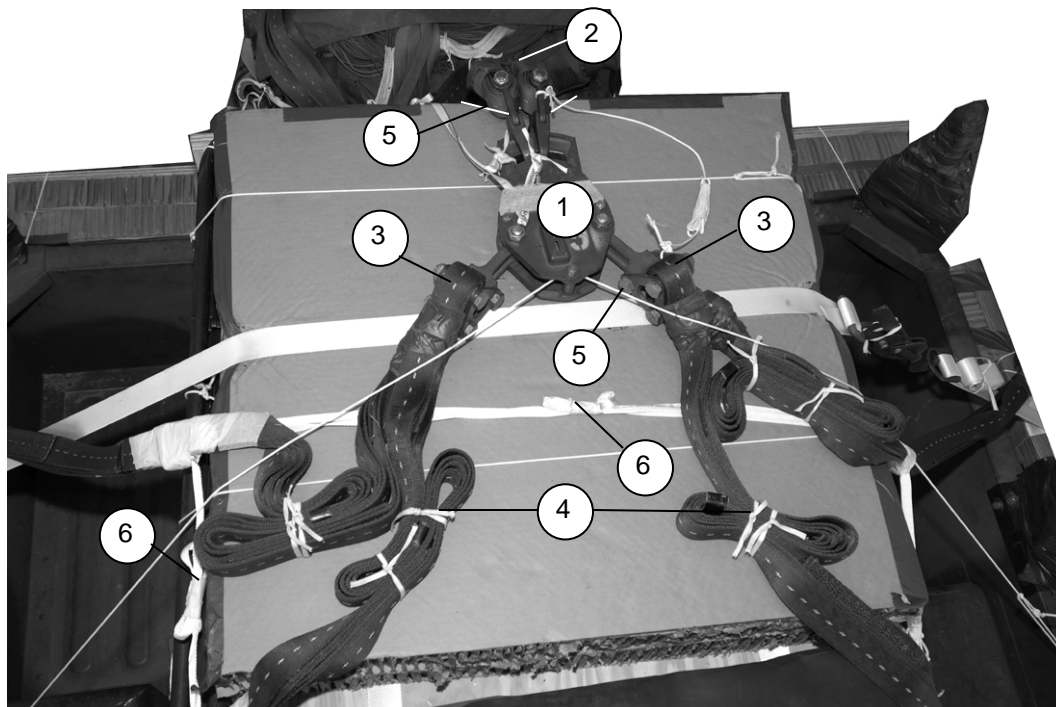


Figure 3-24. Cargo Parachutes Positioned and Restrained

INSTALLING PARACHUTE RELEASE SYSTEM

3-14. Prepare and install an M-1 parachute release system according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 3-25.



- ① Center an M-1 parachute release assembly on top of the honeycomb.
- ② Attach the parachute riser extensions to the parachute release connectors.
- ③ Attach the suspension slings to the lower suspension links.
- ④ Fold the excess suspension slings and safety tie with type I, ¼-inch cotton webbing.
- ⑤ Tie the parachute release safety ties to convenient points on the load.
- ⑥ S-fold the slack in the deadman and secure with one turn of masking tape.

Figure 3-25. M-1 Parachute Release Installed

INSTALLING EXTRACTION SYSTEM

3-15. Install the extraction system as shown in Figure 3-26.

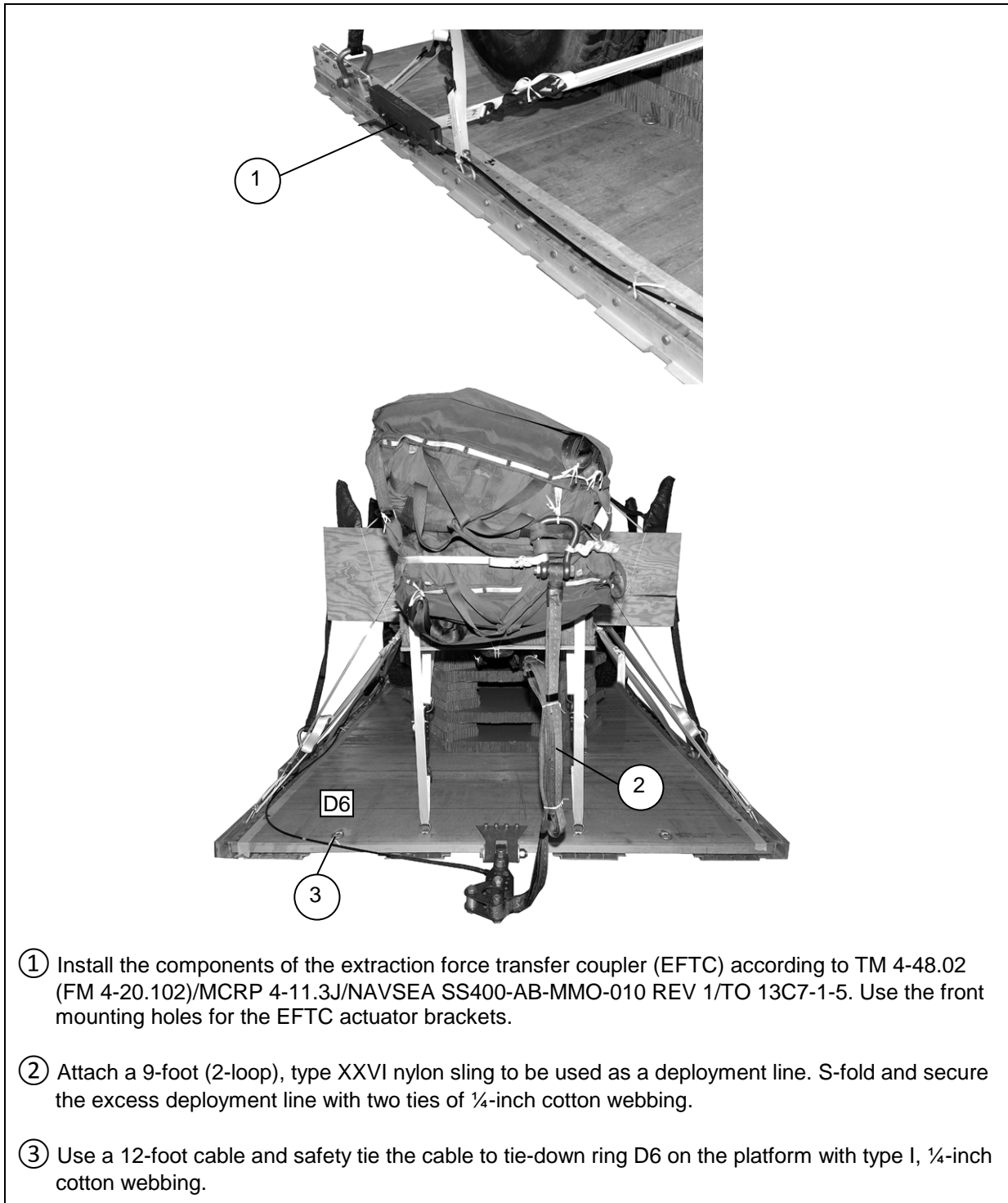


Figure 3-26. Extraction System Installed

PLACING EXTRACTION PARACHUTE

3-16. Select the extraction parachute and extraction line needed using the extraction line requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Place the extraction parachute and line on the load for installation in the aircraft.

INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

3-17. Select and install the provisions for the emergency aft restraints according to the emergency aft restraint requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

MARKING RIGGED LOAD

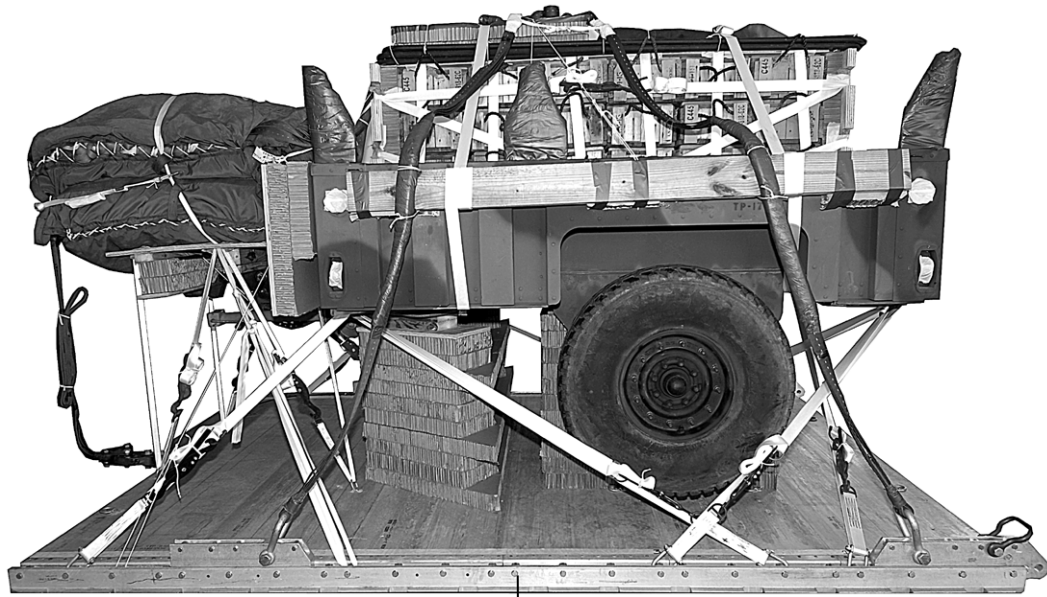
3-18. Mark the rigged load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figure 3-27. Complete Shipper's Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, Center of Balance (CB), and parachute requirements must be recomputed.

EQUIPMENT REQUIRED

3-19. Use the equipment listed in Table 3-1 to rig this load.

CAUTION

Make the final rigger inspection required by AR 59-4 and TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 before the load leaves the rigging site.



Center of Balance

RIGGED LOAD DATA

Weight: Load Shown.....	5,820 pounds
Max Weight Load	6,060 pounds
Height.....	91 ½ inches
Width.....	108 inches
Overall Length	163 inches
Overhang: Front.....	0 inches
Rear (Parachute Stowage Platform)	19 inches
Center of Balance (CB) (from front edge of the platform).....	69 inches
Extraction System with 16-foot cable (adds 0 inches to the length of the load)	

Figure 3-27. M1101 HMT-L ¾-Ton Trailer Rigged on a 12-Foot, Type V Platform for Low-Velocity Airdrop

Table 3-1. Equipment Required for Rigging the M1101 HMT-L ¾-Ton Trailer on a 12-Foot, Type V Platform for Low-Velocity Airdrop

<i>National Stock Number</i>	<i>Item</i>	<i>Quantity</i>
8040-00-273-8713	Adhesive paste, 1-gal.	As required
4030-00-090-5354	Clevis, suspension, 1-inch (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
1670-00-360-0328	Cover, clevis	2
8135-00-664-6958	Cushioning material (Cellulose padding)	As required
8305-00-958-3685	Felt, 1/2-inch thick	As required
1670-01-183-2678	Leaf, extraction line (line bag) (add 2 for C-17)	2
	Line extraction:	
1670-01-062-6313	60-foot (3-loop), type XXVI (for C-130)	1
1670-01-107-7651	140-foot (3-loop), type XXVI (for C-17)	1
1670-01-064-4452	60-foot (1-loop), type XXVI (for C-17), (drogue line)	1
1670-00-783-5988	Link assembly, type IV (C-17 only)	1
1670-01-493-6418	Link assembly, two-point, small, 3 ¾-inch	1
	Lumber:	
5510-00-220-6146	2- by 4- by 96-inch	3
5510-00-220-6148	2- by 6- by 96-inch	3
5315-00-010-4659	Nail, steel, common, 6D	As required
1670-00-753-3928	Pad, energy-dissipating (honeycomb)	15 sheets
1670-01-016-7841	Parachute, cargo, G-11B	2
	Parachute, cargo, extraction:	
1670-01-063-3715	15-foot (add one for C-17)	1
	Platform, airdrop, type V, 20-foot:	
1670-01-162-2372	Clevis assembly (type V)	14
1670-01-162-2376	Extraction bracket assembly	1
1670-01-247-2389	Link, suspension bracket, type V	2
1670-01-162-2381	Tandem link assembly (Multipurpose link)	2
5530-00-128-4981	Plywood, 3/4-inch	4 Sheets

Table 3-1. Equipment Required for Rigging the M1101 HMT-L ¾-Ton Trailer on a 12-Foot, Type V Platform for Low-Velocity Airdrop (continued)

<i>National Stock Number</i>	<i>Item</i>	<i>Quantity</i>
1670-01-097-8816	Release, cargo parachute, M-1	1
	Sling, cargo, airdrop:	
1670-01-062-6301	3-foot (2-loop), type XXVI	1
1670-01-062-6304	9-foot (2-loop), type XXVI	1
1670-01-062-6303	12-foot (2-loop), type XXVI	4
1670-01-062-6302	20-foot (2-loop), type XXVI	2
5340-00-040-8219	Strap, parachute, release, multi-knife	2
7501-00-266-5016	Tape, adhesive, 2-inch	As required
1670-00-937-0271	Tie-down assembly, 15-foot	38
1670-01-483-8259	Link, parachute, connector (H-block) (C-17 only)	1
	Webbing:	
8305-00-268-2411	Cotton, 1/4-inch, type I	As required
8305-00-082-5752	Nylon, tubular, 1/2-inch	As required
8305-00-261-8585	Nylon, type VIII	As required
Legend:	gal= gallon, lb = pound, ft = feet, D = penny	

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Chapter 4

Rigging the 1 ½-Ton Trailer on a 12-Foot, Type V Platform for Low-Velocity Airdrop

DESCRIPTION OF THE LOAD

4-1. The 1 ½-ton trailer (Figure 4-1) is rigged on a 12-foot, type V airdrop platform using two G-11 cargo parachutes. The 1 ½-ton trailer is 98 inches high (reducible to 55 inches), 83 inches wide, 166 ½ inches long, and weighs 2,650 pounds. The trailer must be rigged with an accompanying load. The accompanying load must not weigh more than 3,000 pounds. The accompanying load shown in this chapter consists of 24 ammunition boxes weighing approximately 2,280 pounds.

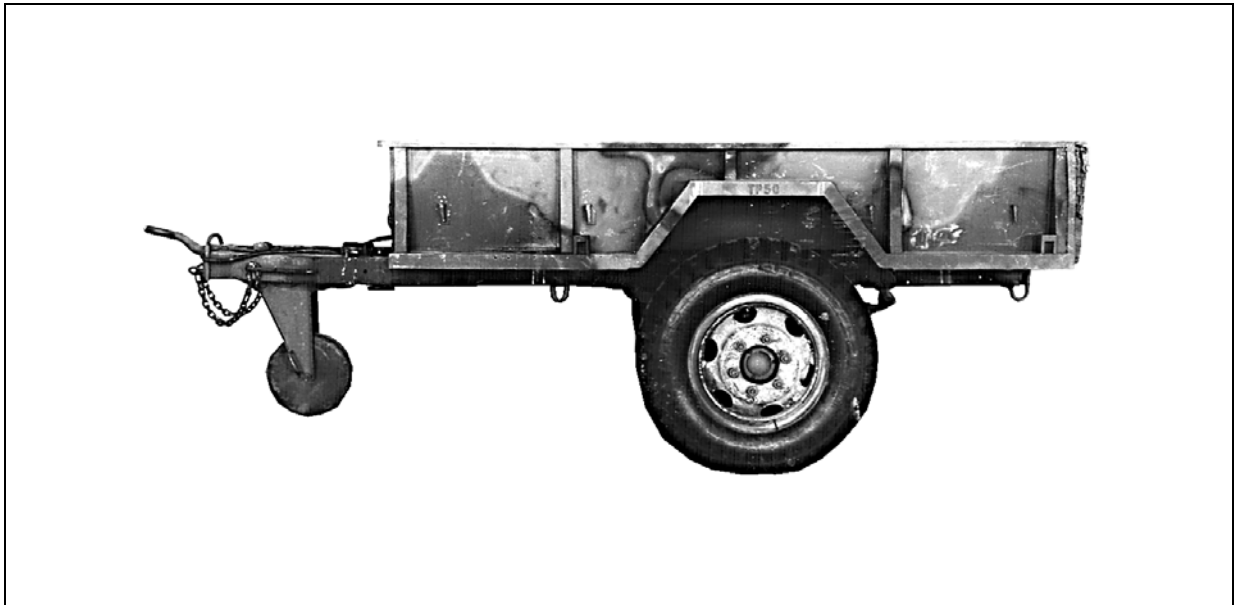


Figure 4-1. 1 ½-Ton Trailer

PREPARING PLATFORM

4-2. Prepare a 12-foot, type V airdrop platform as shown in Figure 4-2.

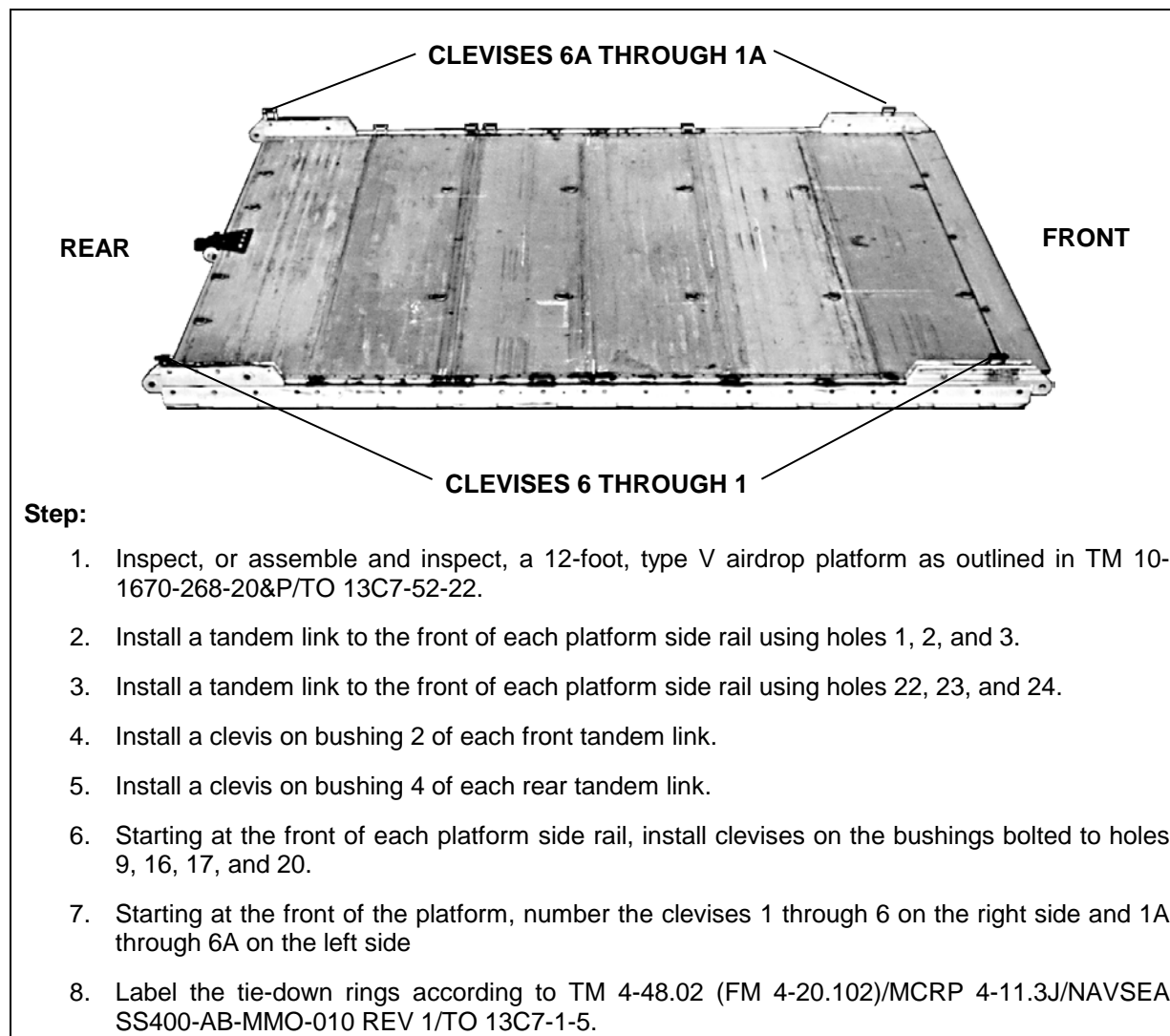
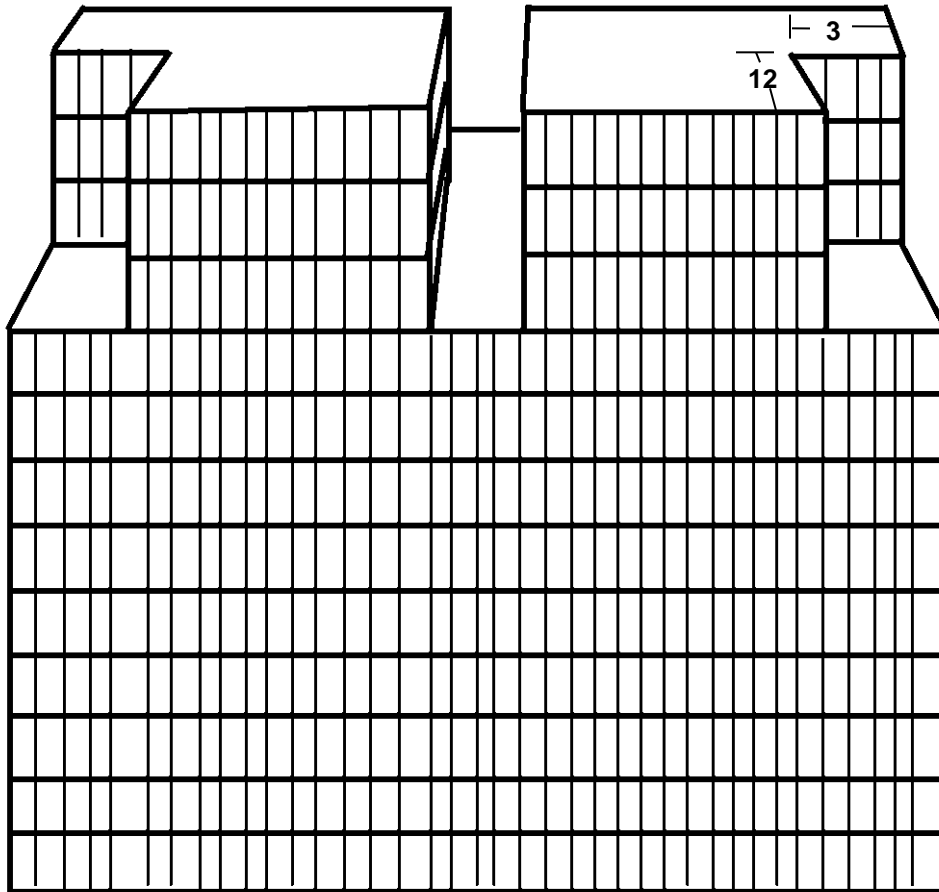


Figure 4-2. Platform Prepared

BUILDING AND POSITIONING HONEYCOMB STACKS

4-3. Build the honeycomb stacks as shown in Figures 3-3 through 3-5 Position the stacks as shown in Figure 4-6.

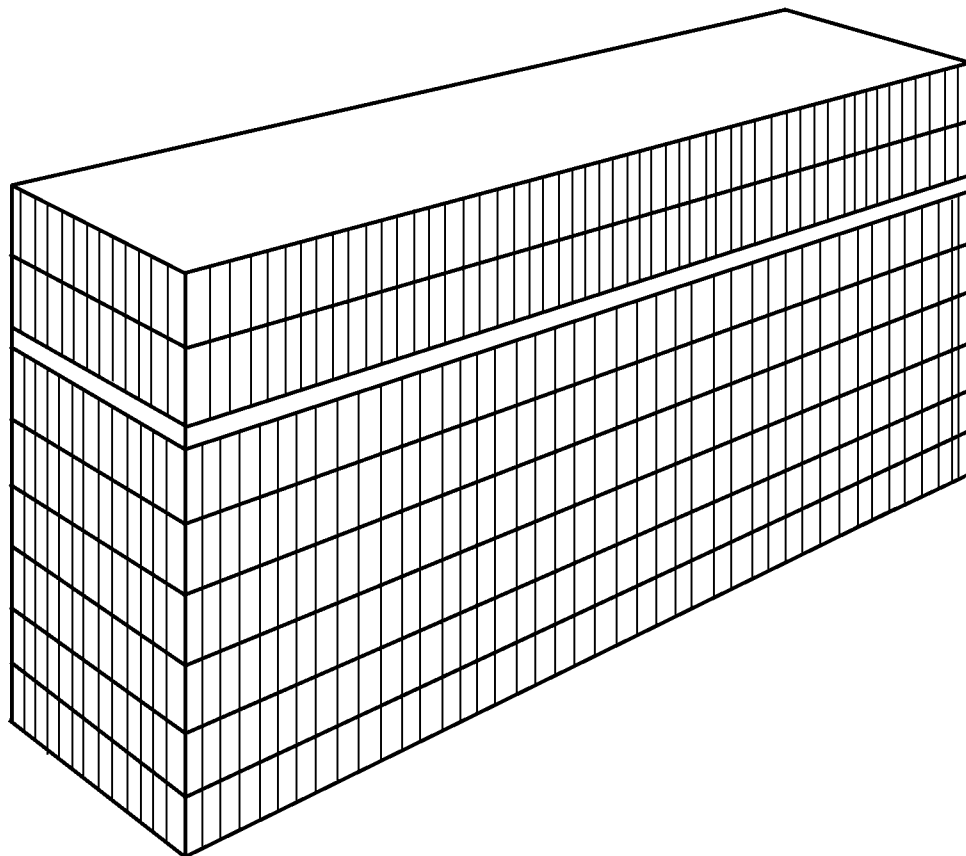
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
1	9 6	36 18	40 24	Honeycomb Honeycomb	Glue pieces together to form a base. Make a 3- by 12-inch cutout on each piece of honeycomb. Place three pieces on each side of the base with the cutout to the front and facing outward on the stack.

Figure 4-3. Honeycomb Stack 1 Prepared

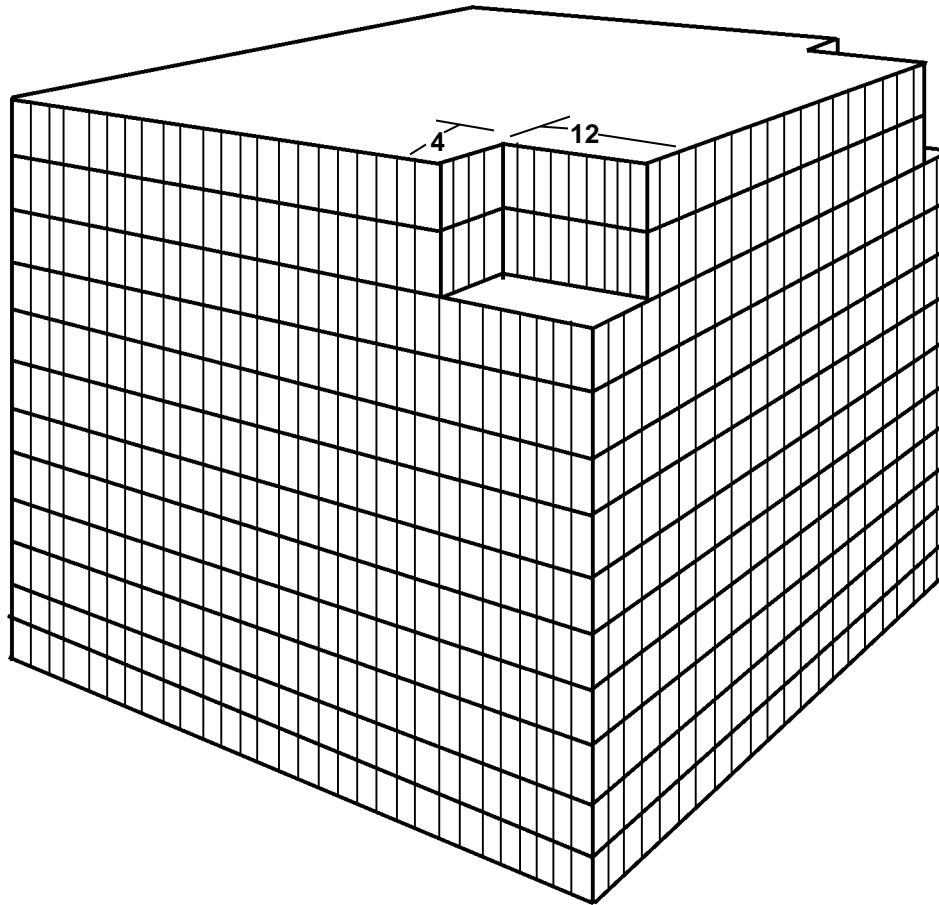
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.



<i>Stack Number</i>	<i>Pieces</i>	<i>Width (Inches)</i>	<i>Length (Inches)</i>	<i>Material</i>	<i>Instructions</i>
2	6	12	48	Honeycomb	Glue 6 pieces of honeycomb together to form a base.
	1	12	48	$\frac{3}{4}$ -inch Plywood	Glue flush on top of the base.
	2	12	48	Honeycomb	Glue flush on top of the plywood.

Figure 4-4. Honeycomb Stack 2 Prepared

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



<i>Stack Number</i>	<i>Pieces</i>	<i>Width (Inches)</i>	<i>Length (Inches)</i>	<i>Material</i>	<i>Instructions</i>
3	12	36	40	Honeycomb	Glue together to form a base. Make a 4- by 8-inch cutout on each side to the front of the top two layers

Figure 4-5. Honeycomb Stack 3 Prepared

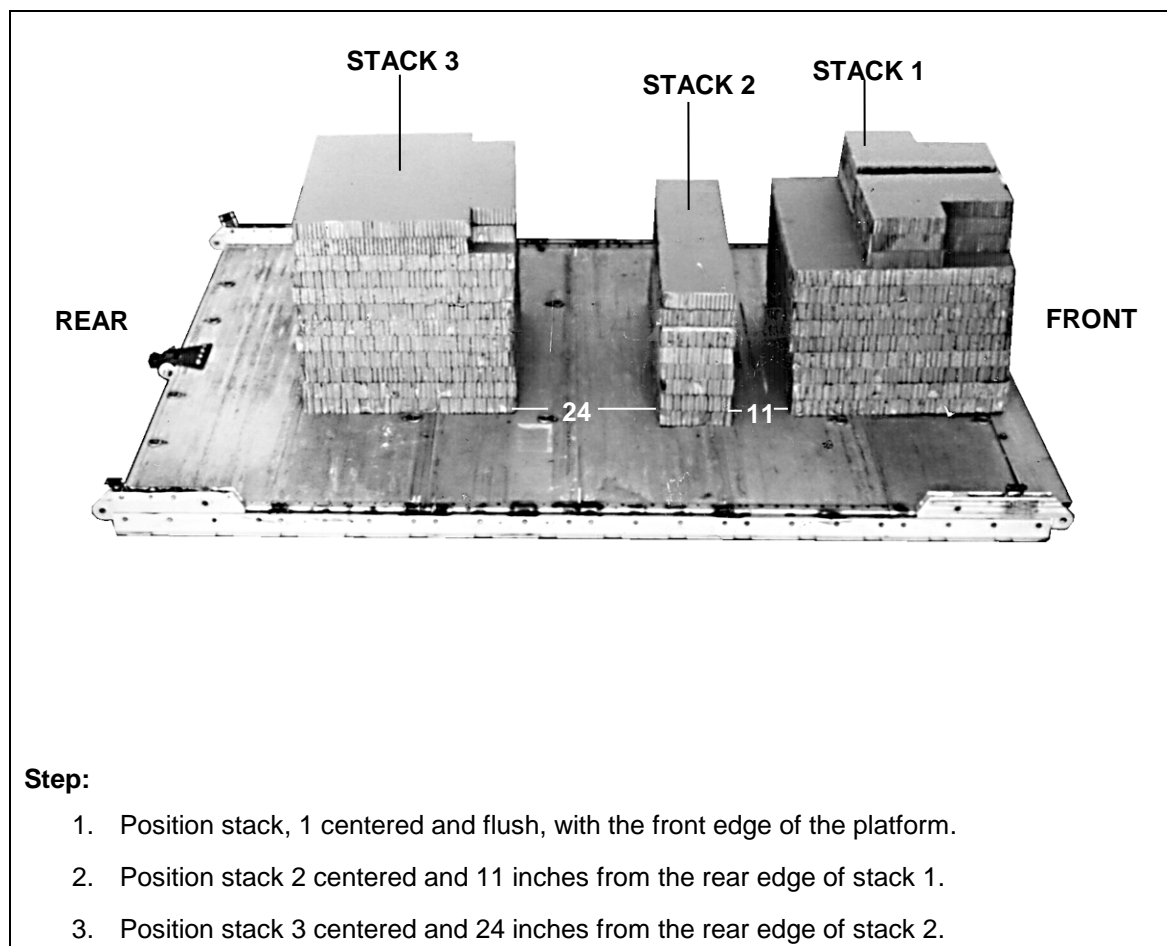


Figure 4-6. Honeycomb Stacks Positioned on Platform

PREPARING THE TRAILER

4-4. Prepare the trailer as shown in Figure 4-7.

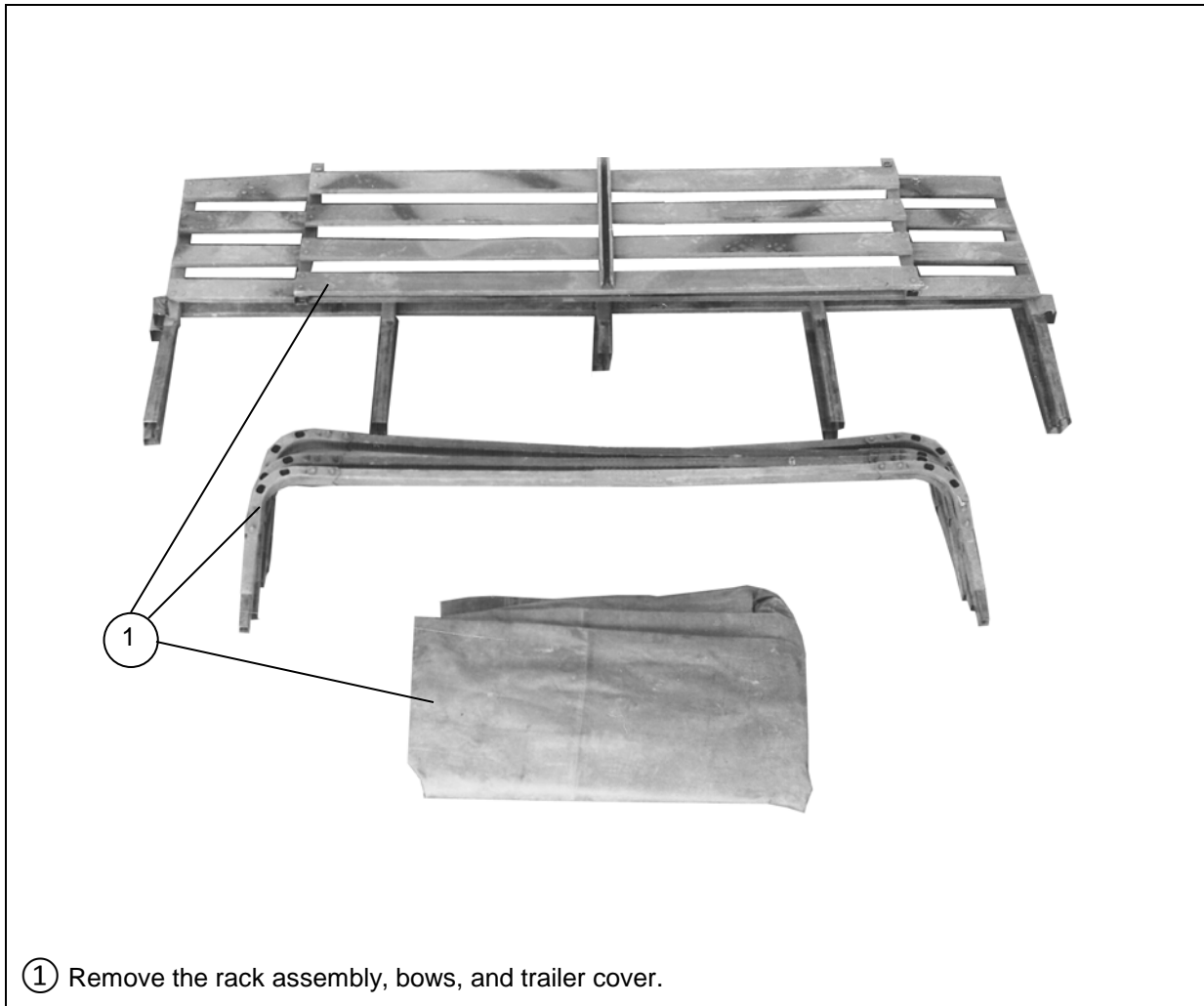


Figure 4-7. Trailer Prepared

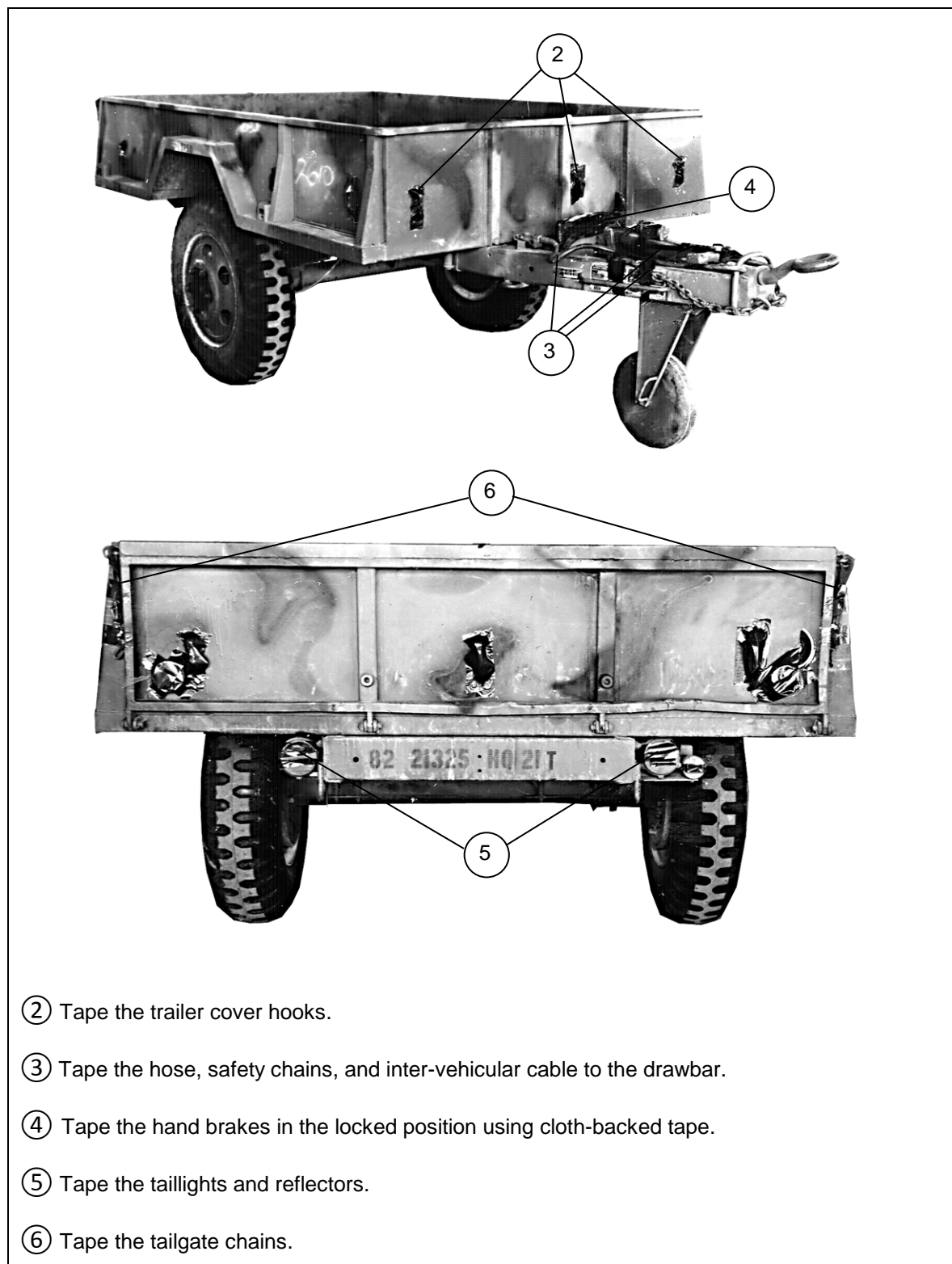


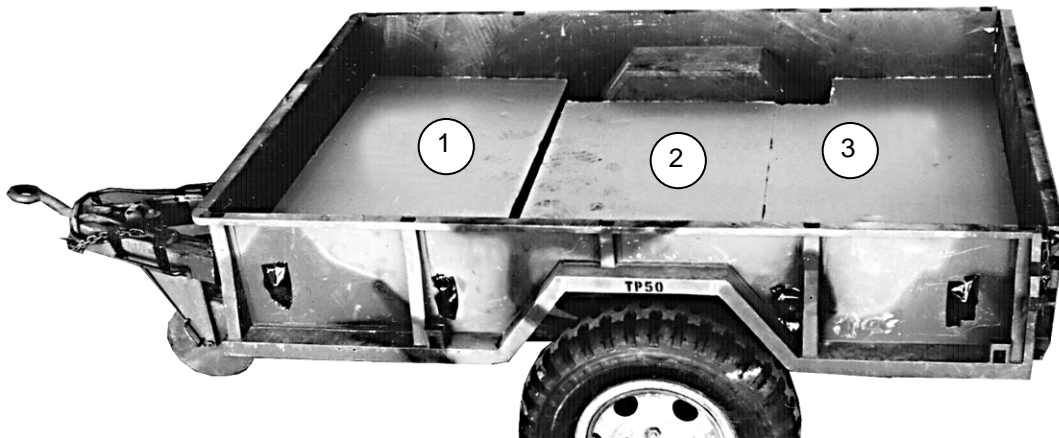
Figure 4-7. Trailer Prepared (Continued)

STOWING THE ACCOMPANYING LOAD AND TRAILER COMPONENTS

4-5. Stow the accompanying load of 24 ammunition boxes in the trailer as shown in Figure 4-8. The accompanying load must not weigh more than 3,000 pounds and must not exceed the height of the trailer body. If the load includes a hazardous material, it must be packaged, marked, and labeled in compliance with AFMAN 24-204(I)/TM 38-250/NAVSUP PUB 505/MCO P 4030.19I/DLAI4145.3. The load must comply with the restrictions and meet the requirements outlined in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. The accompanying load shown in these procedures as 2,280 pounds of 105-millimeter ammunition stowed in the trailer.

CAUTION

Only ammunition listed in TM 4-48.16/MCRP 4-11.3B/TO 13C7-18-41 may be airdropped.



- ① Place two 36- by 74-inch pieces of honeycomb in the front of the trailer.
- ② Place two 36- by 54-inch pieces of honeycomb in the center of the trailer.
- ③ Make a 9- by 11-inch cutout on each side of two 36- by 74-inch pieces of honeycomb, with the cutouts facing the front of the trailer, in the rear of the trailer.

Figure 4-8. Accompanying Load and Trailer Components Stowed

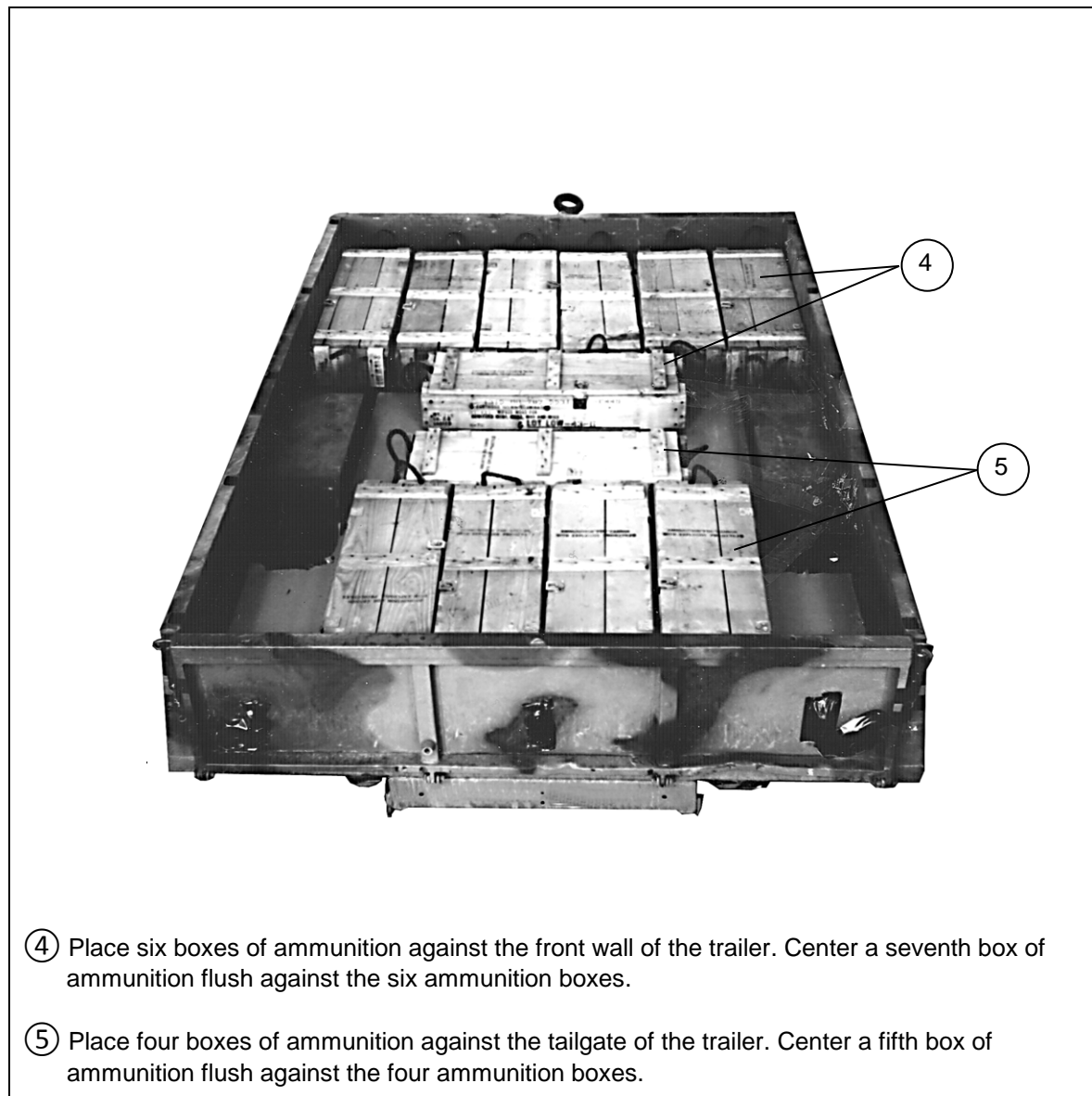


Figure 4-8. Accompanying Load and Trailer Components Stowed (Continued)

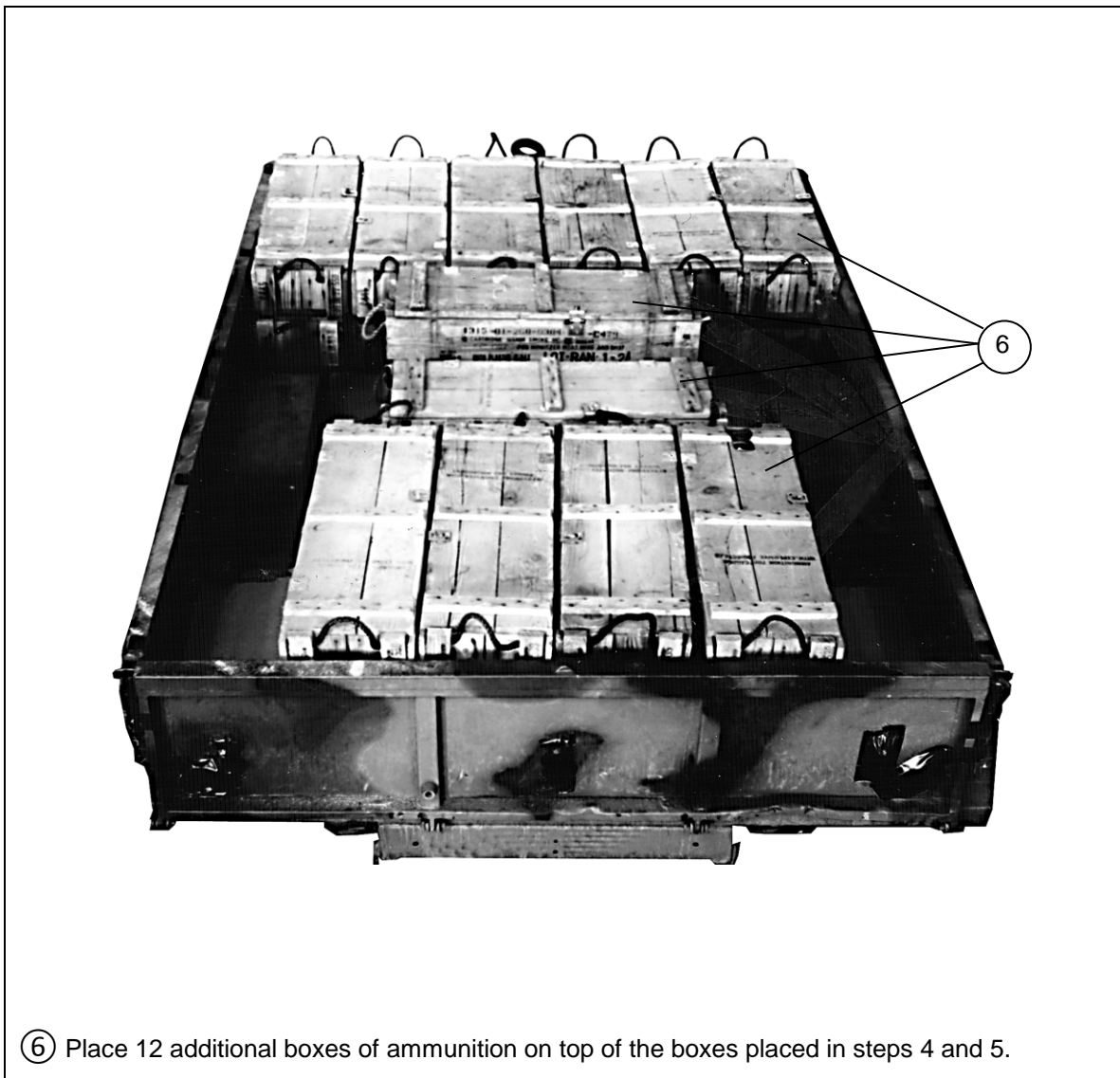
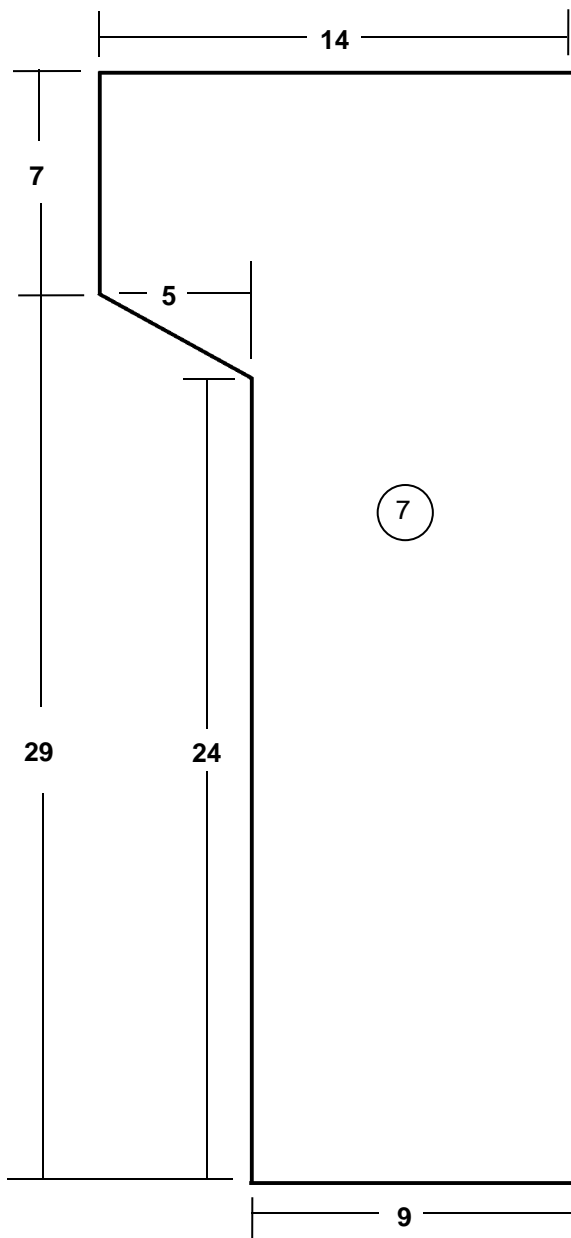


Figure 4-8. Accompanying Load and Trailer Components Stowed (Continued)

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



⑦ Make a 5- by 29-inch cutout as shown in six 14- by 36-inch pieces of honeycomb.

Figure 4-8. Accompanying Load and Trailer Components Stowed (Continued)

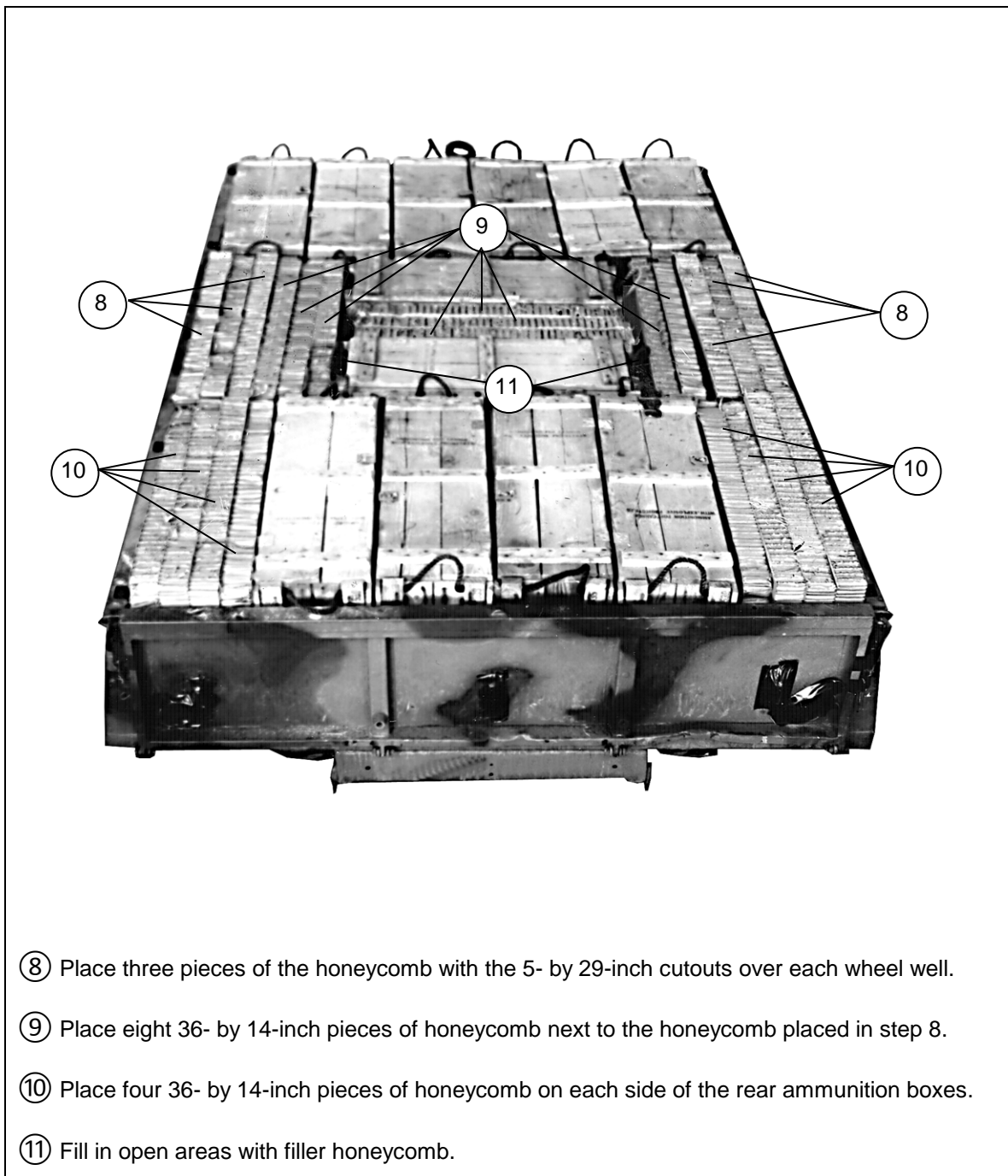


Figure 4-8. Accompanying Load and Trailer Components Stowed (Continued)

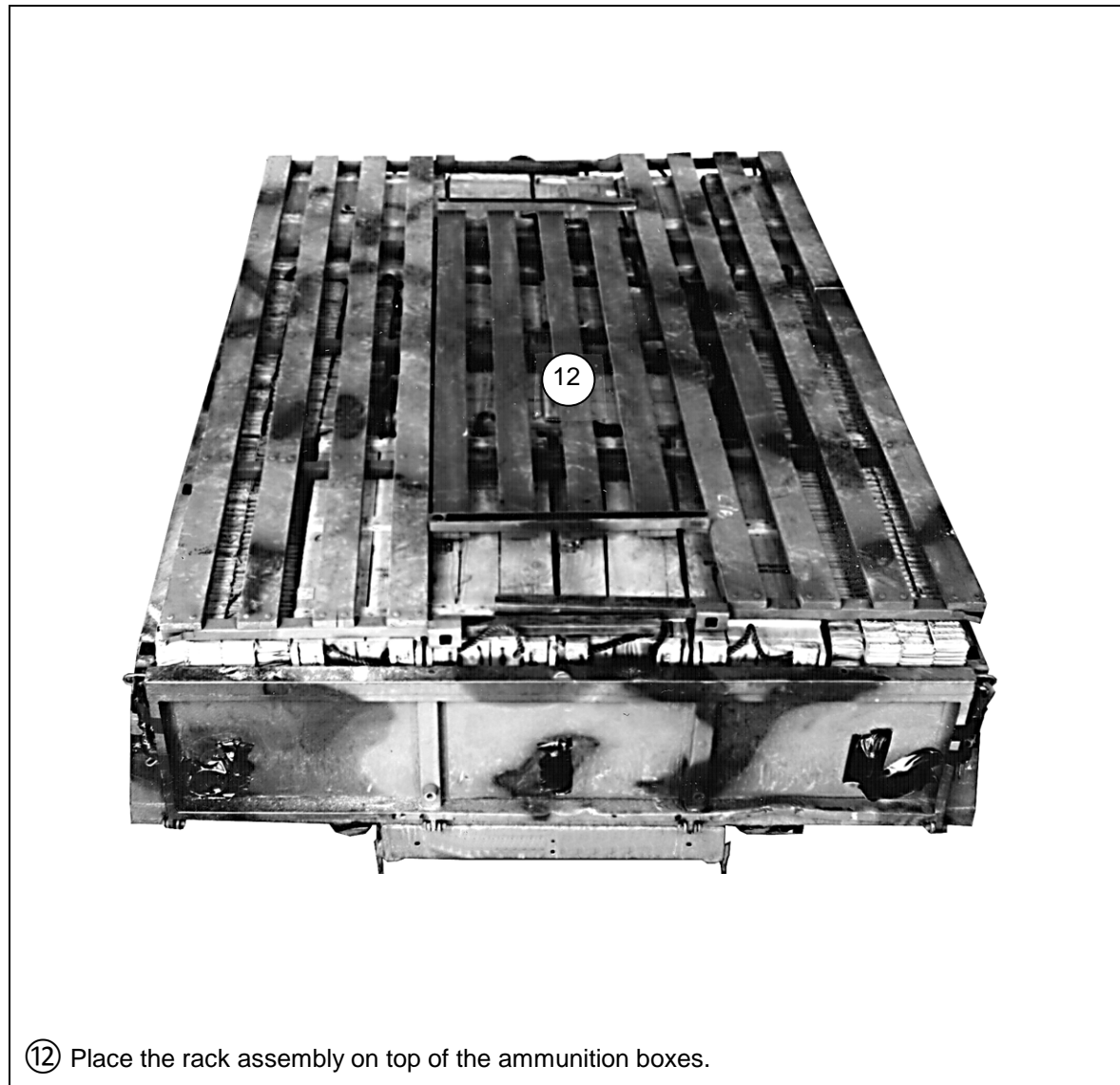
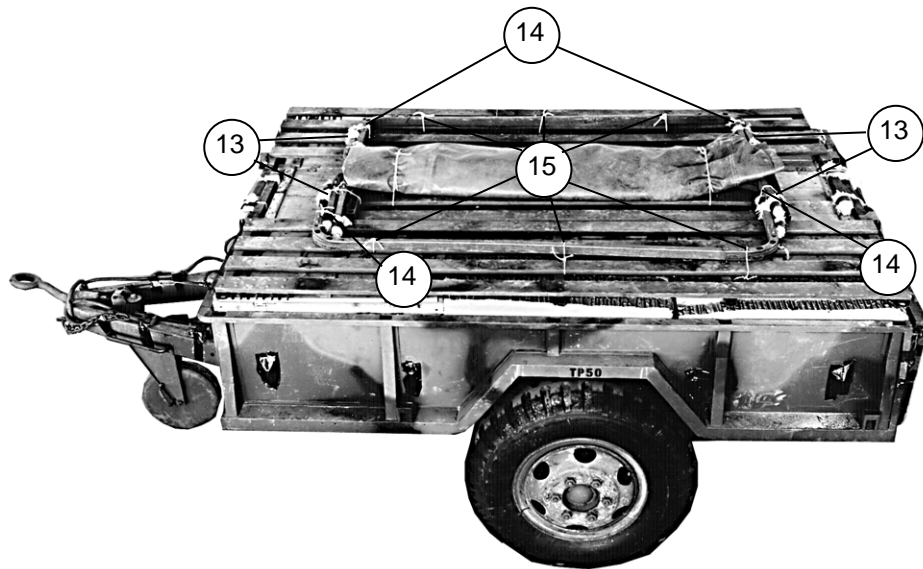


Figure 4-8. Accompanying Load and Trailer Components Stowed (Continued)



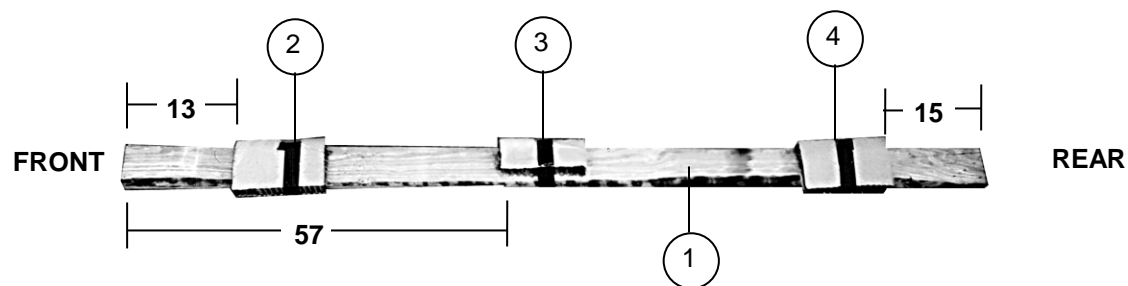
- ⑬ Pad all sharp areas of the rack assembly and bows with cellulose padding and tape.
- ⑭ Tie the bows together with type III nylon cord
- ⑮ Secure the bows and trailer cover to the rack assembly with type III nylon cord.

Figure 4-8. Accompanying Load and Trailer Components Stowed (Continued)

BUILDING BODY PROTECTION BOARDS

4-6. Build the body protection boards as shown in Figure 4-9.

Note. All measurements are given in inches.

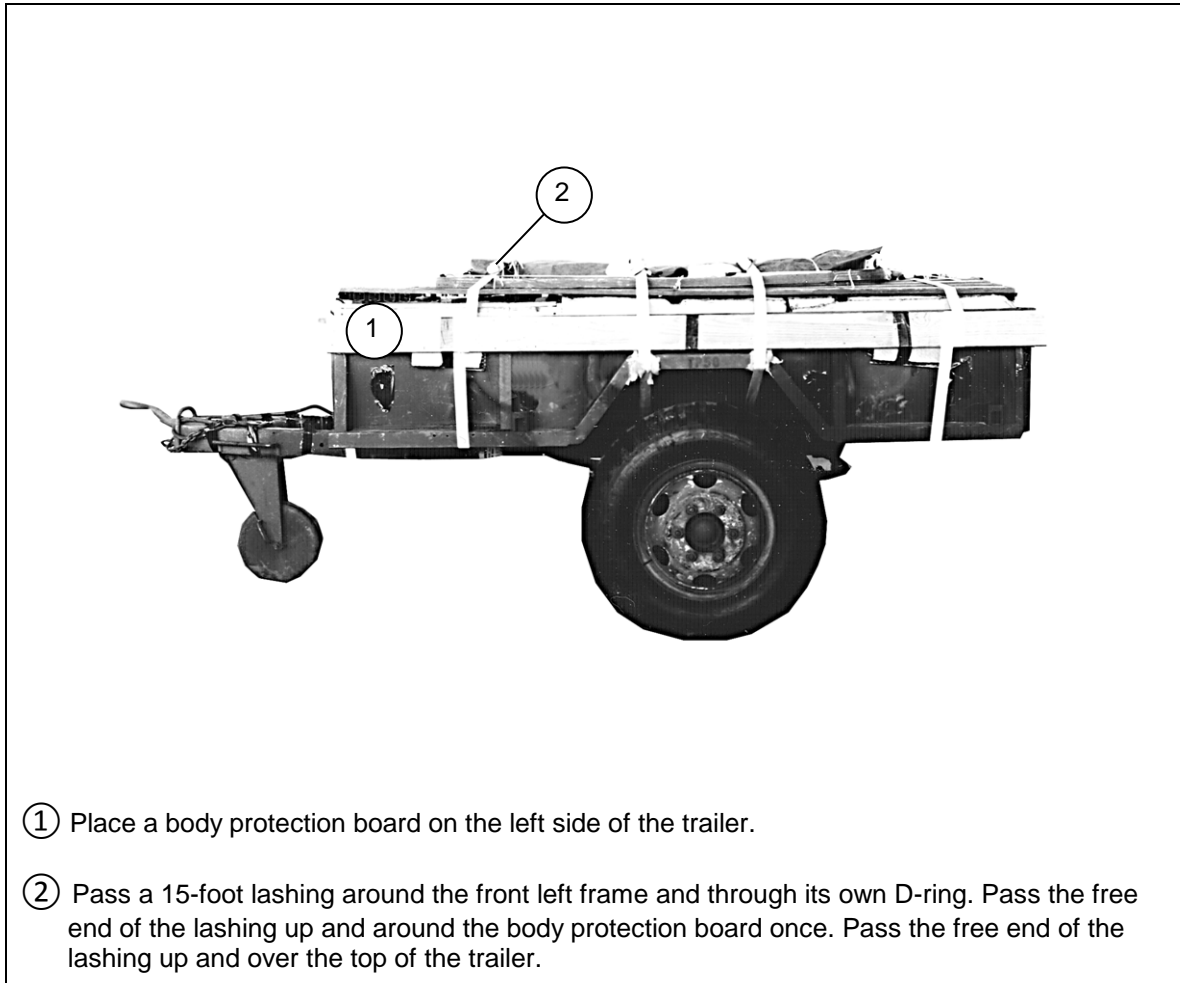


- ① Prepare two 2- by 6- by 120-inch pieces of lumber for body protection boards.
- ② Tape a 7- by 11-inch piece of honeycomb 13 inches from the front of each board.
- ③ Tape a 4- by 11-inch piece of honeycomb 57 inches from the front of each board.
- ④ Tape a 7- by 11-inch piece of honeycomb 15 inches from the rear of each board.

Figure 4-9. Body Protection Boards Built

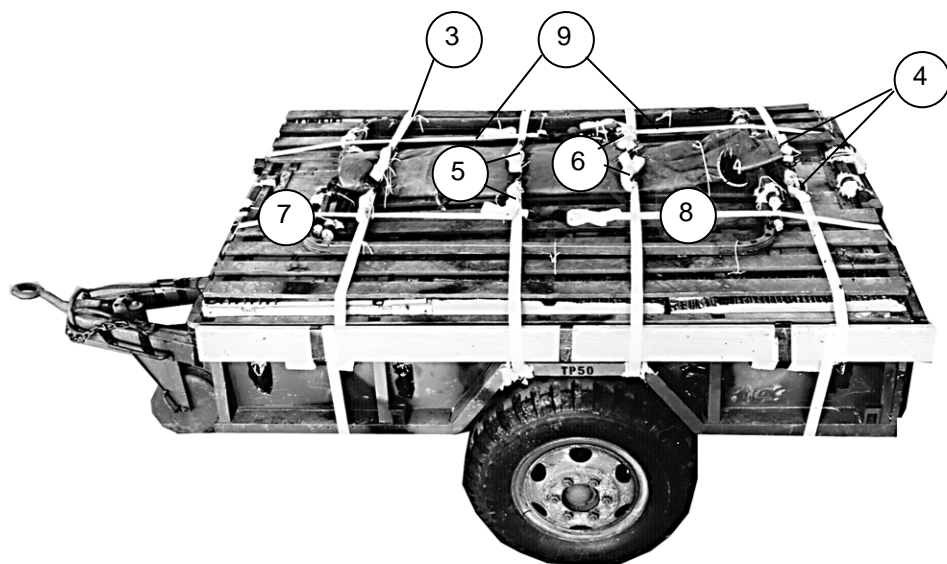
LASHING BODY PROTECTION BOARDS AND ACCOMPANYING LOAD TO TRAILER

4-7. Lash the body protection boards and accompanying load to the trailer using twelve 15-foot tie-down assemblies according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 4-10.



- ① Place a body protection board on the left side of the trailer.
- ② Pass a 15-foot lashing around the front left frame and through its own D-ring. Pass the free end of the lashing up and around the body protection board once. Pass the free end of the lashing up and over the top of the trailer.

Figure 4-10. Body Protection Boards and Accompanying Load Lashed to Trailer

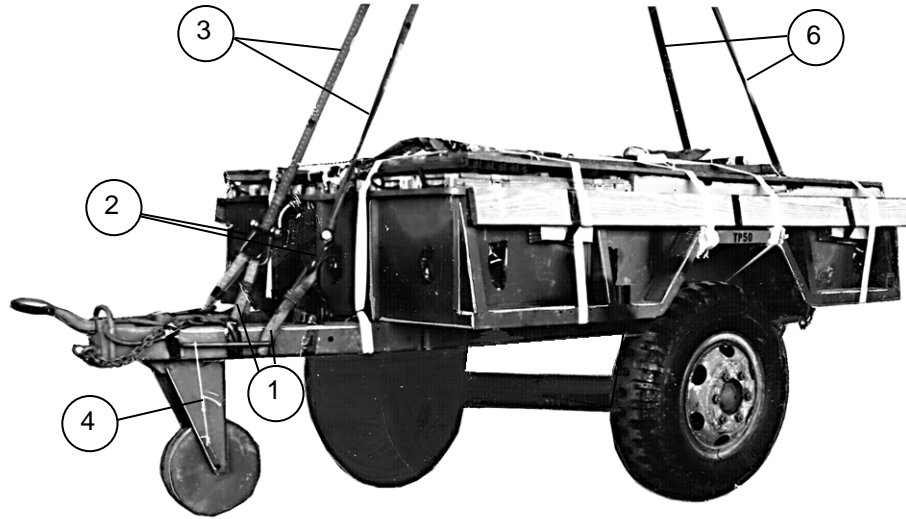


- ③ Repeat steps 1 and 2 for the right side of the trailer. Secure the lashings in steps 2 and 3 with two D-rings and a load binder on top of the load.
- ④ Pass a 15-foot lashing around the rear left frame and through its own D-ring. Pass the free end of the lashing up and around the body protection board once. Pass the free end of the lashing up and over the top of the trailer. Repeat step for the right side. Secure the lashings with two D-rings and a load binder.
- ⑤ Repeat step 4 for the front of the wheel well. Do not wrap the lashing around the body protection board.
- ⑥ Repeat step 4 for the rear of the wheel well. Do not wrap the lashing around the body protection board.
- ⑦ Pass a 15-foot tie-down strap around the left drawbar and through its own D-ring. Pass the free end up and over the top of the trailer.
- ⑧ Pass a 15-foot tie-down strap through the left rear tie-down provision and through its own D-ring. Pass the free end up and over the top of the trailer. Secure lashings in steps 7 and 8 with two D-rings and a load binder.
- ⑨ Repeat steps 7 and 8 for the right side of the trailer.

Figure 4-10. Body Protection Boards and Accompanying Load Lashed to Trailer (Continued)

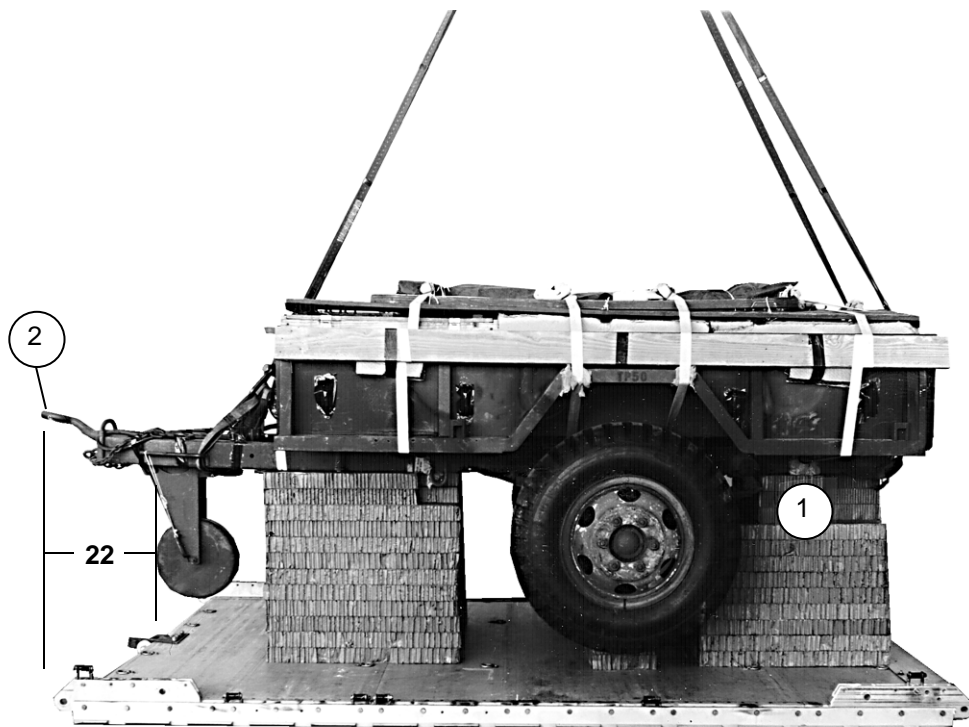
LIFTING AND POSITIONING THE TRAILER

4-8. Install the lifting slings and position the trailer as shown in Figures 4-11 and 4-12.



- ① Wrap a 3-foot (2-loop), type XXVI nylon sling around each side of the drawbar. Ensure the slings pass between the drawbar and the lifting handle.
- ② Attach a large suspension clevis through the ends of each 3-foot sling.
- ③ Attach an 11-foot (2-loop), type XXVI nylon sling to each large front suspension clevis.
- ④ Safety tie the castor wheel to the drawbar lifting handles with type III nylon cord.
- ⑤ Wrap a 3-foot sling around the left frame at the rear of the trailer (not shown). Attach a large suspension clevis through the ends of the sling (not shown). Repeat step for the right side (not shown).
- ⑥ Attach a 12-foot (2-loop), type XXVI nylon sling to each rear suspension clevis.

Figure 4-11. Trailer Lifting Slings Installed



- ① Place the trailer on the honeycomb with the axle centered on honeycomb stack 2 and the rear edge of the trailer flush with the front edge of the platform.
- ② Ensure the front edge of the lunette overhangs the rear of the platform by 22 inches.
- ③ Remove the lifting slings (not shown).

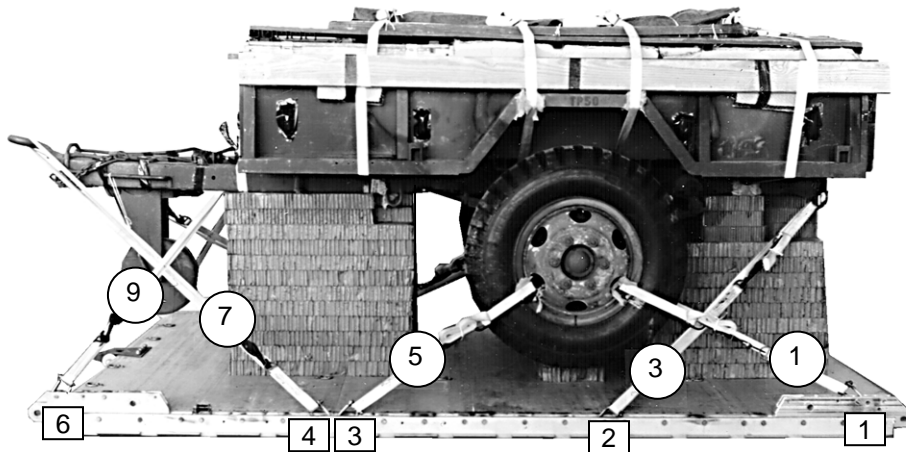
Figure 4-12. Trailer Positioned

LASHING LOAD TO PLATFORM

4-9. Lash trailer to the platform according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 4-13.

Note. Pad any sharp edges on the load where a lashing may pass. Use cellulose padding and masking tape.

Note. Left, right, front, and rear refer to the trailer, NOT the platform.

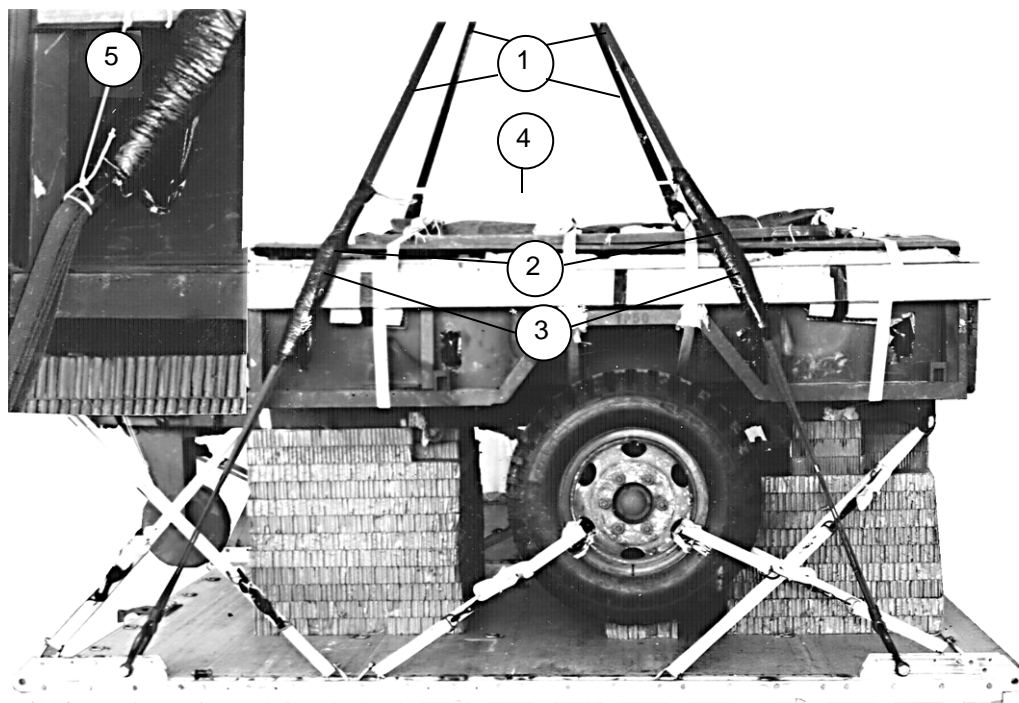


Lashing Number	Tie-down Clevis Number	Instructions
1	1	Pass lashing: Through left wheel.
2	1A	Through right wheel.
3	2	Through left rear tie-down provision.
4	2A	Through right rear tie-down provision.
5	3	Through left wheel.
6	3A	Through right wheel.
7	4	Through lunette.
8	4A	Through lunette.
9	6	Through left front tie-down provision.
10	6A	Through right rear tie-down provision.

Figure 4-13. Trailer Lashed to Platform

INSTALLING AND SAFETY TIEING THE SUSPENSION SLINGS

4-10. Install and safety tie the suspension slings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 4-14.



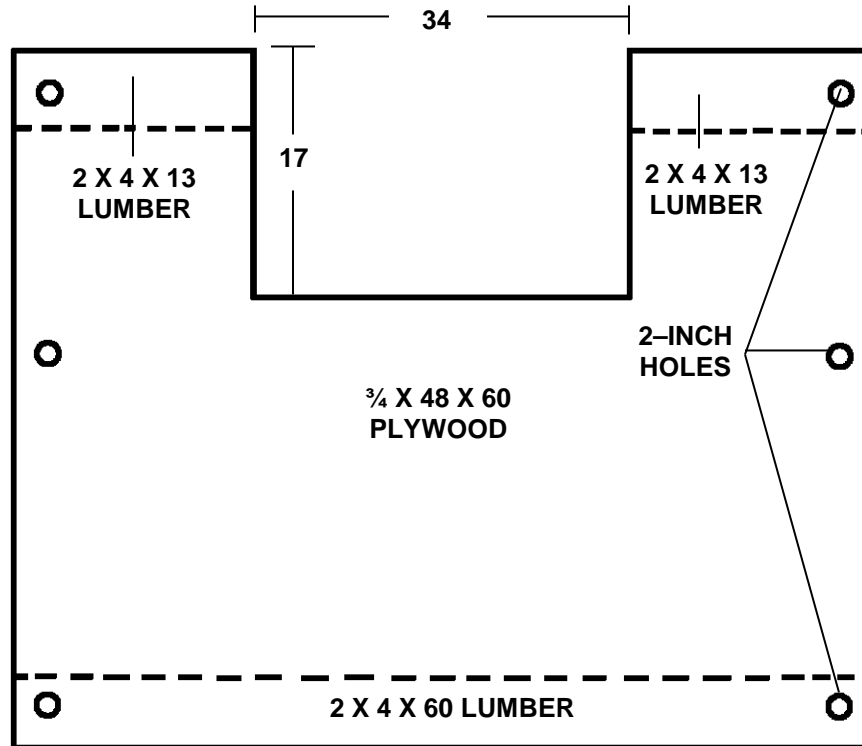
- ① Attach a 12-foot (2-loop), type XXVI nylon sling to each tandem link using a large suspension clevis.
- ② Wrap a 10-by 30-inch piece of felt around each sling where it makes contact with the load. Tie the padding in place using type III nylon cord.
- ③ Tape the padding using pressure sensitive tape the full length of the felt and extend the tape over on the suspension slings 6 inches on each end.
- ④ Install the deadman's tie according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.
- ⑤ Safety tie the suspension slings to the body protection boards using type III nylon cord.

Figure 4-14. Suspension Slings Installed and Safety Tied

BUILDING AND INSTALLING THE PARACHUTE STOWAGE PLATFORM

4-11. Build the parachute stowage platform as shown in Figure 4-15. Install the parachute stowage platform as shown in Figure 4-16.

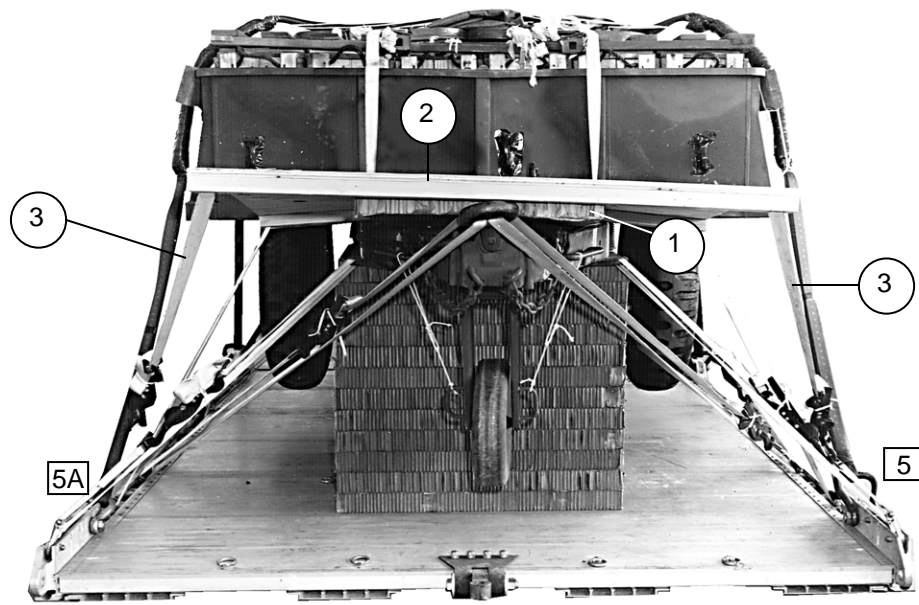
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.



Step:

1. Cut a ¾- by 48- by 60-nch piece of plywood.
2. Make a 17- by 34-inch cutout in the center of the front of the plywood.
3. Nail a 2- by 4- by 13-inch piece of lumber on each side of the front of the plywood using sixpenny nails. Nail a 2- by 4- by 60-inch piece of lumber on the rear of the plywood using sixpenny nails.
4. Drill six 2-inch holes as shown.

Figure 4-15. Parachute Stowage Platform Built



- ① Center a 26- by 36-inch piece of honeycomb on the drawbar.
- ② Center the parachute stowage platform on top of the honeycomb.
- ③ Lash the parachute stowage platform to clevises 5 and 5A with two 15-foot tie-downs.

Figure 4-16. Parachute Stowage Platform Installed

STOWING CARGO PARACHUTES

4-12. Prepare, stow, and restrain two G-11B cargo parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 4-17.

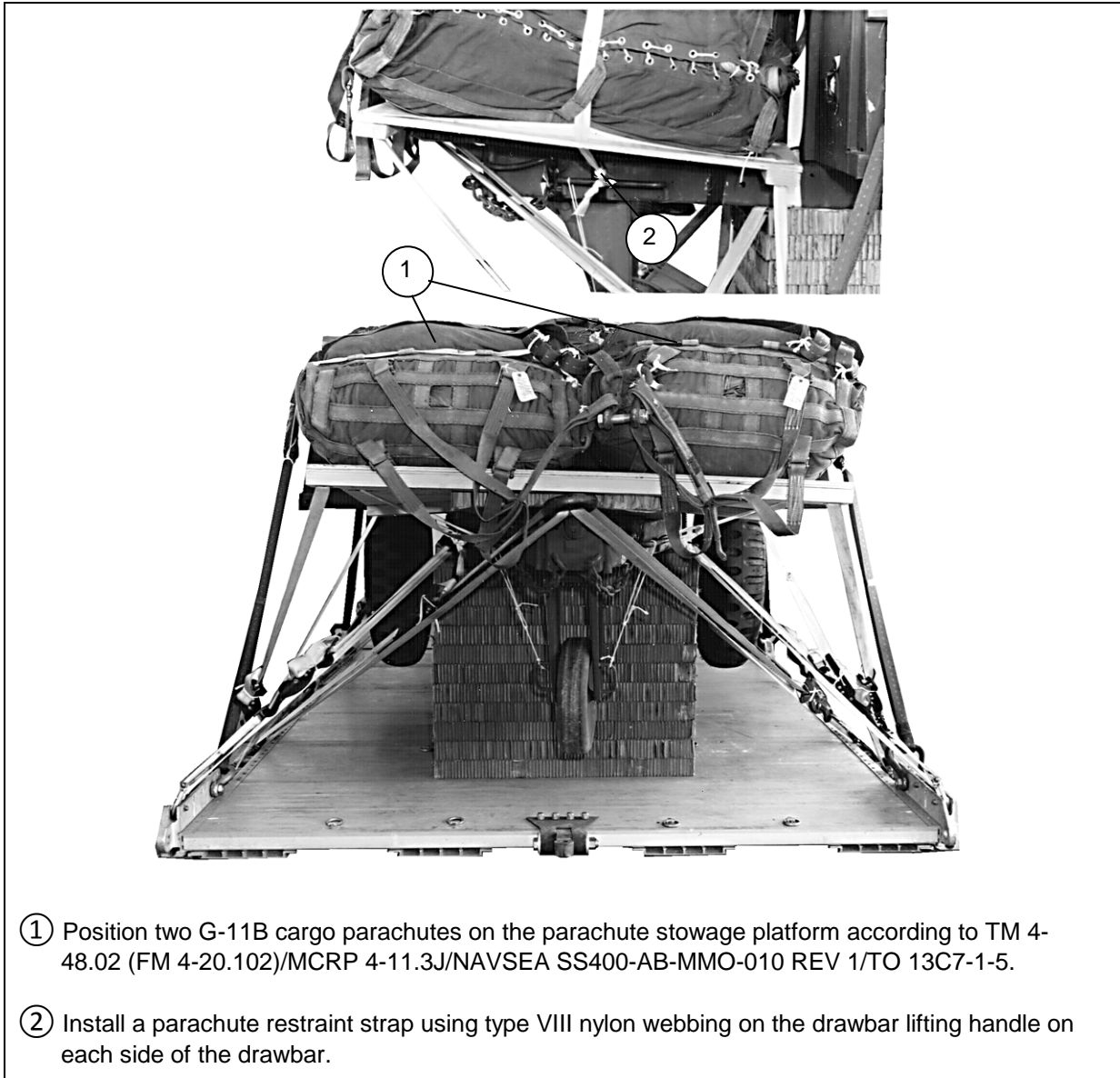
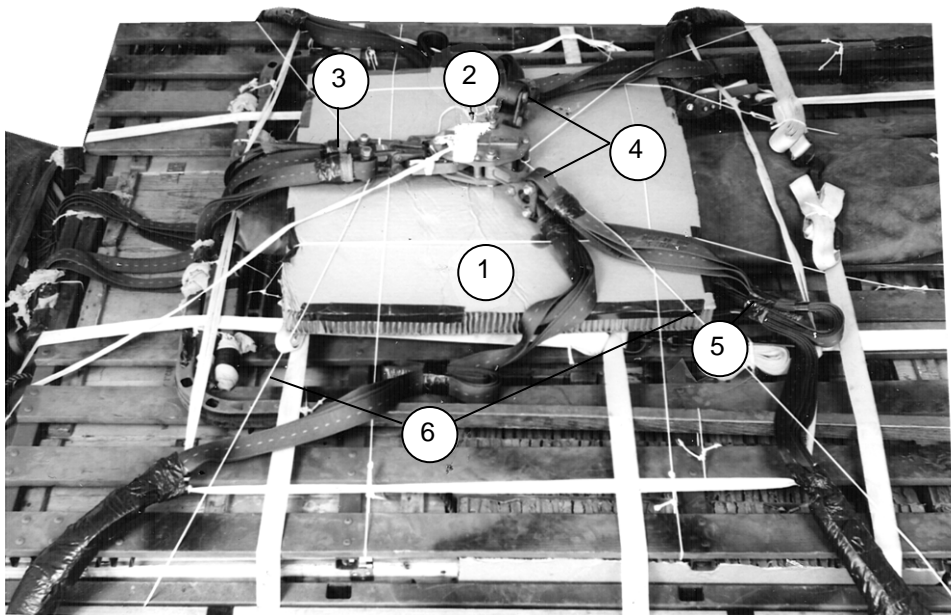


Figure 4-17. Cargo Parachutes Positioned and Restrained

INSTALLING PARACHUTE RELEASE SYSTEM

4-13. Prepare and install an M-1 parachute release system according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 4-18.

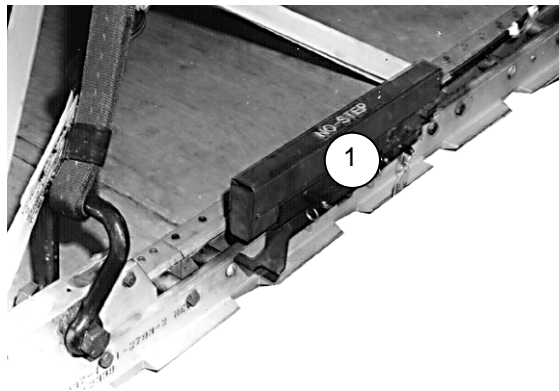
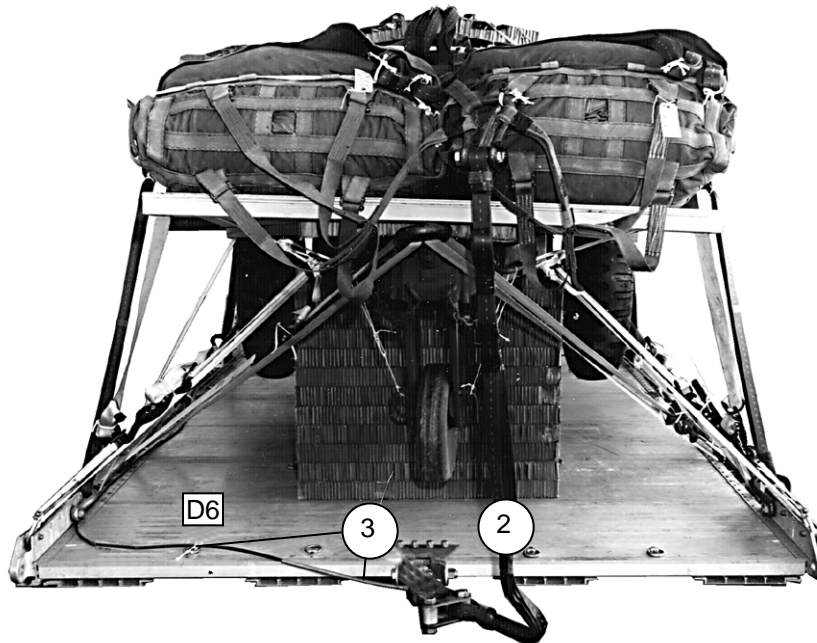


- ① Place a 36- by 36-inch piece of honeycomb on top of the load, and secure it with type III nylon cord.
- ② Center an M-1 parachute release assembly on top of the honeycomb.
- ③ Attach the parachute riser extensions to the parachute release connectors.
- ④ Attach the suspension slings to the lower suspension links.
- ⑤ Fold the excess suspension slings and safety tie with type I, ¼-inch cotton webbing.
- ⑥ Tie the parachute release safety ties to the trailer cover hooks.

Figure 4-18. M-1 Parachute Release Installed

INSTALLING EXTRACTION SYSTEM

4-14. Install the extraction system as shown in Figure 4-19.



- ① Install the components of the extraction force transfer coupler (EFTC) according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Use the rear mounting holes for the EFTC actuator brackets.
- ② Attach a 9-foot (2-loop), type XXVI nylon sling to be used as a deployment line.
- ③ Use a 12-foot cable and safety tie the cable to tie-down ring D6 on the platform with type I, ¼-inch cotton webbing.

Figure 4-19. Extraction System Installed

PLACING EXTRACTION PARACHUTE

4-15. Select the extraction parachute and extraction line needed using the extraction line requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Place the extraction parachute and line on the load for installation in the aircraft.

INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

4-16. Select and install the provisions for the emergency aft restraints according to the emergency aft restraint requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

MARKING RIGGED LOAD

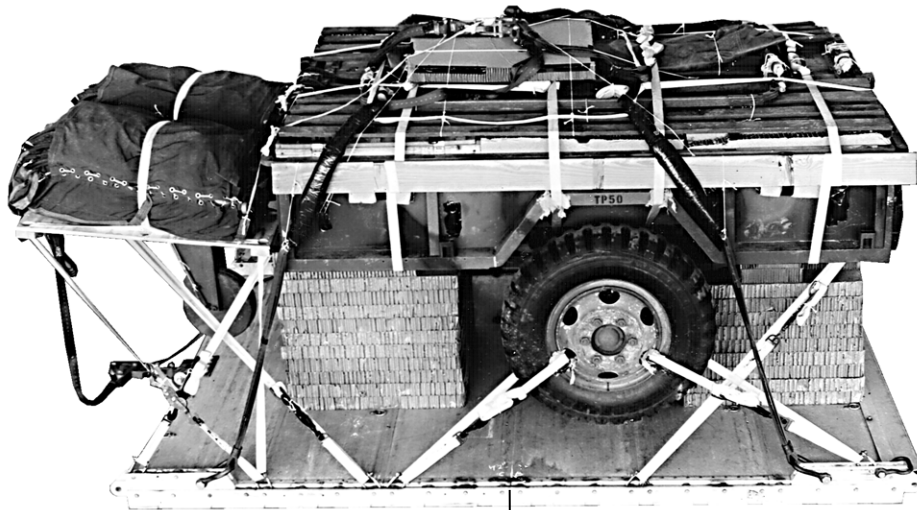
4-17. Mark the rigged load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figure 4-20. Complete Shipper's Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, Center of Balance (CB), and parachute requirements must be recomputed.

EQUIPMENT REQUIRED

4-18. Use the equipment listed in Table 4-1 to rig this load.

CAUTION

Make the final rigger inspection required by AR 59-4 and TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 before the load leaves the rigging site.



Center of Balance (CB)

RIGGED LOAD DATA

Weight: Load Shown.....	7,360 pounds
Max Weight Load	8,080 pounds
Height.....	81 inches
Width.....	108 inches
Overall Length	170 ½ inches
Overhang: Front.....	0 inches
Rear (Parachute Stowage Platform)	22 inches
Center of Balance (CB) (from front edge of the platform).....	72 inches
Extraction System with 16-foot cable (adds 0 inches to the length of the load)	

Figure 4-20. 1 ½-Ton trailer Rigged on a 12-Foot, Type V Platform for Low-Velocity Airdrop

Table 4-1. Equipment Required for Rigging the 1 ½-Ton Trailer on a 12-Foot, Type V Platform for Low-Velocity Airdrop

<i>National Stock Number</i>	<i>Item</i>	<i>Quantity</i>
8040-00-273-8713	Adhesive paste, 1-gal.	As required
4030-00-090-5354	Clevis, suspension, 1-inch (large)	10
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
1670-00-360-0328	Cover, clevis	2
8135-00-664-6958	Cushioning material (Cellulose padding)	As required
8305-00-958-3685	Felt, 1/2-inch thick	As required
1670-01-183-2678	Leaf, extraction line (line bag) (add 2 for C-17)	2
	Line extraction:	
1670-01-062-6313	60-foot (3-loop), type XXVI (for C-130)	1
1670-01-107-7651	140-foot (3-loop), type XXVI (for C-17)	1
1670-01-064-4452	60-foot (1-loop), type XXVI (for C-17), (drogue line)	1
1670-00-783-5988	Link assembly, type IV (C-17 only)	1
1670-01-493-6418	Link assembly, two-point, small, 3 ¾-inch	1
	Lumber:	
5510-00-220-6146	2- by 4- by 96-inch	1
5510-00-220-6148	2- by 6- by 120-inch	2
5315-00-010-4659	Nail, steel, common, 6D	As required
1670-00-753-3928	Pad, energy-dissipating (honeycomb)	5 sheets
1670-01-016-7841	Parachute, cargo, G-11B	2
	Parachute, cargo, extraction:	
1670-01-063-3715	15-foot (add one for C-17)	1
1670-00-687-5458	22-foot	1
	Platform, airdrop, type V, 20-foot:	
1670-01-162-2372	Clevis assembly (type V)	12
1670-01-162-2376	Extraction bracket assembly	1
1670-01-247-2389	Link, suspension bracket, type V	2
1670-01-162-2381	Tandem link assembly (Multipurpose link)	2
5530-00-128-4981	Plywood, 3/4-inch	1 Sheet

Table 4-1. Equipment Required for Rigging the 1 ½-Ton Trailer on a 12-Foot, Type V Platform for Low-Velocity Airdrop (continued)

<i>National Stock Number</i>	<i>Item</i>	<i>Quantity</i>
1670-01-097-8816	Release, cargo parachute, M-1	1
	Sling, cargo, airdrop:	
1670-01-062-6301	3-foot (2-loop), type XXVI	4
1670-01-062-6304	9-foot (2-loop), type XXVI	1
1670-01-063-7760	11-foot (2-loop), type XXVI	2
1670-01-062-6303	12-foot (2-loop), type XXVI	4
1670-01-062-6302	20-foot (2-loop), type XXVI	2
5340-00-040-8219	Strap, parachute, release, multi-knife	2
7501-00-266-5016	Tape, adhesive, 2-inch	As required
1670-00-937-0271	Tie-down assembly, 15-foot	24
1670-01-483-8259	Link, parachute, connector (H-block) (C-17 only)	1
	Webbing:	
8305-00-268-2411	Cotton, 1/4-inch, type I	As required
8305-00-082-5752	Nylon, tubular, 1/2-inch	As required
8305-00-261-8585	Nylon, type VIII	As required
Legend:	gal= gallon, lb = pound, ft = feet, D = penny	

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Chapter 5

Rigging 400-Gallon Water Trailer on a 12-Foot, Type V Platform for Low-Velocity Airdrop

DESCRIPTION OF THE LOAD

5-1. The 1 ½-ton, 2-wheeled, 400-gallon tank trailer (model numbers M107A1, M107A2, M149A1, and M149A2) (Figure 5-1) is rigged on a 12-foot, type V airdrop platform using two G-11 cargo parachutes. The M149A1 is shown in these procedures. The trailer is 75 inches high, 81 inches wide, 162 inches long, and weighs 6,150 pounds when filled.

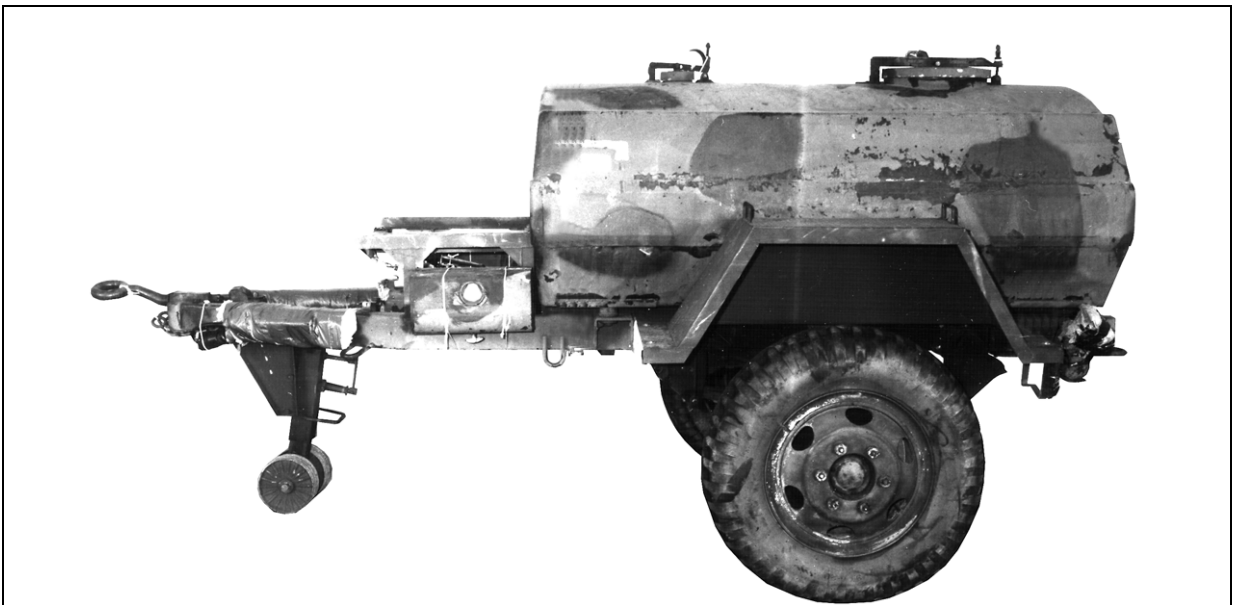


Figure 5-1. M149A1 400-Gallon Water Trailer

PREPARING PLATFORM

5-2. Prepare a 12-foot, type V airdrop platform as shown in Figure 10-2.



Step:

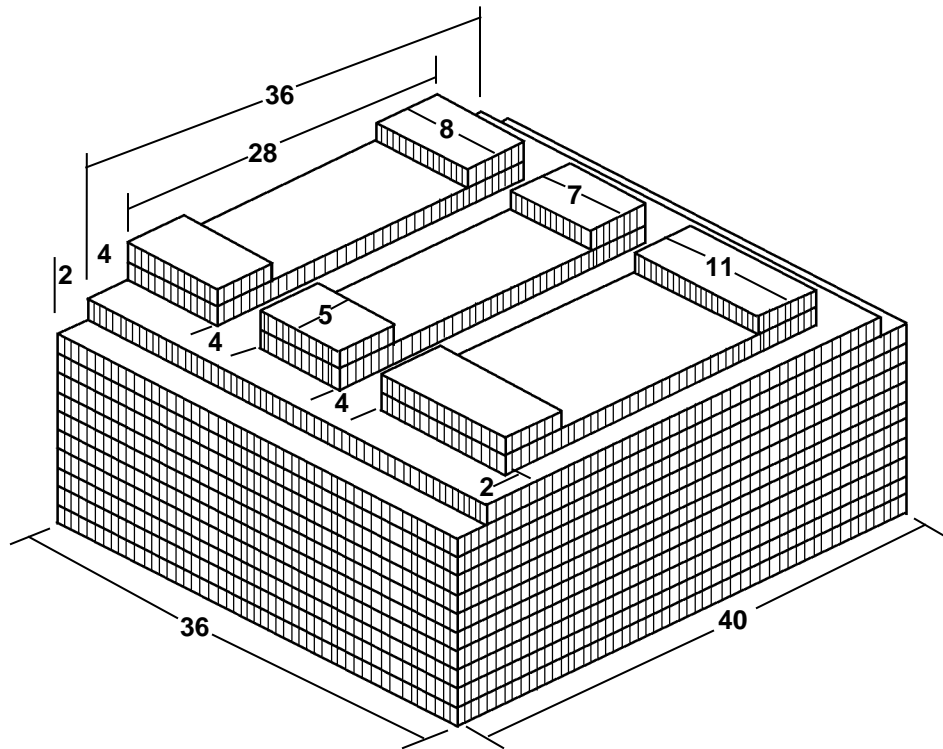
1. Inspect, or assemble and inspect, a 12-foot, type V airdrop platform as outlined in TM 10-1670-268-20&P/TO 13C7-52-22.
2. Install a tandem link to the front of each platform side rail using holes 1, 2, and 3.
3. Install a tandem link to the rear of each platform side rail using holes 22, 23, and 24.
4. Install a clevis on bushing 2 of each front tandem link.
5. Install a clevis on bushing 4 of each rear tandem link.
6. Starting at the front of each platform side rail, install clevises on the bushings bolted to holes 8, 16, 17, and 20.
7. Starting at the front of the platform, number the clevises 1 through 6 on the right side and 1A through 6A on the left side.
8. Label the tie-down rings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

Figure 5-2. Platform Prepared

BUILDING AND POSITIONING HONEYCOMB STACKS

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

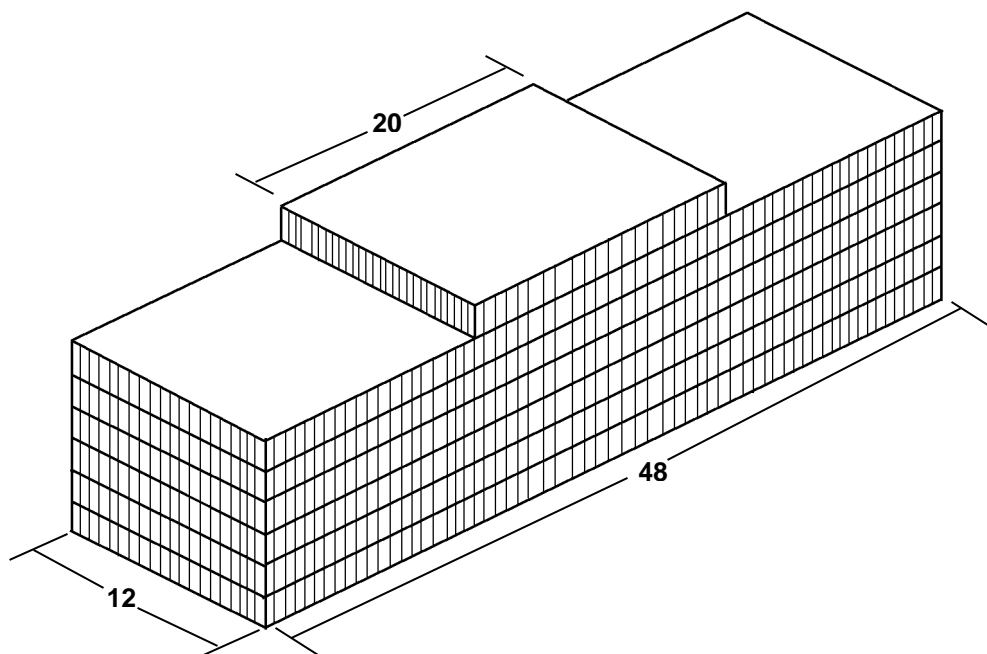
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
1	10	40	36	Honeycomb	Stack and glue pieces flush.
	1	36	36	Honeycomb	Stack flush and center.
	1	28	11	Honeycomb	Place as shown.
	2	5	11	Honeycomb	Place as shown.
	1	28	7	Honeycomb	Place as shown.
	2	5	7	Honeycomb	Place as shown.
	1	28	8	Honeycomb	Place as shown.
	2	5	8	Honeycomb	Place as shown.

Figure 5-3. Honeycomb Stack 1 Prepared

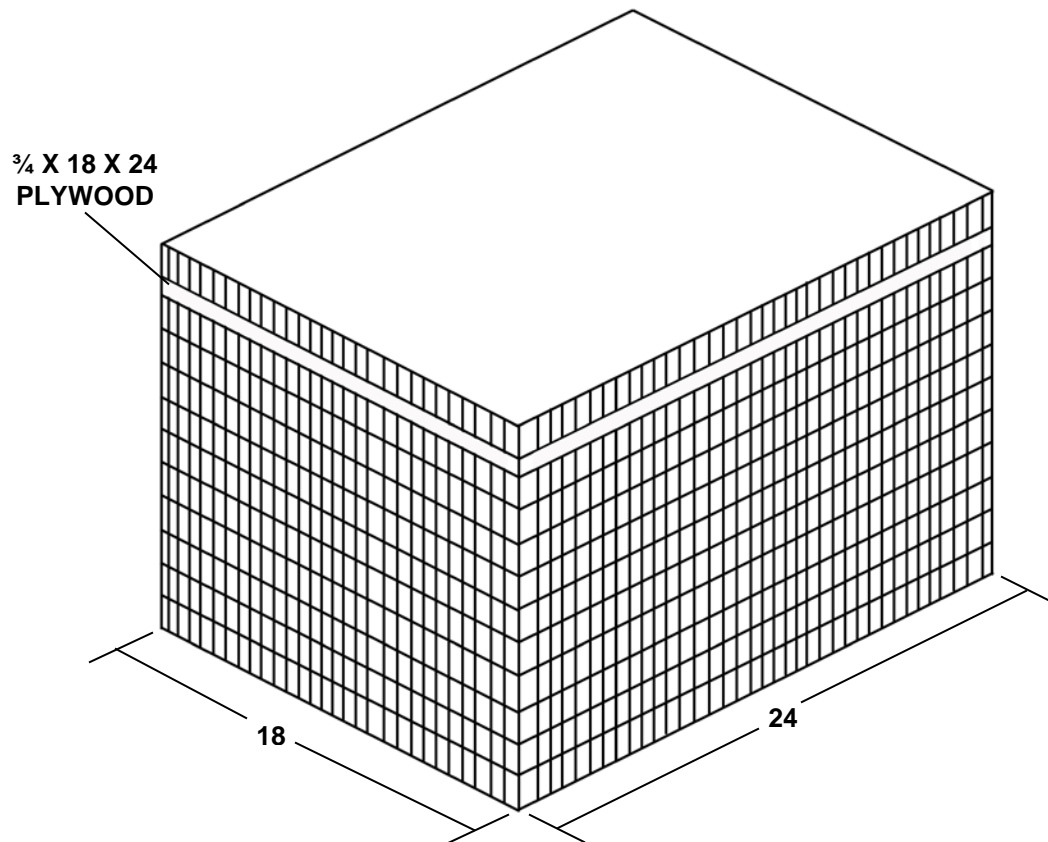
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.



<i>Stack Number</i>	<i>Pieces</i>	<i>Width (Inches)</i>	<i>Length (Inches)</i>	<i>Material</i>	<i>Instructions</i>
2	6	48	12	Honeycomb	Glue flush to form a base.
	1	20	12	Honeycomb	Center and Glue on top of the base.

Figure 5-4. Honeycomb Stack 2 Prepared

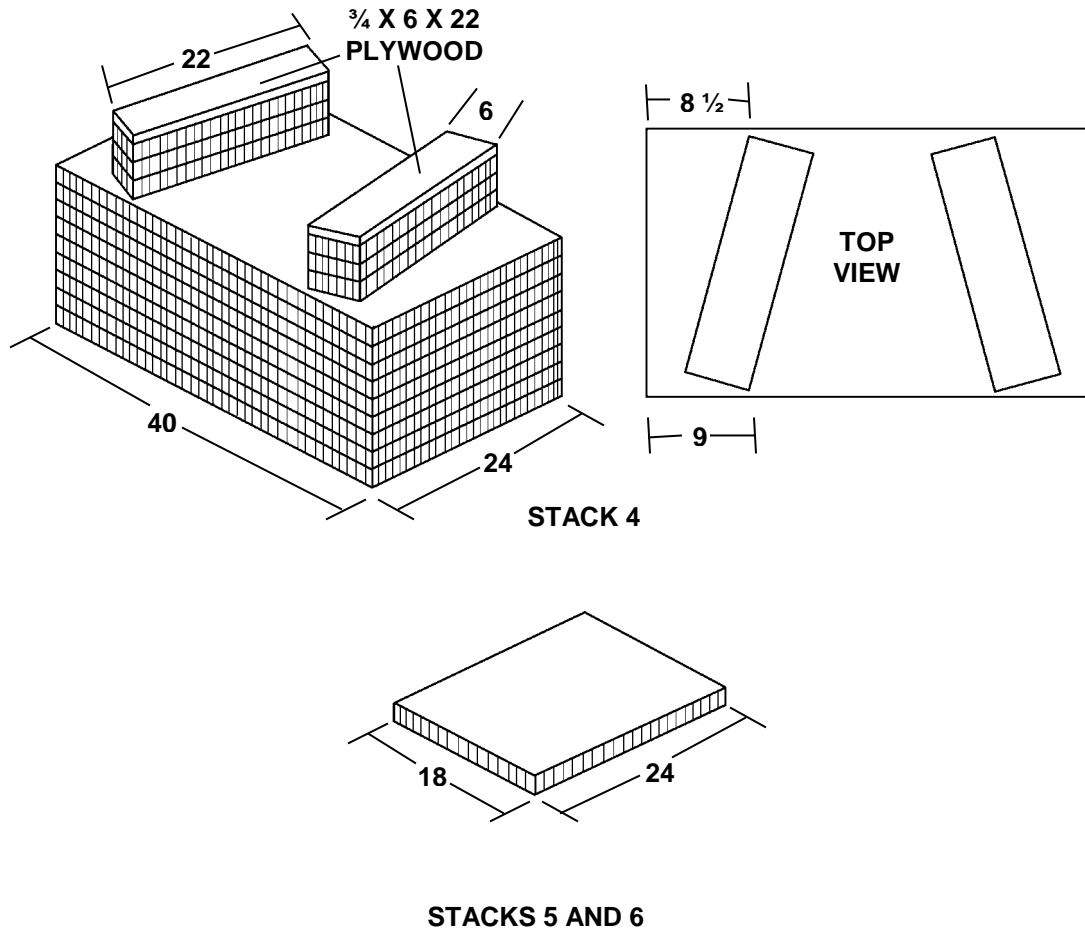
- Notes.** 1. All measurements are given in inches.
2. This drawing is not drawn to scale.



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
3	10	24	18	Honeycomb	Glue flush to form a base.
	1	24	18	3/4 inch Plywood	Glue flush on the base.
	1	24	18	Honeycomb	Glue flush on plywood.

Figure 5-5. Honeycomb Stack 3 Prepared

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



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
4	9	40	24	Honeycomb	Glue flush to form a base.
	6	6	22	Honeycomb	Glue two stacks of three layers on the base as shown.
	2	6	22	$\frac{3}{4}$ inch Plywood	Place and glue on top of 6- by 22-inch pieces of honeycomb.
5 & 6	1	18	24	Honeycomb	Stacks 5 and 6 consist of one layer.

Figure 5-6. Honeycomb Stacks 4 through 6 Prepared

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

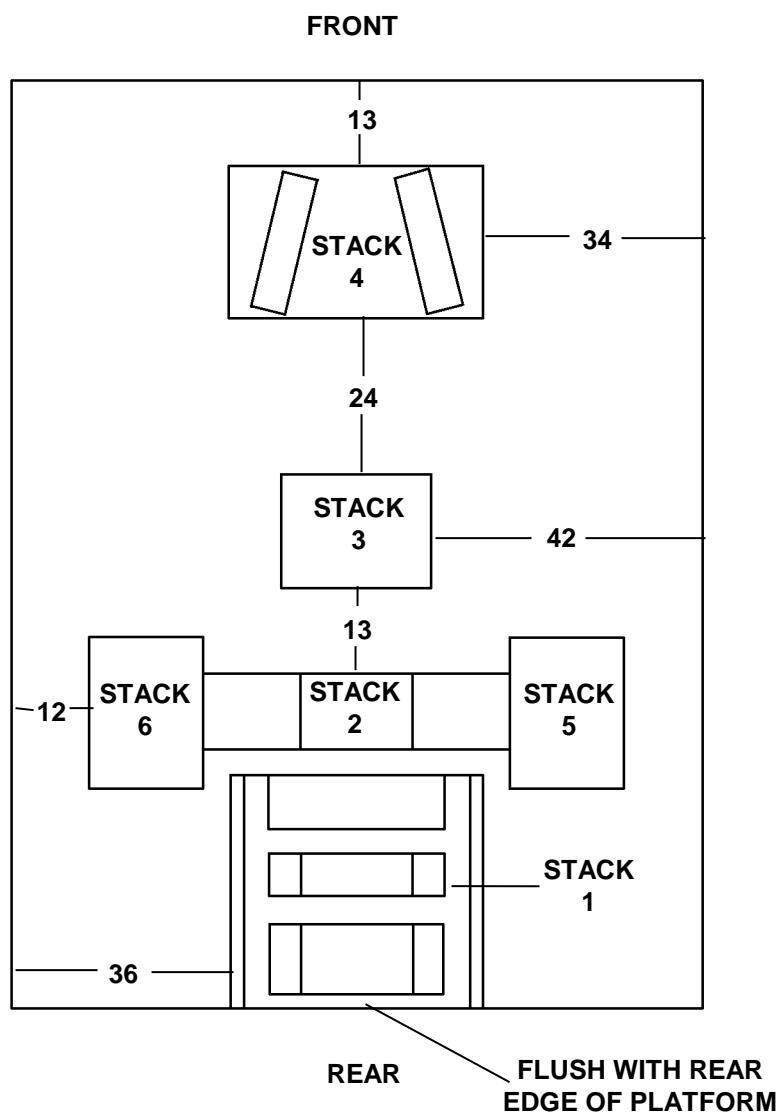


Figure 5-7. Honeycomb Stacks Positioned on Platform

PREPARING THE TRAILER

5-4. Prepare the trailer as explained below.

Prepare the M149A1 trailer as shown in Figure 5-8.

Prepare the M149A2 trailer as shown in steps 1, 3, 4, and 5 of Figure 5-8. Further prepare the M149A2 trailer as shown in Figure 5-9.

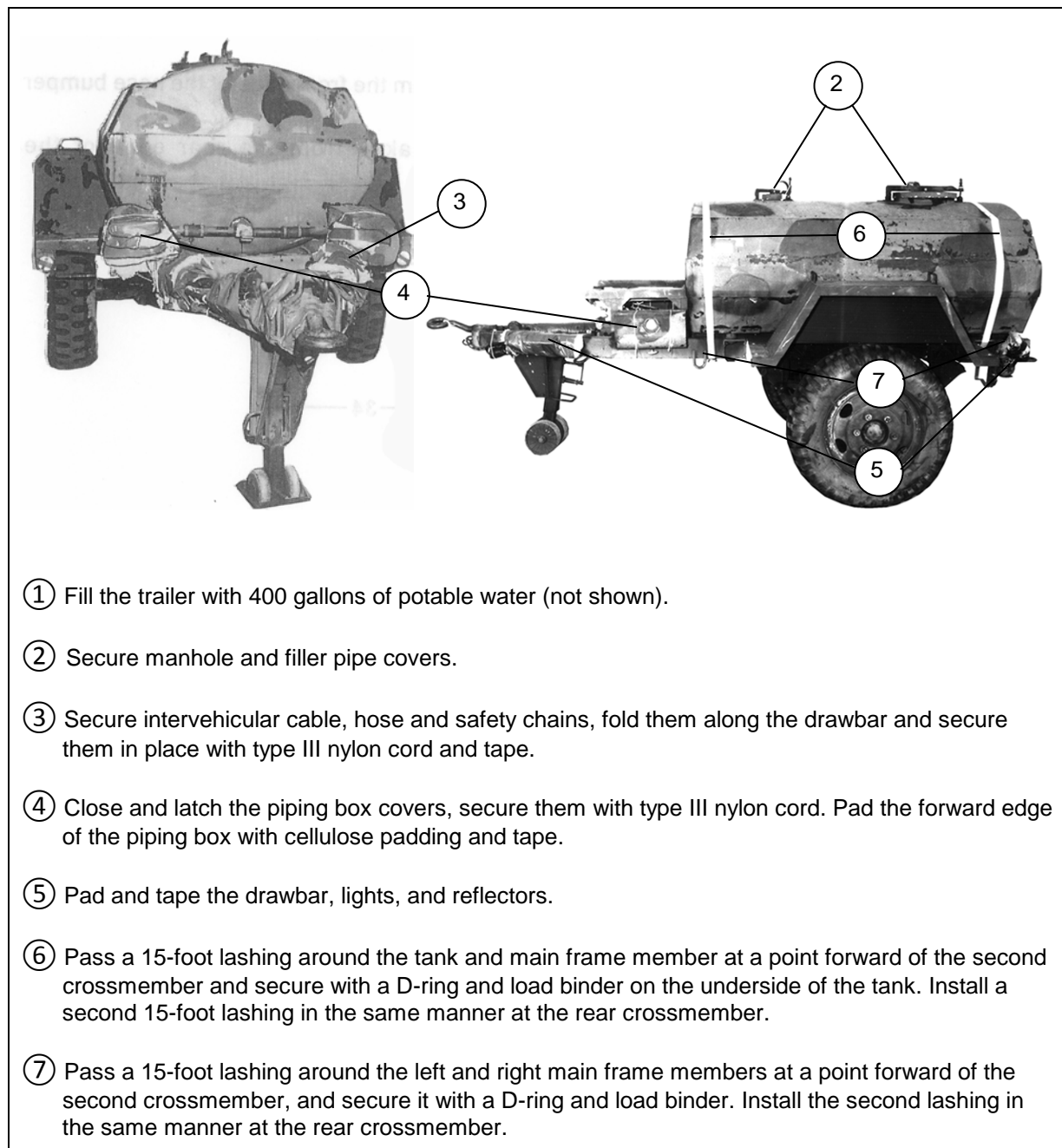


Figure 5-8. Trailer Prepared

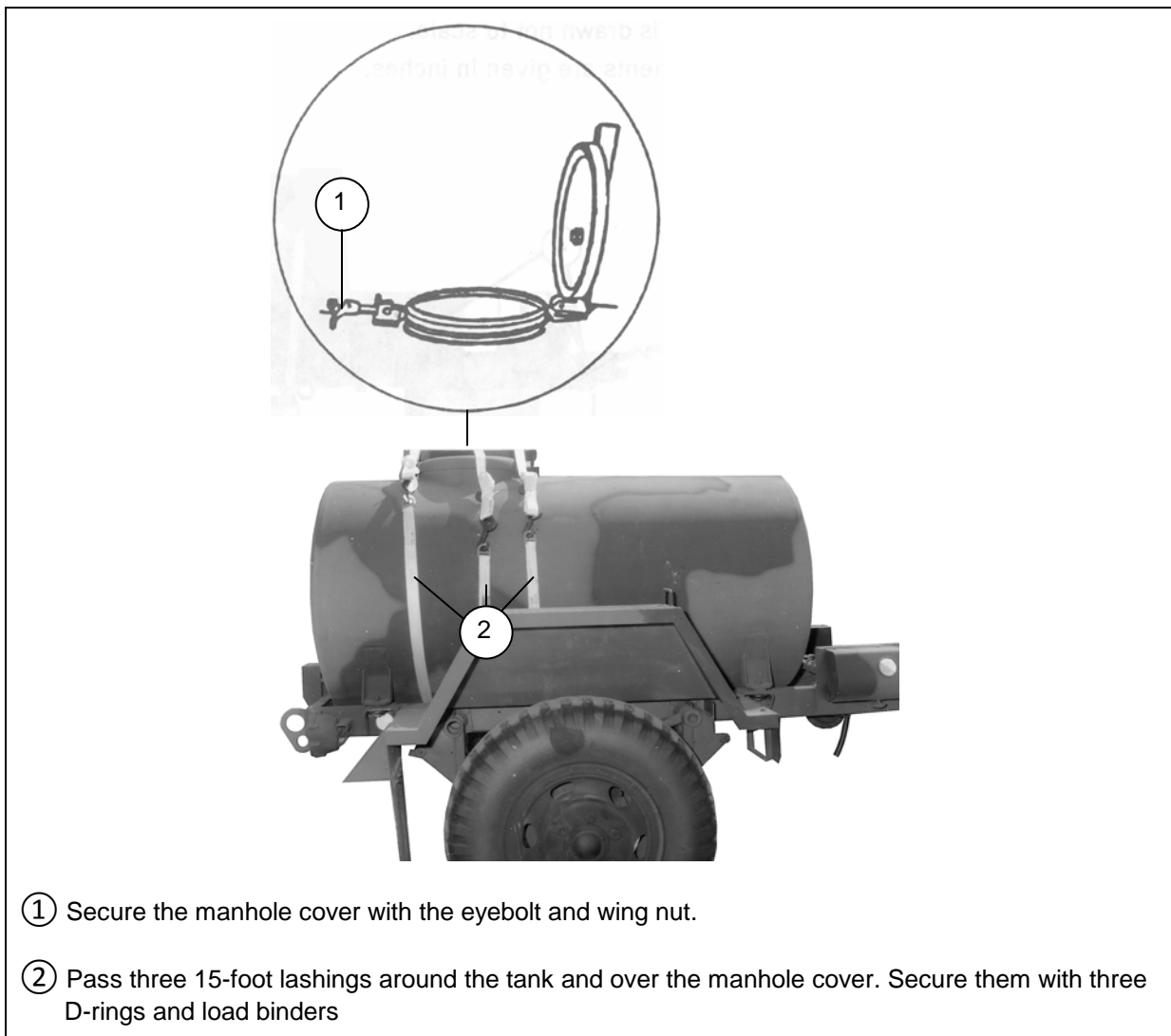


Figure 5-9. M149A2 Prepared

LIFTING AND POSITIONING THE TRAILER

5-5. Install the lifting slings and position the trailer as shown in Figure 5-10.

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



- ① Pass one end of a 12-foot (2-loop), type XXVI nylon webbing sling around the drawbar frame and through its own loop. Install a second sling to the other side of the drawbar frame in the same manner (not shown).
- ② Pass a 12-foot (2-loop), type XXVI nylon webbing sling around the left rear main frame, up through the left rear lifting provision, and through its own loop. Attach the second sling around the right rear main frame in the same manner (not shown).
- ③ Lift the trailer. Raise and lock the castor wheel into the travel position.
- ④ Safety tie the castor wheel with type III nylon cord in two places.
- ⑤ Position the trailer on the honeycomb stacks with the rear of the trailer flush with the front edge of the platform and the lunette overhanging the rear of the platform by 14 inches.
- ⑥ Remove the lifting slings (not shown).

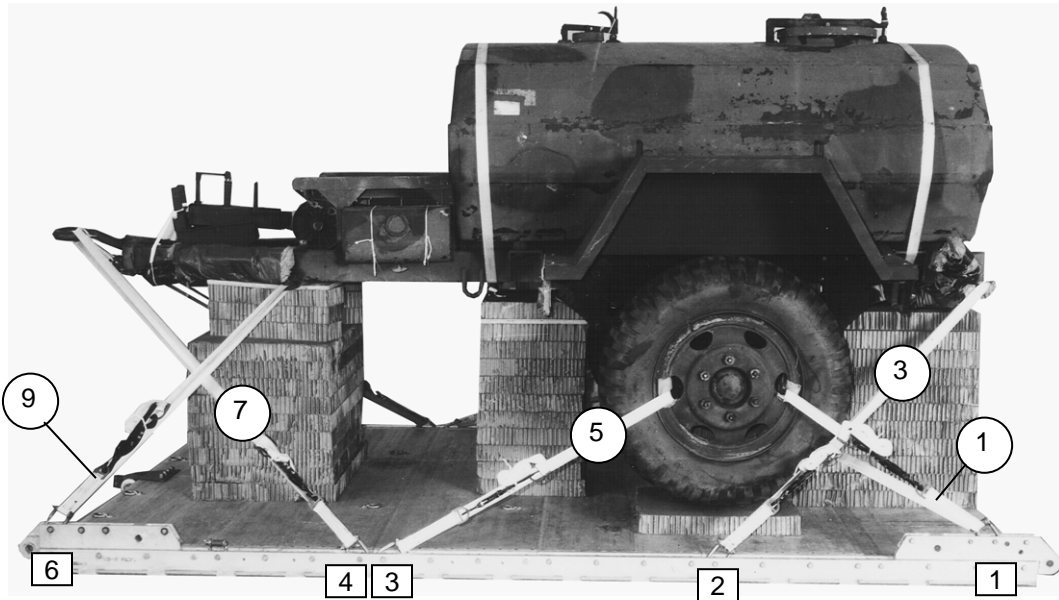
Figure 5-10. Lifting and Positioning the Trailer

LASHING LOAD TO PLATFORM

5-6. Lash the trailer to the platform according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 5-11.

Note. Pad any sharp edges on the load where a lashing may pass. Use cellulose padding and masking tape.

Note. Left, right, front, and rear refer to the trailer, NOT the platform.



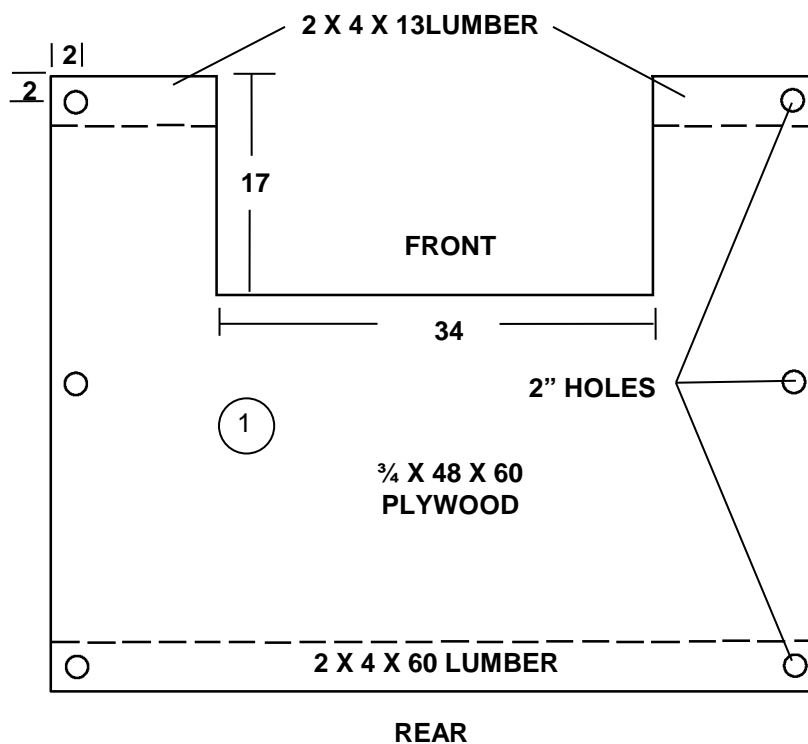
Lashing Number	Tie-down Clevis Number	Instructions
1	1	Pass lashing:
2	1A	Through left wheel.
3	2	Through right wheel.
4	2A	Through left rear tiedown provision.
5	3	Through right rear tiedown provision.
6	3A	Through left wheel.
7	4	Through right wheel.
8	4A	Through lunette.
9	6	Through lunette.
10	6A	Through left front tiedown provision.
		Through right front tiedown provision.

Figure 5-11. Trailer Lashed to Platform

PREPARING AND POSITIONING THE PARACHUTE STOWAGE PLATFORM

5-7. Construct the parachute stowage platform as shown in Figure 5-12. Install the parachute stowage platform as shown in Figure 5-13.

- Notes.** 1. All measurements are given in inches.
 2. This drawing is not drawn to scale.
 3. All holes are 2-inches in diameter.



- ① Build the parachute stowage platform as shown.

Figure 5-12. Parachute Stowage Platform Built

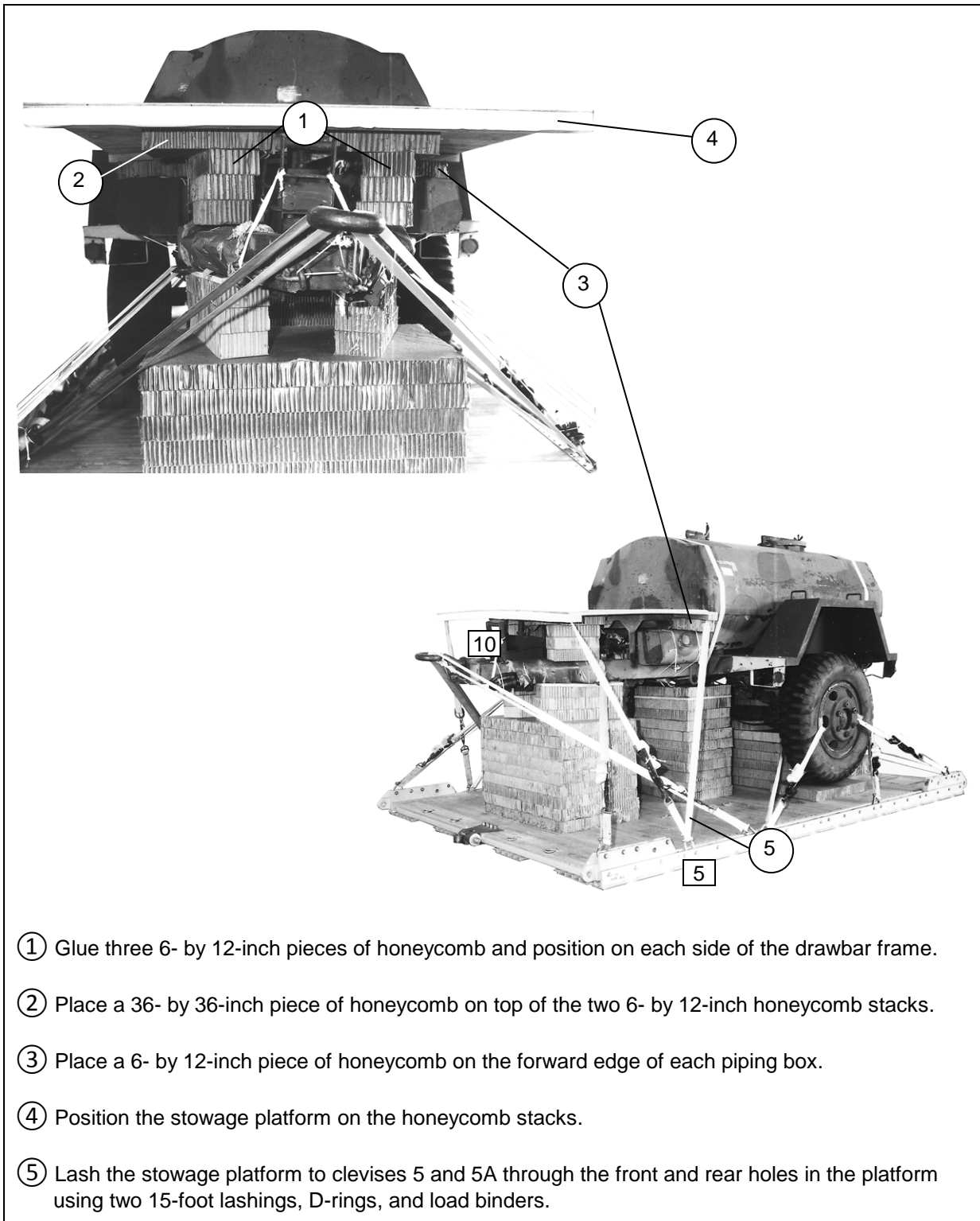
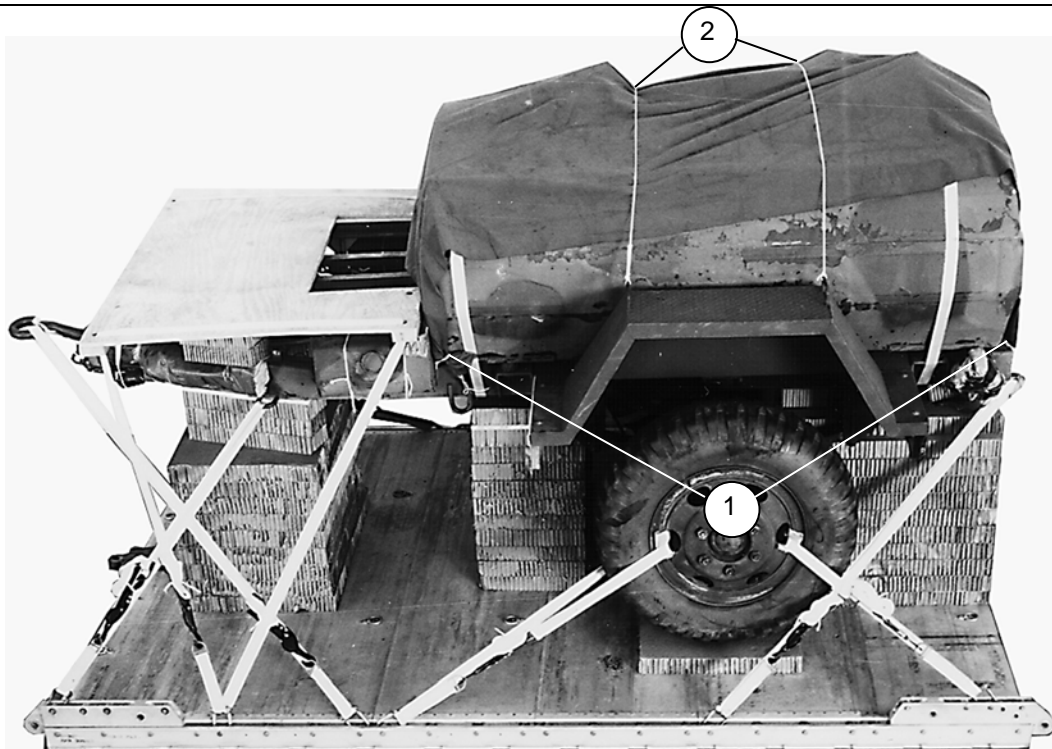


Figure 5-13. Parachute Stowage Platform Installed

INSTALLING LOAD COVER

5-8. Install the load cover as shown in Figure 5-14.



- ① Secure all four corners of a 60- by 144-inch load cover to convenient points on the load with type III nylon cord.
- ② Run two additional lengths of type III nylon cord over the top of the trailer and secure to the handles on the fenders.

Figure 5-14. Load Cover Installed

INSTALLING AND SAFETY TIEING THE SUSPENSION SLINGS

5-9. Install and safety tie the suspension slings as shown in Figure 5-15.

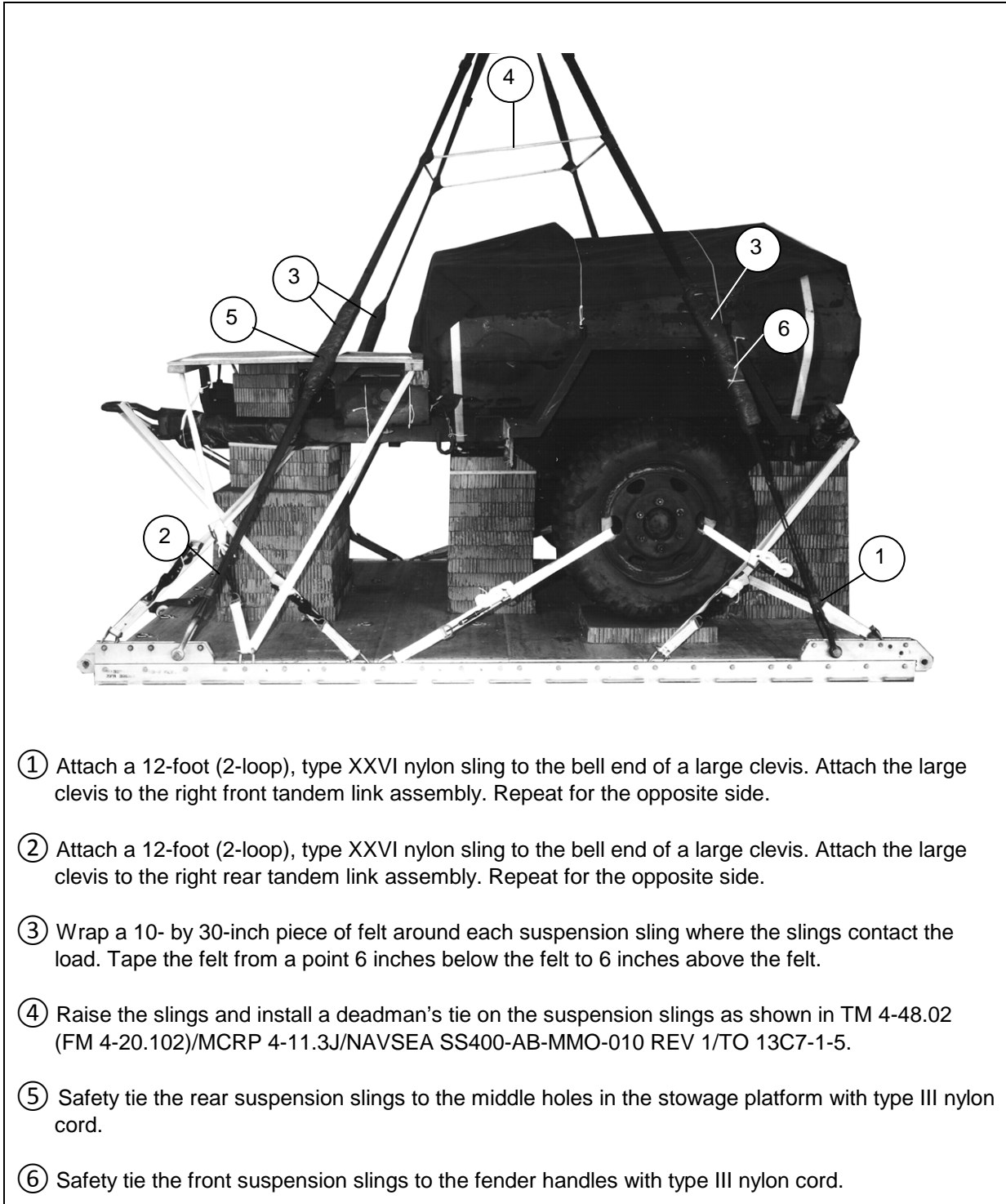


Figure 5-15. Suspension Slings Installed and Safety Tied

STOWING CARGO PARACHUTES

5-10. Prepare, stow, and restrain two G-11B cargo parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 5-16.

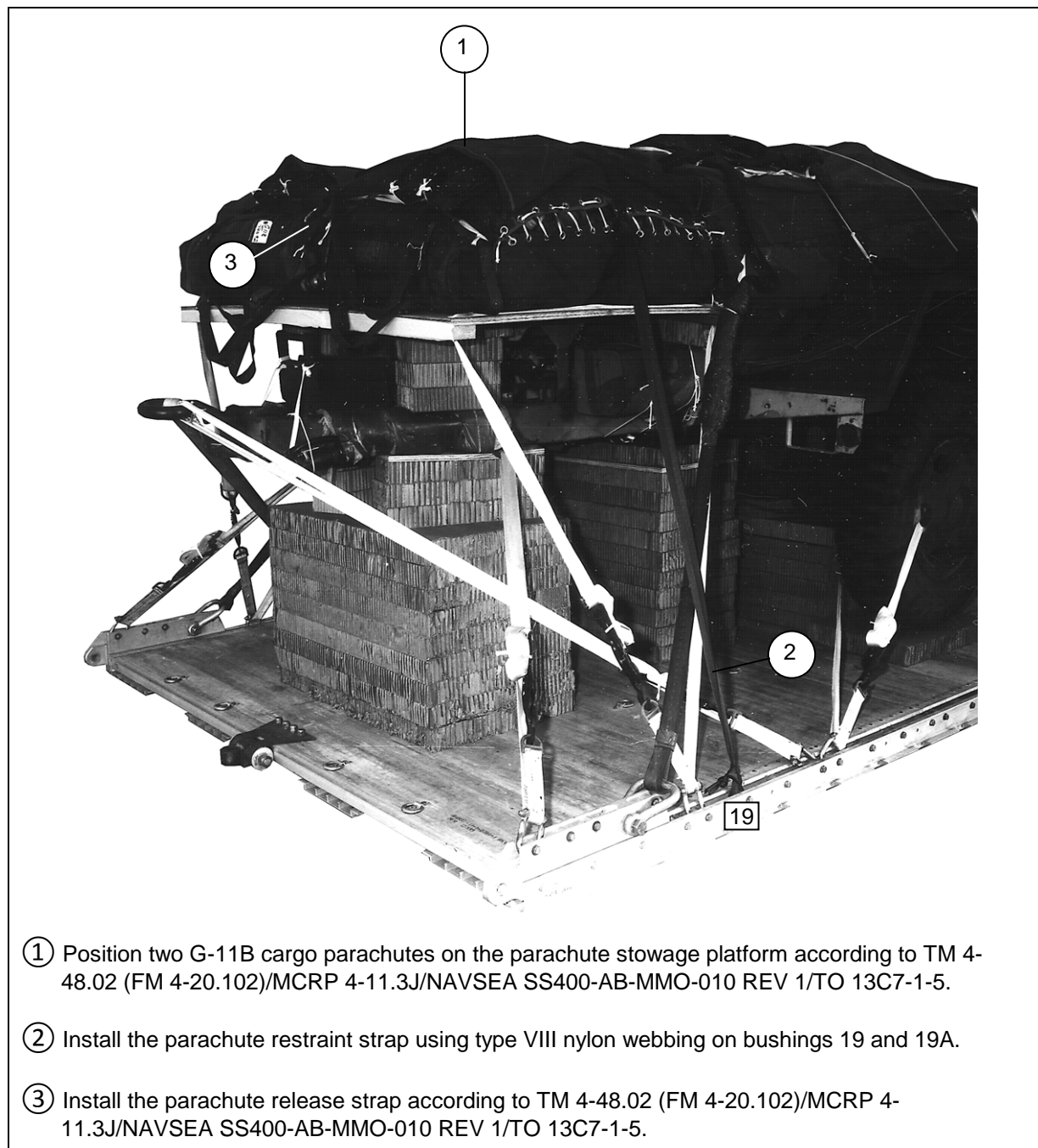
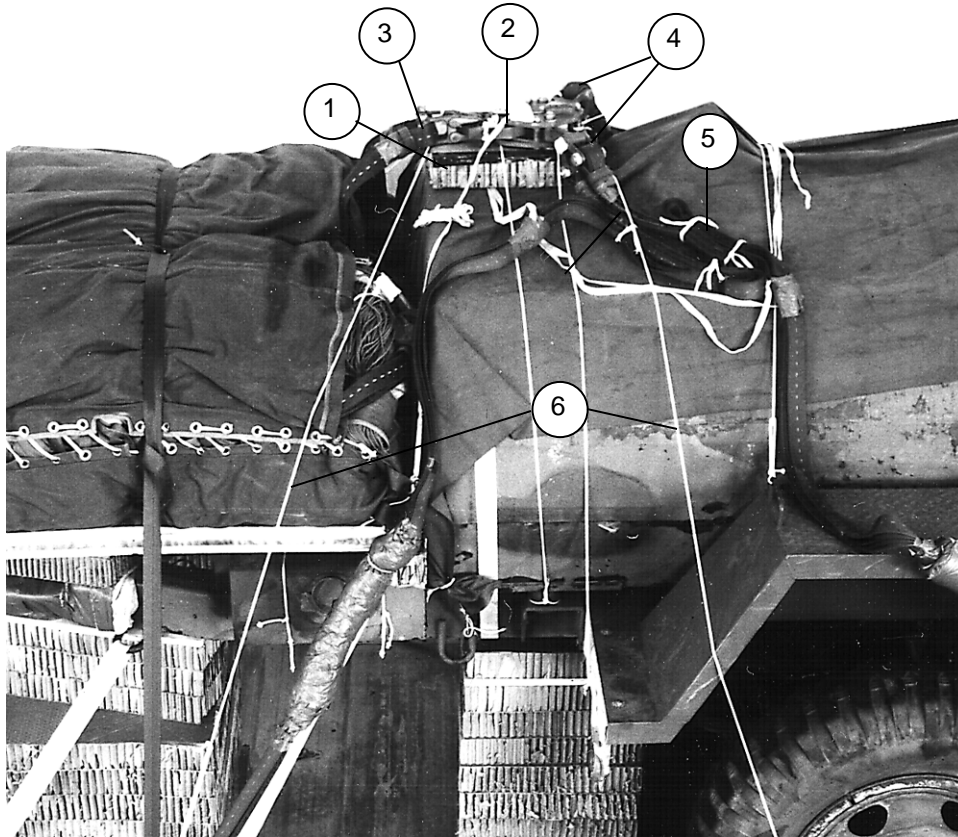


Figure 5-16. Cargo Parachutes Positioned and Restrained

INSTALLING PARACHUTE RELEASE SYSTEM

5-11. Prepare and install an M-1 parachute release system according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 5-17.

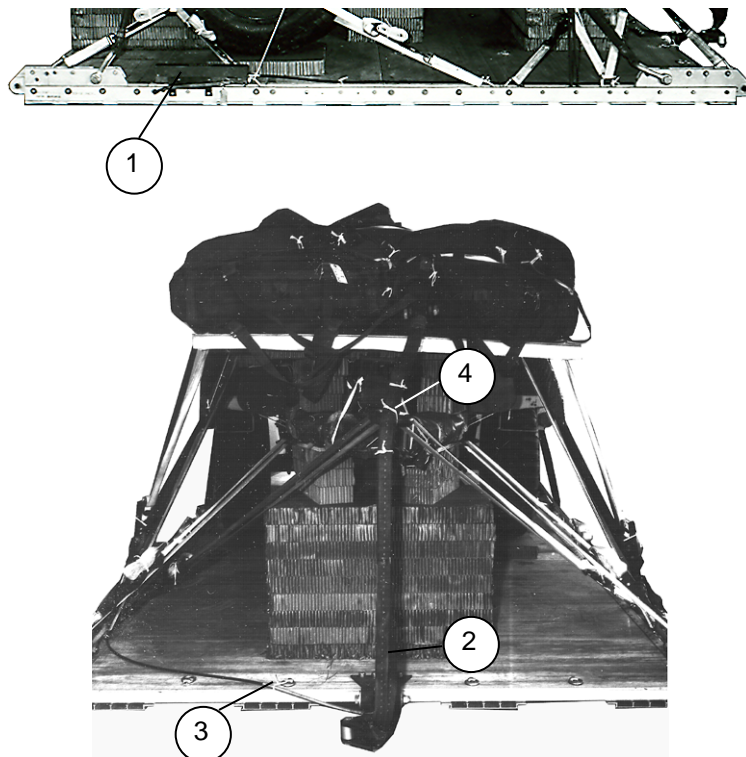


- ① Center a 12- by 16-inch piece of honeycomb on the top rear edge of the trailer. Tape the edges and secure with type III nylon cord.
- ② Center an M-1 parachute release assembly on top of the honeycomb.
- ③ Attach the parachute riser extensions to the parachute release connectors.
- ④ Attach the suspension slings to the lower suspension links.
- ⑤ Fold the excess suspension slings and safety tie with type I, ¼-inch cotton webbing.
- ⑥ Tie the front and rear M-1 parachute release safety ties to convenient points on the load with Type III nylon cord.

Figure 5-17. M-1 Parachute Release Installed

INSTALLING EXTRACTION SYSTEM

5-12. Install the extraction system as shown in Figure 5-18.



- ① Install the components of the extraction force transfer coupler (EFTC) according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Use the forward mounting holes for the EFTC actuator brackets.
- ② Attach a 9-foot (2-loop), type XXVI nylon sling to be used as a deployment line.
- ③ Use a 12-foot cable and safety tie the cable to convenient points on the platform with type I, ¼-inch cotton webbing. Tie the cable to tiedown ring D6 with type I, ¼-inch cotton webbing.
- ④ Secure the excess and safety tie the deployment line and to the lunette with type I, ¼-inch cotton webbing.

Figure 5-18. Extraction System Installed

PLACING EXTRACTION PARACHUTE

5-13. Select the extraction parachute and extraction line needed using the extraction line requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Place the extraction parachute and line on the load for installation in the aircraft.

INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

5-14. Select and install the provisions for the emergency aft restraints according to the emergency aft restraint requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

MARKING RIGGED LOAD

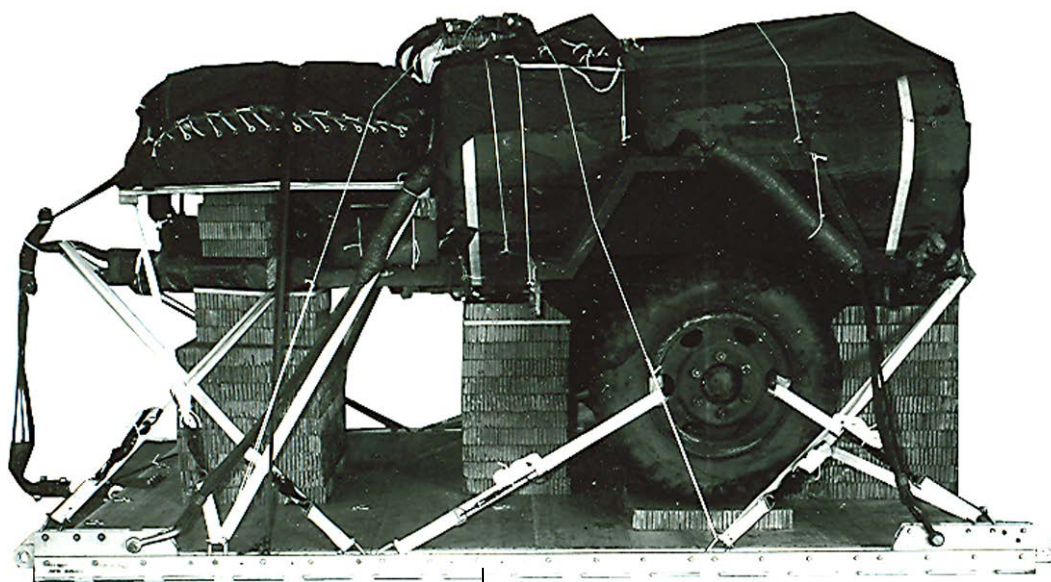
5-15. Mark the rigged load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figure 5-19. Complete Shipper's Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, Center of Balance (CB), and parachute requirements must be recomputed.

EQUIPMENT REQUIRED

5-16. Use the equipment listed in Table 5-1 to rig this load.

CAUTION

Make the final rigger inspection required by AR 59-4 and TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 before the load leaves the rigging site.



Center of Balance (CB)

RIGGED LOAD DATA

Weight: Load Shown.....	7,200 pounds
Maximum Weight Load	10,000 pounds
Height.....	86 inches
Width.....	108 inches
Overall Length	158 inches
Overhang: Front.....	0
Rear (lunette).....	14 inches
Center of Balance (CB) (from front edge of the platform).....	88 inches
Extraction System with 12-foot cable (adds 4 inches to the length of the load)	

Figure 5-19. M149A1 400-Gallon Water Trailer Rigged on a 12-Foot, Type V Platform for Low-Velocity Airdrop

Table 5-1. Equipment Required for Rigging the M149A1 400-Gallon Water Trailer on a 12-Foot, Type V Platform for Low-Velocity Airdrop

<i>National Stock Number</i>	<i>Item</i>	<i>Quantity</i>
8040-00-273-8713	Adhesive paste, 1-gal.	As required
1670-01-035-6054	Bridle, extraction line bag	1
4030-00-090-5354	Clevis, suspension, 1-inch (large)	5
4030-00-678-8562	Clevis, suspension, (medium)	4
8305-00-880-8155	Cloth, coated (nylon, type II, 17.0 oz, green, 60-in)	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
1670-00-360-0328	Cover, clevis	2
8135-00-664-6958	Cushioning material (Cellulose padding)	As required
8305-00-958-3685	Felt, 1/2-inch thick	As required
1670-01-183-2678	Leaf, extraction line (line bag) (add 2 for C-17)	2
	Line extraction:	
1670-01-062-6313	60-foot (3-loop), type XXVI (for C-130)	1
1670-01-107-7651	140-foot (3-loop), type XXVI (for C-17)	1
1670-01-064-4452	60-foot (1-loop), type XXVI (for C-17), (drogue line)	1
1670-00-783-5988	Link assembly, type IV (C-17 only)	1
	Link assembly, two-point, small, 3 ¾-inch	1
	Lumber:	
5510-00-220-6146	2- by 4- by 96-inch	1
5315-00-010-4659	Nail, steel, common, 8D	As required
1670-00-753-3928	Pad, energy-dissipating (honeycomb)	13 sheets
1670-01-016-7841	Parachute, cargo, G-11B	2
	Parachute, cargo, extraction:	
1670-01-063-3716	22-foot	1
1670-01-063-3715	15-foot (C-17 only)	1
	Platform, airdrop, type V, 12-foot:	
1670-01-162-2372	Clevis assembly (type V)	12
1670-01-162-2376	Extraction bracket assembly	1
1670-01-247-2389	Link, suspension bracket, type V	2
1670-01-162-2381	Tandem link assembly (Multipurpose link)	4
5530-00-128-4981	Plywood, 3/4-inch	1 sheet

Table 5-1. Equipment Required for Rigging the M149A1 400-Gallon Water Trailer on a 12-Foot, Type V Platform for Low-Velocity Airdrop (continued)

<i>National Stock Number</i>	<i>Item</i>	<i>Quantity</i>
1670-01-097-8816	Release, cargo parachute, M-1	1
	Sling, cargo, airdrop:	
1670-00-753-3790	9-foot (2-loop), type XXVI	2
1670-01-062-6303	12-foot (2-loop), type XXVI	4
1670-01-062-6302	20-foot (2-loop), type XXVI	2
1670-00-998-0116	Strap, parachute, release	1
7501-00-266-5016	Tape, adhesive, 2-inch	As required
1670-00-937-0271	Tie-down assembly, 15-foot.	19
1670-01-483-8259	Link, Parachute, Connector (H-block) (C-17 only)	1
	Webbing:	
8305-00-268-2411	Cotton, 1/4-inch, type I	As required
8305-00-082-5752	Nylon, tubular, 1/2-inch	As required
8305-00-261-8585	Nylon, type VIII	As required
Legend:	gal= gallon, lb = pound, ft = feet, D = penny	

Chapter 6

Rigging Ammunition Trailer on a 12-Foot, Type V Platform for Low-Velocity Airdrop

DESCRIPTION OF THE LOAD

6-1. The 1 ½-ton, 2-wheeled, ammunition trailer (Figure 6-1) is rigged on a 12-foot, type V airdrop platform using two G-11 cargo parachutes. 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 accompany loads shown in this chapter, 24 rounds of 155-millimeter projectiles, 24 powder canisters, and three boxes of primers and fuses, weigh 3,292 pounds.

CAUTION

Only ammunition listed in TM 4-48.16/MCRP 4-11.3B/TO 13C7-18-41 may be airdropped.

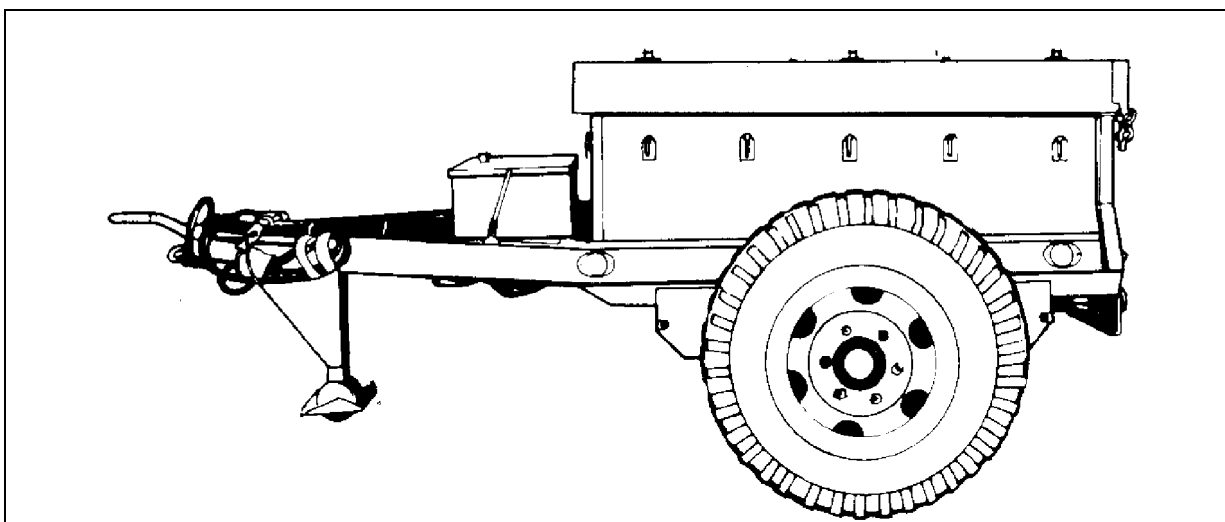
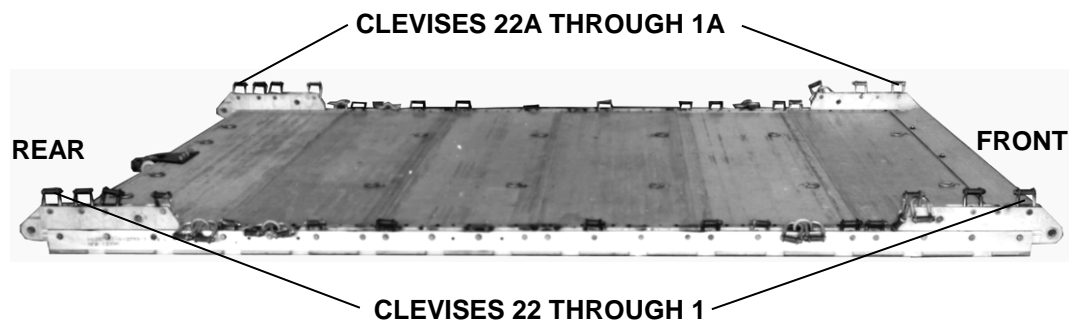


Figure 6-1. 1 ½-Ton Ammunition Trailer

PREPARING PLATFORM

6-2. Prepare a 12-foot, type V airdrop platform as shown in Figure 6-2.



Step:

1. Inspect, or assemble and inspect, a 12-foot, type V airdrop platform as outlined in TM 10-1670-268-20&P/TO 13C7-52-22.
2. Install a tandem link to the front of each platform side rail using holes 1, 2, and 3.
3. Install a tandem link to the rear of each platform side rail using holes 22, 23, and 24.
4. Install a clevis on bushings 1, 3 and 4 (triple) of each front tandem link.
5. Install a clevis on bushings 1, 2, 3, and 4 of each rear tandem link.
6. Starting at the front of each platform side rail, install clevises on the bushings bolted to holes 4, 5, 6 (triple), 7, 8, 11, 16, 18, 19 (triple), 20, and 21 (triple).
7. Starting at the front of the platform, number the clevises 1 through 22 on the right side and 1A through 22A on the left side.
8. Label the tie-down rings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

Figure 6-2. Platform Prepared

STOWING PLATFORM ACCOMPANYING LOADS

6-3. Construct the endboards for the accompanying loads as shown in Figure 6-3. Prepare, stow, and lash the front accompanying loads as shown in Figures 6-4 and 6-5. Prepare, stow, and lash the rear accompanying loads as shown in Figures 6-6 and 6-7.

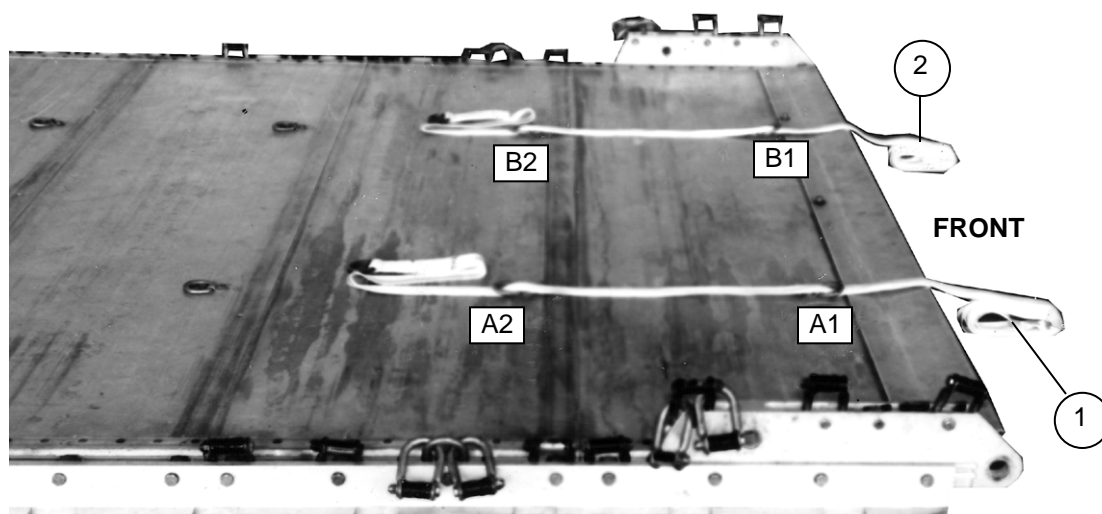
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.



① Prepare two endboards for the front accompanying load.

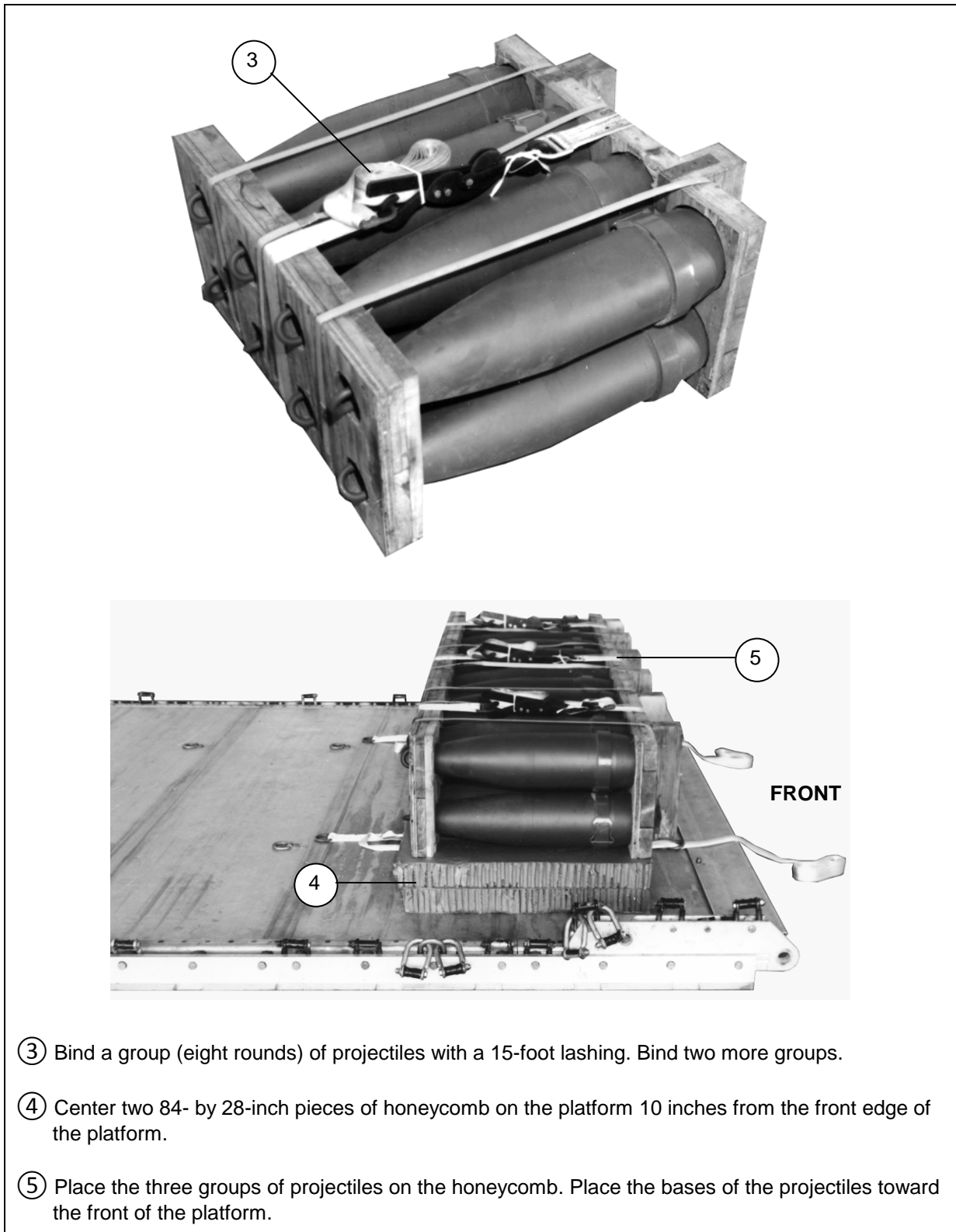
② Prepare two endboards for the rear accompanying load.

Figure 6-3. Endboards Constructed



- ① Pass a 15-foot lashing through tiedown rings A2 and A1.
- ② Pass a 15-foot lashing through tiedown rings B2 and B1.

Figure 6-4. 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 of the platform.
- ⑤ Place the three groups of projectiles on the honeycomb. Place the bases of the projectiles toward the front of the platform.

Figure 6-4. Front Accompanying Load Prepared and Stowed on Platform (Continued)

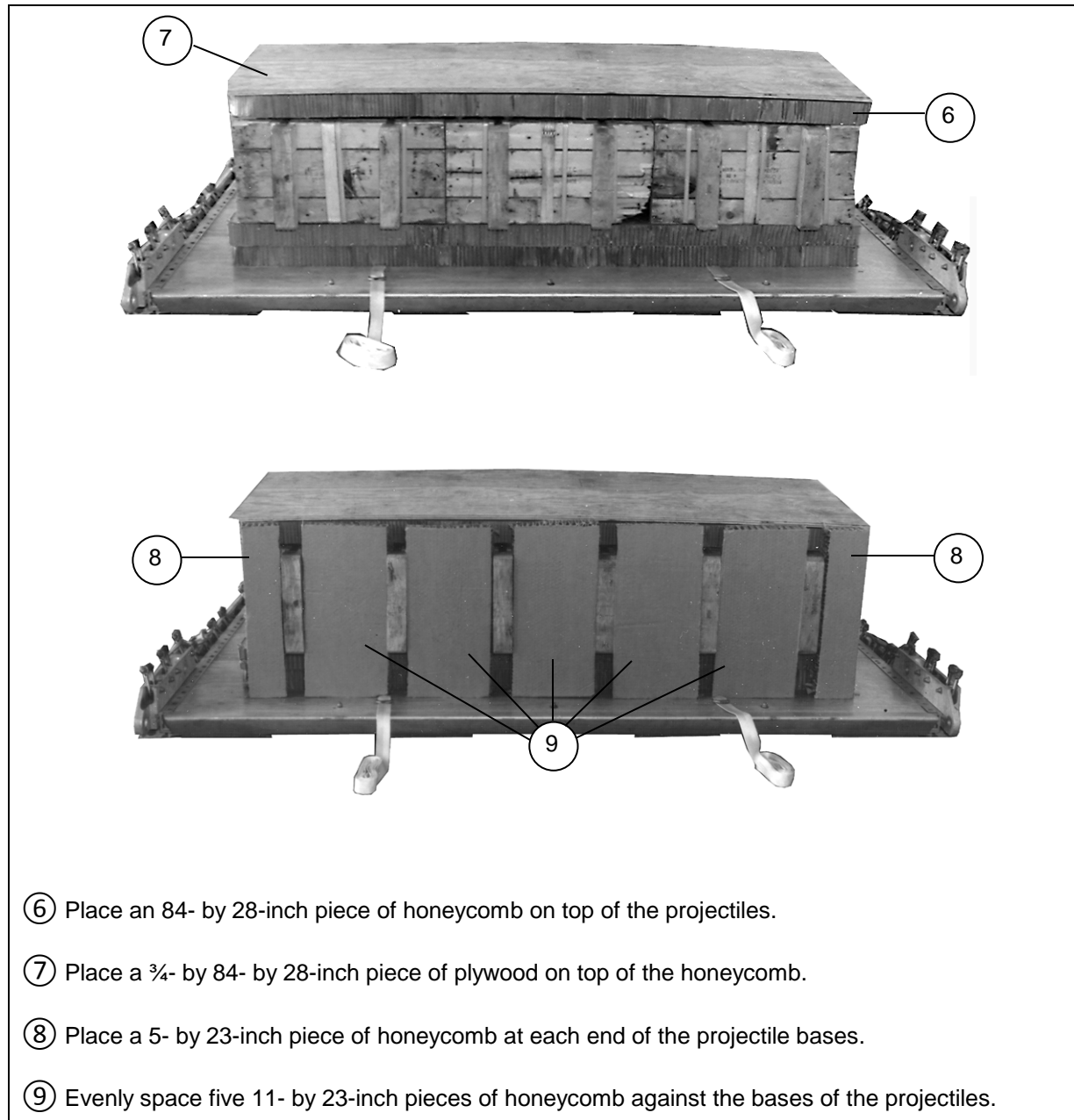
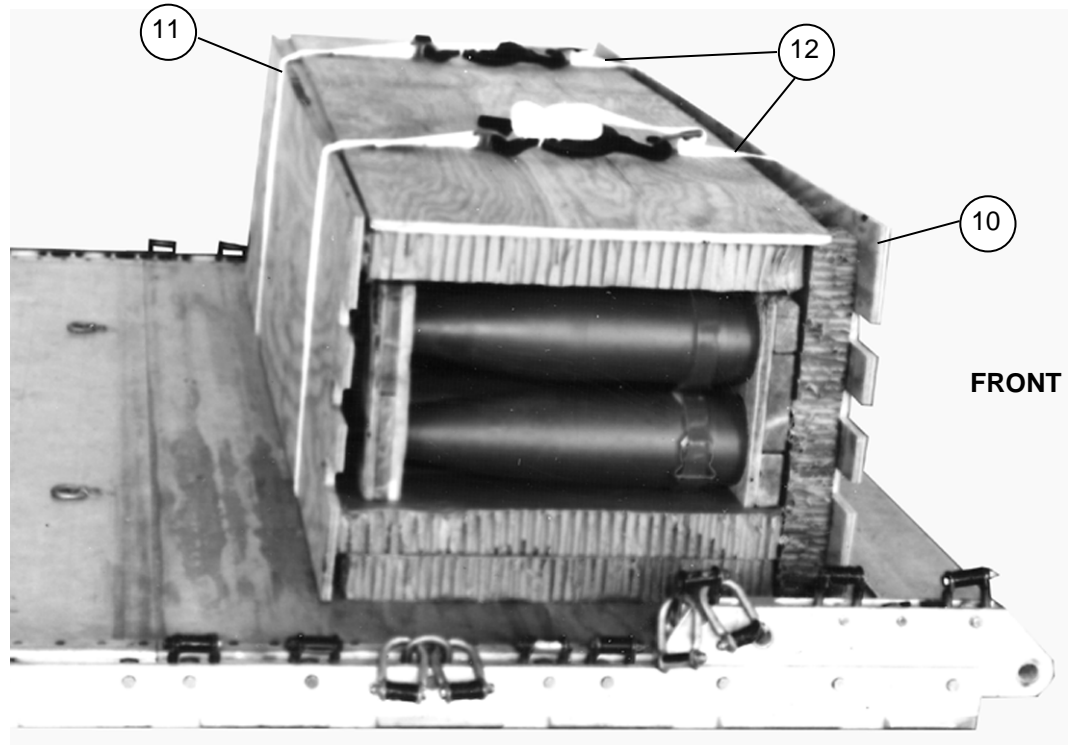


Figure 6-4. Front Accompanying Load Prepared and Stowed on Platform (Continued)



- ⑩ Place one front endboard in front of the projectiles against their bases.
- ⑪ Place on front endboard to the rear of the projectiles against their tops.
- ⑫ Route the pre-positioned lashings over the endboards. Secure the lashings on top of the load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

Figure 6-4. Front Accompanying Load Prepared and Stowed on Platform (Continued)

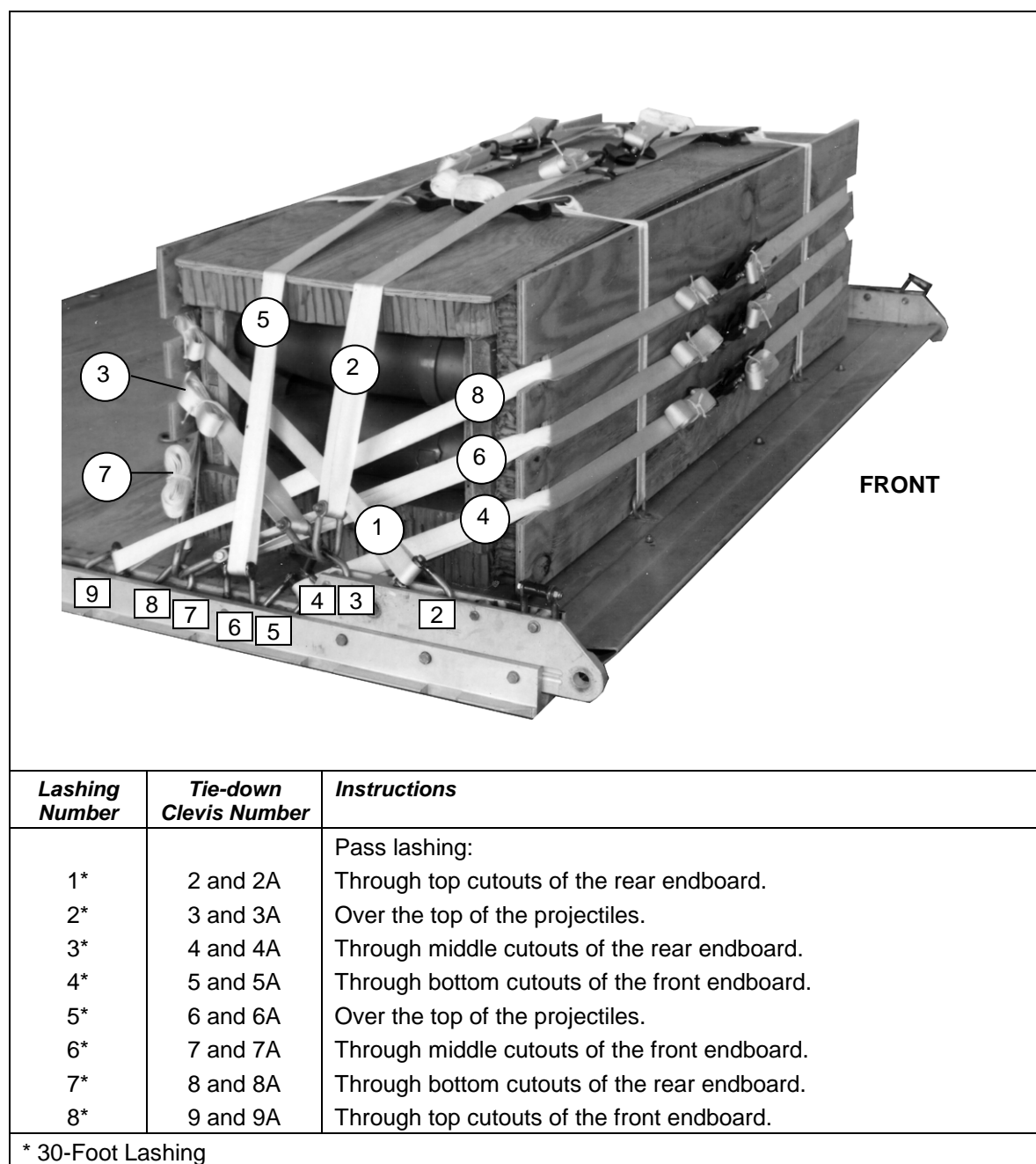


Figure 6-5. Front Accompanying Load Lashings 1 through 8 Installed

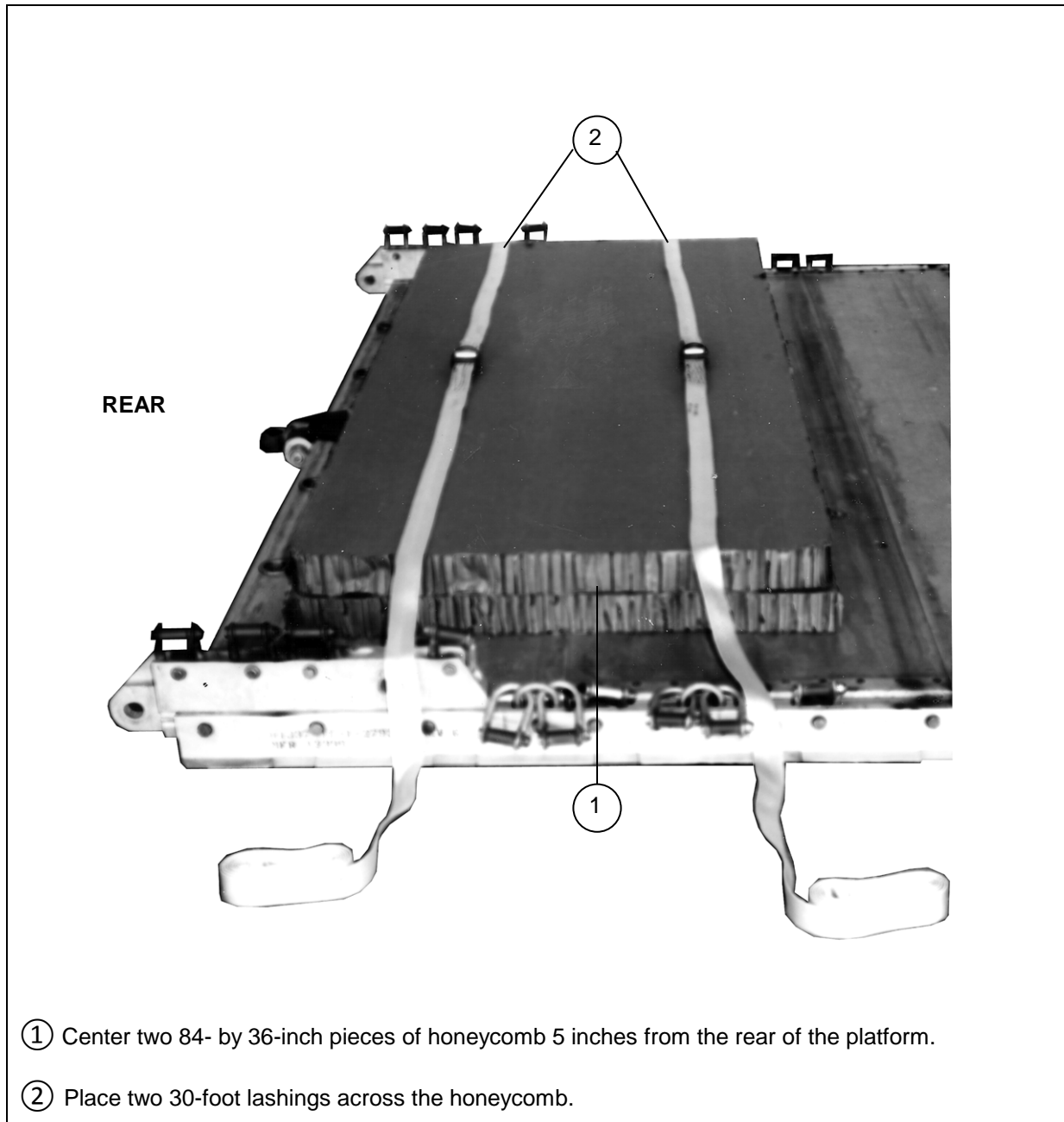


Figure 6-6. Rear Accompanying Load Prepared and Stowed on Platform

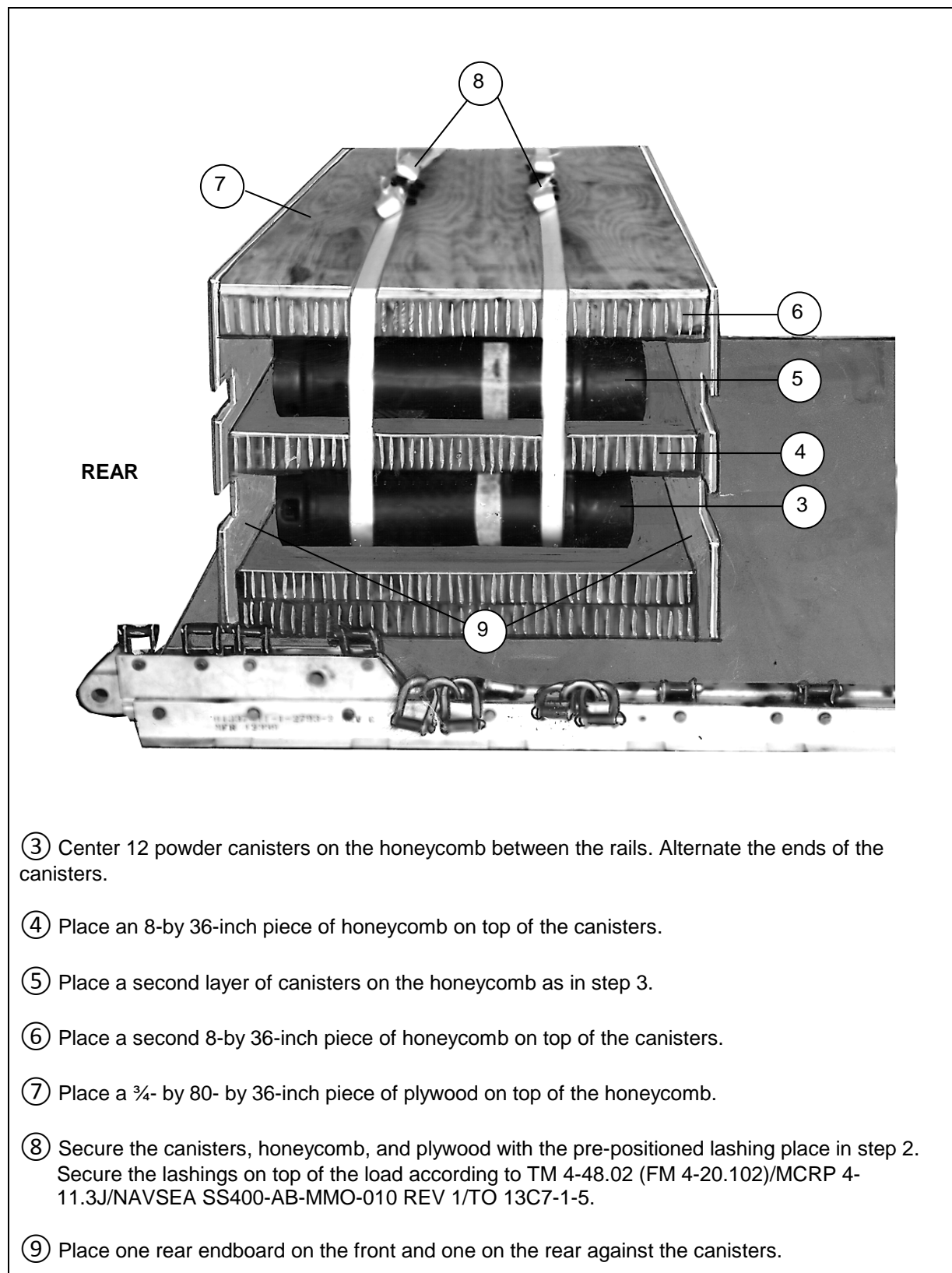


Figure 6-6 Rear Accompanying Load Prepared and Stowed on Platform (Continued)

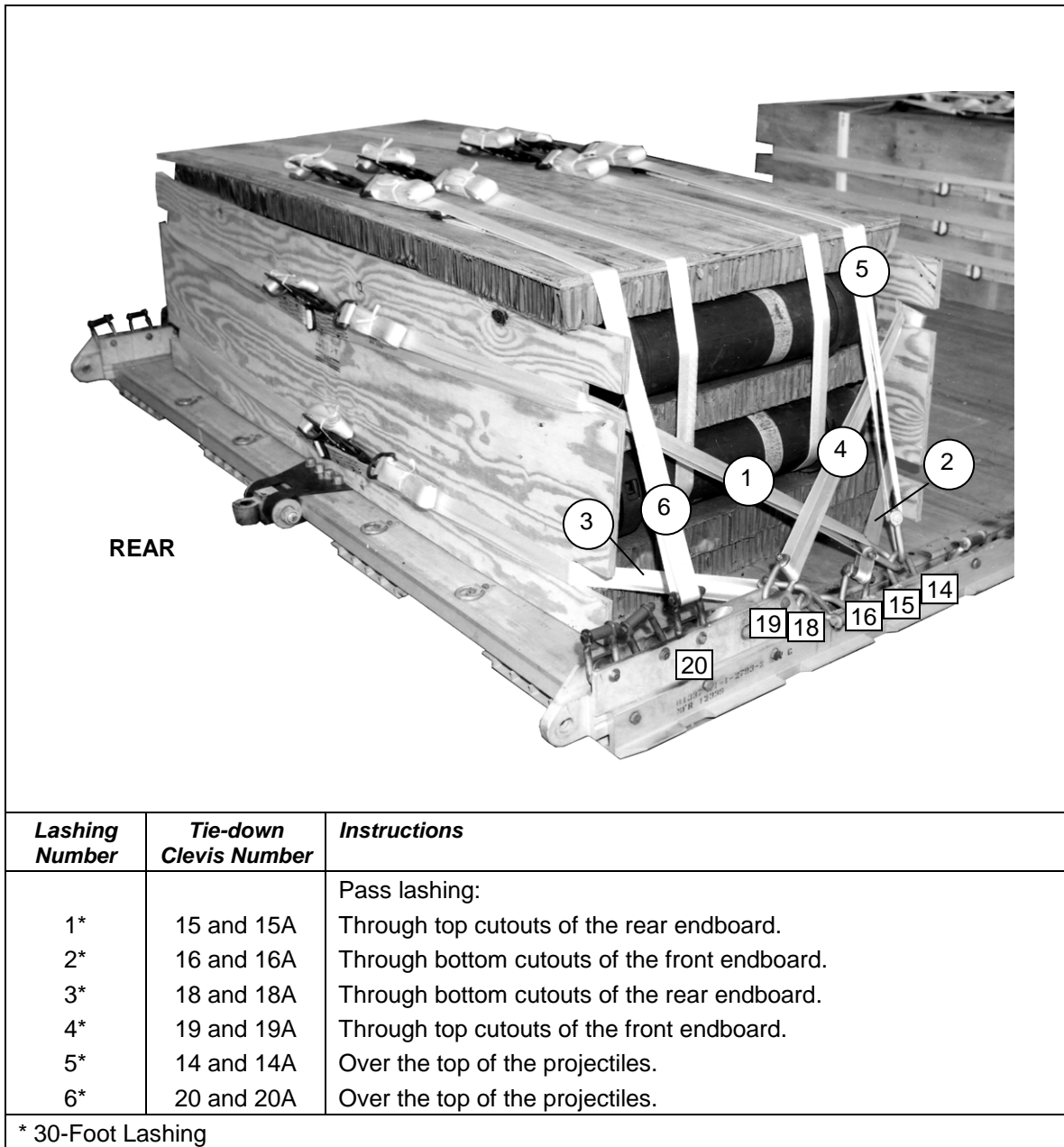


Figure 6-7. Rear Accompanying Load Lashings 1 through 6 Installed

BUILDING AND POSITIONING HONEYCOMB STACKS

6-4. Build and place the honeycomb stacks as shown in Figure 6-8.

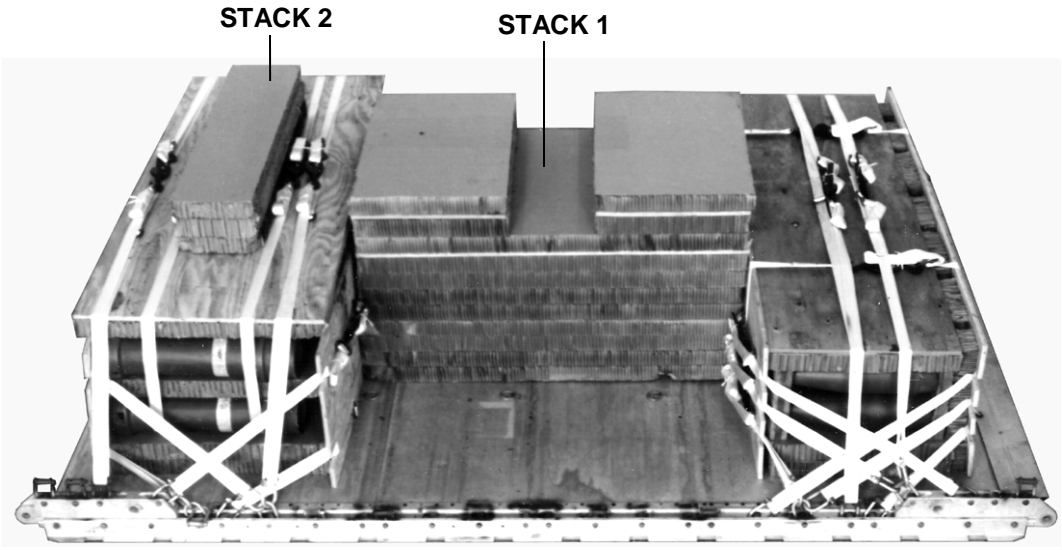
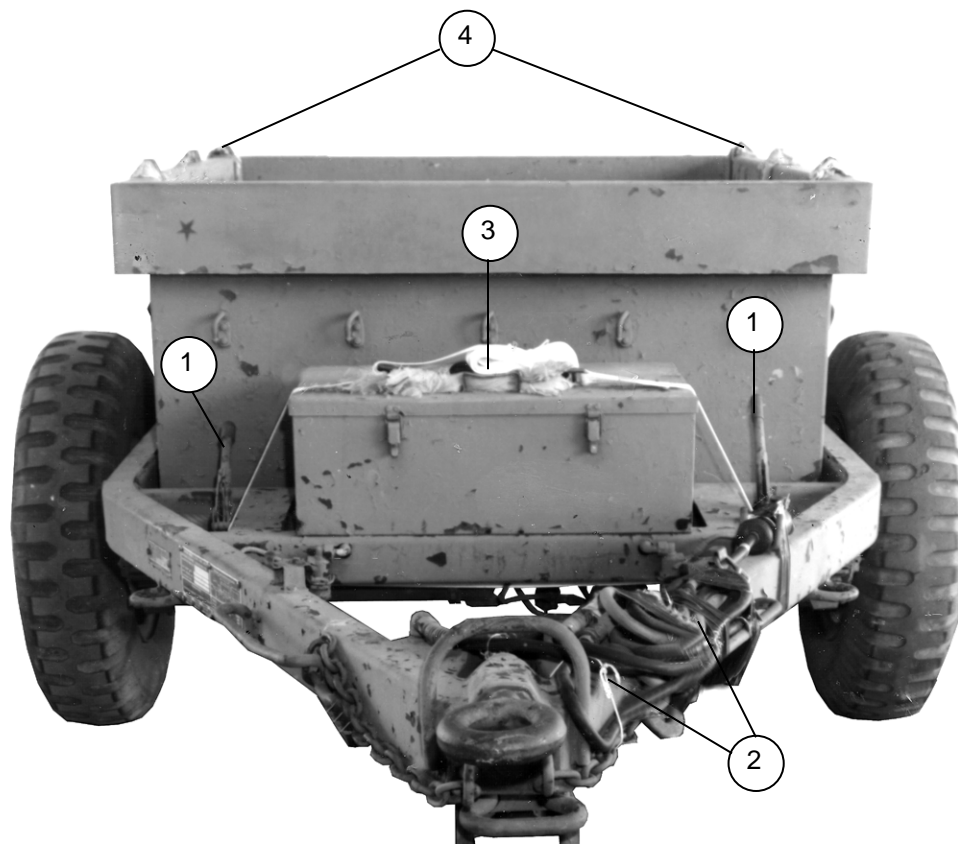
					
Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
1	8	36	62	Honeycomb	Stack and glue pieces centered between rails and accompanying loads.
	1	36	62	¾-inch Plywood	Glue on top of honeycomb.
	1	36	62	Honeycomb	Glue on top of plywood.
	2	36	24	Honeycomb	Glue one piece flush with the front of the stack and one piece flush with the rear of the stack.
	2	36	24	¾-inch Plywood	Glue one piece of plywood flush on each 36- by 24-inch piece of honeycomb.
	2	36	24	Honeycomb	Glue one piece of honeycomb flush on each piece of plywood.
2	3	48	12	Honeycomb	Glue the pieces together flush and center on top of the rear accompanying load.

Figure 6-8. Honeycomb Stacks 1 and 2 Built and Positioned

PREPARING THE TRAILER

6-5. Prepare the trailer as shown in Figure 6-9.



- ① Place the hand brake 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 Route a 15-foot lashing around the toolbox and trailer frame and secure with a D-ring and load binder.
- ④ Pad all sharp edges with cellulose wadding and tape.

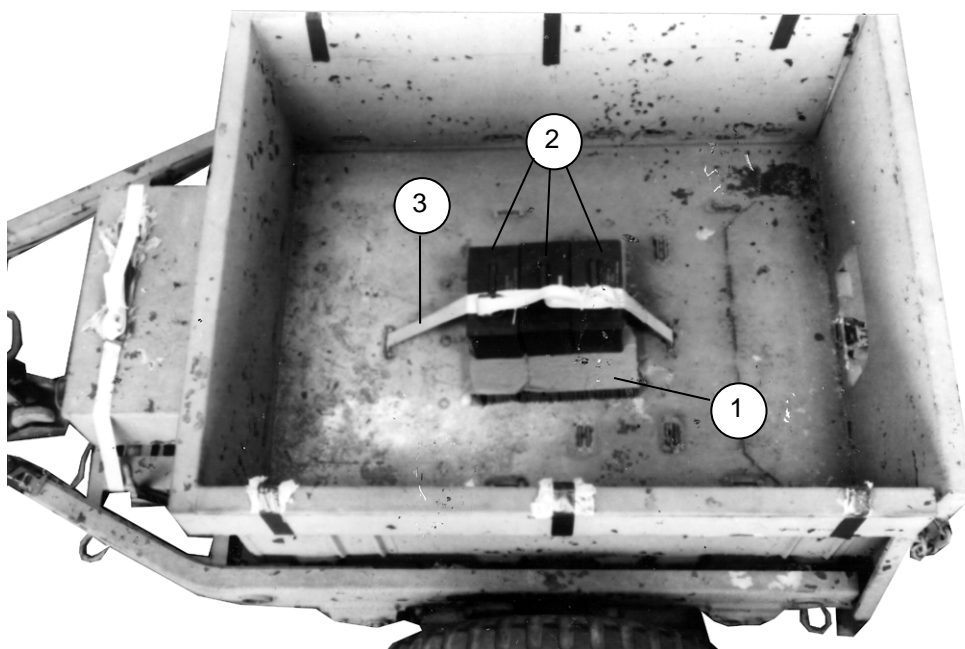
Figure 6-9. Trailer Prepared

STOWING ACCOMPANYING LOAD IN TRAILER

6-6. Stow three boxes of fuses and primers as shown in Figure 6-10. The primers and fuses must be stowed on top of any other items dropped as part of the accompanying load. The trailer cover and bows may be stowed in the trailer.

CAUTION

Only ammunition listed in TM 4-48.16/MCRP 4-11.3B/TO 13C7-18-41 may be airdropped.

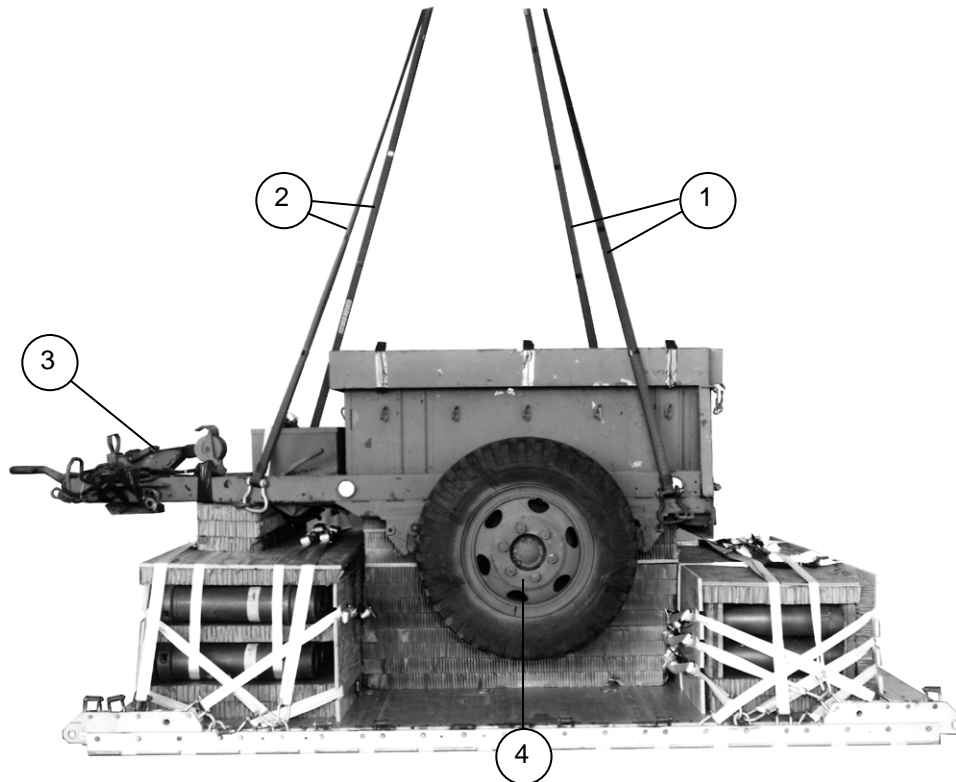


- ① Center a 20- by 20-inch piece of honeycomb in the trailer bed.
- ② Place three boxes of primers and fuses on the honeycomb.
- ③ Lash the primers and fuses to the trailer bed with a 15-foot lashing routing the lashing through the box handles. Secure the lashing with a D-ring and load binder.

Figure 6-10. Accompanying Load Stowed in Trailer

LIFTING AND POSITIONING THE TRAILER

6-7. Install the lifting slings and position the trailer as shown in Figure 6-11.



- ① Attach a 12-foot (2-loop), type XXVI nylon sling to each rear tiedown bracket with a medium suspension clevis.
- ② Attach a 12-foot (2-loop), type XXVI nylon sling to each front tiedown bracket with a medium suspension clevis.
- ③ Lift the trailer. Raise and lock the trailer tongue wheel into the travel position.
- ④ Position the trailer on the honeycomb stacks with the axle centered on stack 1 and the lunette overhanging the rear of the platform by 32 inches.
- ⑤ Remove the lifting slings (not shown).

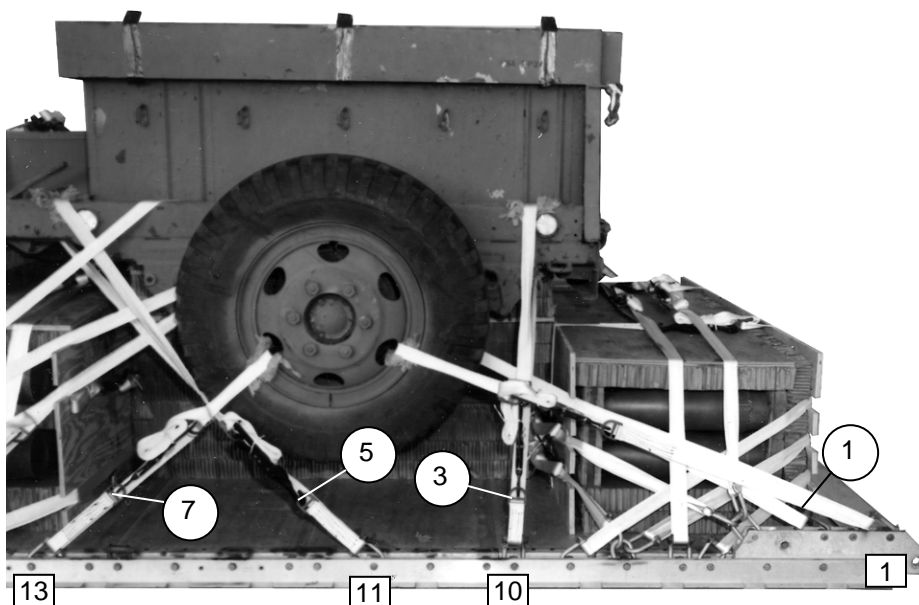
Figure 6-11. Lifting and Positioning the Trailer

LASHING LOAD TO PLATFORM

6-8. Lash the trailer to the platform according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figures 6-12 and 6-13.

Note. Pad any sharp edges on the load where a lashing may pass. Use cellulose padding and masking tape.

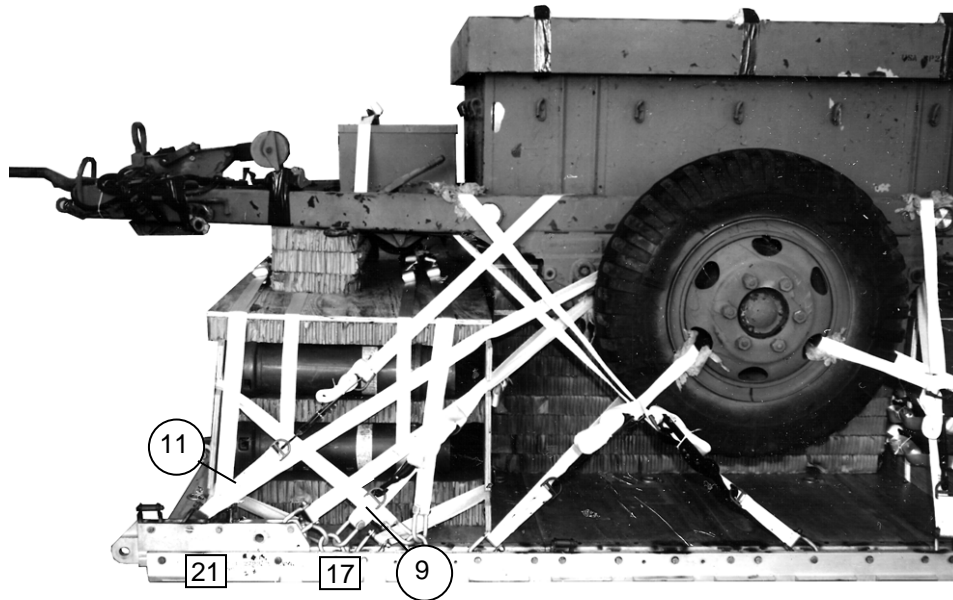
Note. Left, right, front, and rear refer to the trailer, NOT the platform.



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

Figure 6-12. Lashing 1 through 8 Installed

Note. Left, right, front, and rear refer to the trailer, NOT the platform.



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

Figure 6-13. Lashing 9 through 12 Installed

INSTALLING AND SAFETY TIEING THE SUSPENSION SLINGS

6-9. Install and safety tie the suspension slings as shown in Figure 6-14.

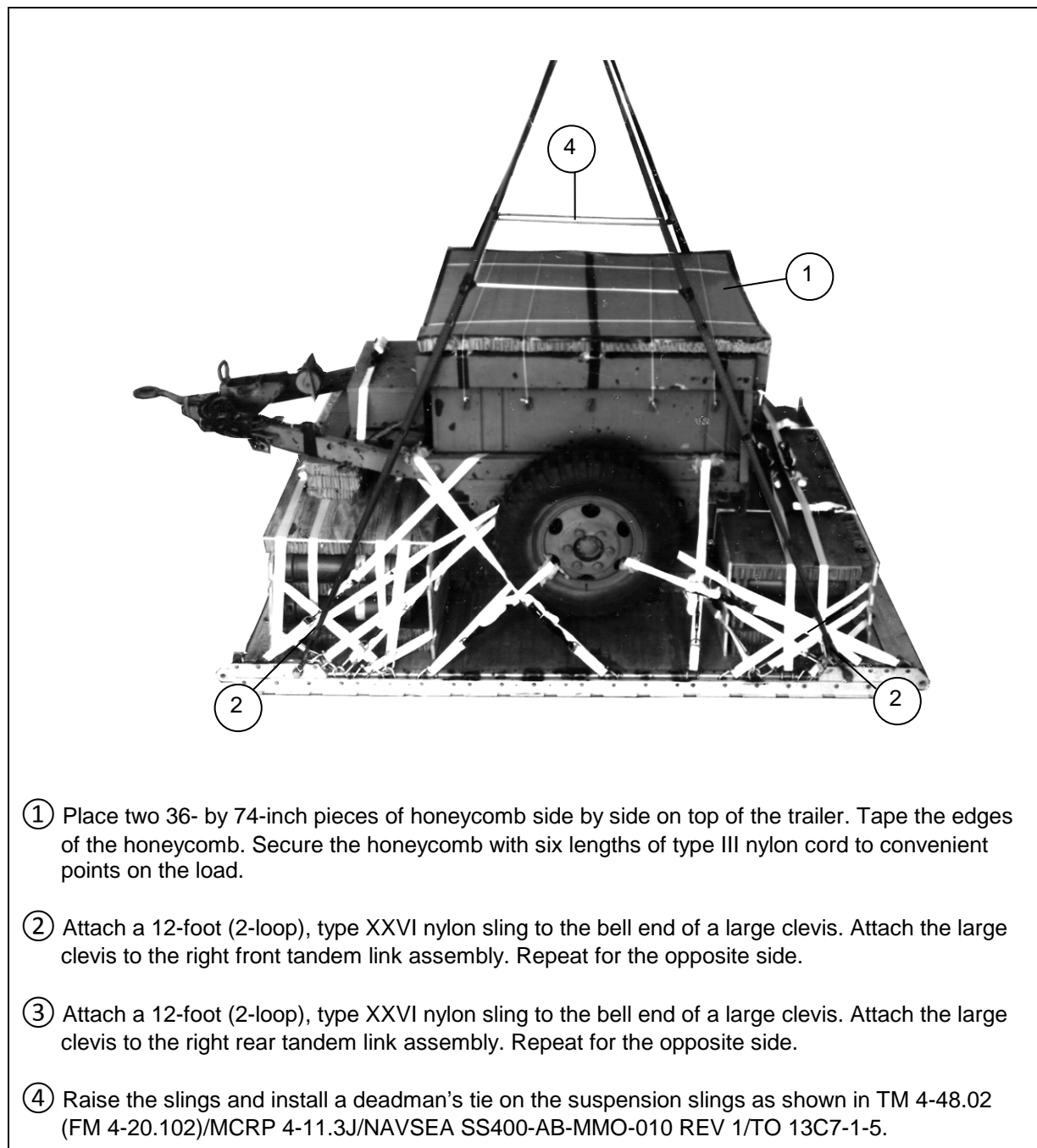
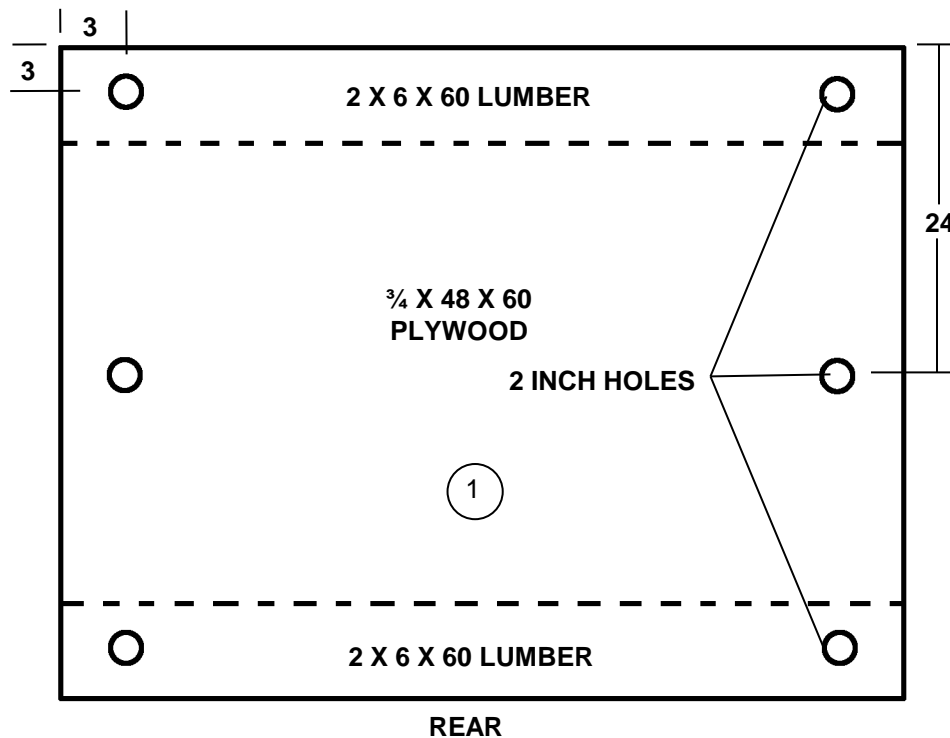


Figure 6-14. Suspension Slings Installed and Safety Tied

PREPARING AND POSITIONING THE PARACHUTE STOWAGE PLATFORM

6-10. Construct the parachute stowage platform as shown in Figure 6-15. Install the parachute stowage platform as shown in Figure 6-16.

- Notes.** 1. All measurements are given in inches.
2. This drawing is not drawn to scale.
3. All holes are 2-inches in diameter.



- ① Build the parachute stowage platform as shown.

Figure 6-15. Parachute Stowage Platform Built

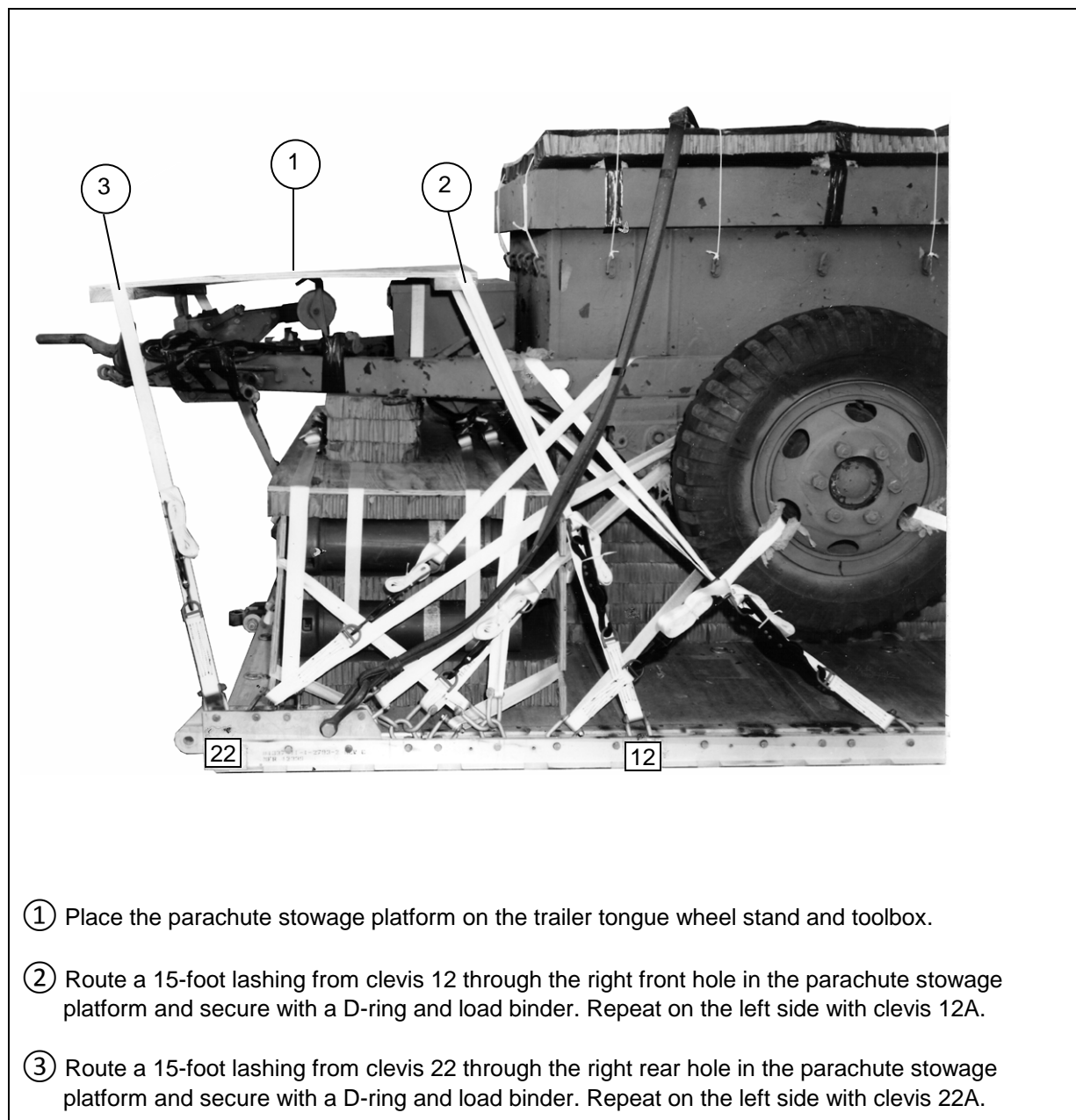


Figure 6-16. Parachute Stowage Platform Installed

STOWING CARGO PARACHUTES

6-11. Prepare, stow, and restrain two G-11B cargo parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 6-17.

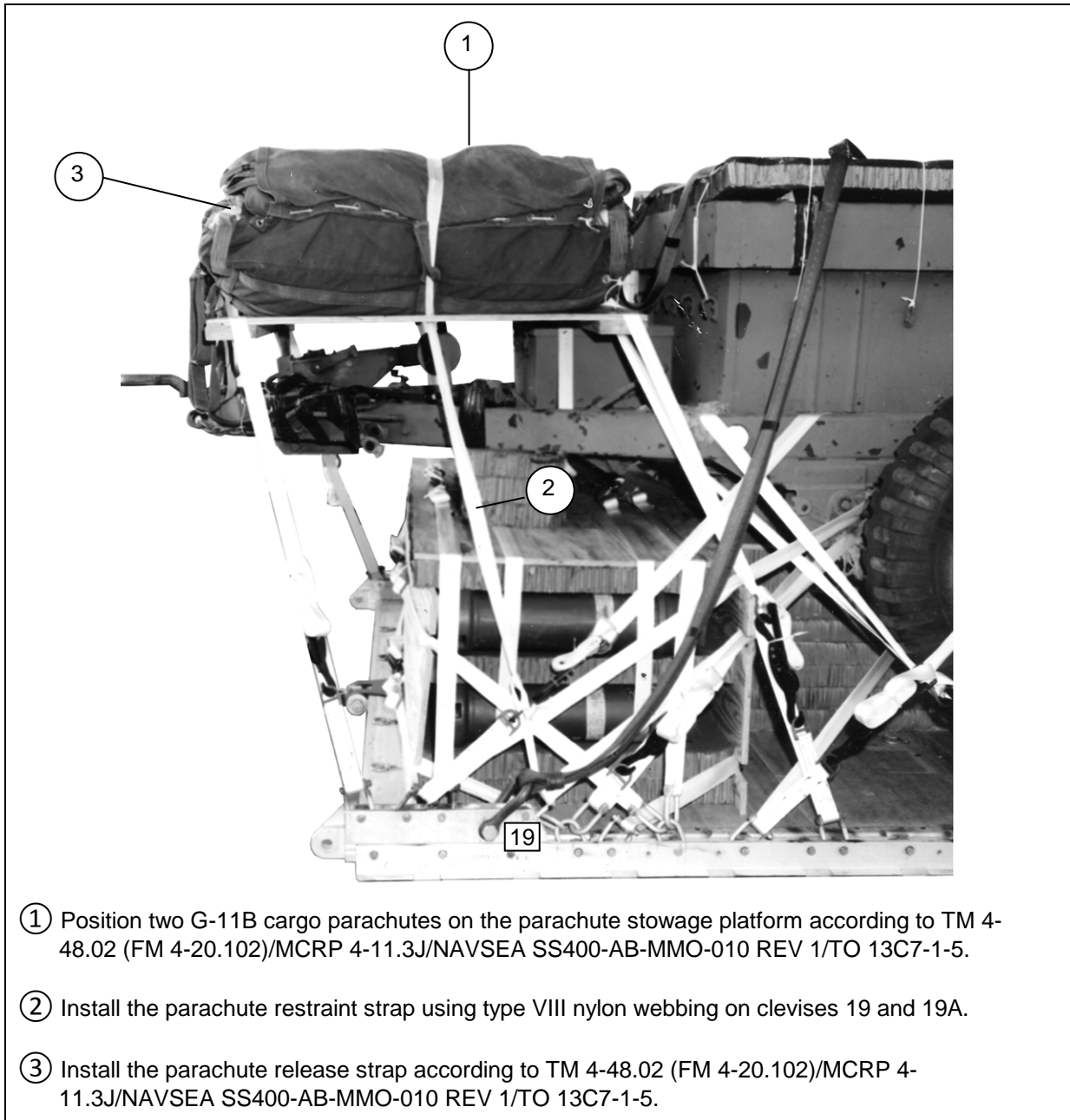
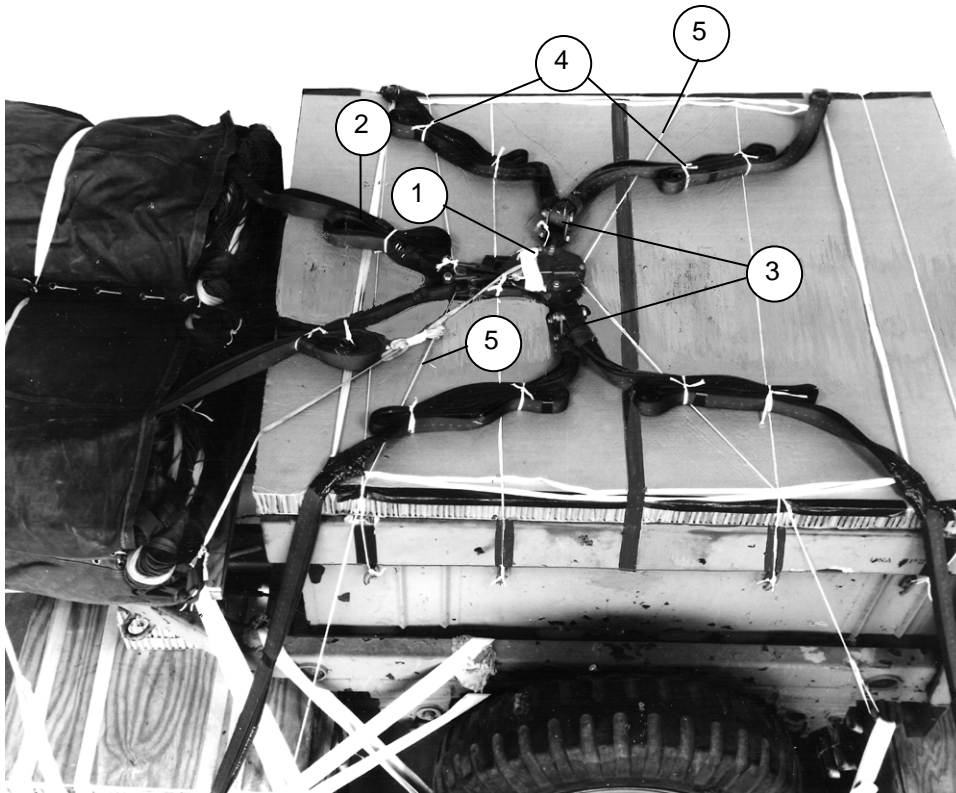


Figure 6-17. Cargo Parachutes Positioned and Restrained

INSTALLING PARACHUTE RELEASE SYSTEM

6-12. Prepare and install an M-1 parachute release system according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 6-18.



- ① Center an M-1 parachute release assembly on top of the honeycomb.
- ② Attach the parachute riser extensions to the parachute release connectors.
- ③ Attach the suspension slings to the lower suspension links.
- ④ Fold the excess suspension slings and safety tie with type I, 1/4-inch cotton webbing.
- ⑤ Tie the front and rear M-1 parachute release safety ties to convenient points on the load with type III nylon cord.

Figure 6-18. M-1 Parachute Release Installed

INSTALLING EXTRACTION SYSTEM

6-13. Install the extraction system as shown in Figure 6-19.

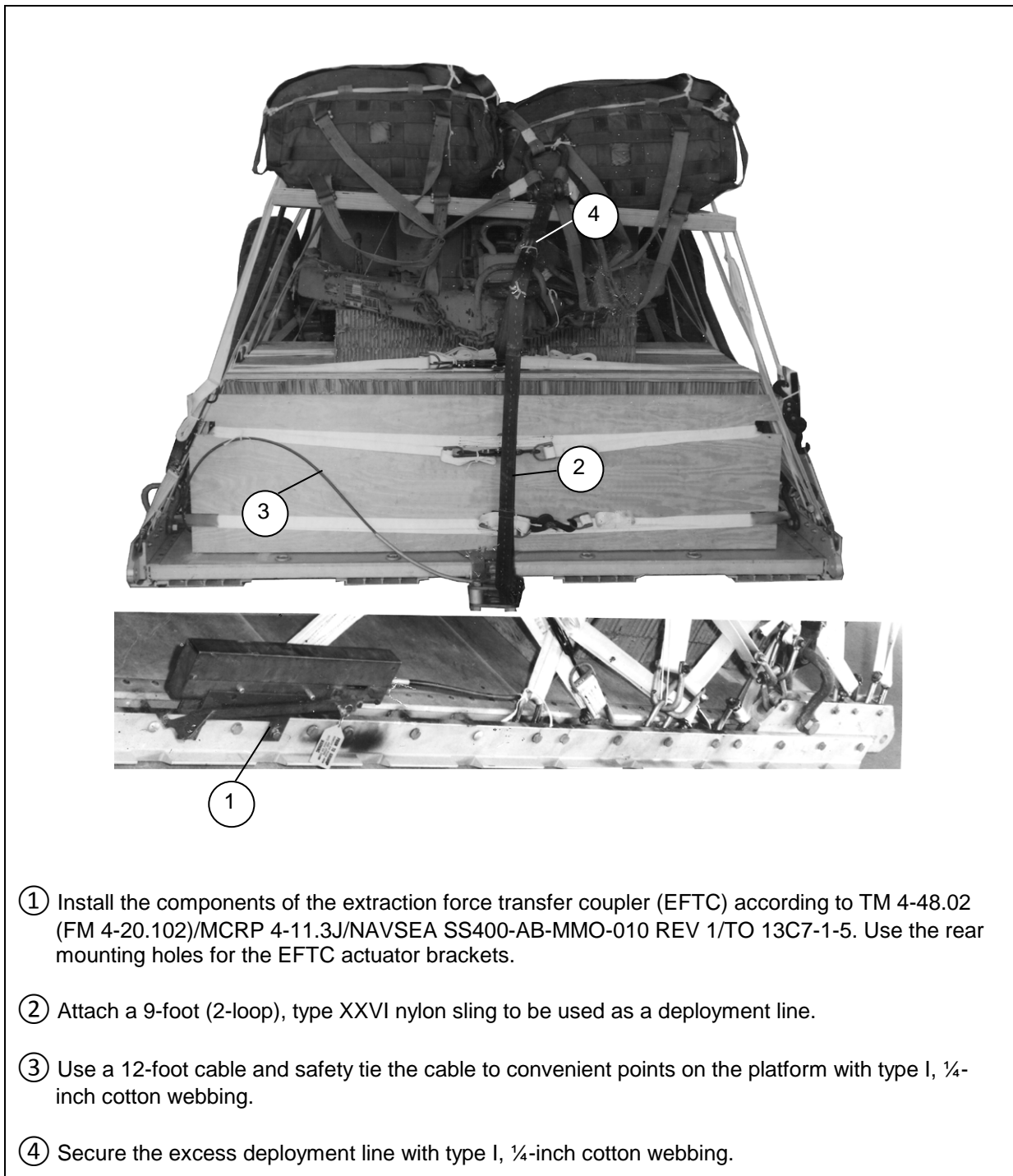


Figure 6-19. Extraction System Installed

PLACING EXTRACTION PARACHUTE

6-14. Select the extraction parachute and extraction line needed using the extraction line requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Place the extraction parachute and line on the load for installation in the aircraft.

INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

6-15. Select and install the provisions for the emergency aft restraints according to the emergency aft restraint requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

MARKING RIGGED LOAD

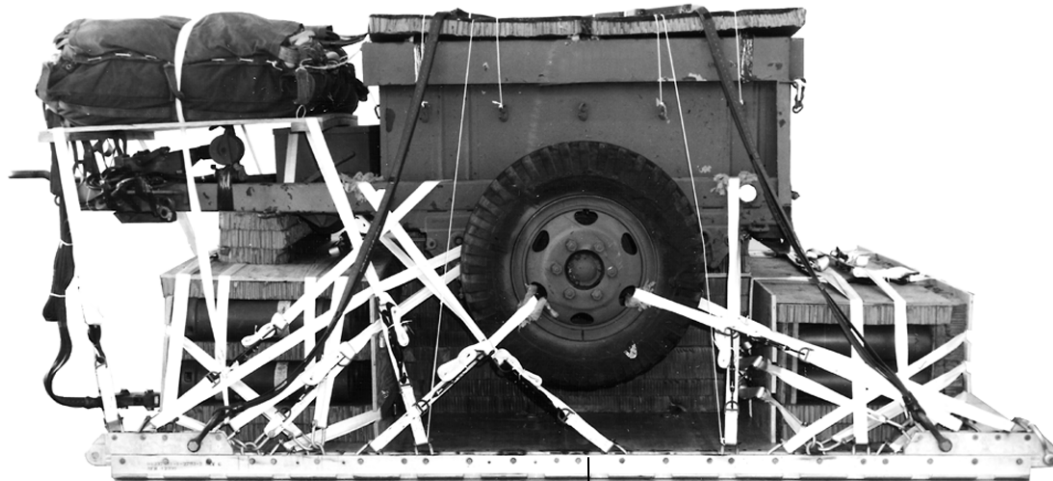
6-16. Mark the rigged load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figure 6-20. Complete Shipper's Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, Center of Balance (CB), and parachute requirements must be recomputed.

EQUIPMENT REQUIRED

6-17. Use the equipment listed in Table 6-1 to rig this load.

CAUTION

Make the final rigger inspection required by AR 59-4 and TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 before the load leaves the rigging site.



Center of Balance (CB)

RIGGED LOAD DATA

Weight: Load Shown.....	8,200 pounds
Maximum Weight Load	10,000 pounds
Height.....	81 inches
Width.....	108 inches
Overall Length	181 inches
Overhang: Front.....	0
Rear (lunette).....	32 inches
Center of Balance (CB) (from front edge of the platform).....	71 inches
Extraction System with 12-foot cable (adds 0 inches to the length of the load)	

Figure 6-20. 1 1/2-Ton Ammunition Trailer Rigged on a 12-Foot, Type V Platform for Low-Velocity Airdrop

Table 6-1. Equipment Required for Rigging the 1 ½-Ton Ammunition Trailer on a 12-Foot, Type V Platform for Low-Velocity Airdrop

<i>National Stock Number</i>	<i>Item</i>	<i>Quantity</i>
8040-00-273-8713	Adhesive paste, 1-gal.	As required
1670-01-035-6054	Bridle, extraction line bag	1
4030-00-090-5354	Clevis, suspension, 1-inch (large)	5
4030-00-678-8562	Clevis, suspension, (medium)	6
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 (Cellulose padding)	As required
1670-01-183-2678	Leaf, extraction line (line bag) (add 2 for C-17)	2
	Line extraction:	
1670-01-062-6313	60-foot (3-loop), type XXVI (for C-130)	1
1670-01-107-7651	140-foot (3-loop), type XXVI (for C-17)	1
1670-01-064-4452	60-foot (1-loop), type XXVI (for C-17), (drogue line)	1
1670-00-783-5988	Link assembly, type IV (C-17 only)	1
1670-01-493-6418	Link assembly, two-point, small, 3 ¾-inch:	1
	Lumber:	
5510-00-220-6146	2- by 6- by 96-inch	2
5315-00-010-4659	Nail, steel, common, 8D	As required
1670-00-753-3928	Pad, energy-dissipating (honeycomb)	18 sheets
1670-01-016-7841	Parachute, cargo, G-11B	2
	Parachute, cargo, extraction:	
1670-01-063-3716	22-foot	1
1670-01-063-3715	15-foot (C-17 only)	1
	Platform, airdrop, type V, 12-foot:	
1670-01-162-2372	Clevis assembly (type V)	52
1670-01-162-2376	Extraction bracket assembly	6
1670-01-162-2381	Tandem link assembly (Multipurpose link)	4
5530-00-128-4981	Plywood, 3/4-inch	6 sheets

Table 6-1. Equipment Required for Rigging the 1 ½-Ton Ammunition Trailer on a 12-Foot, Type V Platform for Low-Velocity Airdrop (continued)

<i>National Stock Number</i>	<i>Item</i>	<i>Quantity</i>
1670-01-097-8816	Release, cargo parachute, M-1	1
	Sling, cargo, airdrop:	
1670-00-753-3790	9-foot (2-loop), type XXVI	1
1670-01-062-6303	12-foot (2-loop), type XXVI	4
1670-01-062-6302	20-foot (2-loop), type XXVI	2
1670-00-998-0116	Strap, parachute, release	1
7501-00-266-5016	Tape, adhesive, 2-inch	As required
1670-00-937-0271	Tie-down assembly, 15-foot.	55
1670-01-483-8259	Link, Parachute, Connector (H-block) (C-17 only)	1
	Webbing:	
8305-00-268-2411	Cotton, 1/4-inch, type I	As required
8305-00-082-5752	Nylon, tubular, 1/2-inch	As required
8305-00-261-8585	Nylon, type VIII	As required
Legend:	gal= gallon, lb = pound, ft = feet, D = penny	

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Chapter 7

Rigging Mine Clearing Line Charge Trailer on a 12-Foot, Type V Platform for Low-Velocity Airdrop

DESCRIPTION OF THE LOAD

7-1. The Mine Clearing Line Charge (MICLIC), 2 ½-ton trailer (Figure 7-1) is rigged on a 12-foot, type V airdrop platform using two G-11 cargo parachutes. 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.

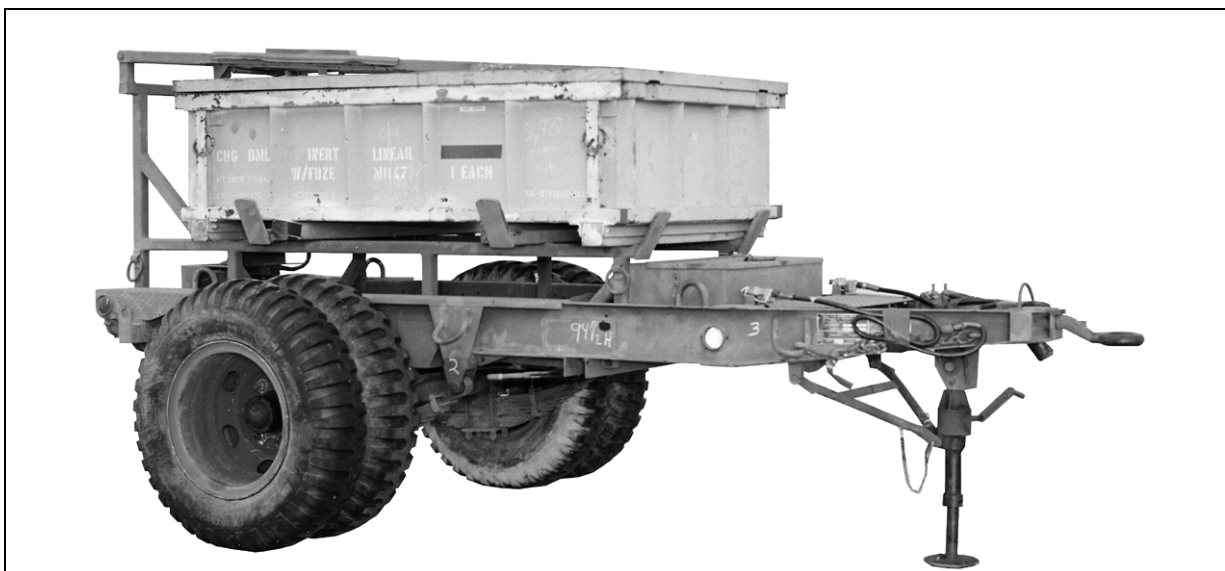


Figure 7-1. mine-clearing line charge (MICLIC) on 2 ½-Ton Trailer

PREPARING PLATFORM

7-2. Prepare a 12-foot, type V airdrop platform as shown in Figure 6-2.

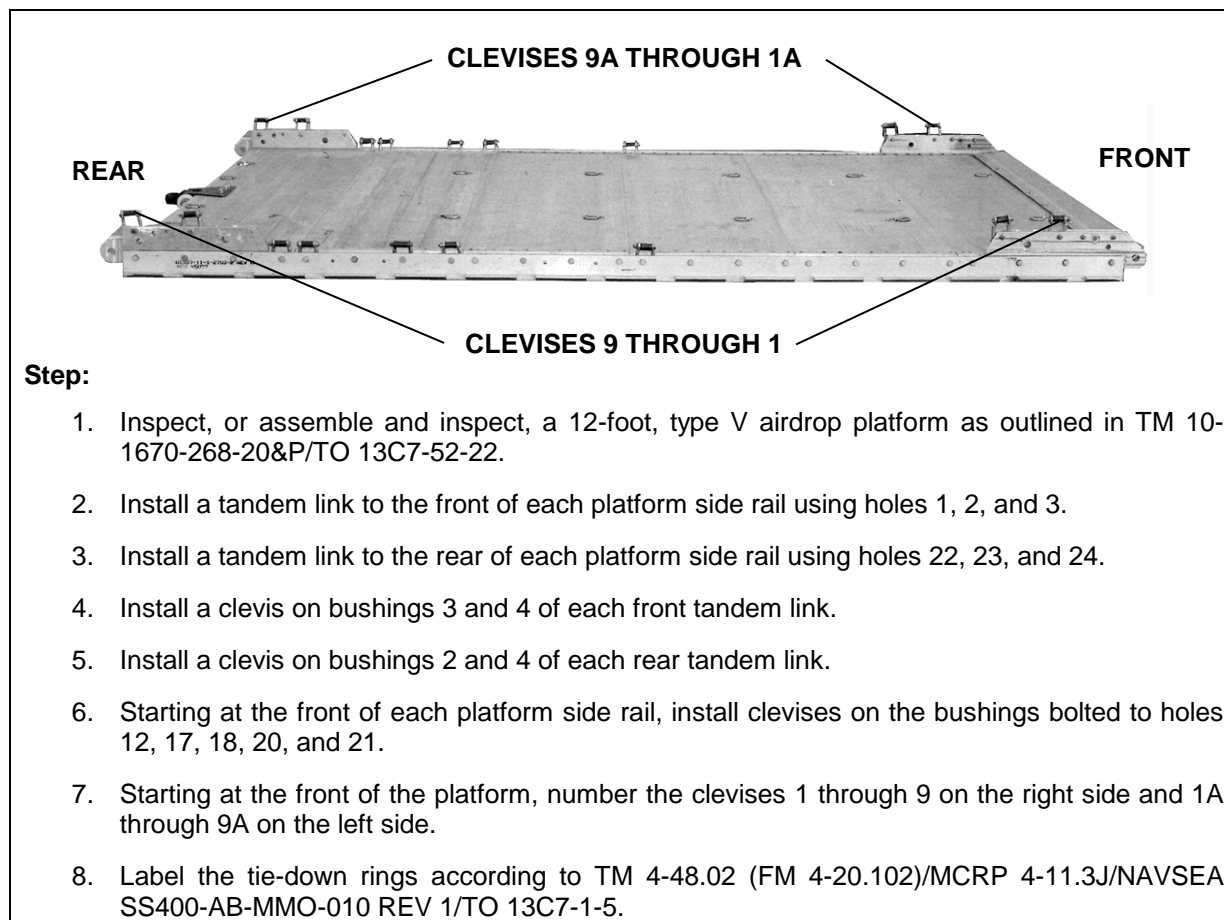
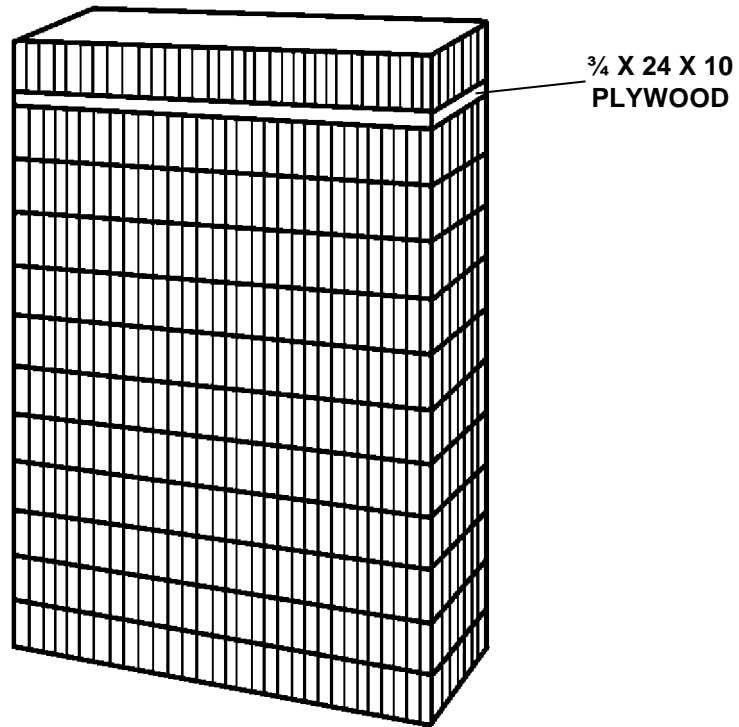


Figure 7-2. Platform Prepared

BUILDING AND POSITIONING HONEYCOMB STACKS

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

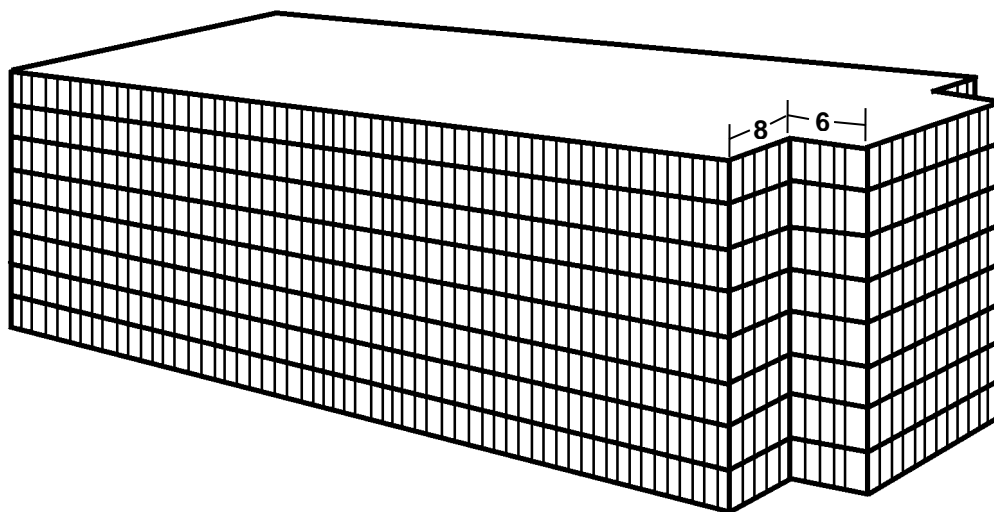
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.



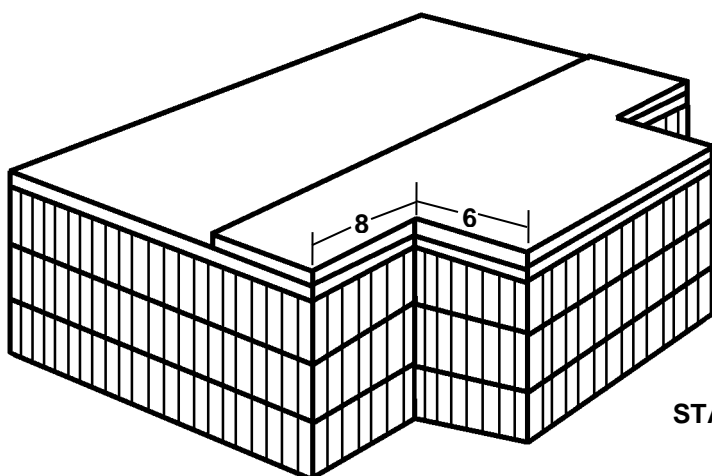
Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
1	11	24	10	Honeycomb	Glue to form a base.
	1	24	10	3/4-inch Plywood	Glue flush on top of honeycomb.
2	1	24	10	Honeycomb	Glue flush on top of plywood.
	11	24	10	Honeycomb	Glue to form a base.
	1	24	10	3/4-inch Plywood	Glue flush on top of honeycomb.
	1	24	10	Honeycomb	Glue flush on top of plywood.

Figure 7-3. Honeycomb Stacks 1 and 2 Built

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



**STACK 3
(BASE)**

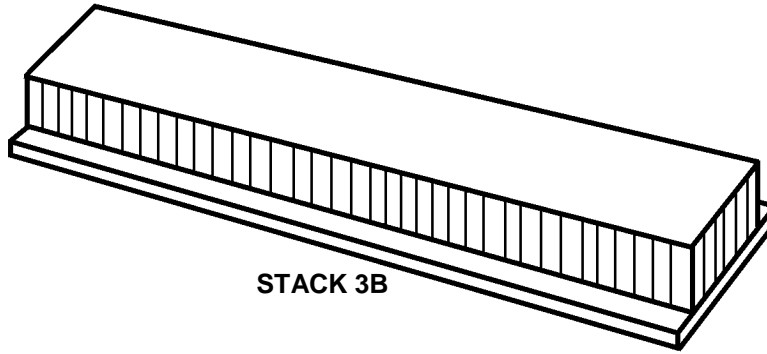


STACK 3A

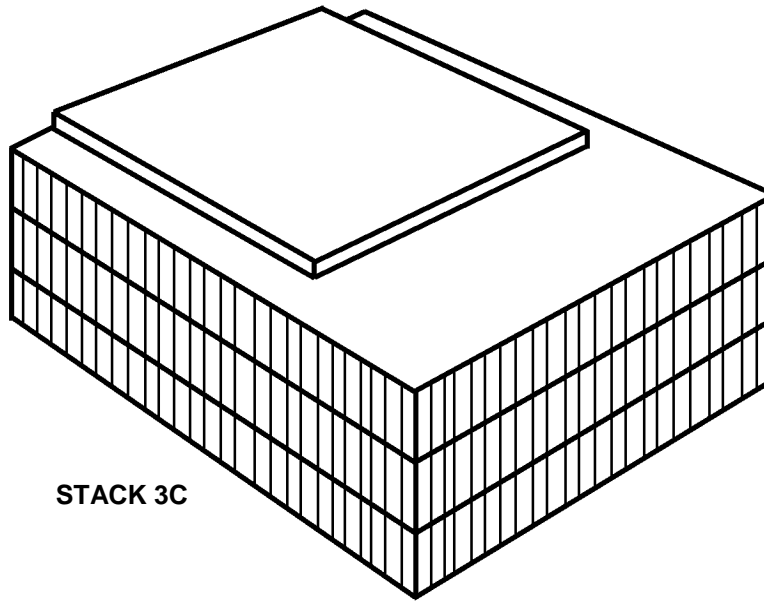
<i>Stack Number</i>	<i>Pieces</i>	<i>Width (Inches)</i>	<i>Length (Inches)</i>	<i>Material</i>	<i>Instructions</i>
3 (Base)	8	36	84	Honeycomb	Make 8- by 6-inch cutouts in each piece as shown. Glue to form a base.
3A	3	36	25	Honeycomb	Make cutouts as above and glue flush.
	1	36	25	$\frac{3}{4}$ -inch Plywood	Make cutouts as above and glue flush on top of honeycomb.
	1	36	12	$\frac{3}{4}$ -inch Plywood	Make cutouts as above and glue flush on top of plywood. Set stack 3A aside.

Figure 7-4. Components of Stack 3 Prepared

Note. This drawing is not drawn to scale.



STACK 3B

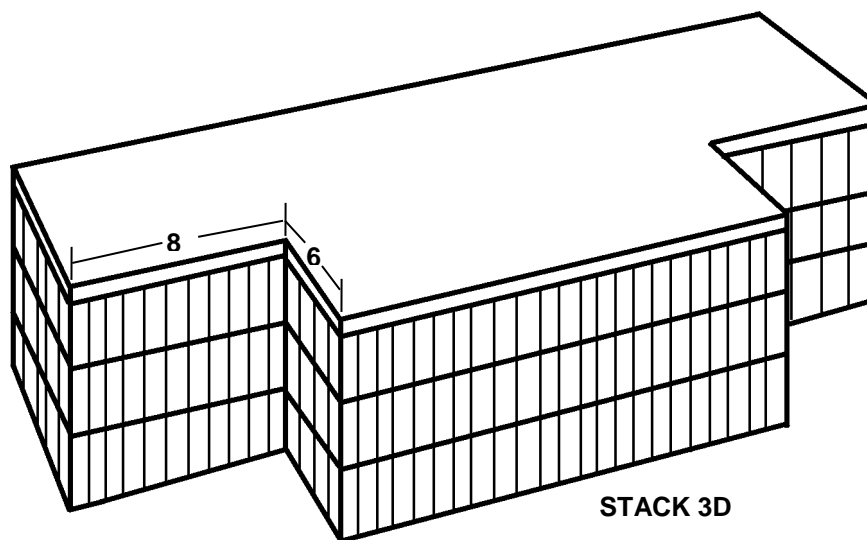


STACK 3C

Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
3B	1	34	6	Honeycomb	Center and glue honeycomb on plywood. Set stack 3B aside.
	1	34	8	$\frac{3}{4}$ -inch Plywood	
3C	3	20	24	Honeycomb	Glue flush.
	1	16	15	$\frac{3}{4}$ -inch Plywood	Center and glue on top of honeycomb with rear edges aligned. Set stack 3C aside.

Figure 7-4. Components of Stack 3 Prepared (Continued)

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



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
3D	3	36	16	Honeycomb	Make cutouts as above and glue flush.
	1	36	16	$\frac{3}{4}$ -inch Plywood	Center and glue honeycomb on plywood. Set stack 3B aside.

Figure 7-4. Components of Stack 3 Prepared (Continued)

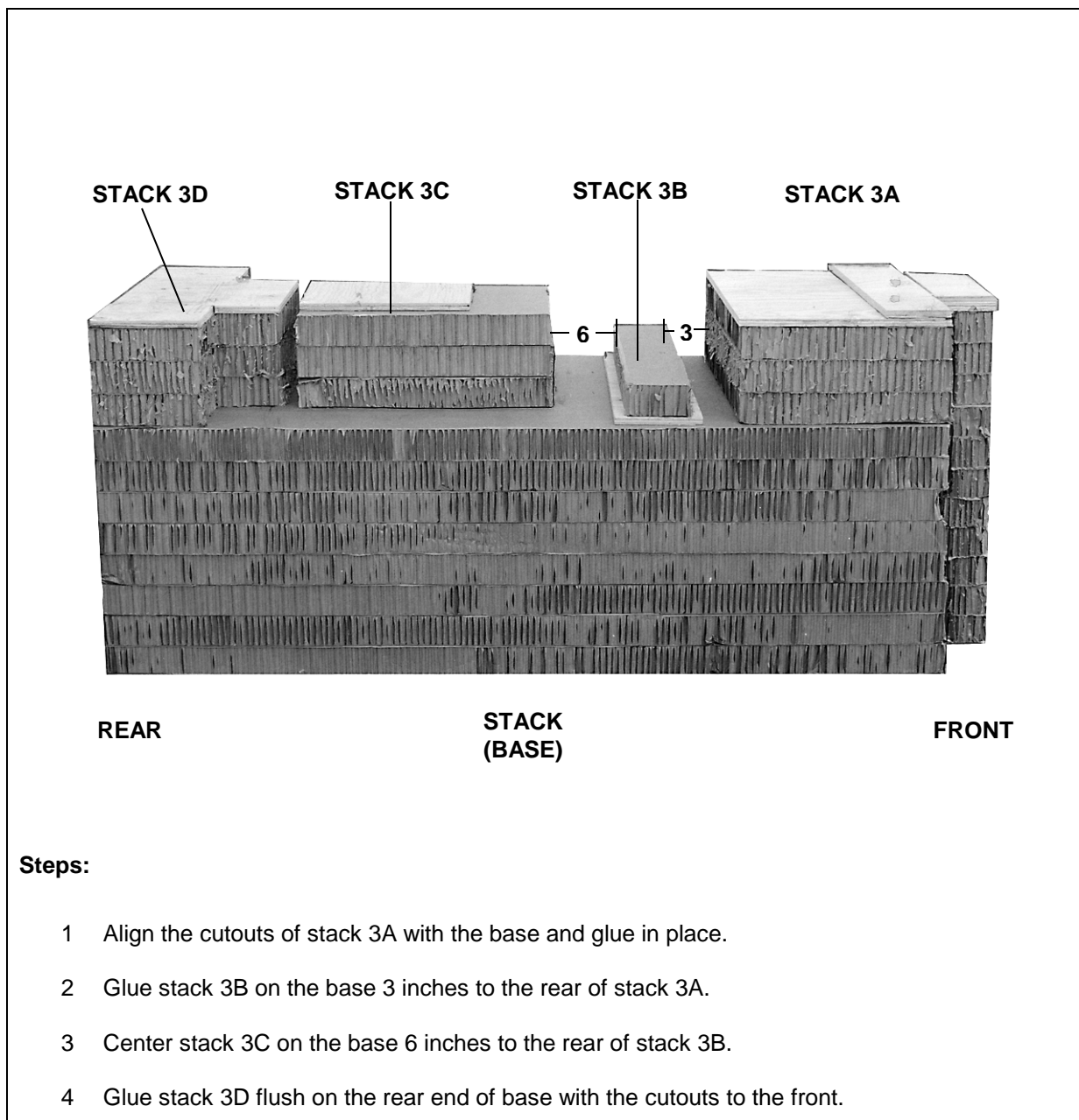
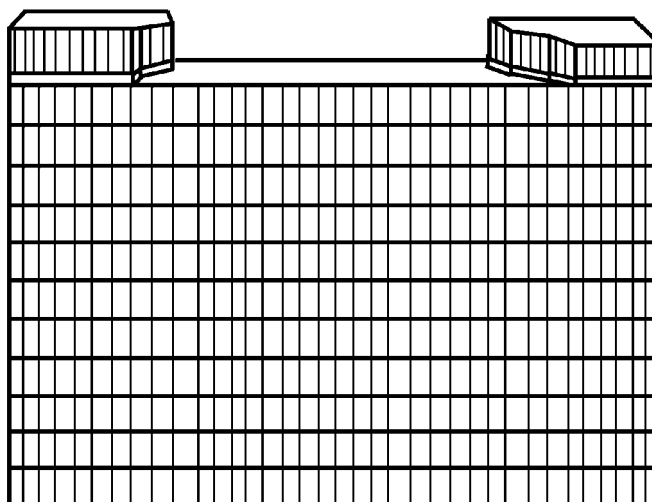
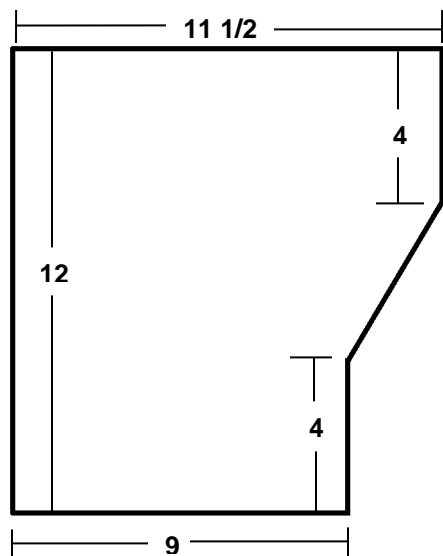


Figure 7-5. Stack 3 Assembled

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



STACK 4



STACK 5

Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
4	2	96	15	Honeycomb	Glue flush together.
5	11	48	12	Honeycomb	Glue flush together.
	2	11 ½	12	¾-inch Plywood	Make cutouts as shown and glue flush over sides of stack facing in the same direction.
	2	11 ½	12	Honeycomb	Make cutouts as above and glue flush over plywood.

Figure 7-6. Stacks 4 and 5 Prepared

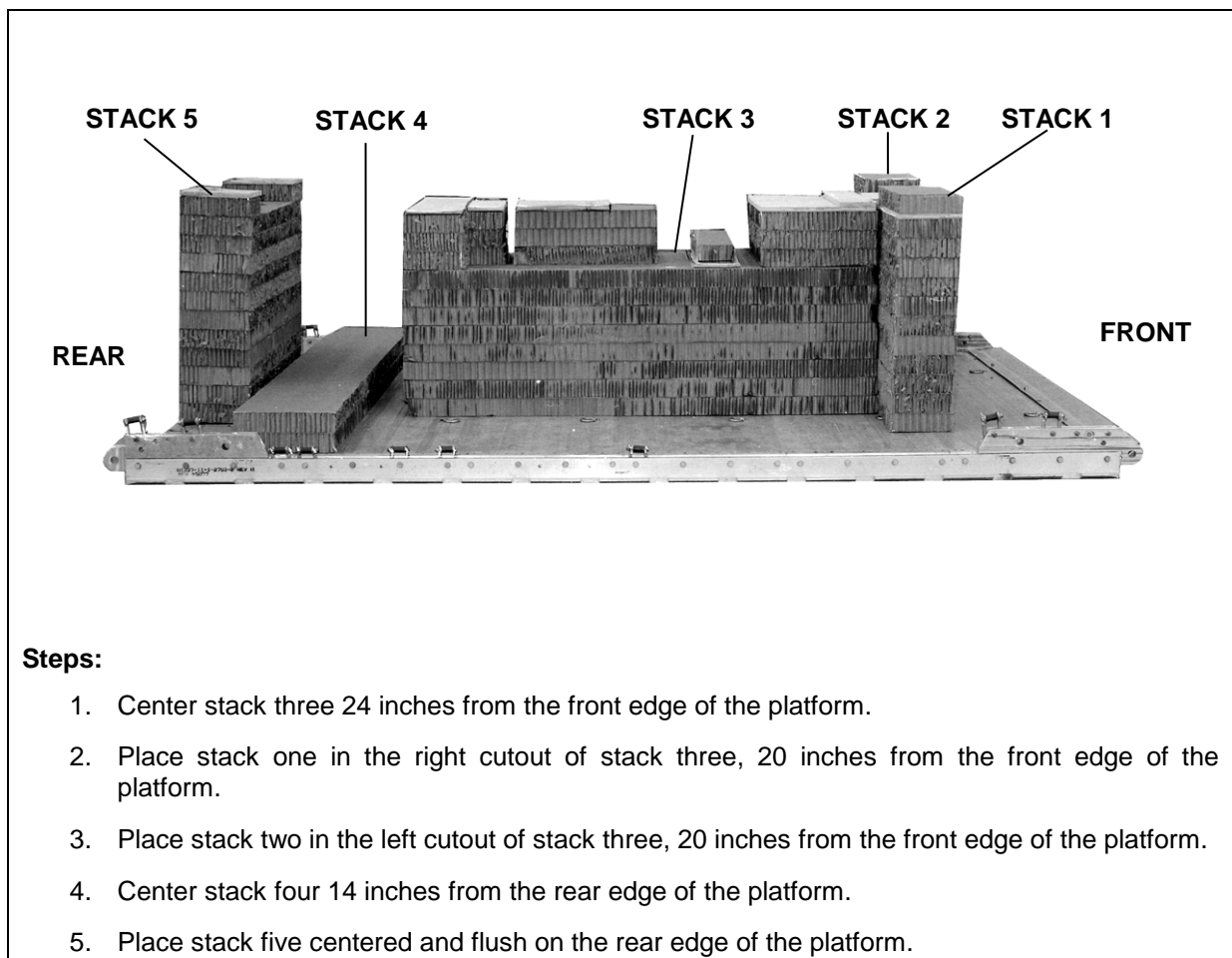
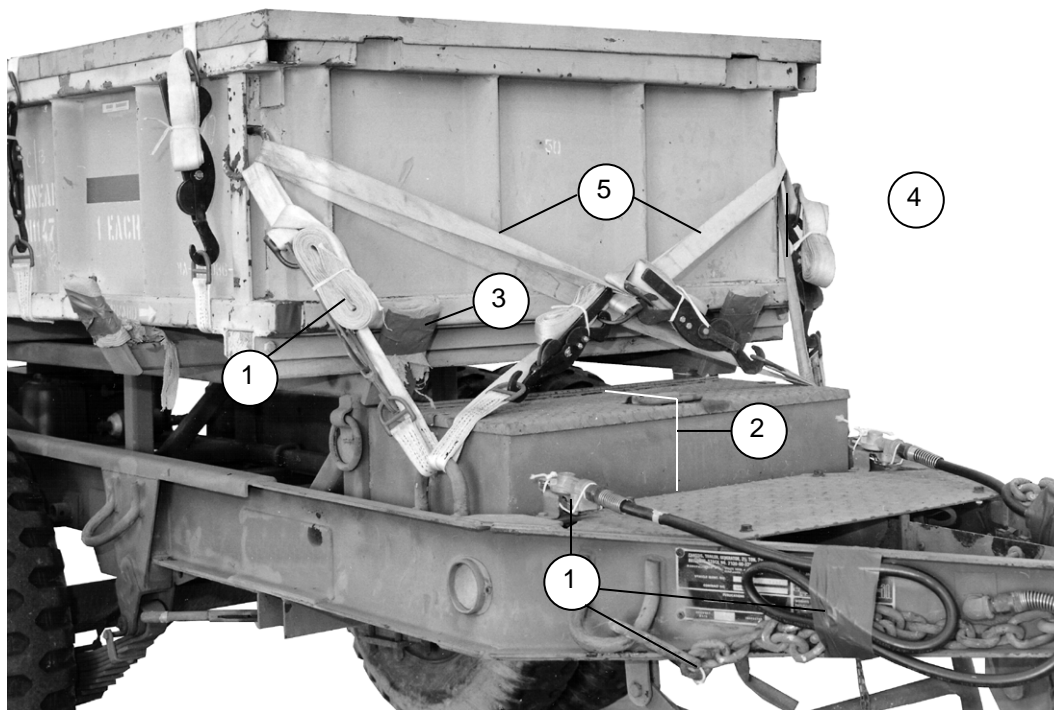


Figure 7-7. Honeycomb Stacks Positioned on Platform

PREPARING MINE-CLEARING LINE CHARGE AND TRAILER

7-4. Prepare the Mine-clearing line charge (MICLIC) as shown in Figure 7-8.



- 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 lid with type III nylon cord.
- ③ Pad sharp edges with cellulose wadding and tape.
- ④ Lash the right front tiedown ring on the mine-clearing line charge (MICLIC) box to the right front tiedown point on the trailer frame. Repeat on the left side.
- ⑤ Lash the right front tiedown ring on the MICLIC box to the left front tiedown point on the trailer frame. Lash the left front tiedown ring on the MICLIC box to the right front tiedown point on the trailer frame.

Figure 7-8. Mine-clearing line charge Prepared

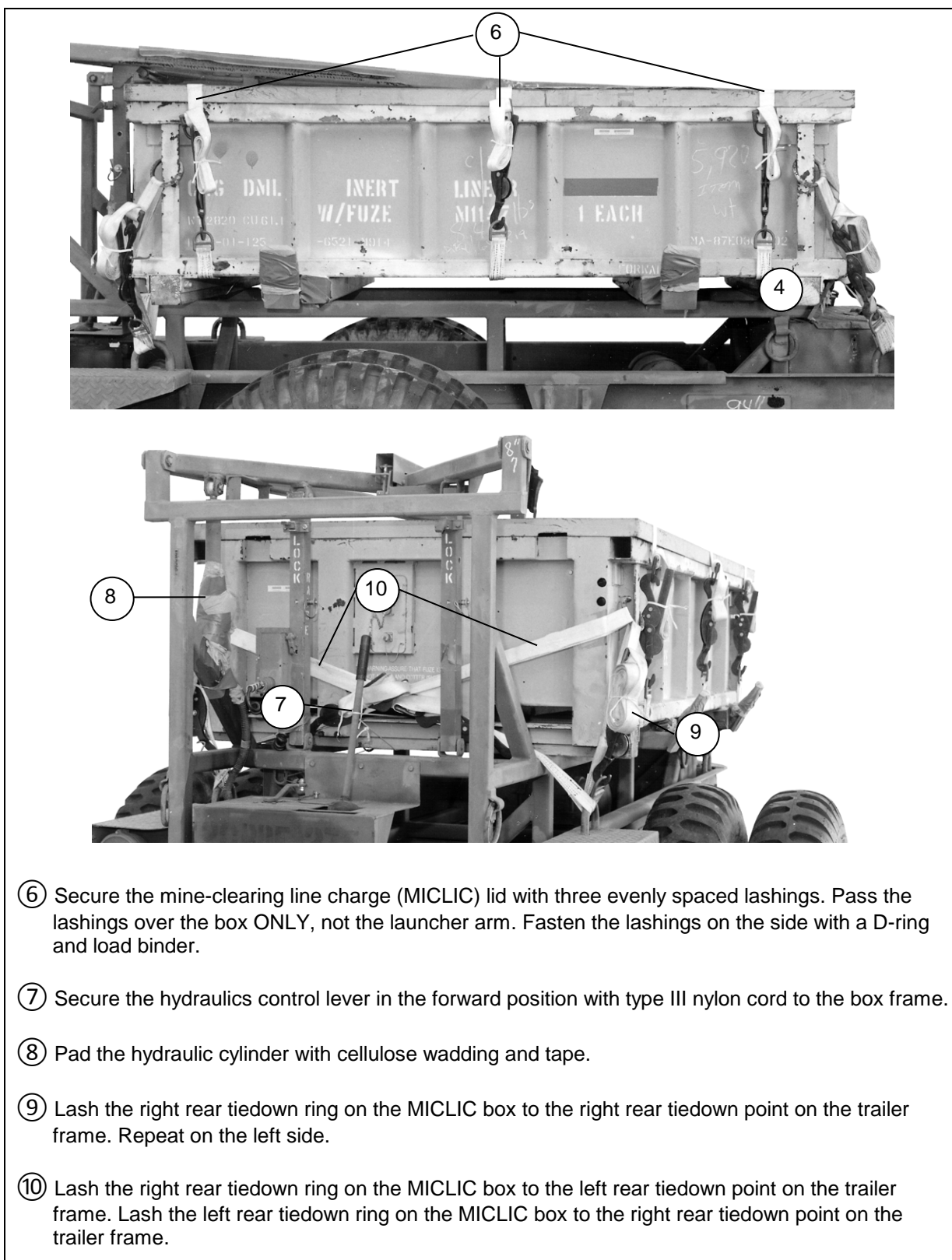


Figure 7-8. Mine-clearing line charge Prepared (Continued)

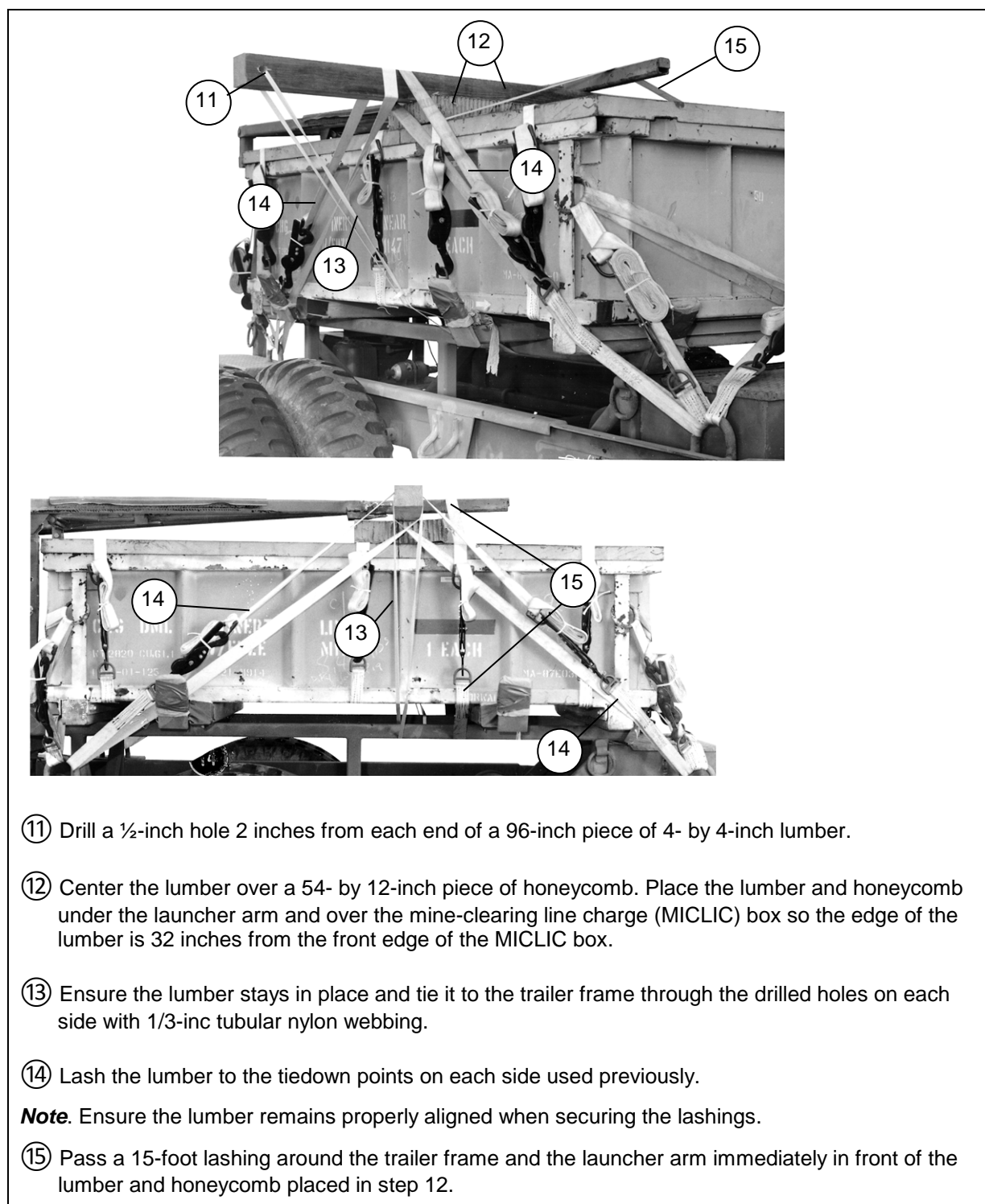
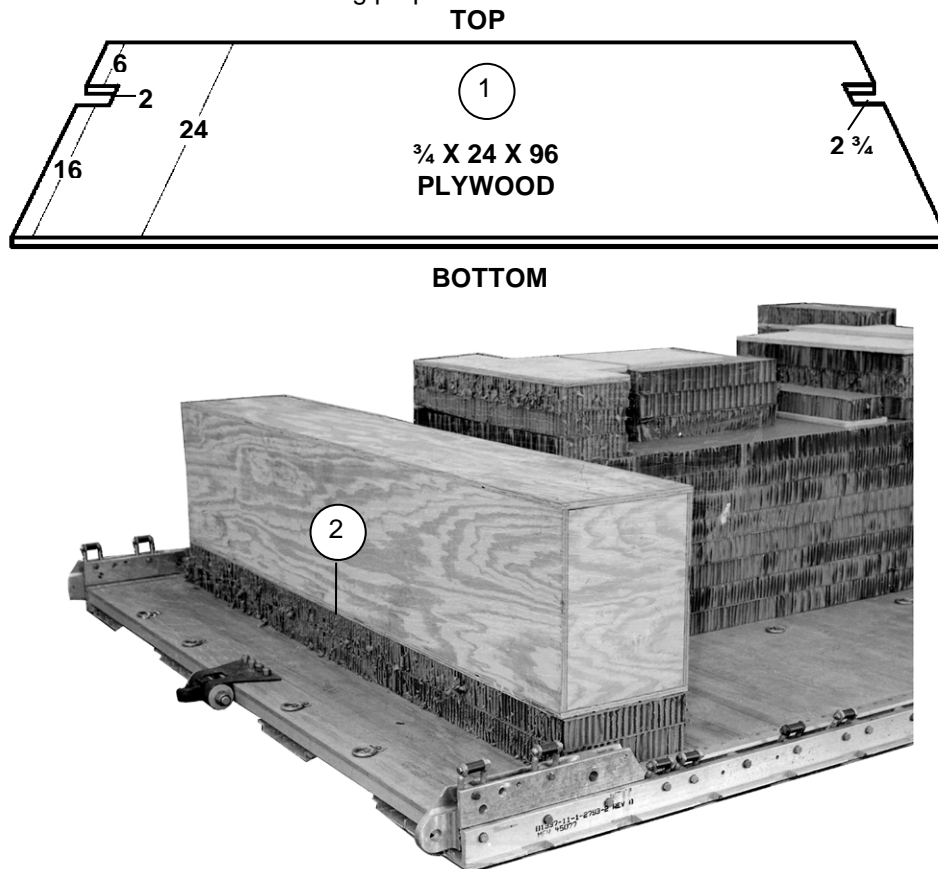


Figure 7-8. Mine-clearing line charge Prepared (Continued)

STOWING ACCOMPANYING LOAD ON PLATFORM

7-5. Stow the rocket container on the platform as shown in Figure 7-9. Construct the endboards for the accompanying load as shown in Figure 7-9.

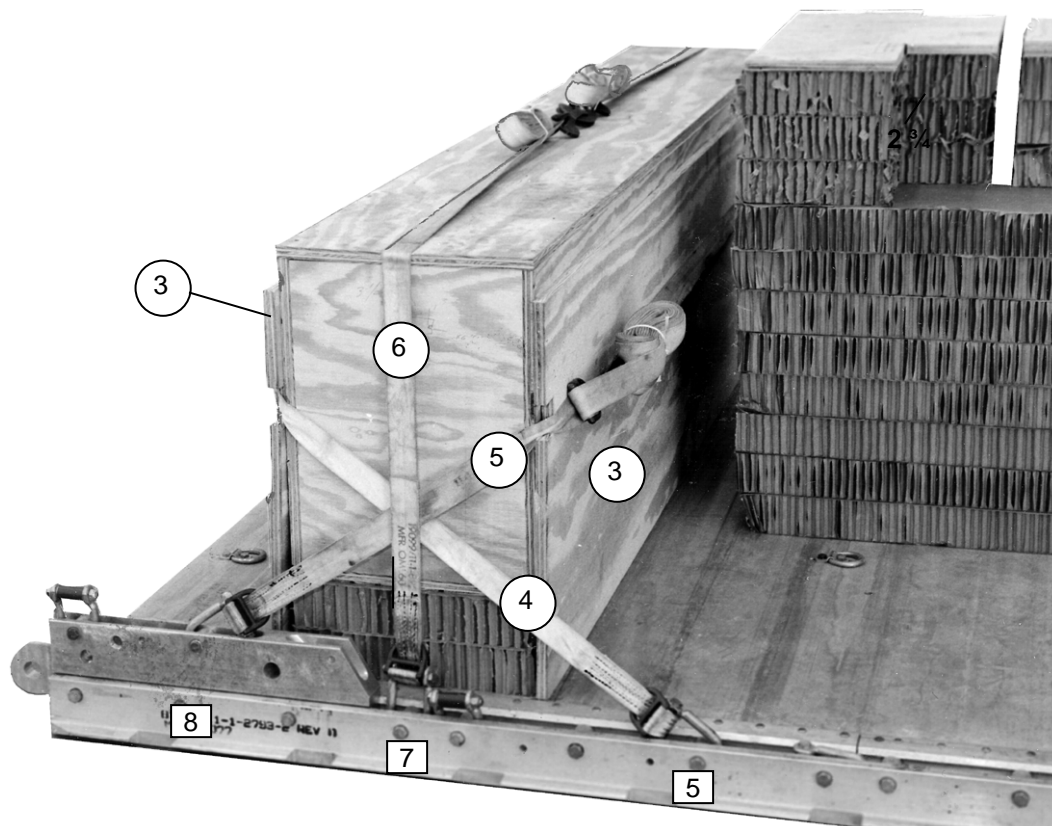
- Notes.** 1. All measurements are given in inches.
2. This drawing is not drawn to scale.
3. Stack 5 is removed for viewing purposes.



- ① Build two endboards as shown with $\frac{3}{4}$ - by 24- by 96-inch plywood.
② Place the rocket container flush on stack 4.

Figure 7-9. Rocket Container Stowed on Platform

Note. Stack 5 is removed for viewing purposes.



- ③ Place one endboard on the front and rear of the rocket container.
- ④ 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 secure on the rear endboard with D-rings and a load binder.
- ⑤ 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 secure on the front endboard with D-rings and a load binder.
- ⑥ 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 rocket container and secure the lashings on top of the rocket container with D-rings and a load binder.

Figure 7-9. Rocket Container Stowed on Platform (Continued)

LIFTING AND POSITIONING THE MINE-CLEARING LINE CHARGE

7-6. Install the lifting slings and position the mine-clearing line charge (MICLIC) as shown in Figure 7-10.

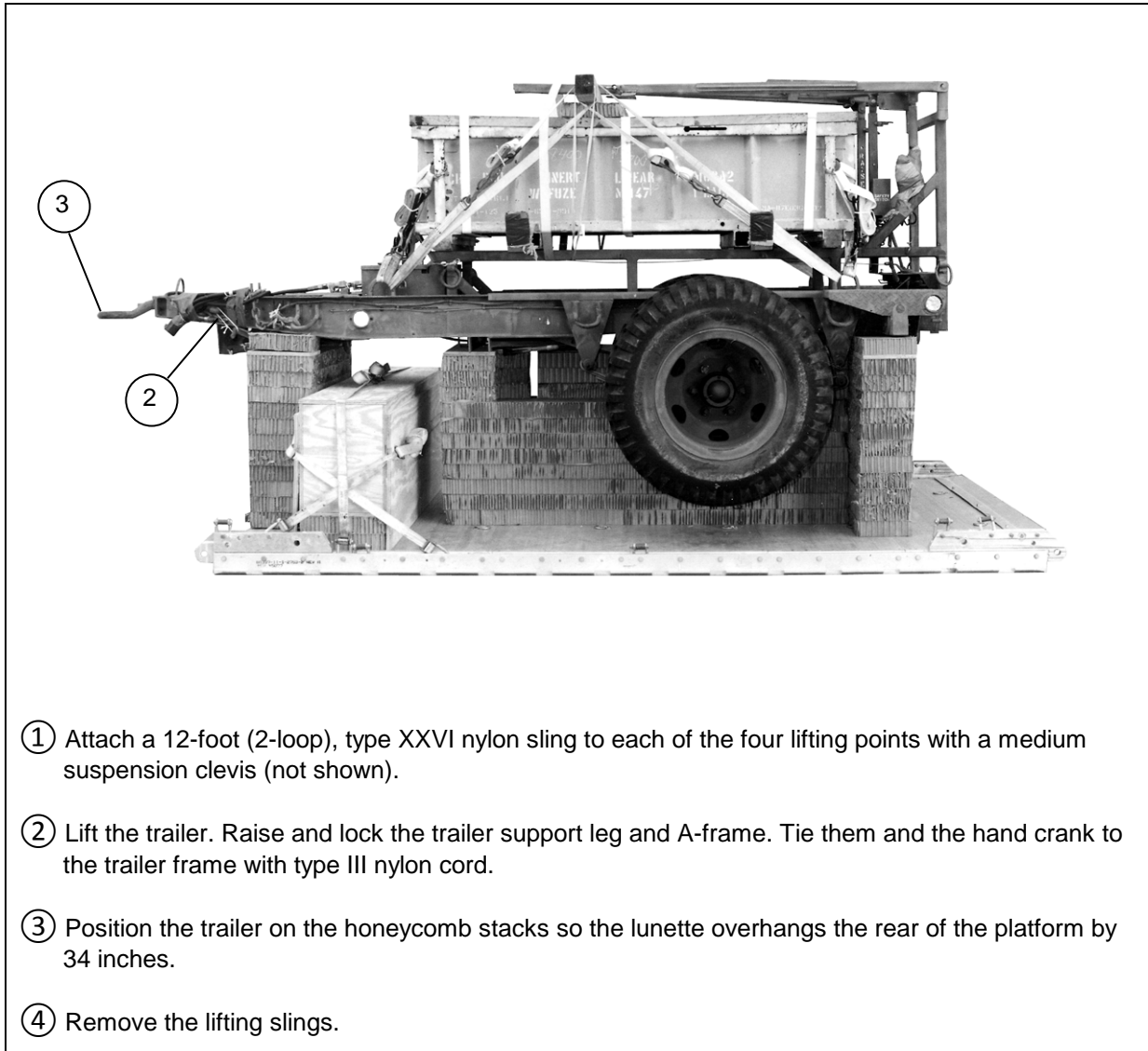


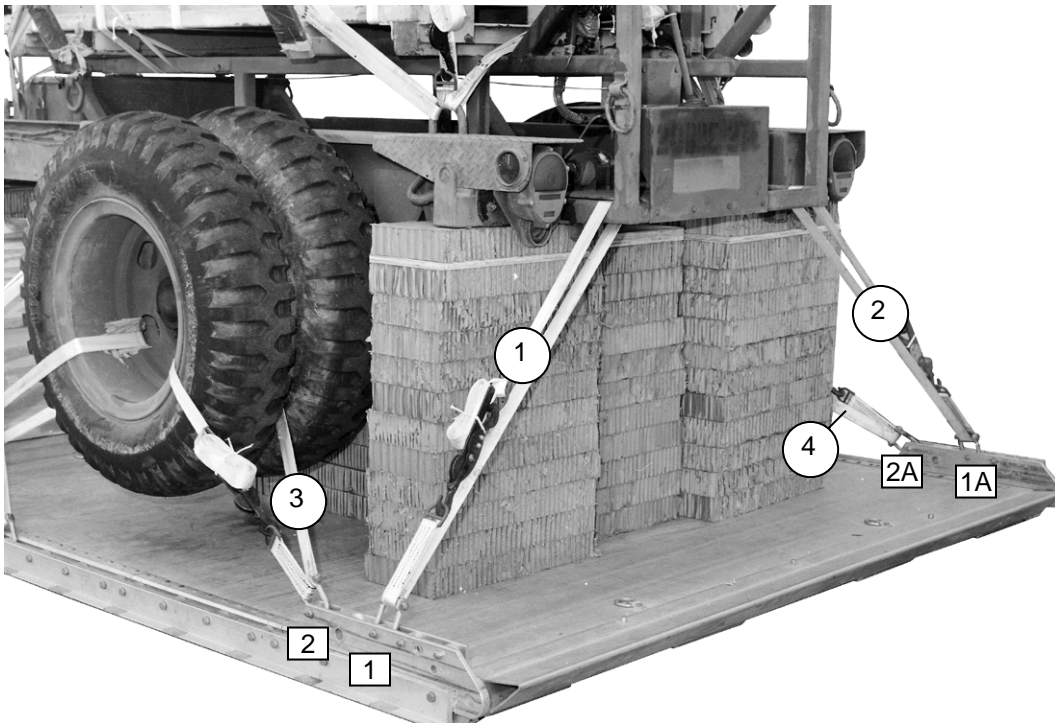
Figure 7-10. Mine-clearing line charge Trailer Lifted and Positioned on Platform

LASHING LOAD TO PLATFORM

7-7. Lash the MICLIC to the platform according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figures 7-11 and 7-12.

Note. Pad any sharp edges on the load where a lashing may pass. Pad the wheel openings. Use cellulose padding and masking tape.

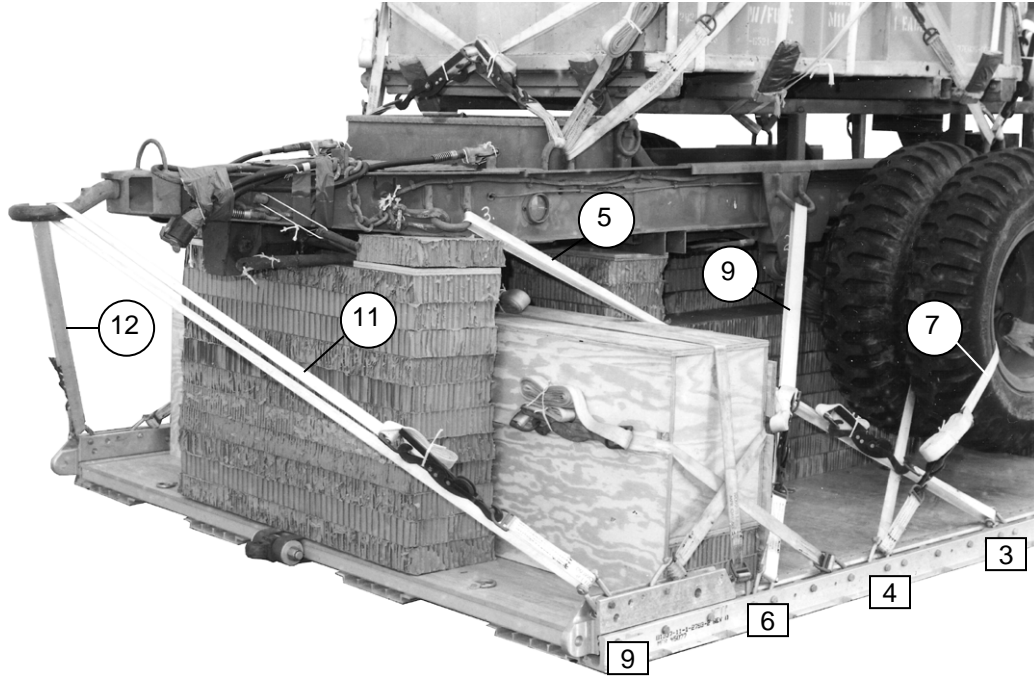
Note. Left, right, front, and rear refer to the trailer, NOT the platform.



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

Figure 7-11. Lashing 1 through 4 Installed

Note. Left, right, front, and rear refer to the trailer, NOT the platform.



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

Figure 7-12. Lashing 5 through 12 Installed

INSTALLING AND SAFETY TIEING THE SUSPENSION SLINGS

7-8. Install and safety tie the suspension slings as shown in Figure 7-13.

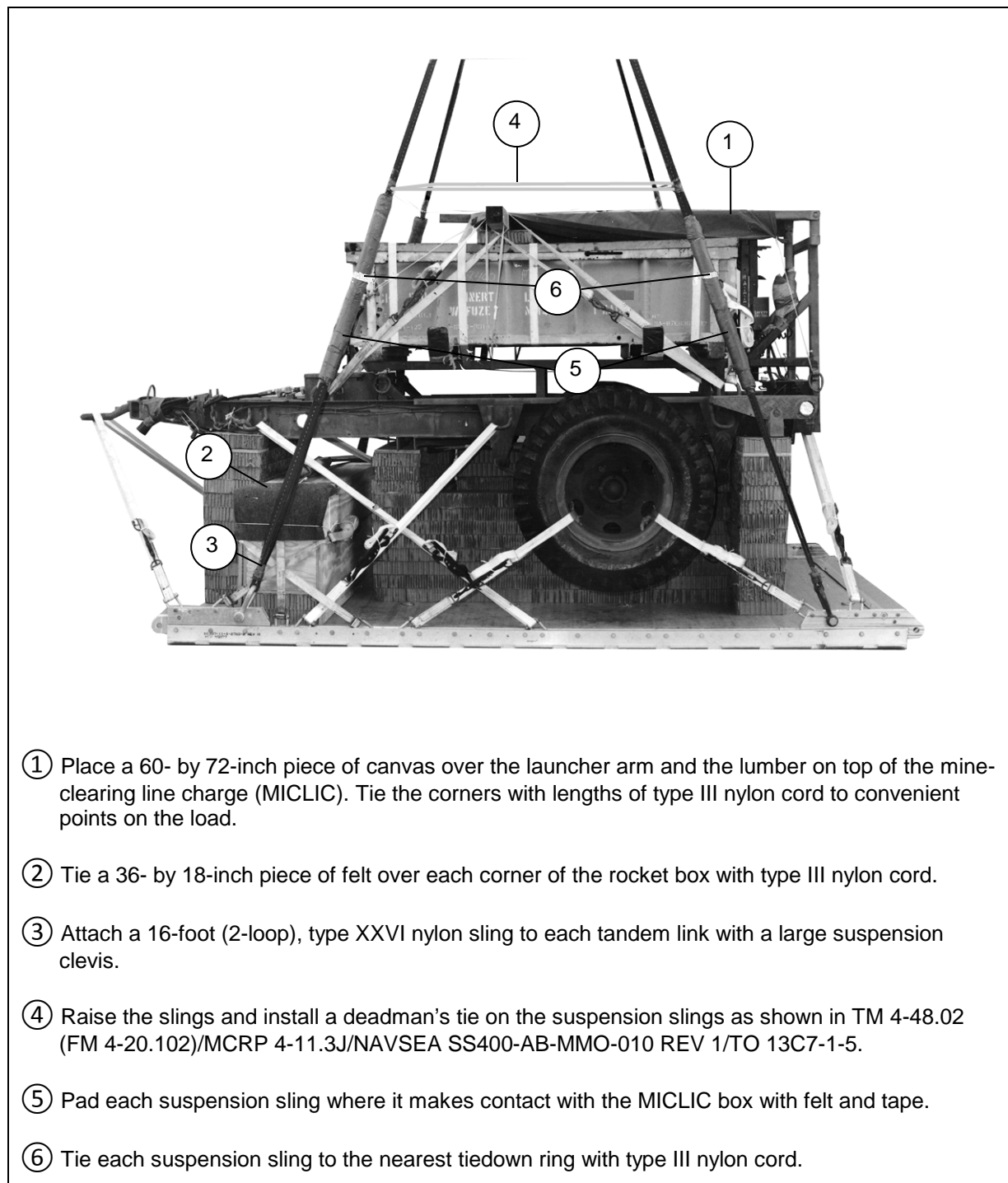


Figure 7-13. Suspension Slings Installed and Safety Tied

PREPARING THE PARACHUTE STOWAGE PLATFORM

7-9. Construct and secure the parachute stowage platform as shown in Figure 7-14.

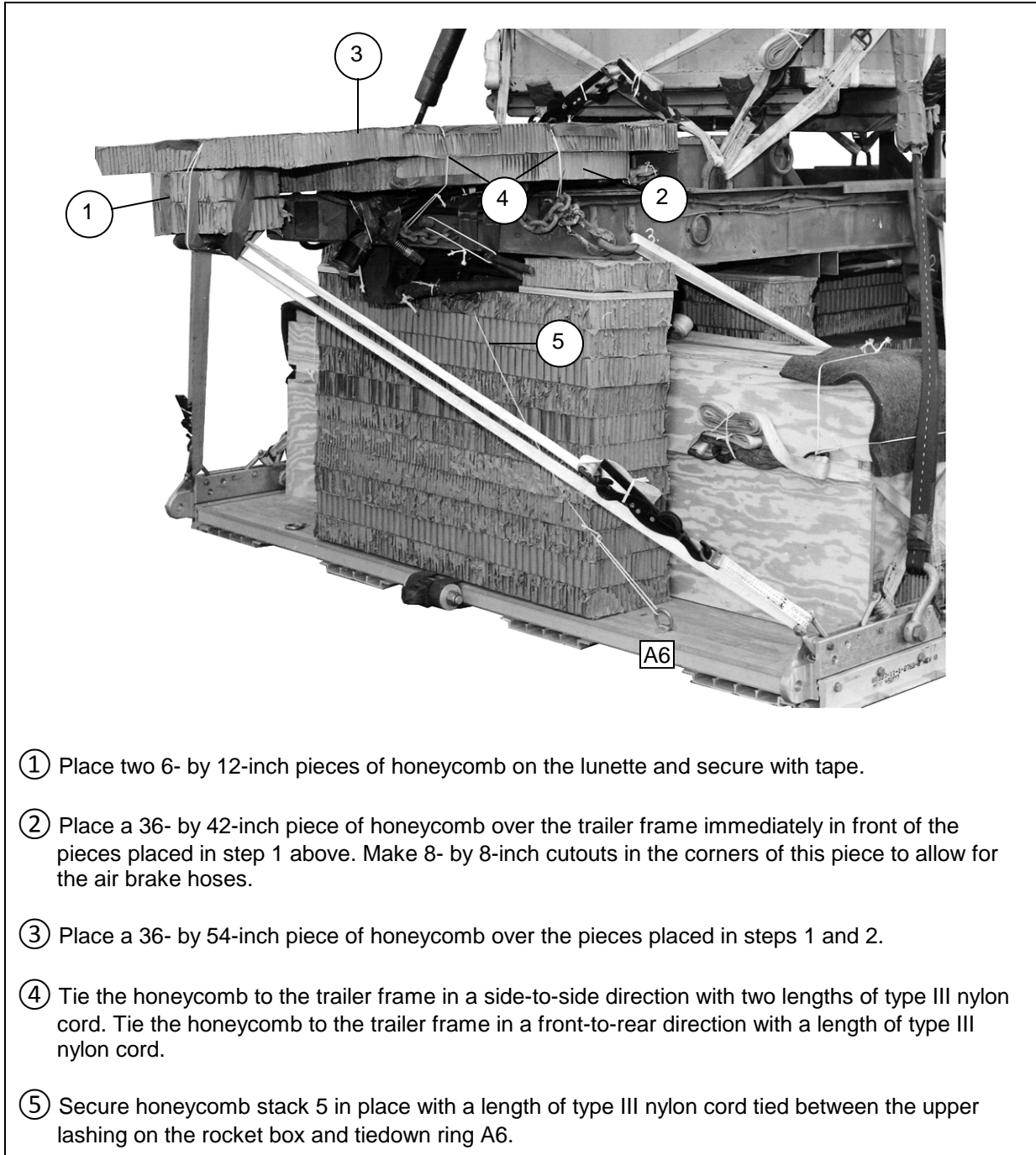


Figure 7-14. Parachute Stowage Platform Built and Secured

STOWING CARGO PARACHUTES

7-10. Prepare, stow, and restrain two G-11B cargo parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 7-19.

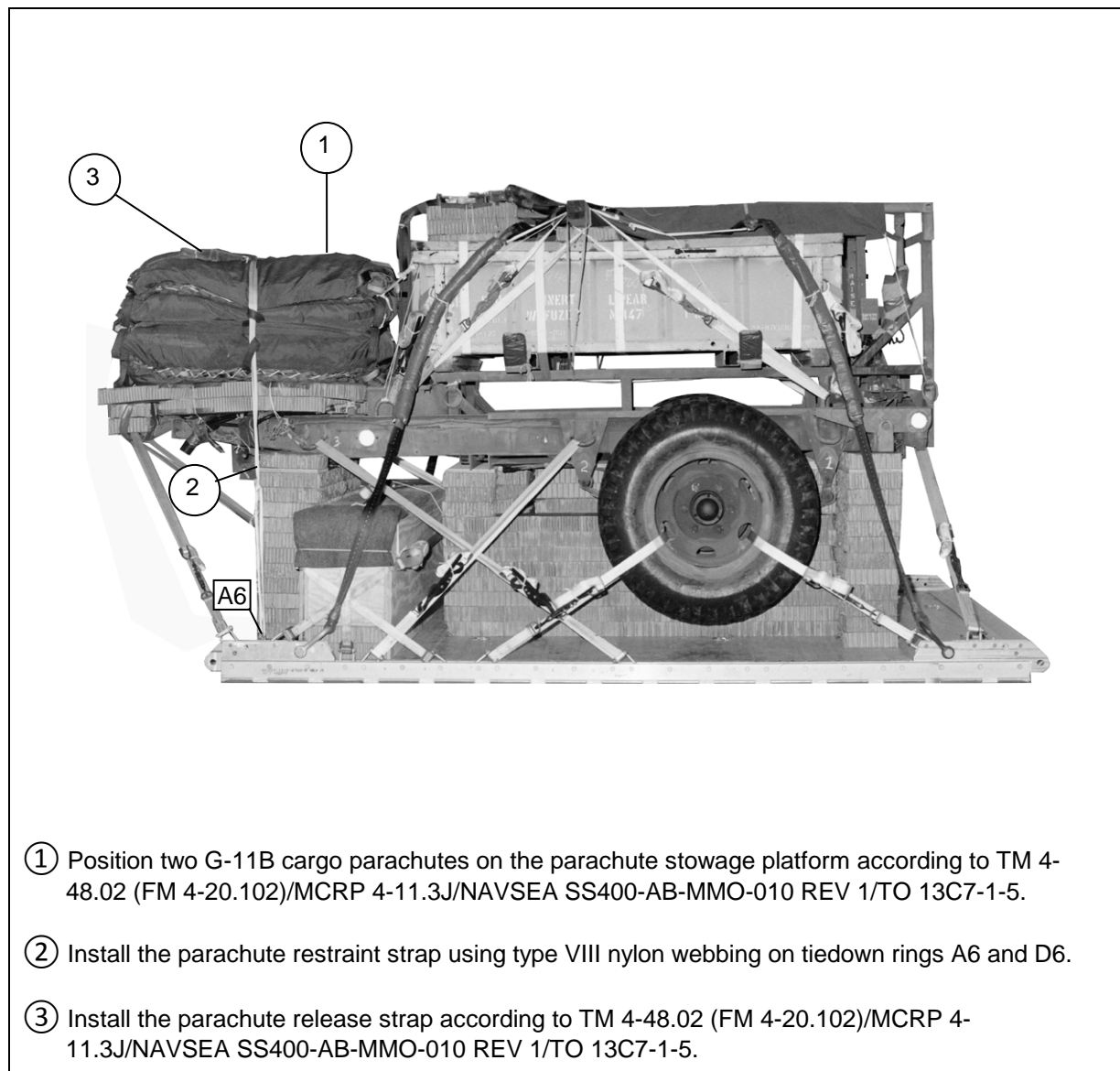
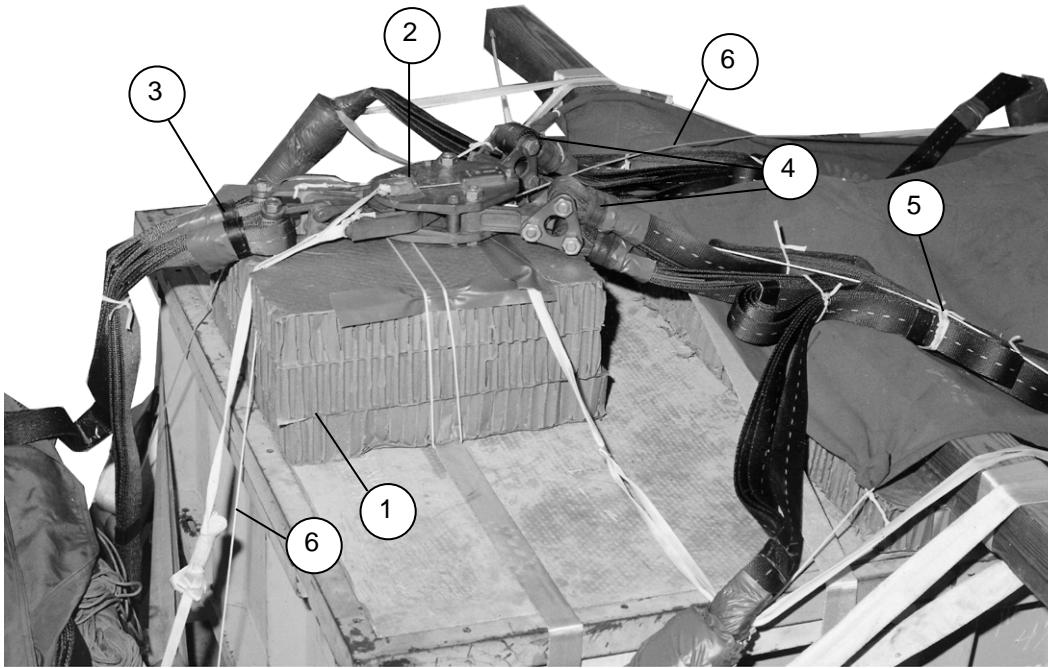


Figure 7-15. Cargo Parachutes Positioned and Restrained

INSTALLING PARACHUTE RELEASE SYSTEM

7-11. Prepare and install an M-1 parachute release system according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 7-16.

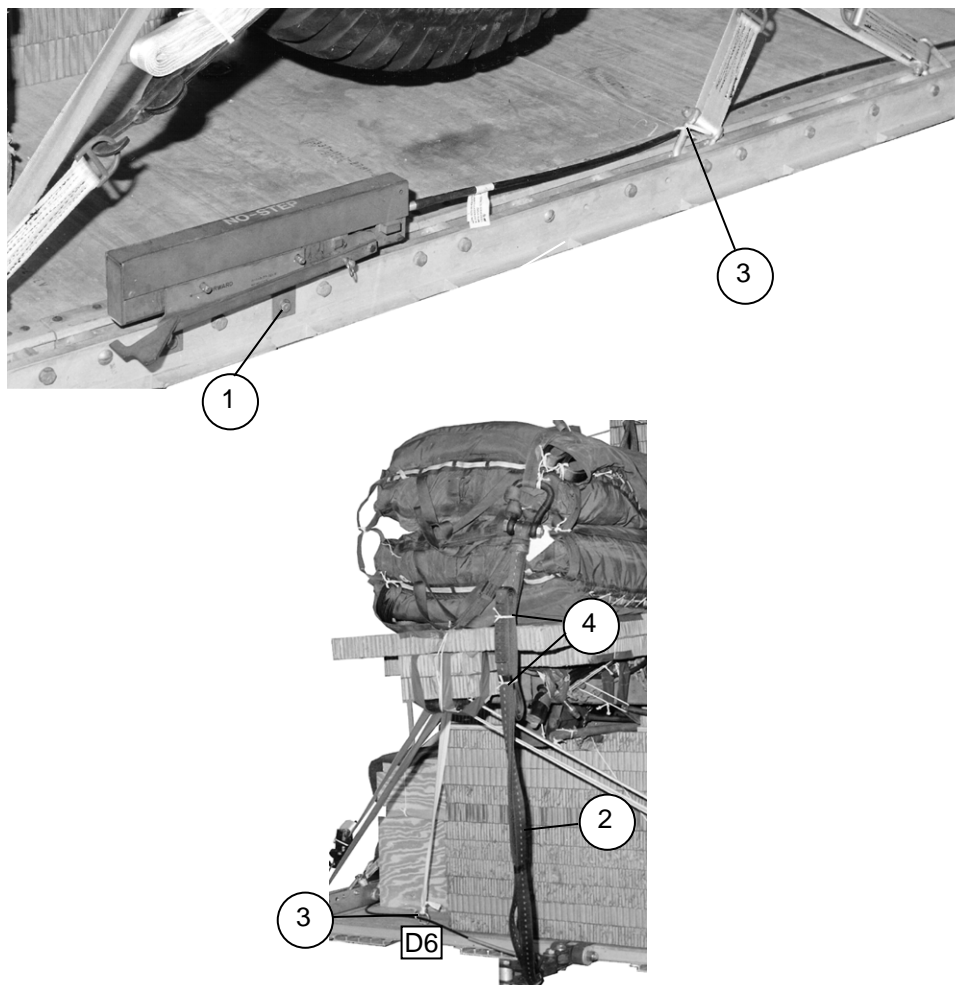


- ① Center a stack of three 18- by 18-inch pieces of honeycomb over the rear lashing on top of the mine-clearing line charge (MCLIC) box. Tape the rear section of the deadman's tie to the honeycomb. Tie the honeycomb to the lashing with type III nylon cord.
- ② Center an M-1 parachute release assembly on top of the honeycomb.
- ③ Attach the parachute riser extensions to the parachute release connectors.
- ④ Attach the suspension slings to the lower suspension links.
- ⑤ Fold the excess suspension slings and safety tie with type I, 1/4-inch cotton webbing.
- ⑥ Tie the front and rear M-1 parachute release safety ties to convenient points on the load with type III nylon cord.

Figure 7-16. M-1 Parachute Release Installed

INSTALLING EXTRACTION SYSTEM

7-12. Install the extraction system as shown in Figure 7-17.



- ① Install the components of the extraction force transfer coupler (EFTC) according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Use the rear mounting holes for the EFTC actuator brackets.
- ② Attach a 9-foot (2-loop), type XXVI nylon sling to be used as a deployment line.
- ③ Use a 12-foot cable and safety tie the cable to the platform clevises and tiedown ring D6 on the platform with type I, ¼-inch cotton webbing.
- ④ Secure the excess deployment line with type I, ¼-inch cotton webbing.

Figure 7-17. Extraction System Installed

PLACING EXTRACTION PARACHUTE

7-13. Select the extraction parachute and extraction line needed using the extraction line requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Place the extraction parachute and line on the load for installation in the aircraft.

INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

7-14. Select and install the provisions for the emergency aft restraints according to the emergency aft restraint requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

MARKING RIGGED LOAD

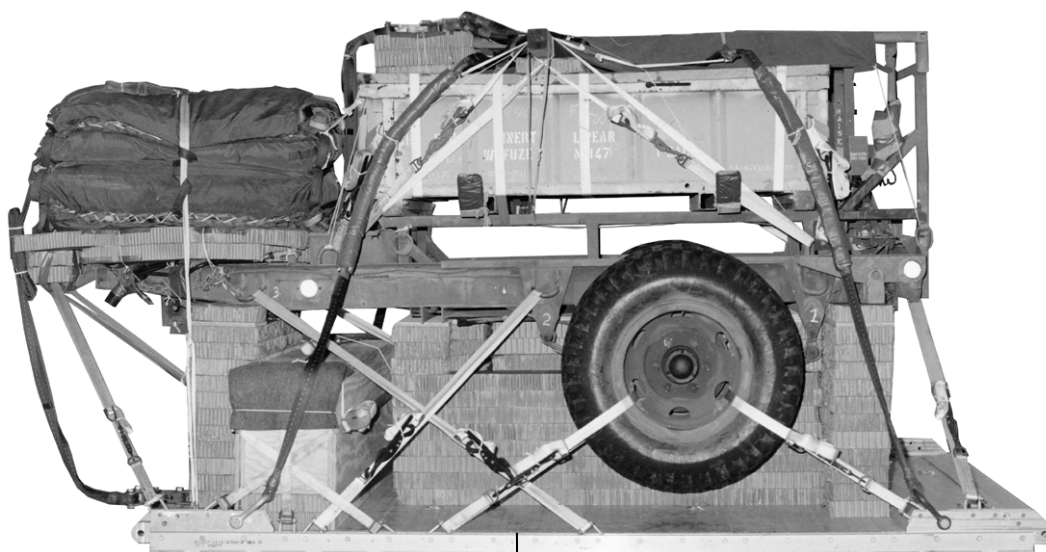
7-15. Mark the rigged load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figure 7-18. Complete Shipper's Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, Center of Balance CB, and parachute requirements must be recomputed.

EQUIPMENT REQUIRED

7-16. Use the equipment listed in Table 7-1 to rig this load.

CAUTION

Make the final rigger inspection required by AR 59-4 and TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 before the load leaves the rigging site.



Center of Balance (CB)

RIGGED LOAD DATA

Weight: Load Shown.....	8,400 pounds
Maximum Weight Load	8,600 pounds
Height.....	94 ½ inches
Width.....	108 inches
Overall Length	178 inches
Overhang: Front.....	0
Rear (lunette).....	34 inches
Center of Balance (CB) (from front edge of the platform).....	77 inches
Extraction System with 12-foot cable (adds 0 inches to the length of the load)	

Figure 7-18. Mine-clearing line charge on 2 ½-Ton Trailer Rigged on a 12-Foot, Type V Platform for Low-Velocity Airdrop

Table 7-1. Equipment Required for Rigging the mine-clearing line charge on 2 ½-Ton Trailer on a 12-Foot, Type V Platform for Low-Velocity Airdrop

<i>National Stock Number</i>	<i>Item</i>	<i>Quantity</i>
8040-00-273-8713	Adhesive paste, 1-gal.	As required
1670-01-035-6054	Bridle, extraction line bag	1
4030-00-090-5354	Clevis, suspension, 1-inch (large)	5
4030-00-678-8562	Clevis, suspension, ¾-inch (medium)	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 (Cellulose padding)	As required
8305-00-958-3685	Felt, ½-inch	As required
1670-01-183-2678	Leaf, extraction line (line bag) (add 2 for C-17)	2
	Line extraction:	
1670-01-062-6313	60-foot (3-loop), type XXVI (for C-130)	1
1670-01-107-7651	140-foot (3-loop), type XXVI (for C-17)	1
1670-01-064-4452	60-foot (1-loop), type XXVI (for C-17), (drogue line)	1
1670-00-783-5988	Link assembly, type IV (C-17 only)	1
1670-01-493-6418	Link assembly, two-point, small, 3 ¾-inch:	1
	Lumber:	
5510-00-220-6274	4- by 4- by 96-inch	2
5315-00-010-4659	Nail, steel, common, 8D	As required
1670-00-753-3928	Pad, energy-dissipating (honeycomb)	16 sheets
1670-01-016-7841	Parachute, cargo, G-11B	2
	Parachute, cargo, extraction:	
1670-01-063-3716	22-foot	1
1670-01-063-3715	15-foot (C-17 only)	1
	Platform, airdrop, type V, 12-foot:	
1670-01-162-2372	Clevis assembly (type V)	18
1670-01-162-2376	Extraction bracket assembly	6
1670-01-162-2381	Tandem link assembly (Multipurpose link)	4
5530-00-128-4981	Plywood, 3/4-inch	3 sheets

Table 7-1. Equipment Required for Rigging the mine-clearing line charge on 2 ½-Ton Trailer on a 12-Foot, Type V Platform for Low-Velocity Airdrop (continued)

<i>National Stock Number</i>	<i>Item</i>	<i>Quantity</i>
1670-01-097-8816	Release, cargo parachute, M-1	1
	Sling, cargo, airdrop:	
1670-00-753-3790	9-foot (2-loop), type XXVI	1
1670-01-062-6303	12-foot (2-loop), type XXVI	4
1670-01-063-7761	16-foot (2 loop), type XXVI	4
1670-01-062-6302	20-foot (2-loop), type XXVI	2
1670-00-998-0116	Strap, parachute, release	1
7501-00-266-5016	Tape, adhesive, 2-inch	As required
1670-00-937-0271	Tie-down assembly, 15-foot.	32
1670-01-483-8259	Link, Parachute, Connector (H-block) (C-17 only)	1
	Webbing:	
8305-00-268-2411	Cotton, 1/4-inch, type I	As required
8305-00-082-5752	Nylon, tubular, 1/2-inch	As required
8305-00-261-8585	Nylon, type VIII	As required
Legend:	gal= gallon, lb = pound, ft = feet, D = penny	

Chapter 8

Rigging 15-Ton Tilt Bed Trailer, on a 24-Foot, Type V Platform for Low-Velocity Airdrop

DESCRIPTION OF THE LOAD

8-1. The 15-ton tilt bed trailer (Figure 8-1) is rigged on a 24-foot, type V airdrop platform using three G-11 cargo parachutes. The unriggered trailer weighs 8,630 pounds. It is 292 inches long; however the length may vary by 2 inches. The trailer is 96 inches wide and 52 inches high.

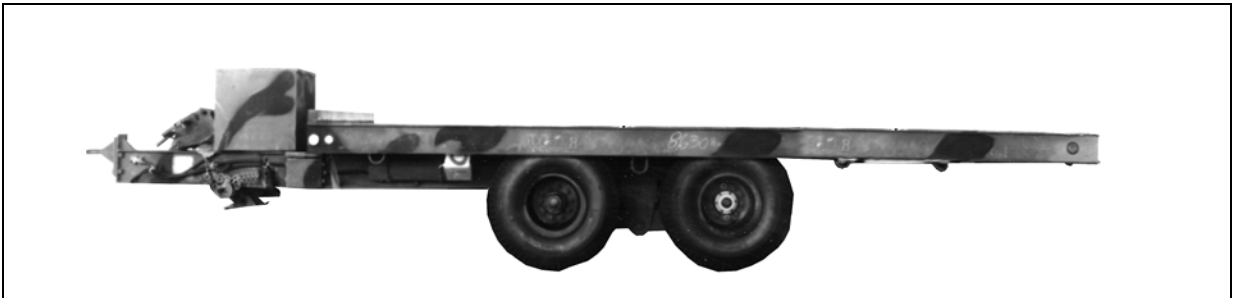


Figure 8-1. 15-Ton Tilt Bed Trailer

PREPARING PLATFORM

8-2. Prepare a 24-foot, type V airdrop platform as shown in Figure 8-2.

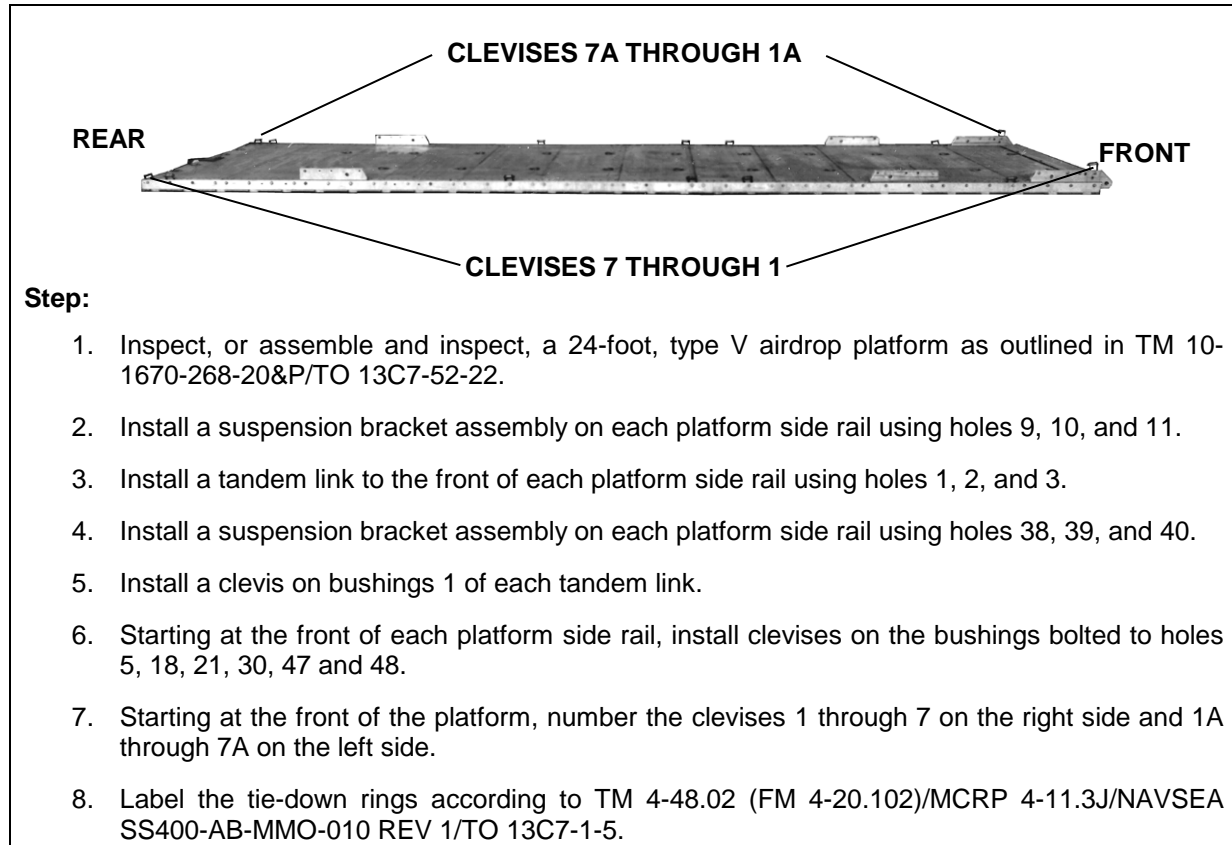


Figure 8-2. Platform Prepared

BUILDING AND POSITIONING HONEYCOMB STACKS

8-3. Build the honeycomb stacks as shown in Figures 8-3 through 8-6. Place the honeycomb stacks as shown in Figure 8-7.

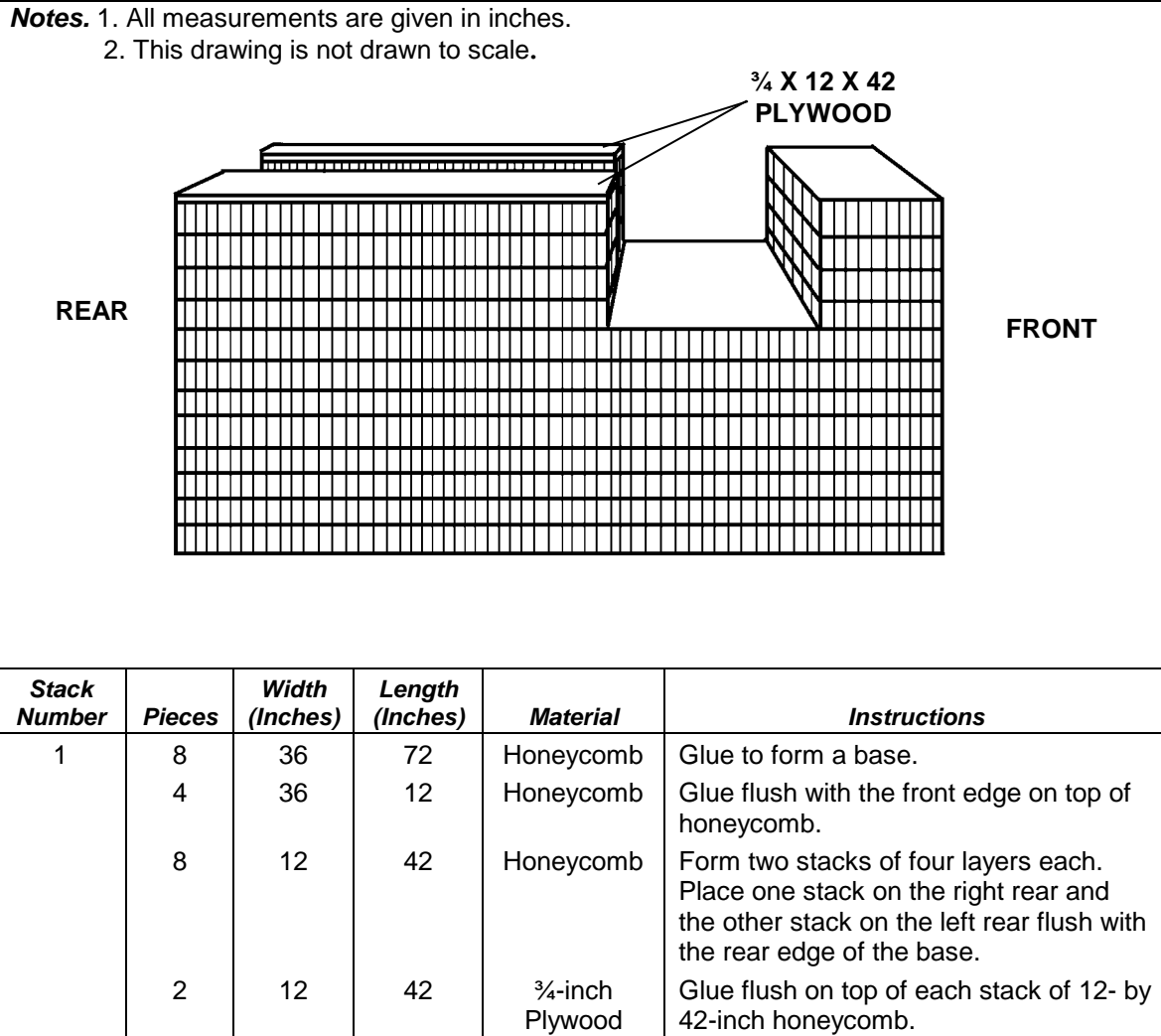
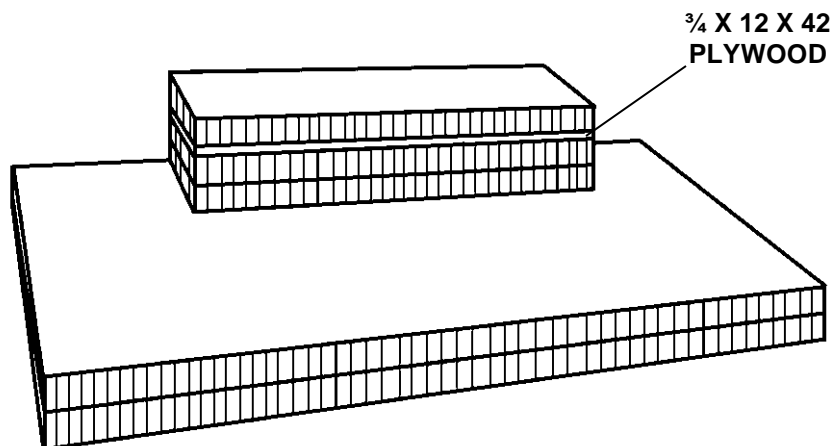


Figure 8-3. Honeycomb Stack 1 Built

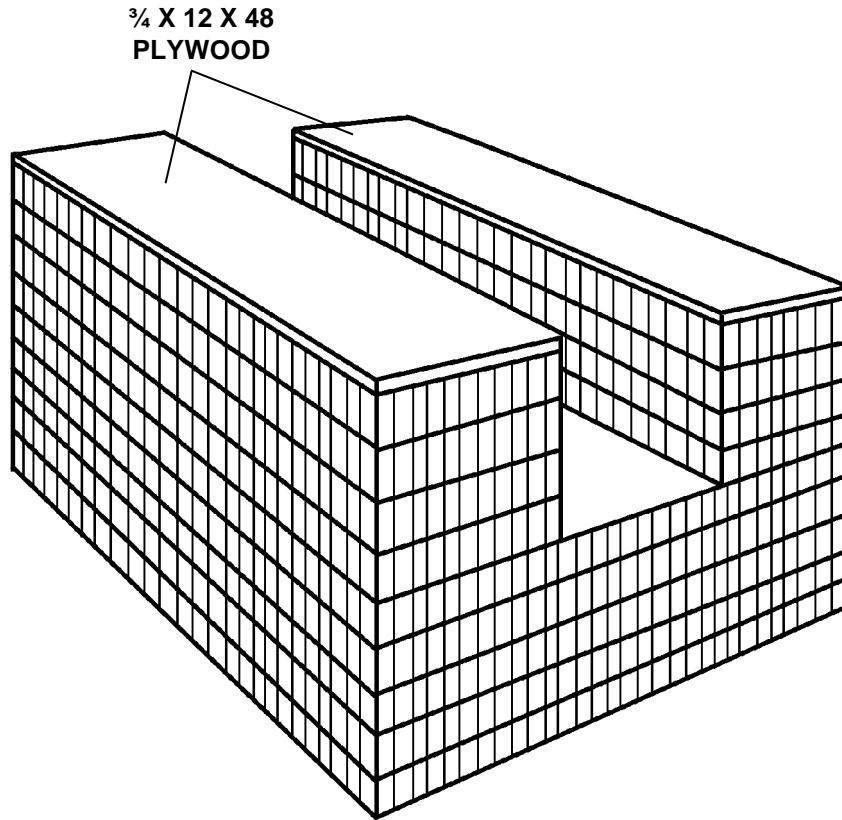
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.



<i>Stack Number</i>	<i>Pieces</i>	<i>Width (Inches)</i>	<i>Length (Inches)</i>	<i>Material</i>	<i>Instructions</i>
2	2	36	72	Honeycomb	Glue to form a base.
	3	12	42	Honeycomb	Center and glue honeycomb on top of the base flush with the left edge of the base stack.
	1	12	42	$\frac{3}{4}$ -inch Plywood	Glue plywood between the second and third 12- by 42- inch piece of honeycomb.
3	2	36	72	Honeycomb	Glue to form a base.
	3	12	42	Honeycomb	Center and glue honeycomb on top of the base flush with the right edge of the base stack.
	1	12	42	$\frac{3}{4}$ -inch Plywood	Glue plywood between the second and third 12- by 42- inch piece of honeycomb.

Figure 8-4. Honeycomb Stacks 2 and 3 Built

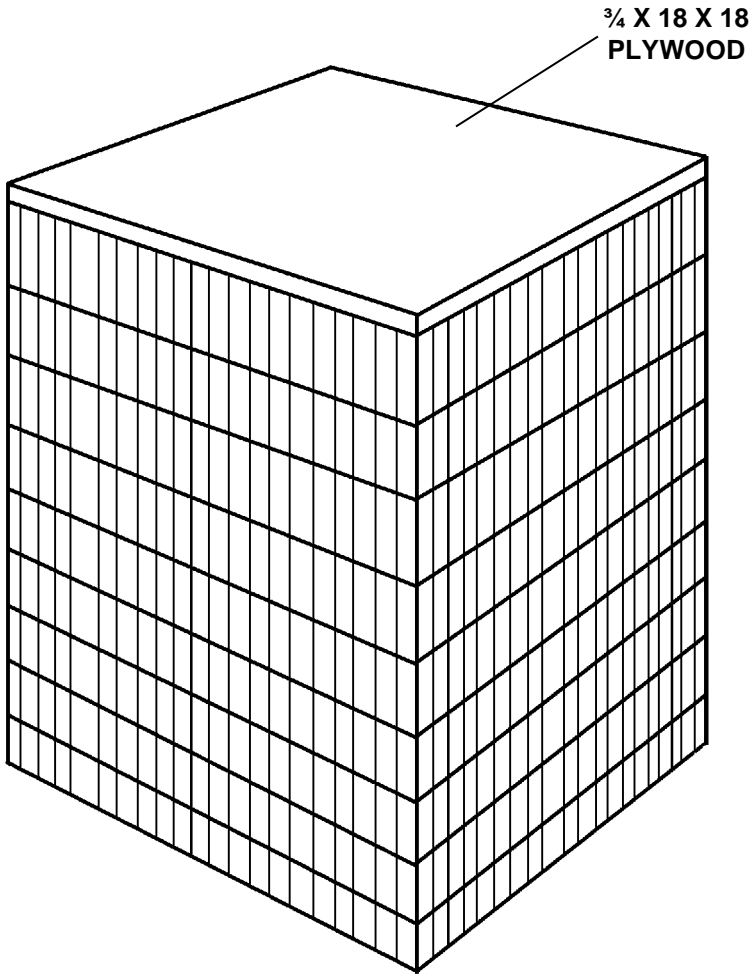
- Notes.** 1. All measurements are given in inches.
2. This drawing is not drawn to scale.



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
4	5	36	48	Honeycomb	Glue to form base.
	8	12	48	Honeycomb	Form two stacks of four layers each. Place one stack on the right side and the other stack on the left side flush with the side edge of the base.
	1	12	48	3/4-inch Plywood	Glue flush on top of each stack of 12- by 48-inch honeycomb.

Figure 8-5. Stack 4 Built

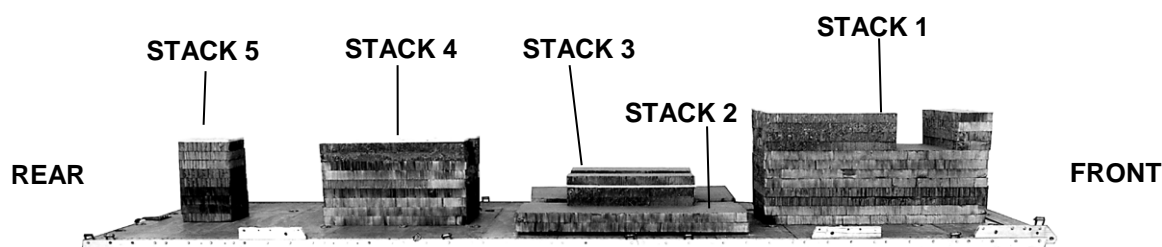
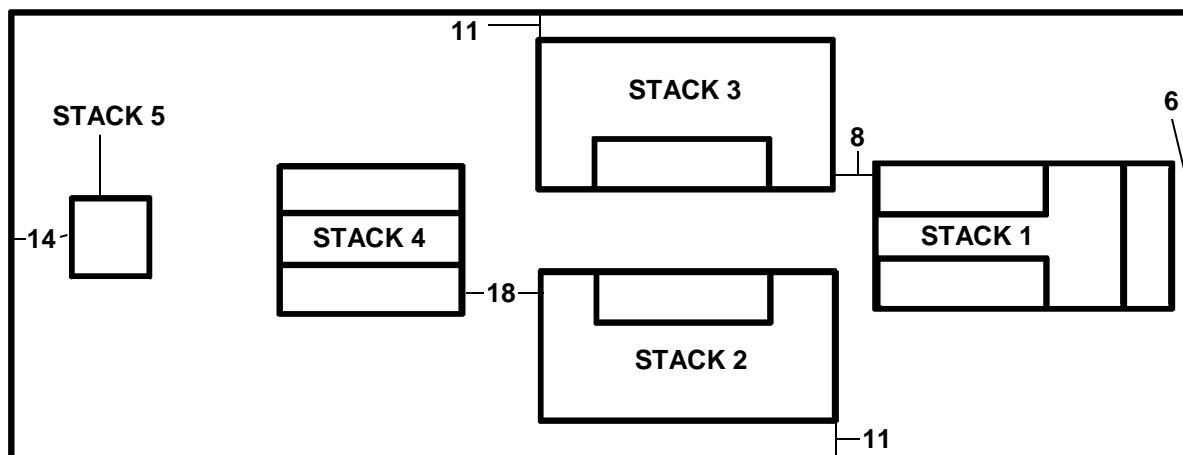
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
5	9	18	18	Honeycomb	Glue to form base.
	1	18	18	3/4-inch Plywood	Glue flush on honeycomb base.

Figure 8-6. Stack 5 Built

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



Step:

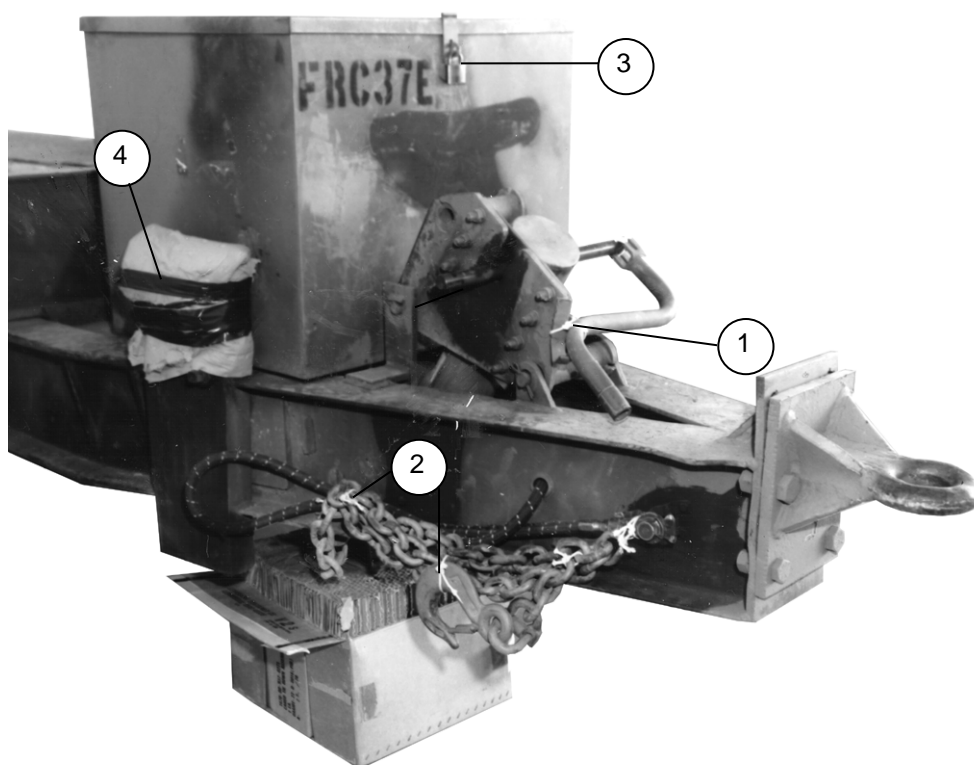
1. Center stack one 6 inches from the front edge of the platform.
2. Place stack two 8 inches from the rear of stack 1 and 11 inches from the right side rail.
3. Place stack three 8 inches from the rear of stack 1 and 11 inches from the left side rail.
4. Center stack four 18 inches from the rear edge of stacks 2 and 3.
5. Center stack five 14 inches from the rear edge of the platform.

Figure 8-7. Honeycomb Stacks Positioned on Platform

PREPARING TRAILER

8-4. Prepare the trailer as shown in Figures 8-8 through 8-12.

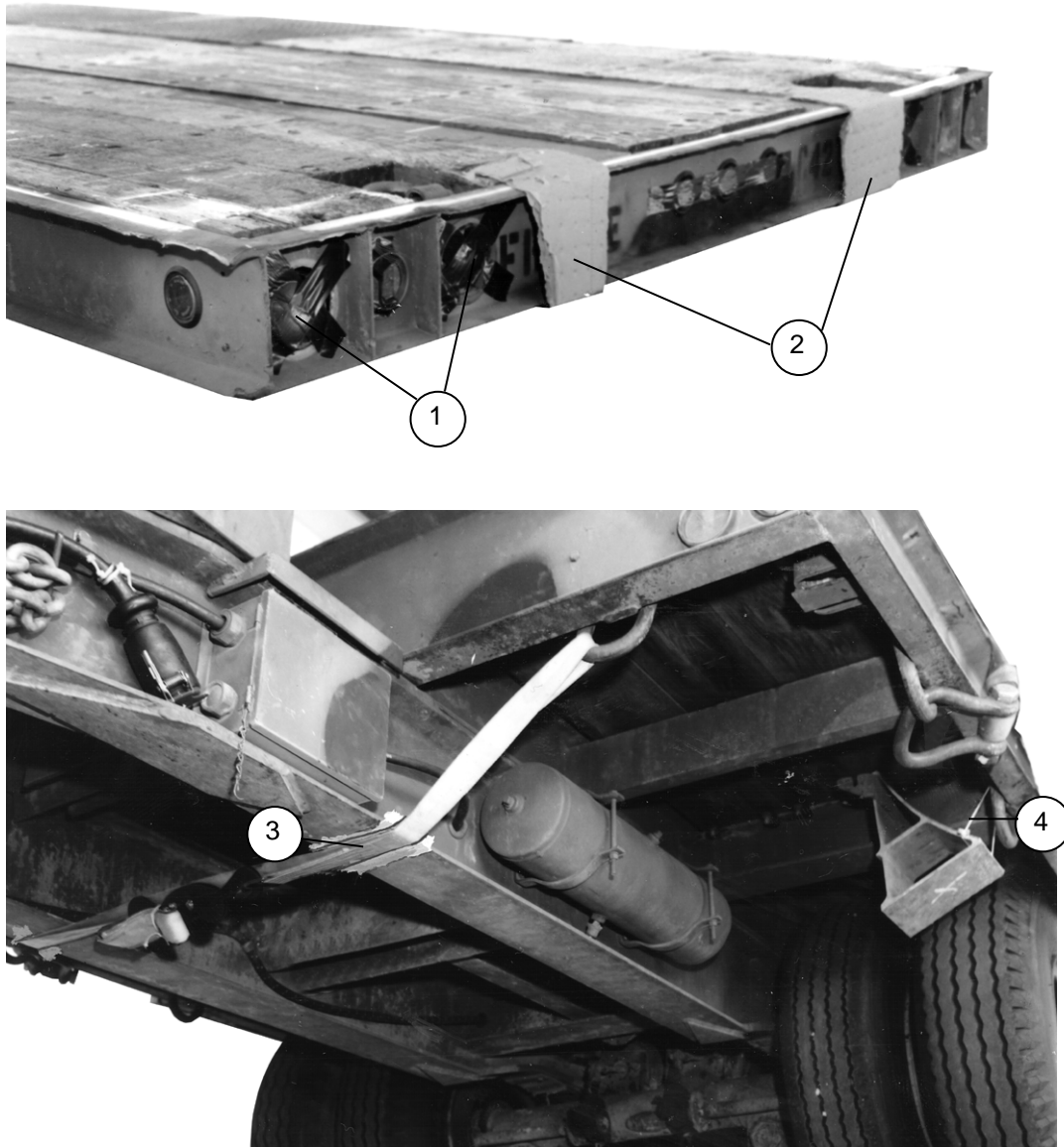
Note. Place a support device under the front of the trailer before raising the front landing gear.



- ① Raise the front landing gear. Tie the landing gear handle in the stowed position using type III nylon cord.
- ② Fold the air hoses, cables, and chains along the drawbar. Tie them in place with type III nylon cord.
- ③ Fill the toolbox with honeycomb. Close the toolbox lid and secure the lid with a lock or type III nylon cord.
- ④ Wrap the spare tire wheel stowage bracket with cellulose wadding and tape.

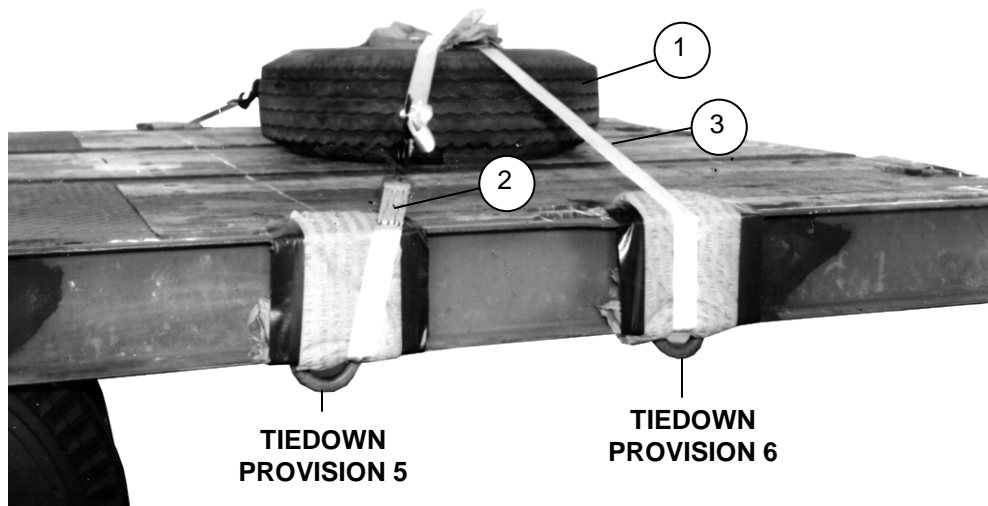
Figure 8-8. Trailer Components Secured

Note. Pad all sharp areas of the trailer where contact is made with the lashing.



- ① Tape the rear lights and reflectors on the trailer.
- ② Pad the rear bumper with cellulose wadding and tape.
- ③ Route a 15-foot lashing through the left front tiedown provision, under the drawbar, and through the right front tiedown provision and secure with a D-ring and load binder.
- ④ Tie the chocks in place with type III nylon cord.

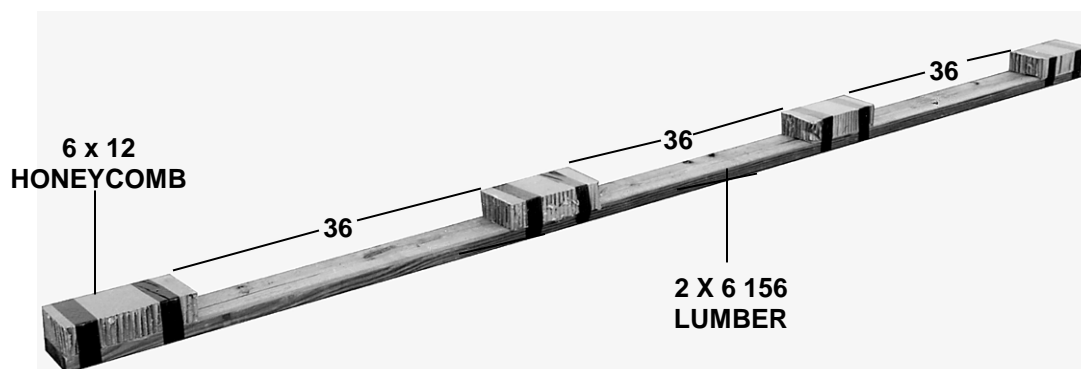
Figure 8-9. Rear of Trailer Prepared



- ① Center the spare tire on the rear of the trailer deck between tiedown provisions 5 and 6.
- ② Pass a 15-foot lashing through the left tiedown provisions 5 and 6 and through the wheel. Place cellulose wadding under each tiedown lashing where it touches the trailer and the center of the tire. Secure the lashing with a D-ring and load binder.
- ③ Repeat step two for the right side of the trailer.

Figure 8-10. Spare Tire Stowed

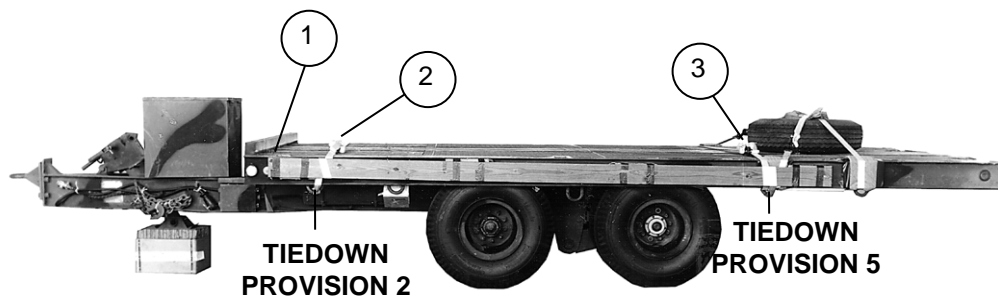
Note. All measurements are given in inches.



Step:

1. Cut one 2- by 6- by 156-inch piece of lumber.
2. Cut four 6- by 12-inch pieces of honeycomb. Position the first piece of 6- by 12-inch honeycomb on top of the 2- by 6- 156-inch piece of lumber flush with the front edge of the lumber.
3. Position the second piece of 6- by 12-inch honeycomb on top of the lumber 36 inches from the rear edge of the first piece of honeycomb.
4. Position the third piece of 6- by 12-inch honeycomb on top of the lumber 36 inches from the rear edge of the second piece of honeycomb.
5. Position the fourth piece of 6- by 12-inch honeycomb on top of the lumber flush with the rear edge of the lumber.
6. Tape each piece of honeycomb to the lumber in two places.
7. Repeat steps 1 through 6 to prepare the second body protection board.

Figure 8-11. Body Protection Boards Prepared



- ① Position a body protection board 8 inches from the front edge of the trailer on each side.
- ② Pass a 15-foot lashing through the left tiedown provision 25 and through its own D-ring. Repeat the procedure for the other side of the trailer. Secure the lashings with D-ring and a load binder.
- ③ Repeat step two using tiedown provision 5.

Figure 8-12. Body Protection Boards Secured

LIFTING AND POSITIONING THE TRAILER

8-5. Install the lifting slings and position the trailer as shown in Figure 8-13.

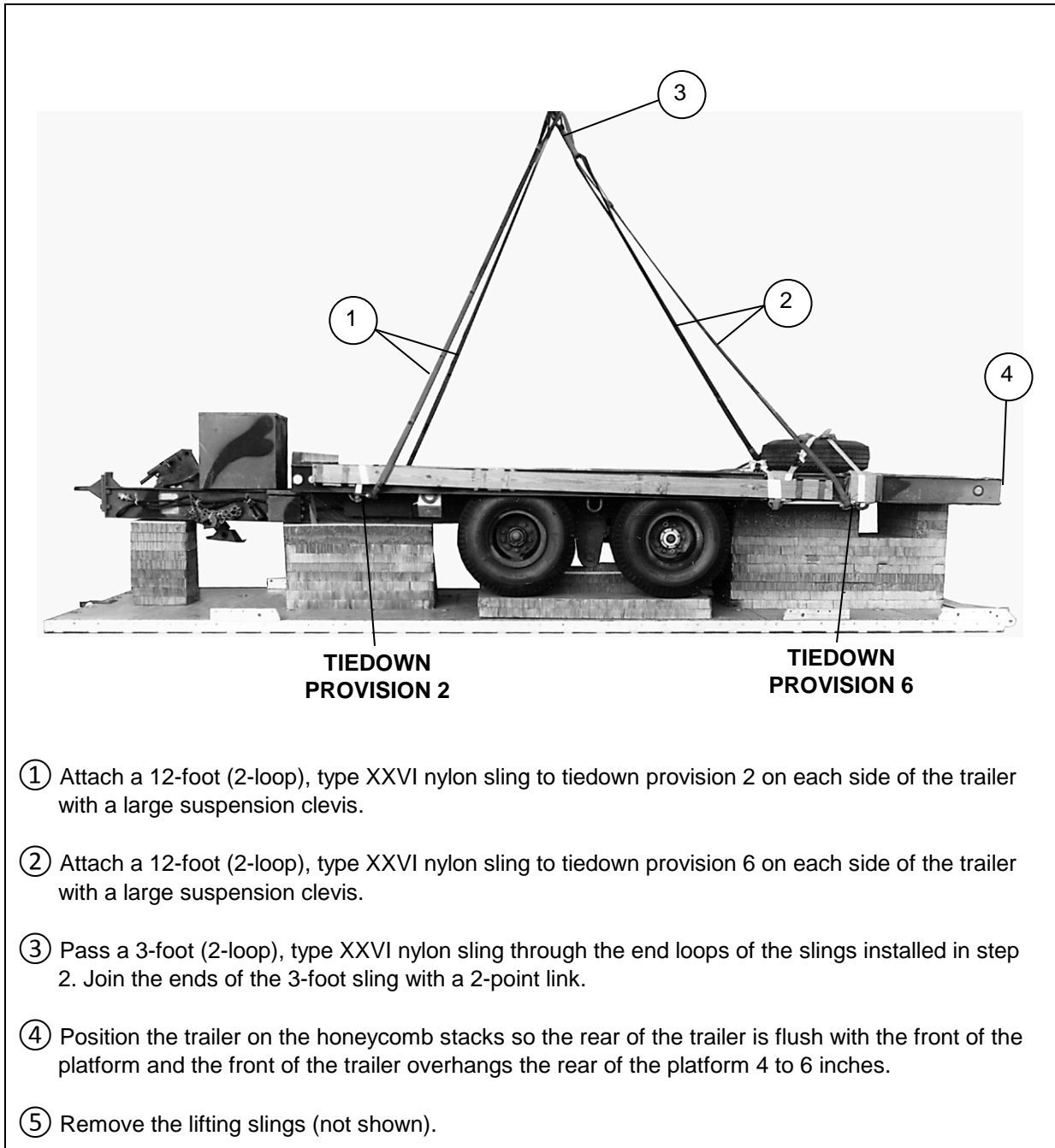


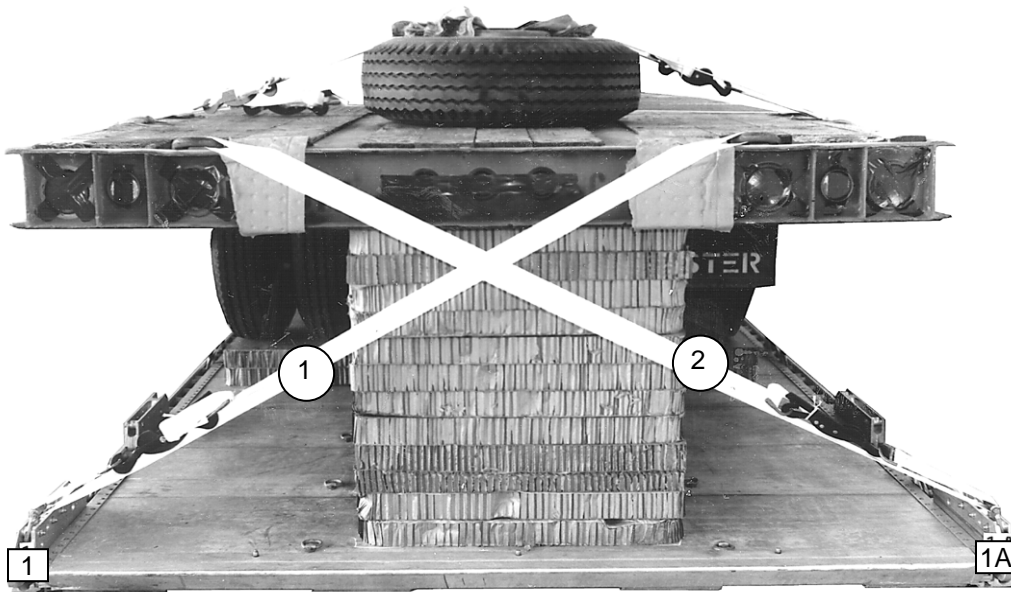
Figure 8-13. Trailer Lifted and Positioned on Platform

LASHING TRAILER TO PLATFORM

8-6. Lash the trailer to the platform according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figures 8-14 through 8-16.

Note. Pad any sharp edges on the load where a lashing may pass.

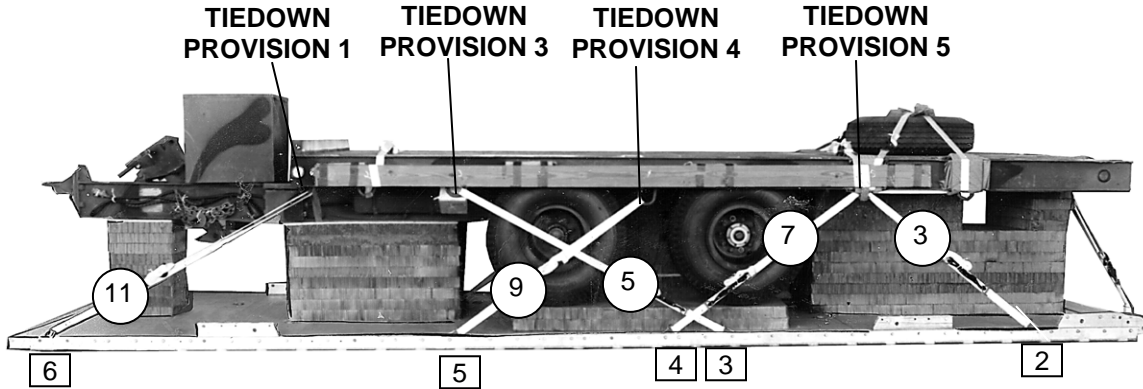
Note. Left, right, front, and rear refer to the trailer, NOT the platform.



Lashing Number	Tie-down Clevis Number	Instructions
1	1	Pass lashing: Through the right top lifting provision at the rear of the trailer.
2	1A	Through the left top lifting provision at the rear of the trailer

Figure 8-14. Lashings 1 and 2 Installed

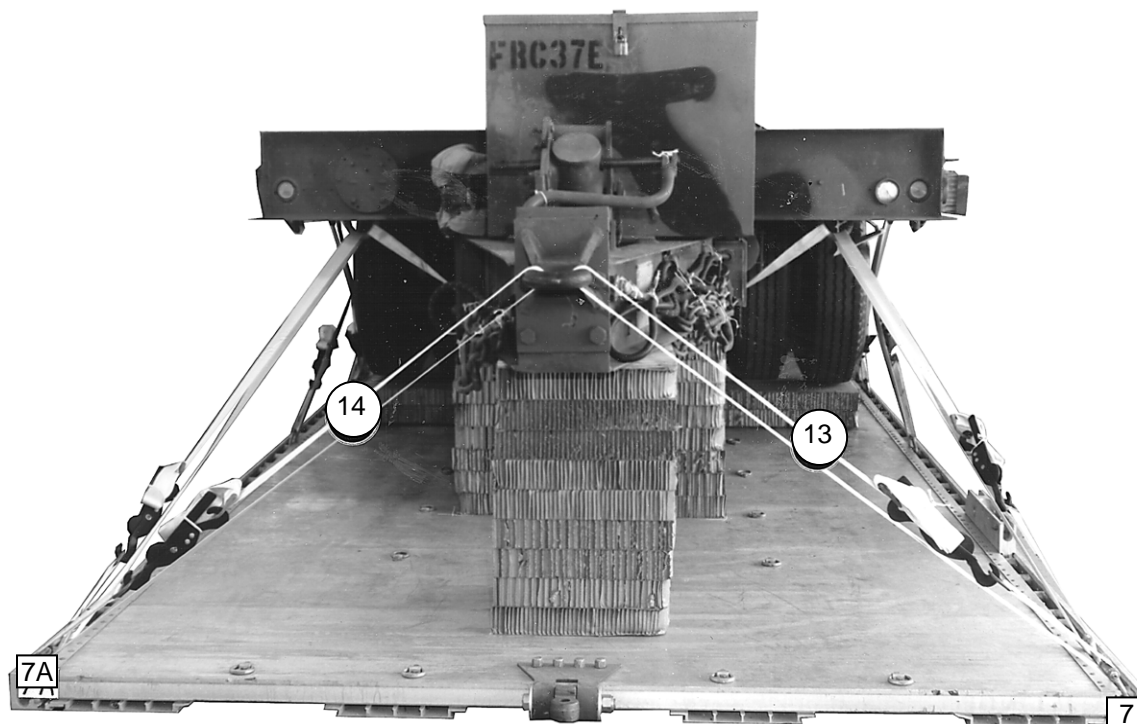
Note. Left, right, front, and rear refer to the trailer, NOT the platform.



Lashing Number	Tie-down Clevis Number	Instructions
3	2	Pass lashing:
4	2A	Through left tiedown provision 5.
5	3	Through right tiedown provision 5.
6	3A	Through left tiedown provision 3.
7	4	Through right tiedown provision 3.
8	4A	Through left tiedown provision 5.
9	5	Through right tiedown provision 5.
10	5A	Through left tiedown provision 4.
11	6	Through right tiedown provision 4.
12	6A	Through left tiedown provision 1.

Figure 8-15. Lashings 3 through 12 Installed

Note. Left, right, front, and rear refer to the trailer, NOT the platform.



Lashing Number	Tie-down Clevis Number	Instructions
13	7	Pass lashing: Through lunette.
14	7A	Through lunette.

Figure 8-16. Lashings 13 and 14 Installed

INSTALLING AND SAFETY TIEING THE SUSPENSION SLINGS

8-7. Install and safety tie the suspension slings as shown in Figure 8-17.

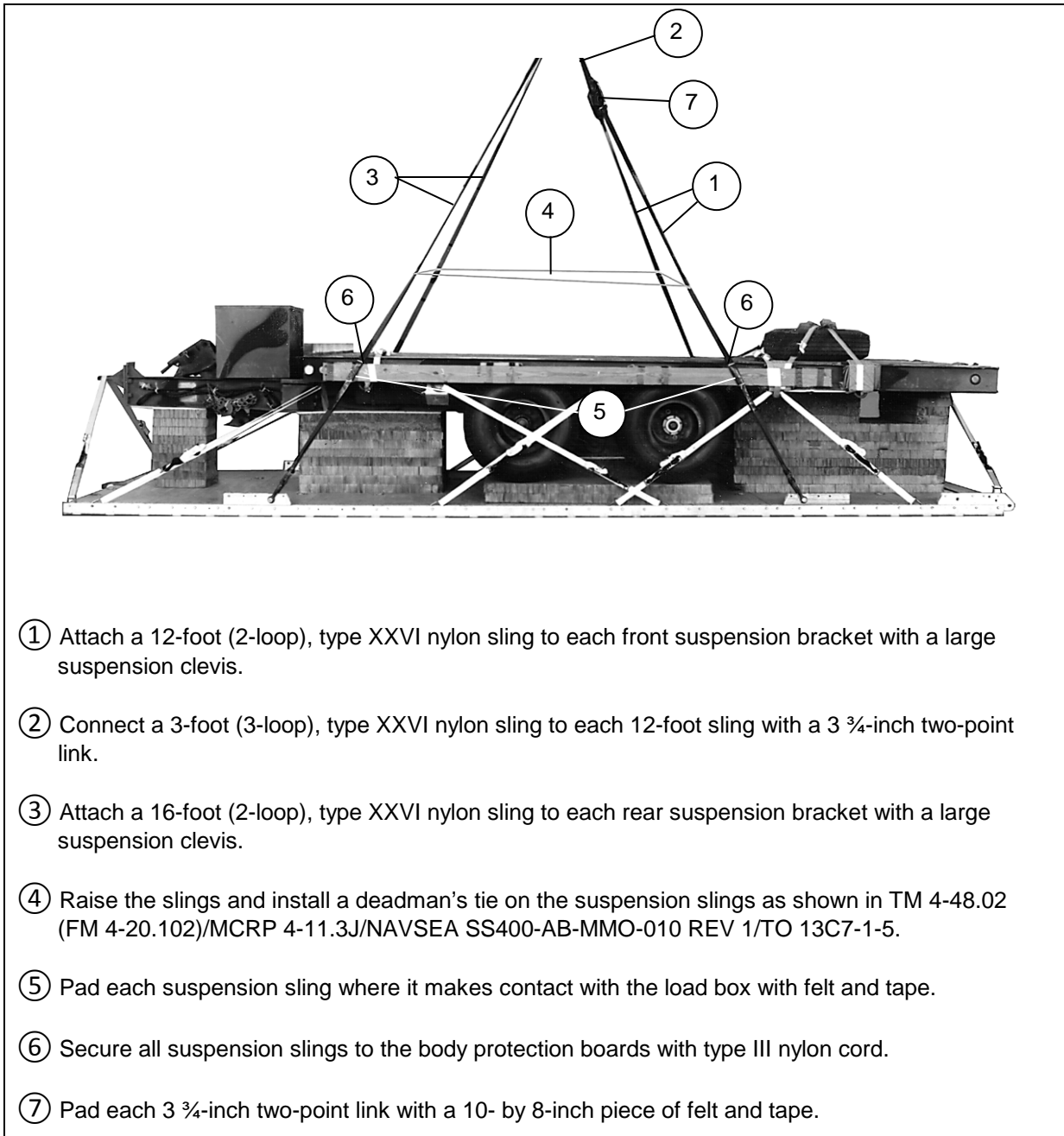
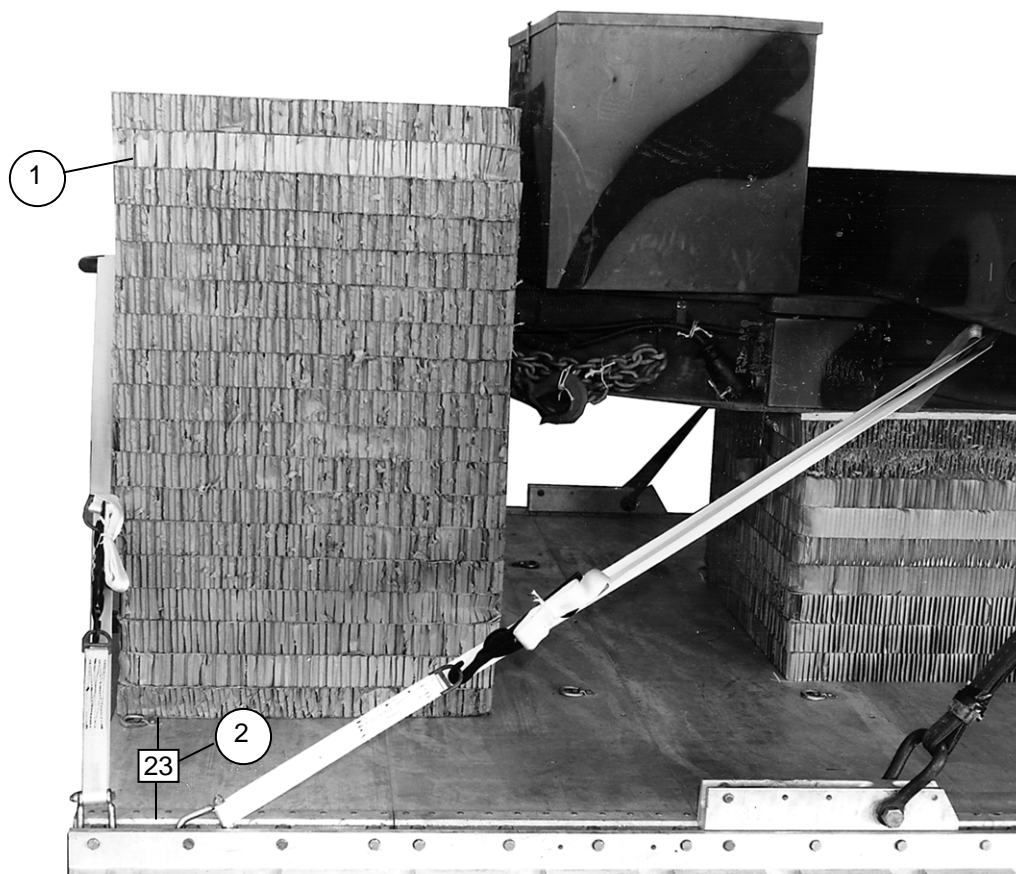


Figure 8-17. Suspension Slings Installed and Safety Tied

PREPARING THE PARACHUTE STOWAGE PLATFORM

8-8. Prepare the honeycomb support stacks for the parachute stowage platform as shown in Figure 8-18. Construct the parachute stowage platform as shown in Figure 8-19. Secure the parachute stowage platform as shown in Figure 8-20.

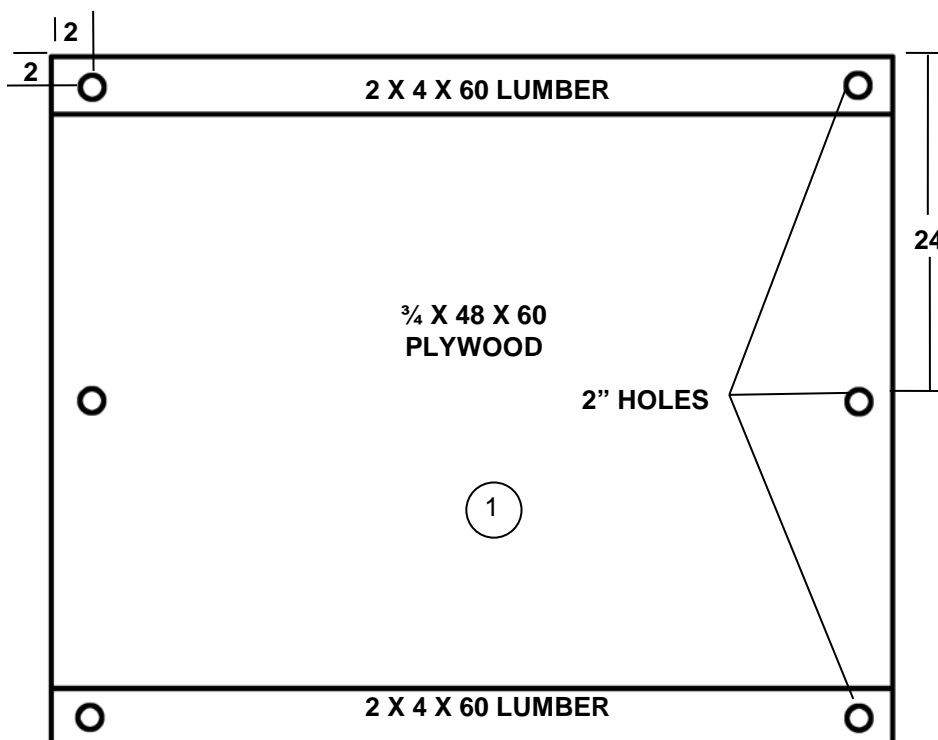
Note. All measurements are given in inches.



- ① Form two support stacks with eighteen 12- by 32-inch pieces of honeycomb in each stack.
- ② Position each support stack flush with the rear edge of the platform and 23 inches from each side rail.

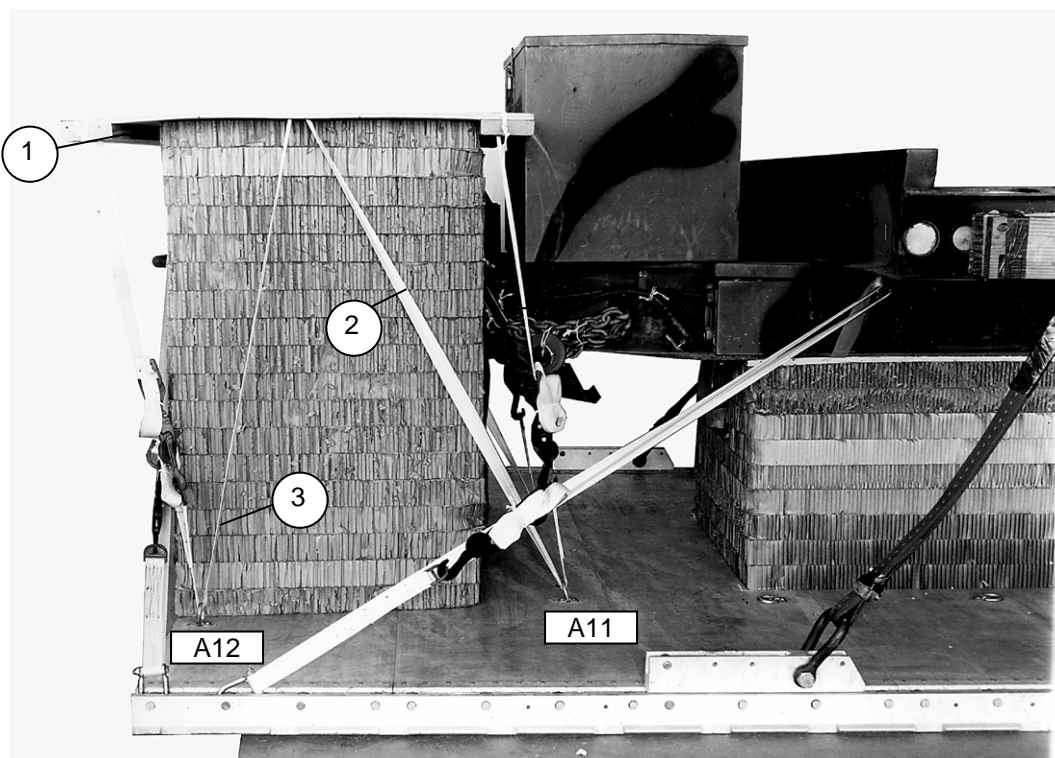
Figure 8-18. Parachute Stowage Platform Support Stacks Prepared

- Notes.** 1. All measurements are given in inches.
2. This drawing is not drawn to scale.
3. All holes are 2-inches in diameter.



- ① Build the parachute stowage platform as shown.

Figure 8-19. Parachute Stowage Platform Built



- ① Place the parachute stowage platform on the honeycomb supports with the 2- by 4- by 60-inch pieces of lumber facing down and parallel to the front of the load.
- ② Route a 15-foot lashing through the front and center holes of the parachute stowage platform and through tiedown ring A11. Secure the lashing with a D-ring and load binder. Repeat the procedure on the left side using tiedown ring B11.
- ③ Route a 15-foot lashing through the rear and center holes of the parachute stowage platform and through tiedown ring A12. Secure the lashing with a D-ring and load binder. Repeat the procedure on the left side using tiedown ring D12.

Figure 8-20. Parachute Stowage Platform Installed

STOWING CARGO PARACHUTES

8-9. Prepare, stow, and restrain three G-11B cargo parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 8-21.

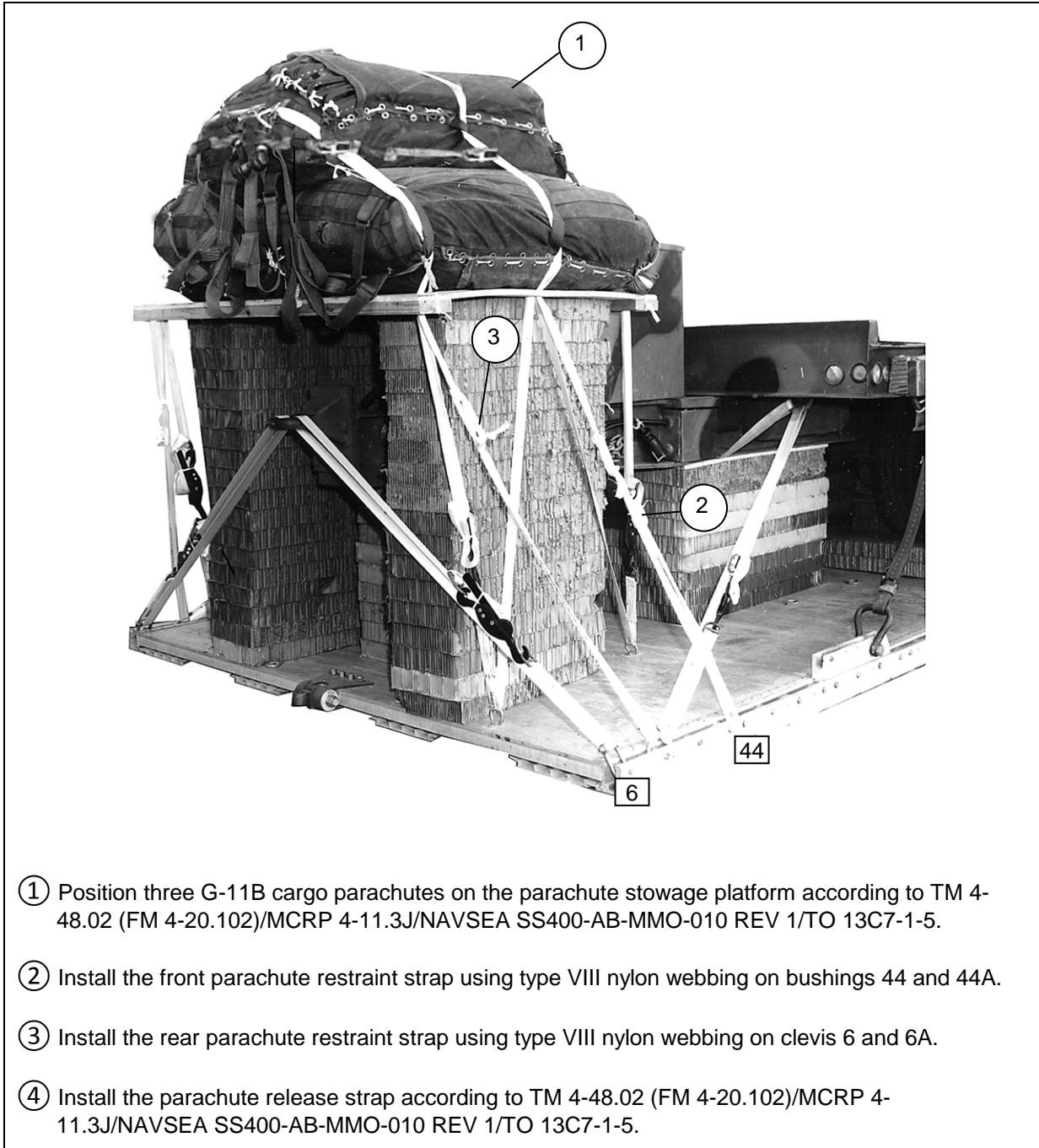
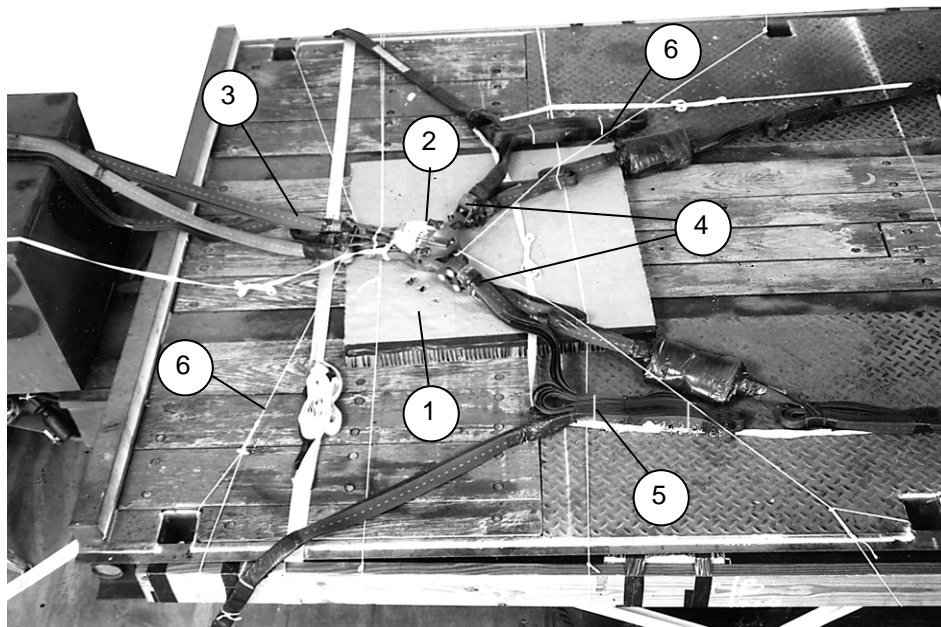


Figure 8-21. Cargo Parachutes Positioned and Restrained

INSTALLING PARACHUTE RELEASE SYSTEM

8-10. Prepare and install an M-1 parachute release system according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 8-22.

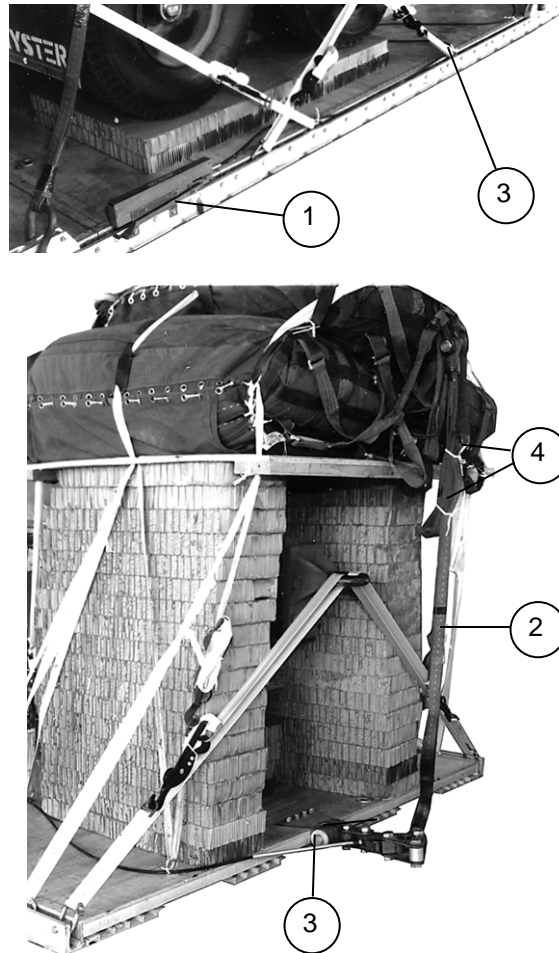


- ① Center a 36- by 36-inch pieces of honeycomb 24 inches from the front edge of the trailer bed. Tape the edges of the honeycomb and secure the honeycomb in place with type III nylon cord.
- ② Center an M-1 parachute release assembly on top of the honeycomb.
- ③ Attach the parachute riser extensions to the parachute release connectors.
- ④ Attach the suspension slings to the lower suspension links.
- ⑤ Fold the excess suspension slings and safety tie with type I, ¼-inch cotton webbing.
- ⑥ Tie the front and rear M-1 parachute release safety ties to convenient points on the load with type III nylon cord.

Figure 8-22. M-1 Parachute Release Installed

INSTALLING EXTRACTION SYSTEM

8-11. Install the extraction system as shown in Figure 8-23.



- ① Install the components of the extraction force transfer coupler (EFTC) according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Use the front mounting holes for the EFTC actuator brackets.
- ② Attach a 9-foot (2-loop), type XXVI nylon sling to be used as a deployment line.
- ③ Use a 24-foot cable and safety tie the cable to the platform clevises with type I, 1/4-inch cotton webbing.
- ④ Secure the excess deployment line with type I, 1/4-inch cotton webbing.

Figure 8-23. Extraction System Installed

PLACING EXTRACTION PARACHUTE

8-12. Select the extraction parachute and extraction line needed using the extraction line requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Place the extraction parachute and line on the load for installation in the aircraft.

INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

8-13. Select and install the provisions for the emergency aft restraints according to the emergency aft restraint requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

MARKING RIGGED LOAD

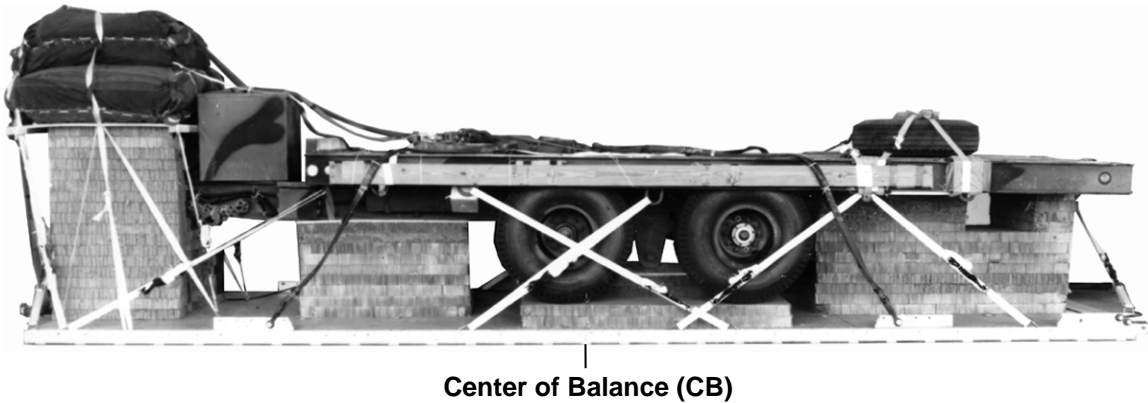
8-14. Mark the rigged load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figure 8-24. Complete Shipper's Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, Center of Balance (CB), and parachute requirements must be recomputed.

EQUIPMENT REQUIRED

8-15. Use the equipment listed in Table 8-1 to rig this load.

CAUTION

Make the final rigger inspection required by AR 59-4 and TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 before the load leaves the rigging site.



RIGGED LOAD DATA

Weight: Load Shown.....12,350 pounds
Maximum Weight Load15,750 pounds
Height.....90 inches
Width.....108 inches
Overall Length306 inches
Overhang: Front.....0
Rear0 inches
Center of Balance (CB) (from front edge of the platform).....146 inches
Extraction System with 24-foot cable (adds 18 inches to the length of the load)

Figure 8-24. 15-Ton Trailer Rigged on a 24-Foot, Type V Platform for Low-Velocity Airdrop

Table 8-1. Equipment Required for Rigging the 15-Ton Trailer on a 24-Foot, Type V Platform for Low-Velocity Airdrop

<i>National Stock Number</i>	<i>Item</i>	<i>Quantity</i>
8040-00-273-8713	Adhesive paste, 1-gal.	As required
1670-01-035-6054	Bridle, extraction line bag	1
4030-00-090-5354	Clevis, suspension, 1-inch (large)	8
4020-00-240-2146	Cord, nylon, type III, 550-lb	As required
1670-00-434-5782	Coupling, airdrop extraction force transfer, w/24-ft. cable	1
8135-00-664-6958	Cushioning material (Cellulose padding)	As required
8305-00-958-3685	Felt, ½-inch	As required
1670-01-183-2678	Leaf, extraction line (line bag) (add 2 for C-17)	2
	Line extraction:	
1670-01-062-6313	60-foot (3-loop), type XXVI (for C-130)	1
1670-01-107-7651	140-foot (3-loop), type XXVI (for C-17)	1
1670-01-064-4452	60-foot (1-loop), type XXVI (for C-17), (drogue line)	1
1670-00-783-5988	Link assembly, type IV (C-17 only)	1
	Link assembly, two-point, small, 3 ¾-inch:	
	Lumber:	
5510-00-220-6274	2- by 4- by 96-inch	2
5510-00-220-6148	2- by 4- by 168-inch	2
5315-00-010-4659	Nail, steel, common, 8D	As required
1670-00-753-3928	Pad, energy-dissipating (honeycomb)	21 sheets
1670-01-016-7841	Parachute, cargo, G-11B	3
	Parachute, cargo, extraction:	
1670-01-063-3716	22-foot	1
1670-01-063-3715	15-foot (C-17 only)	1
	Platform, airdrop, type V, 24-foot:	
1670-01-162-2372	Clevis assembly (type V)	14
1670-01-162-2376	Extraction bracket assembly	4
1670-01-162-2381	Tandem link assembly (Multipurpose link)	2
5530-00-128-4981	Plywood, 3/4-inch	2 sheets

Table 8-1. Equipment Required for Rigging the 15-Ton Trailer on a 24-Foot, Type V Platform for Low-Velocity Airdrop (continued)

<i>National Stock Number</i>	<i>Item</i>	<i>Quantity</i>
1670-01-097-8816	Release, cargo parachute, M-1	1
	Sling, cargo, airdrop:	
1670-01-062-6301	3-foot (2 loop), type XXVI	2
1670-00-753-3790	9-foot (2-loop), type XXVI	1
1670-01-062-6303	12-foot (2-loop), type XXVI	4
1670-01-063-7761	16-foot (2 loop), type XXVI	2
1670-01-062-6313	60-foot (3-loop), type XXVI	3
1670-00-040-8219	Strap, parachute, release, multi-cut	2
7501-00-266-5016	Tape, adhesive, 2-inch	As required
1670-00-937-0271	Tie-down assembly, 15-foot.	23
1670-01-483-8259	Link, Parachute, Connector (H-block) (C-17 only)	1
	Webbing:	
8305-00-268-2411	Cotton, 1/4-inch, type I	As required
8305-00-082-5752	Nylon, tubular, 1/2-inch	As required
8305-00-261-8585	Nylon, type VIII	As required
Legend:	gal= gallon, lb = pound, ft = feet, D = penny	

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Chapter 9

Rigging the 250-CFM Air Compressor Trailer on a 16-Foot, Type V Platform for Low-Velocity Airdrop

DESCRIPTION OF THE LOAD

9-1. The Ingersol-Rand model, 250-CFM, trailer-mounted air compressor (Figure 9-1) is rigged on a 16-foot, type V airdrop platform using two G-11 cargo parachutes. The unrigged trailer weighs 7,345 pounds with the fuel tank ½ full. The trailer is 204 inches long, 77 inches high, and 96 inches wide.



Figure 9-1. Ingersol-Rand Model, 250-CFM, Trailer-Mounted Air Compressor

PREPARING PLATFORM

9-2. Prepare a 16-foot, type V airdrop platform as shown in Figure 9-2.

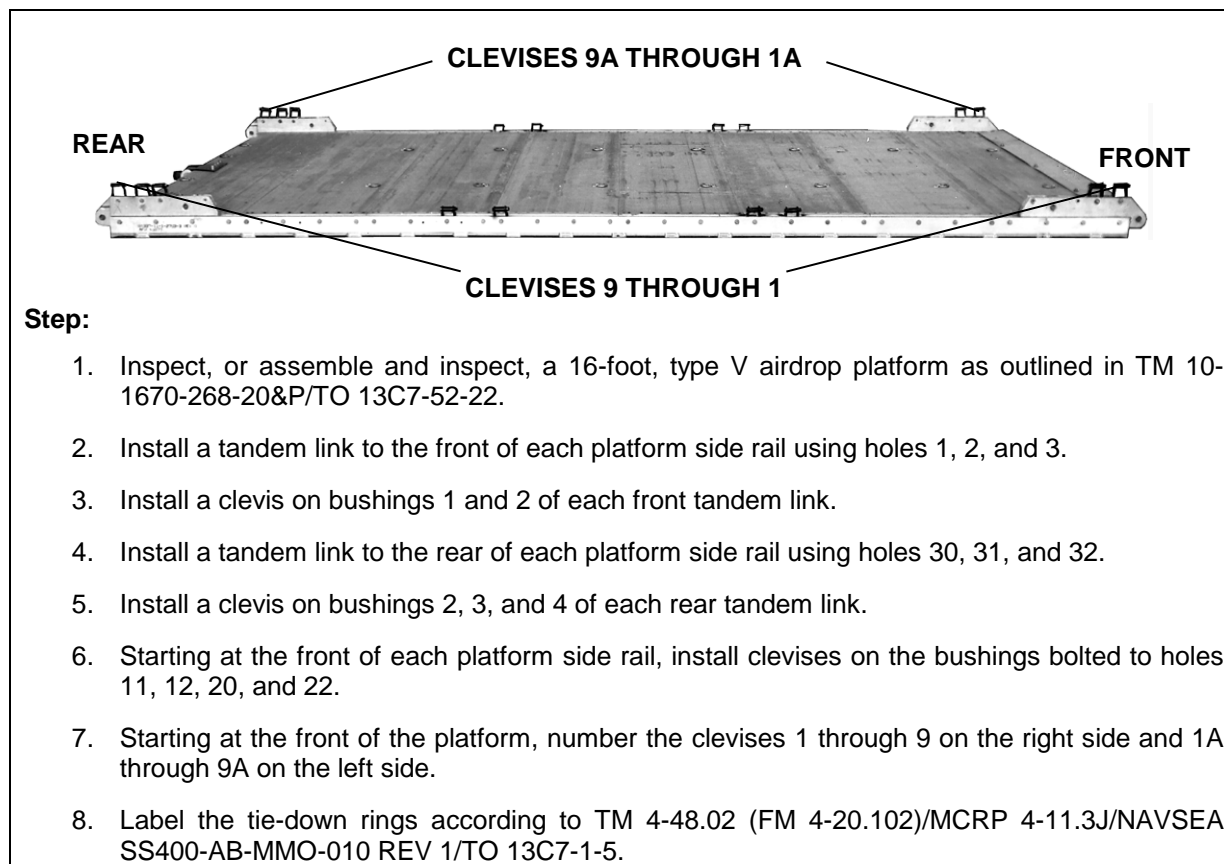
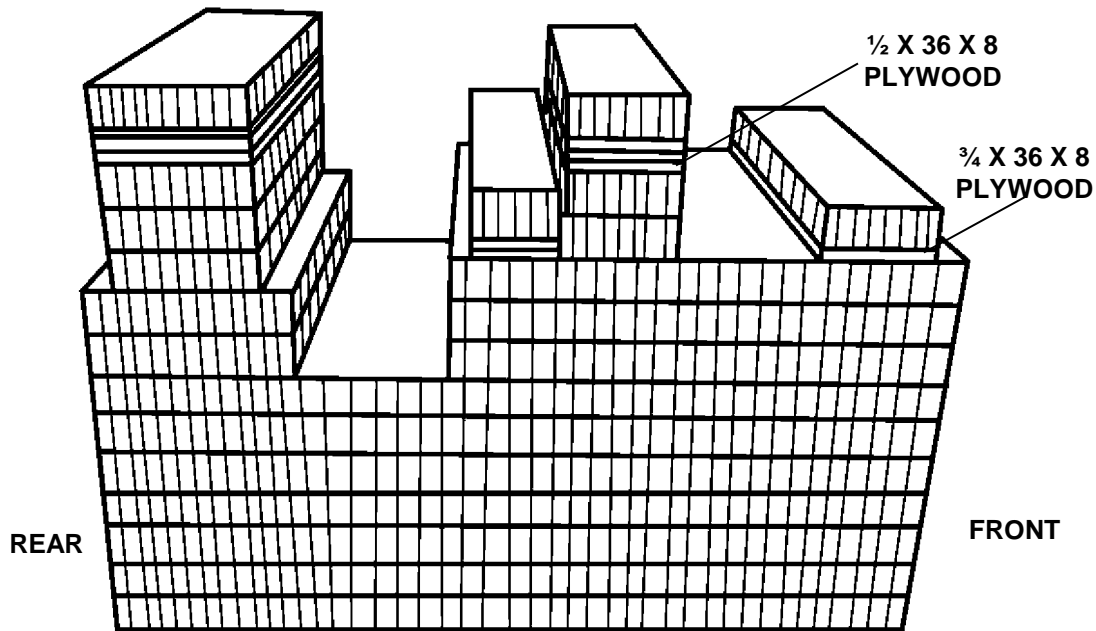


Figure 9-2. Platform Prepared

BUILDING AND POSITIONING HONEYCOMB STACKS

9-3. Build the honeycomb stacks as shown in Figures 9-3 through 9-6. Place the honeycomb stacks as shown in Figure 9-7.

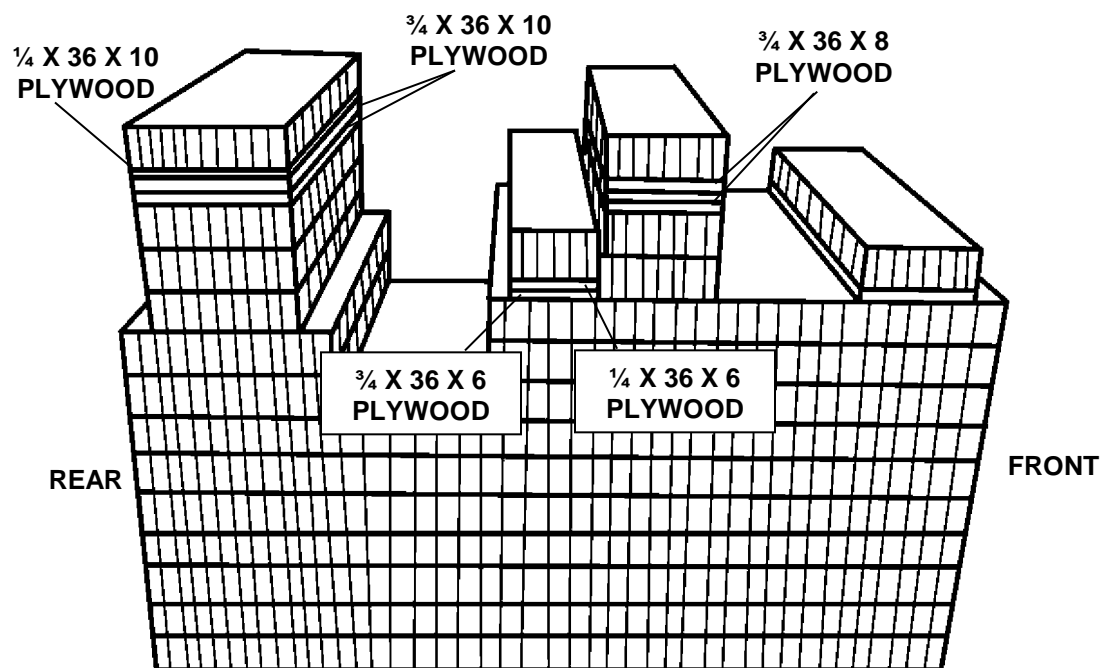
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
1	7	36	60	Honeycomb	Glue to form a base.
	3	36	36	Honeycomb	Glue flush with the front edge on top of base.
	1	36	8	3/4-inch Plywood	Place plywood on top of the 36- by 36-inch honeycomb 2 inches from the front edge of the stack.
	1	36	8	Honeycomb	Glue honeycomb flush on top of the 36- by 8-inch plywood.
	2	36	8	Honeycomb	Glue plywood on top of the 36- by 36-inch honeycomb 21 inches from the front edge of the stack.
	1	36	8	1/2-inch Plywood	Glue plywood on top of the 36- by 8-inch honeycomb 21 inches from the front edge of the stack.

Figure 9-3. Honeycomb Stack 1 Built

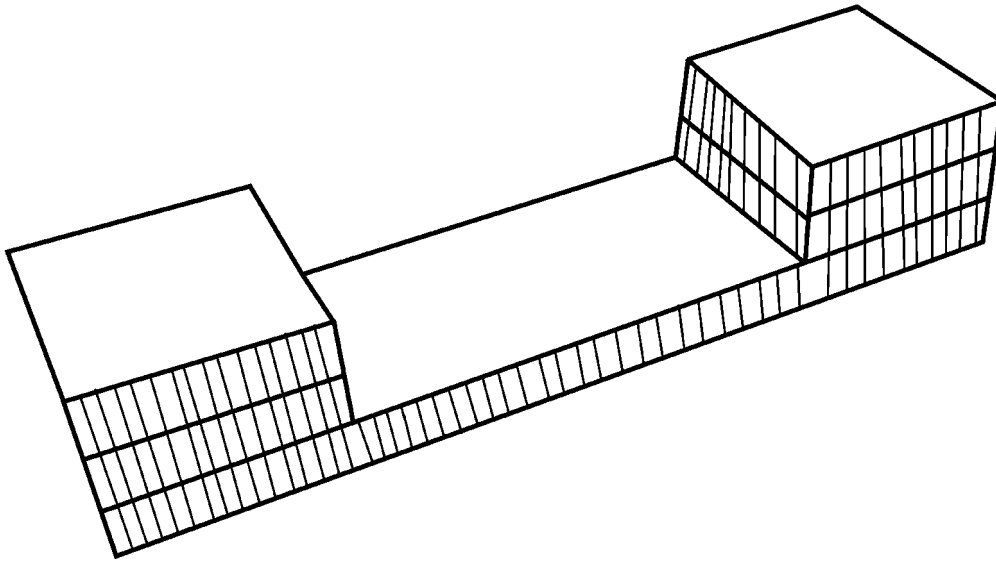
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
	2	36	8	3/4-inch Plywood	Glue plywood on top of the 1/2- by 36- by 8-inch plywood 21 inches from the front edge of the stack.
	1	36	8	Honeycomb	Glue honeycomb flush on top of the 36- by 8-inch plywood 21 inches from the front edge of the stack.
	2	36	6	3/4-inch Plywood	Glue plywood on top of the 36- by 36-inch honeycomb flush against the 36- by 8-inch honeycomb.
	1	36	6	1/4-inch Plywood	Glue plywood on top of the 3/4- by 36- by 6-inch plywood.
	1	36	6	Honeycomb	Glue honeycomb on top of the 1/4- by 36- by 6-inch plywood.
	2	36	14	Honeycomb	Glue honeycomb on top of the base flush with the rear edge of the stack.
	3	36	10	Honeycomb	Glue honeycomb on top of the 36- by 14-inch honeycomb 2 inches from the rear edge.
	2	36	10	3/4-inch Plywood	Glue plywood on top of the 36- by 10-inch honeycomb.
	1	36	10	1/4-inch Plywood	Glue plywood on top of the 3/4- by 36- by 10-inch plywood.
	1	36	10		Glue honeycomb on top of the 1/4- by 36- by 10-inch plywood.

Figure 9-3. Honeycomb Stack 1 Built (Continued)

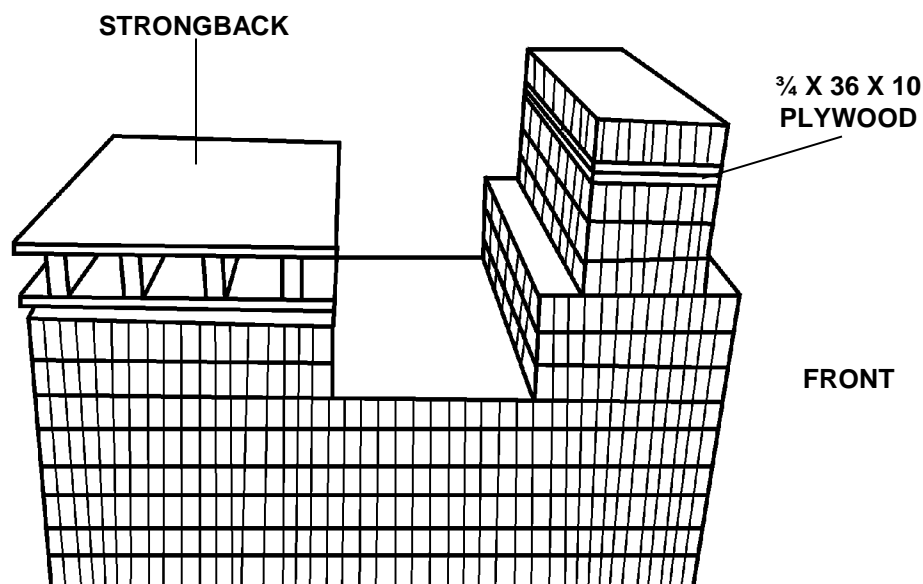
- Notes.** 1. All measurements are given in inches.
2. This drawing is not drawn to scale.



<i>Stack Number</i>	<i>Pieces</i>	<i>Width (Inches)</i>	<i>Length (Inches)</i>	<i>Material</i>	<i>Instructions</i>
2	1	12	48	Honeycomb	Form base.
	4	12	12	Honeycomb	Glue two pieces of honeycomb on each end of the base flush with each edge.
3	1	12	48	Honeycomb	Form base.
	4	12	12	Honeycomb	Glue two pieces of honeycomb on each end of the base flush with each edge.

Figure 9-4. Stacks 2 and 3 Built

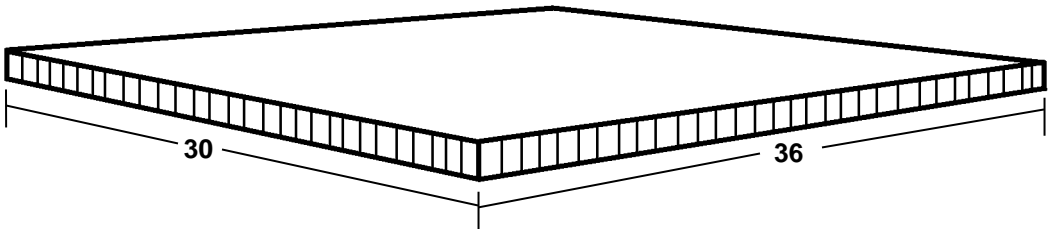
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
4	6	36	58	Honeycomb	Glue to form base.
	3	36	16	Honeycomb	Glue flush on the front edge of the honeycomb base.
	3	36	10	Honeycomb	Center and glue honeycomb on top of the 36- by 16-inch honeycomb.
	2	36	10	3/4-inch Plywood	Glue plywood on top of the 36- by 16-inch honeycomb.
	1	36	10	Honeycomb	Glue honeycomb on top of the 3/4- by 36- by 16-inch plywood.
	2	36	24	Honeycomb	Glue flush on the rear edge of the honeycomb base.
	2	3 1/2	24	2 X 4 Lumber	Glue lumber on top of the 36- by 24-inch honeycomb lengthwise, 3 inches from each side.
	1	36	24	3/4-inch Plywood	Place plywood to form base of the strongback.
	4	36	3 1/2	2 X 4 Lumber	Evenly space lumber side-to-side on top of the 3/4- by 36- by 24-inch plywood.
Strong-back	1	36	24	3/4-inch Plywood	Place plywood on top of the 2- by 4- by 36-inch lumber. Use sixpenny nails to nail the strongback together.

Figure 9-5. Stack 4 Built

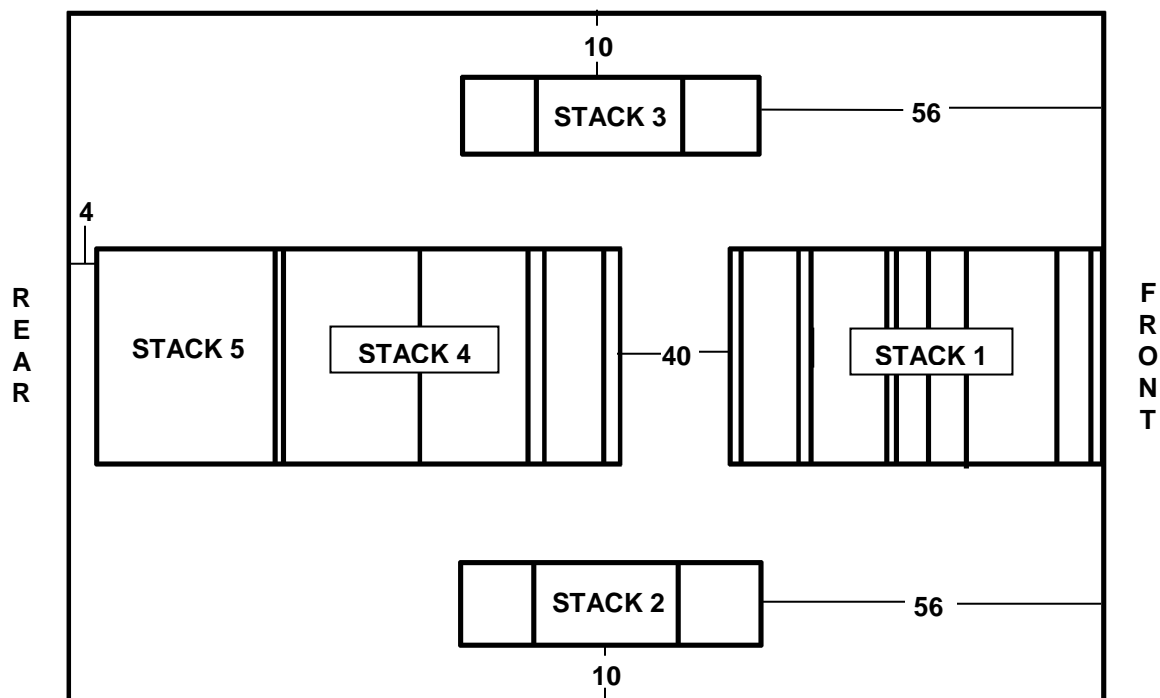
- Notes.** 1. All measurements are given in inches.
2. This drawing is not drawn to scale.



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
5	1	30	36	Honeycomb	Form base.

Figure 9-6. Stack 5 Built

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



Step:

1. Center stack one flush with the front edge of the platform.
2. Place stack two 56 inches from the front edge of the platform and 10 inches from the right side rail.
3. Place stack three 56 inches from the front edge of the platform and 10 inches from the left side rail.
4. Center stack four 40 inches from the rear edge of stack 1.
5. Center stack five 4 inches from the rear edge of the platform.

Figure 9-7. Honeycomb Stacks Positioned on Platform

PREPARING TRAILER

9-4. Prepare the trailer as shown in Figures 9-8 through 9-16.

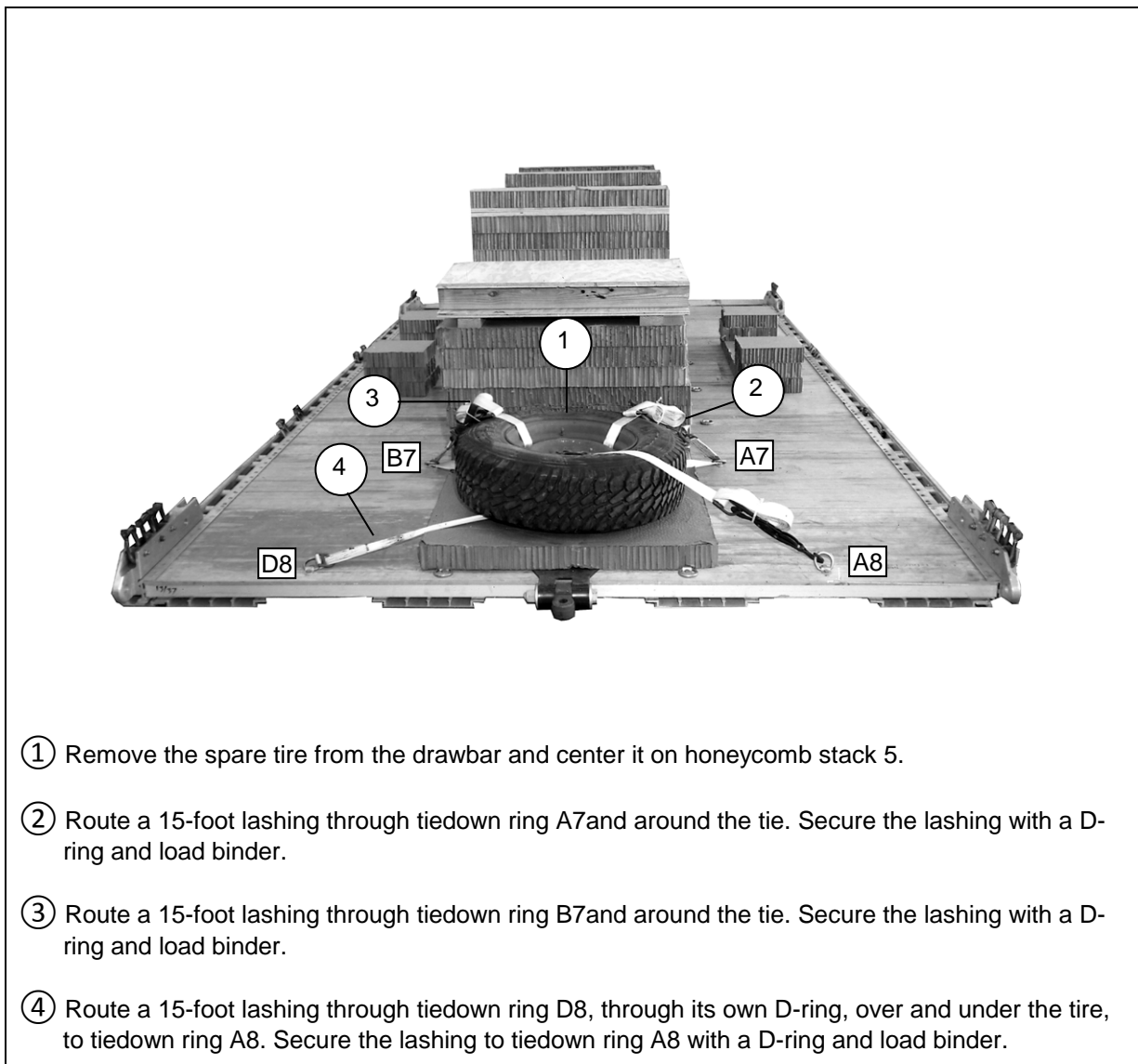


Figure 9-8. Spare Tire Lashed to Platform

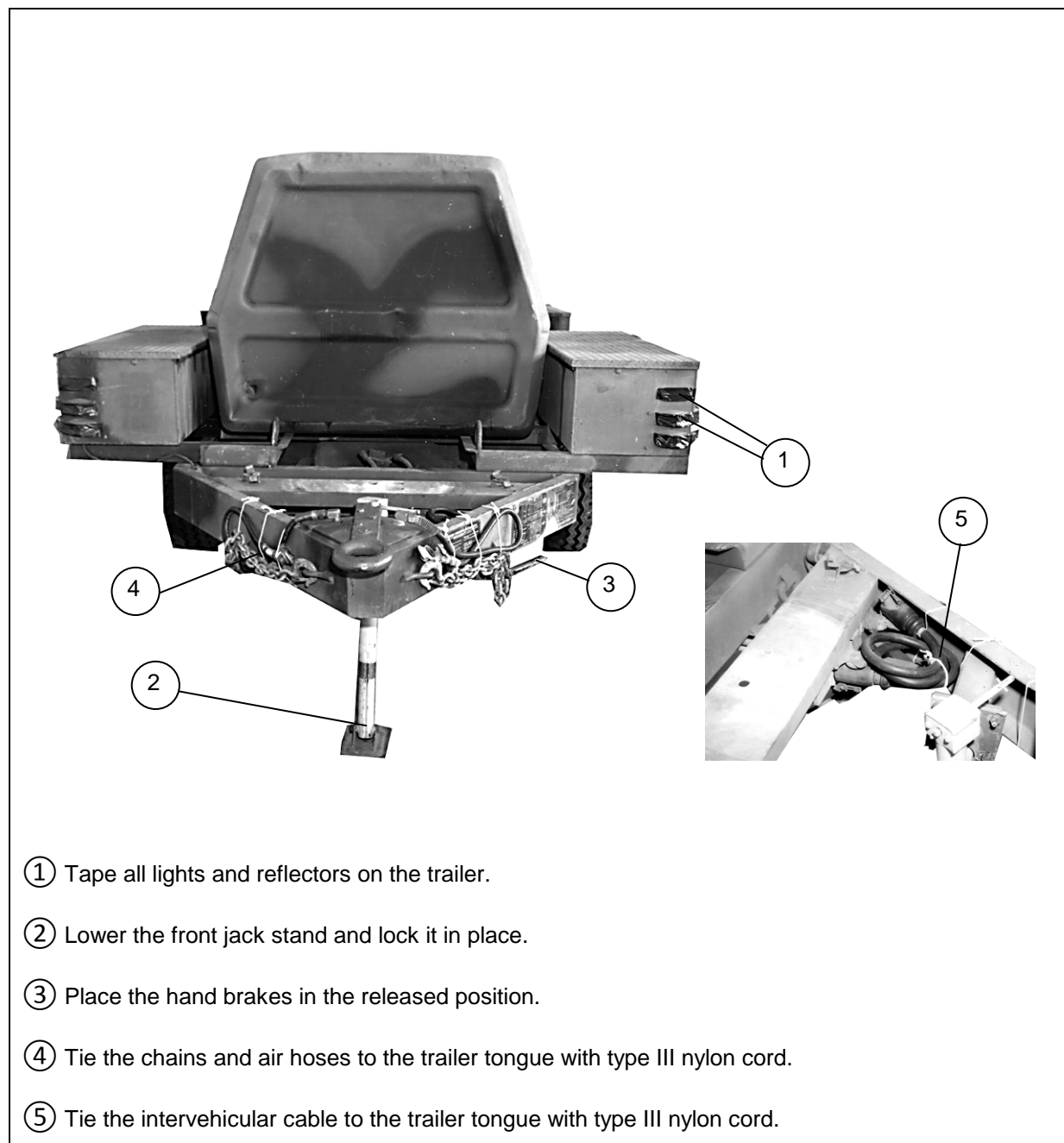
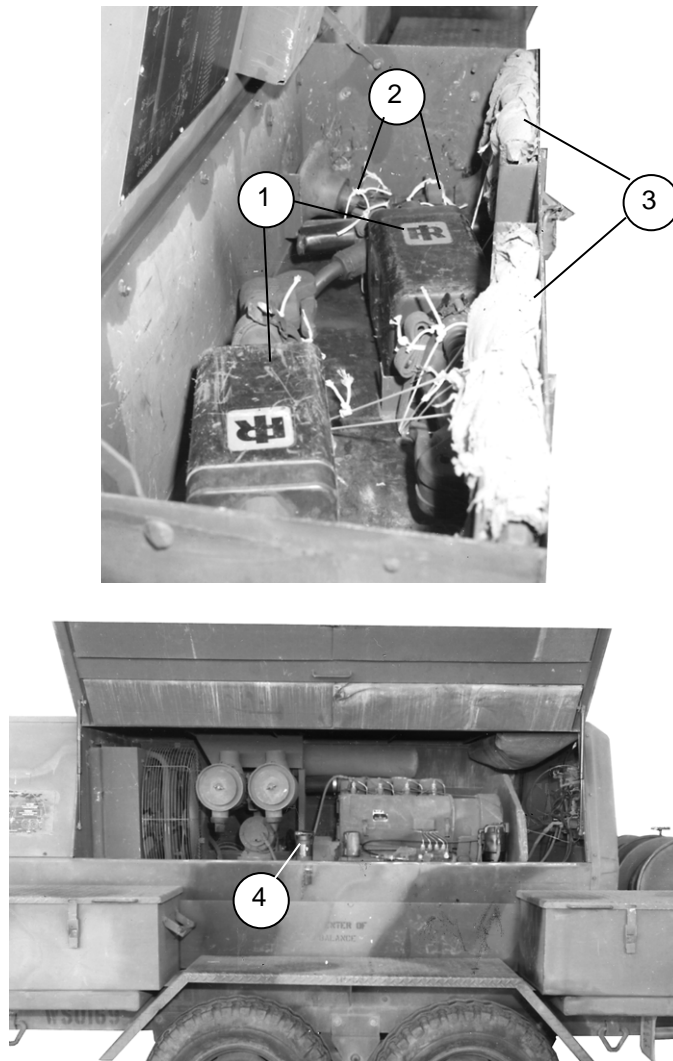
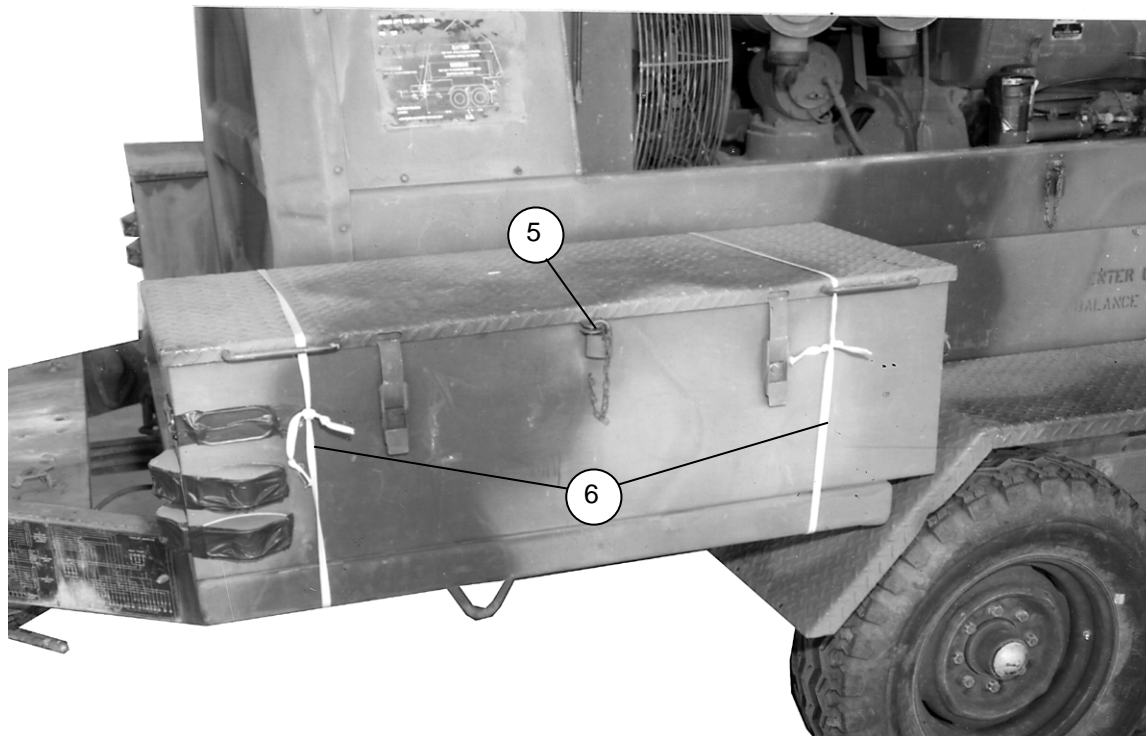


Figure 9-9. Front of Trailer Prepared



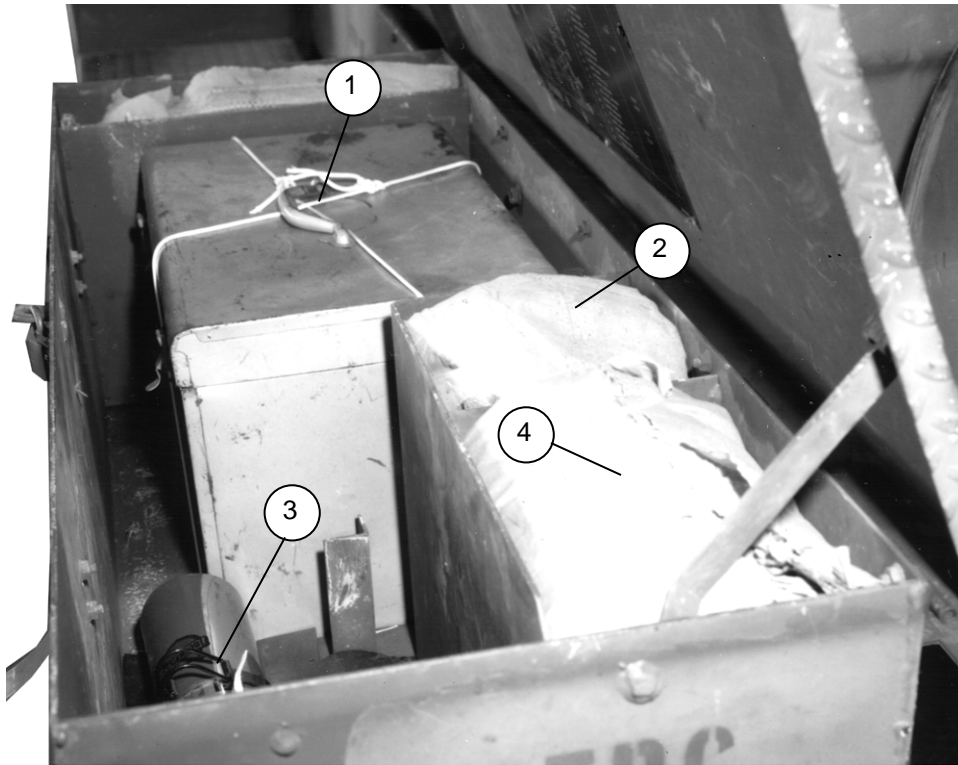
- ① Tie the two eighty pound breakers in place with type III nylon cord.
- ② Tie the two tamping feet with type III nylon cord.
- ③ Tie the six chisels together with type III nylon cord. Pad the chisels with cellulose wadding and tape.
- ④ Tape the fuel nozzle in place in the left engine compartment.

Figure 9-10. Left Engine Compartment and Storage Box 1 Prepared



- ⑤ Close and lock the storage box lid. If a lock is not available, tie the lock rings with type III nylon cord.
- ⑥ Safety tie the storage box with ½-inch tubular nylon webbing around each end.

Figure 9-10. Left Engine Compartment and Storage Box 1 Prepared (Continued)



- ① Secure the toolbox in place with type III nylon cord wrapped around the toolbox and through the hole in the bottom of the storage box.
- ② Place the goggles and protective gear in the storage box compartment and pad with cellulose wadding.
- ③ Safety tie the fire extinguisher in place with type III nylon cord.
- ④ Pad the goggles, protective gear, and miscellaneous parts with cellulose wadding.

Figure 9-11. Storage Box 2 Prepared

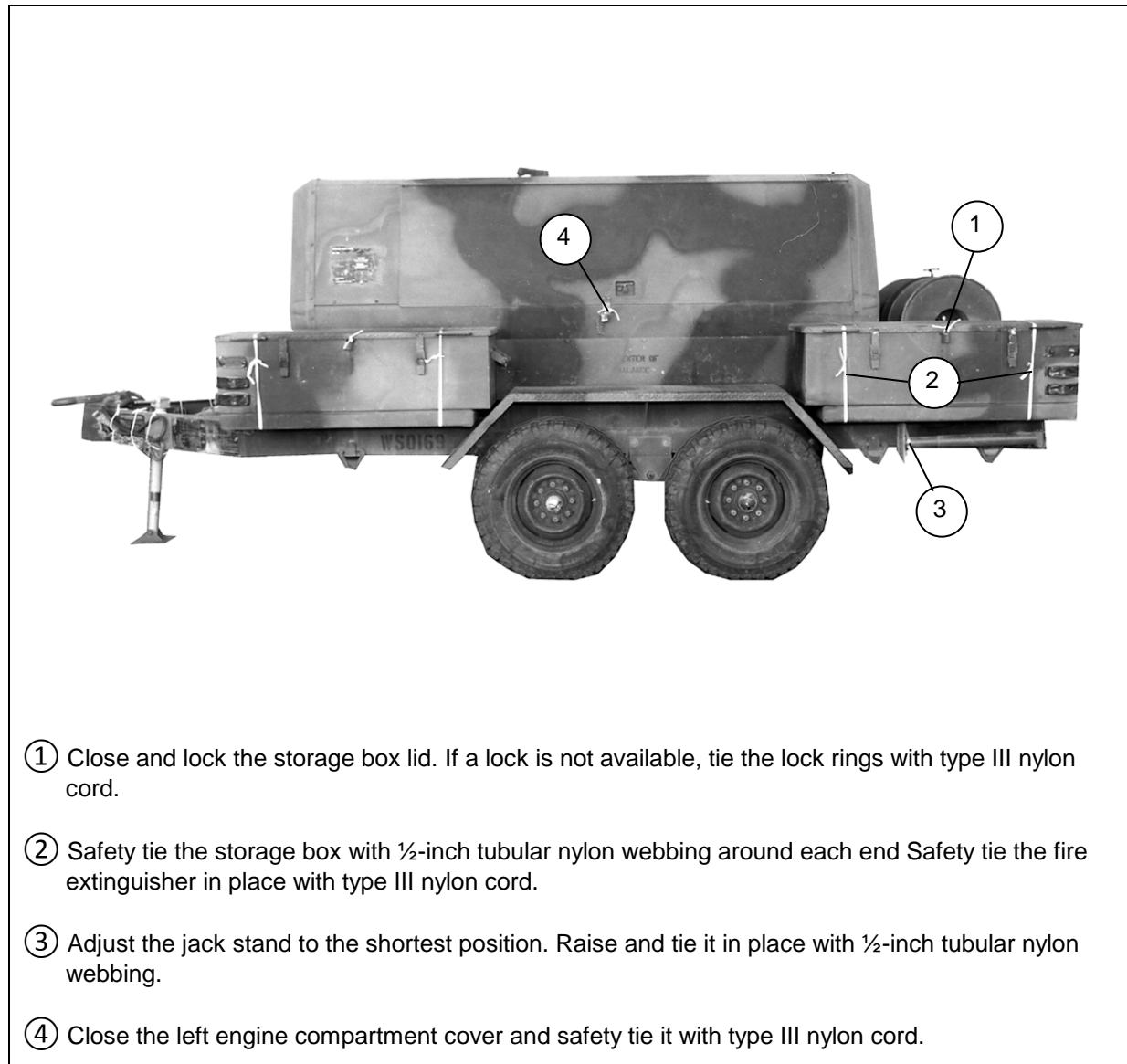
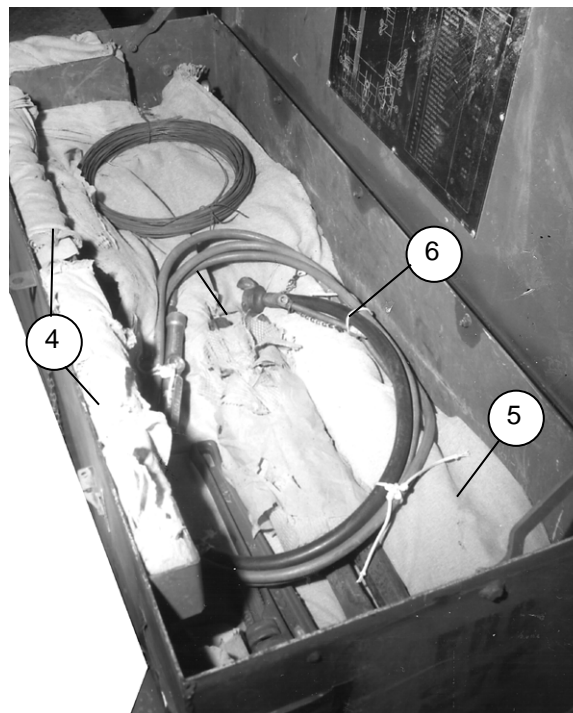
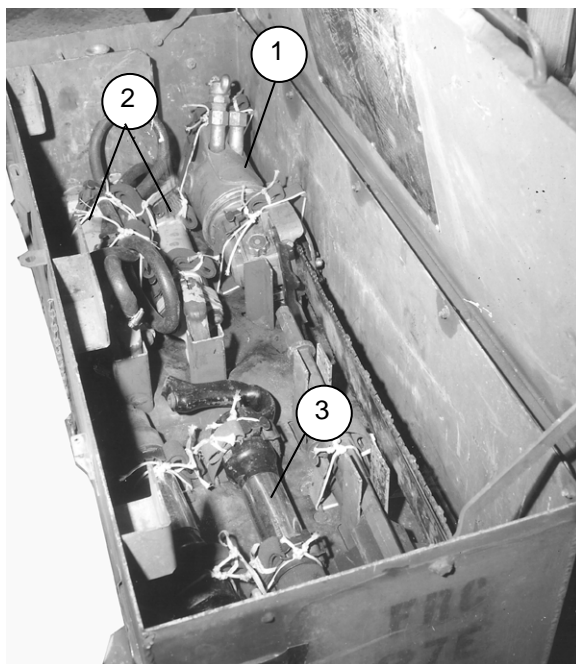
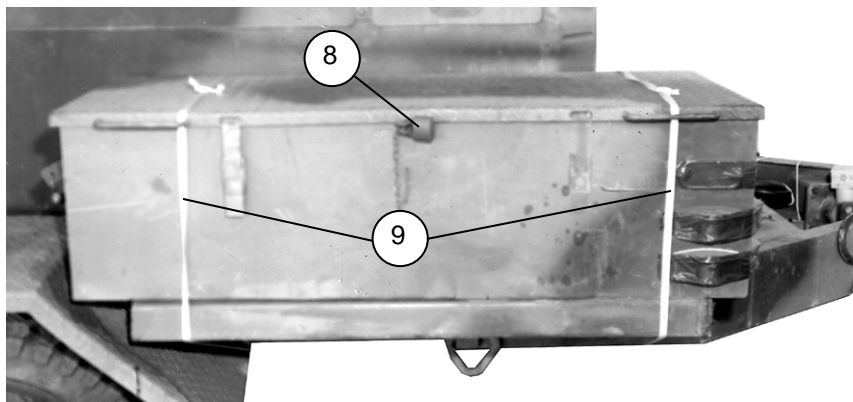
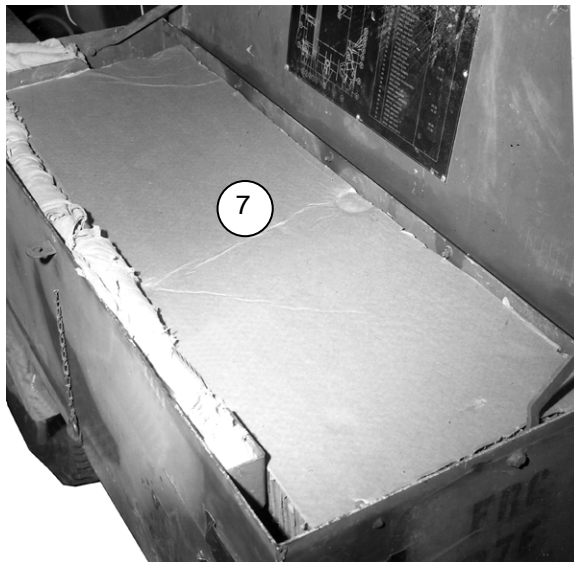


Figure 9-12. Storage Box 2, Jack Stand, and Left Engine Compartment Secured



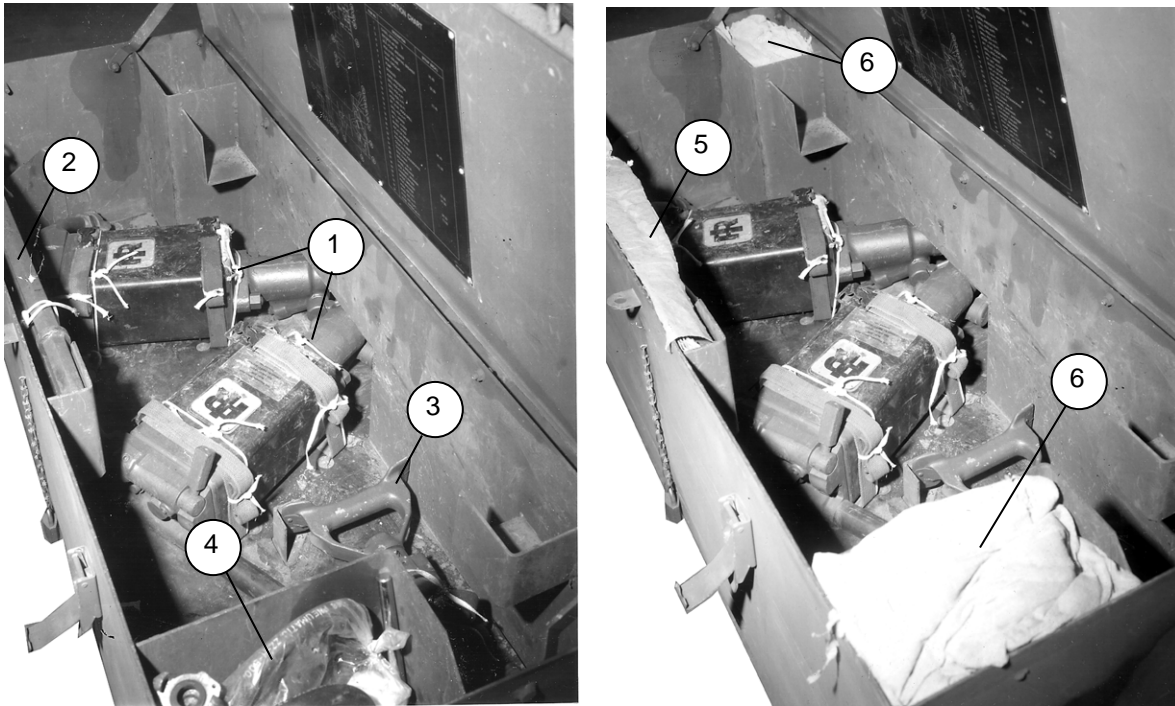
- ① Tie the chain saw in place with type III nylon cord in storage box 3.
- ② Tie the two jackhammers in place with type III nylon cord.
- ③ Tie the hammer-nailer in place with type III nylon cord.
- ④ Pad the chisels with cellulose wadding place them in the rack.
- ⑤ Place a layer of cellulose wadding over the chain saw, jackhammers, and hammer-nailer.
- ⑥ Place the miscellaneous hoses and cables on top of the cellulose wadding and tie with type III nylon cord.

Figure 9-13. Storage Box 3 Prepared



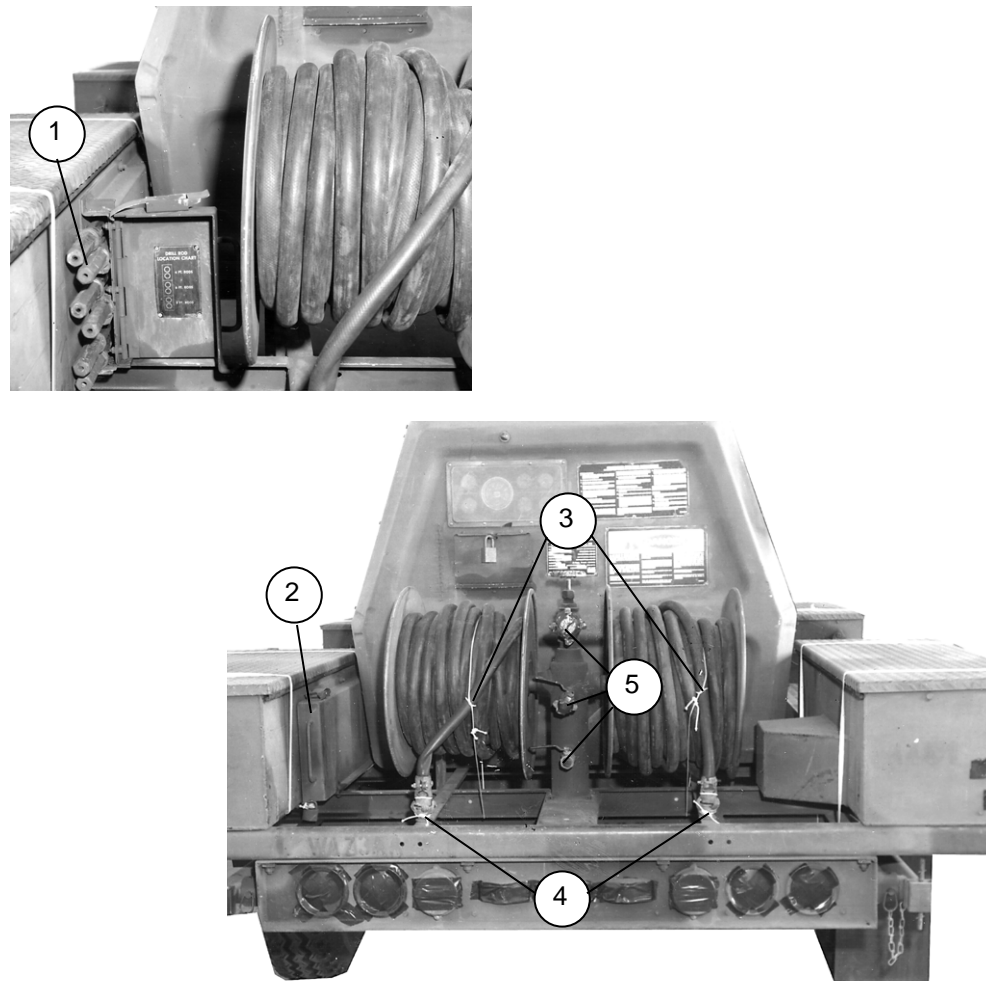
- ⑤ Place a 16- by 45-inch piece of honeycomb on top of the hoses and cables.
- ⑥ Close and lock the storage box lid. If a lock is not available, tie the lock rings with type III nylon cord.
- ⑦ Safety tie the storage box with ½-inch tubular nylon webbing around each end Safety tie the fire extinguisher in place with type III nylon cord.

Figure 9-13. Storage Box 3 Prepared and Secured (Continued)



- ① Tie the two drill sinkers in place with type III nylon cord in storage box 4.
- ② Tie the 2-foot drill rods in place with type III nylon cord.
- ③ Tie the wood borer in place with type III nylon cord.
- ④ Tie the accessories in place with type III nylon cord.
- ⑤ Fit a piece of honeycomb on top of the drill rods.
- ⑥ Fill the two accessory boxes with cellulose wadding.
- ⑦ Place a 16- by 45-inch piece of honeycomb on top of the items (not shown).
- ⑧ Close and lock the storage box lid. If a lock is not available, tie the lock rings with type III nylon cord (not shown).
- ⑨ Safety tie the storage box with ½-inch tubular nylon webbing around each end. Safety tie the fire extinguisher in place with type III nylon cord (not shown).
- ⑩ Adjust the jack stand to the shortest position. Raise and tie it in place with ½-inch tubular nylon webbing (not shown).

Figure 9-14. Storage Box 4 and Jack Stand Prepared and Secured



- ① Place the 4-foot, 6-foot, and 8-foot drill rods, in the container, located on the left rear of the trailer.
- ② Close the lid of the container and secure the latch.
- ③ Tie the air hoses in place with type III nylon cord.
- ④ Tie the air hose adapters in place with type III nylon cord.
- ⑤ Tape the nozzle openings.

Figure 9-15. Rear of the Trailer Prepared

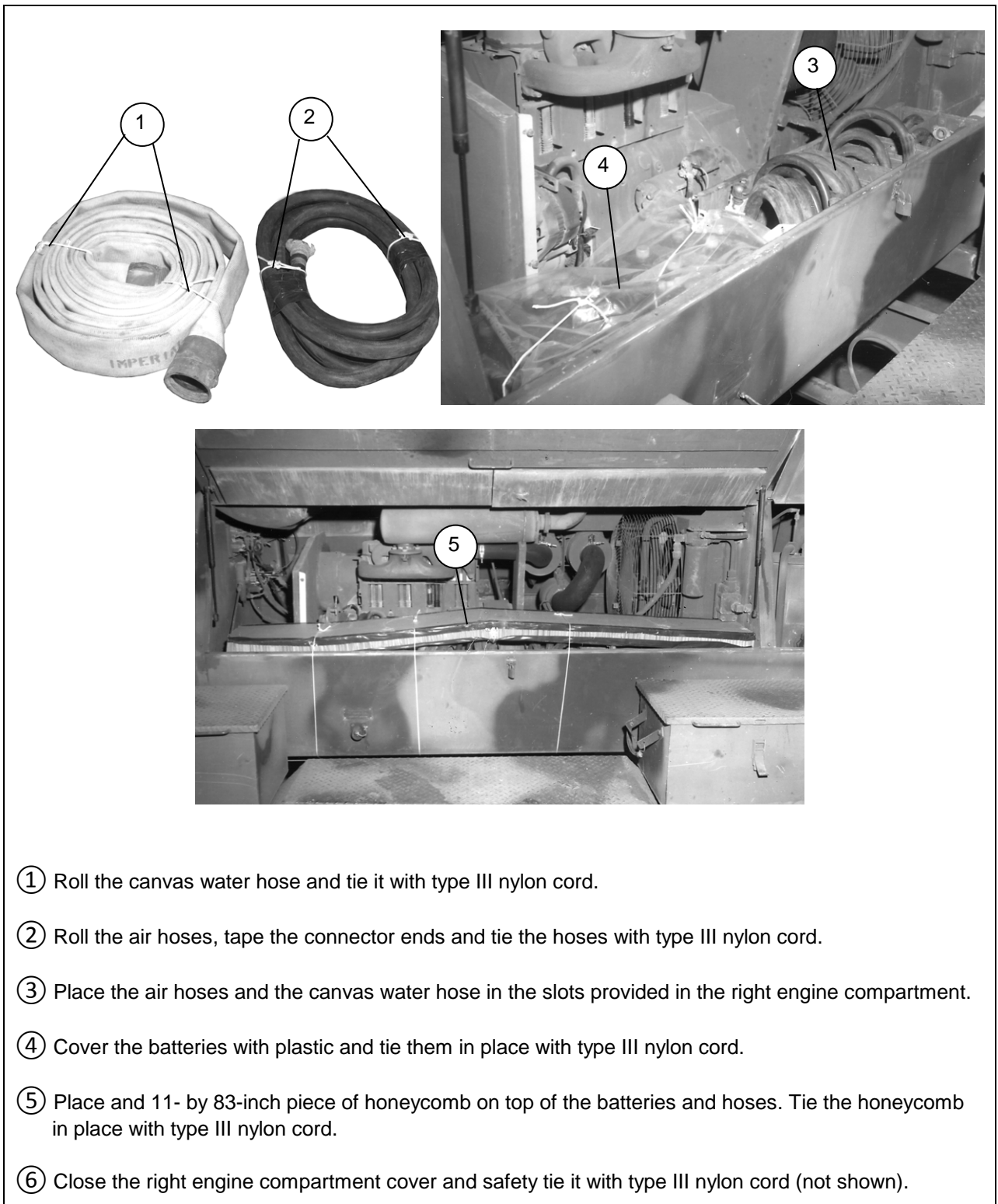
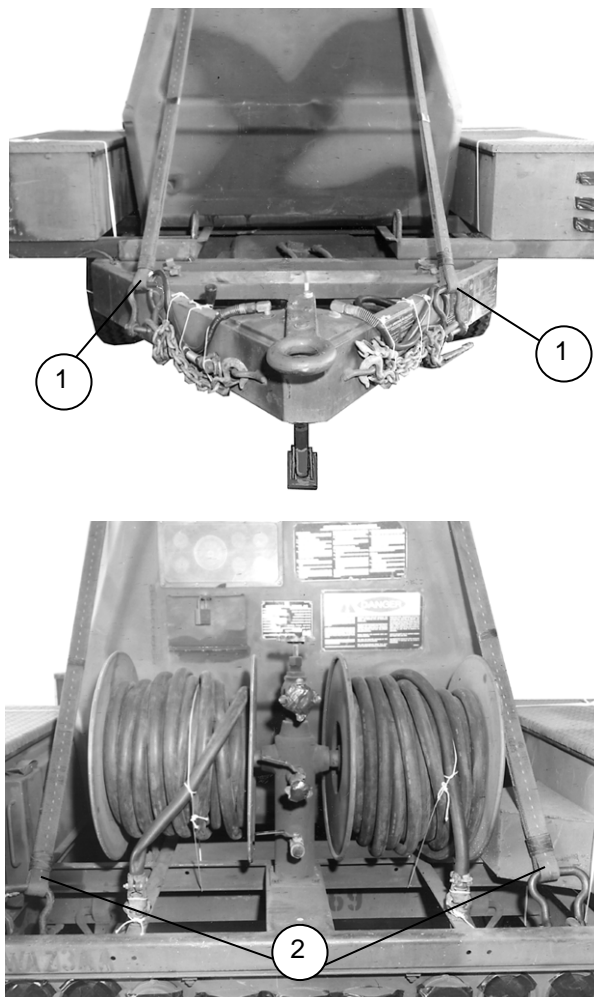


Figure 9-16. Right Engine Compartment Prepared and Secured

LIFTING AND POSITIONING THE TRAILER

9-5. Install the lifting slings as shown in Figure 9-17 and position the trailer as shown in Figure 9-18.



CAUTION

Ensure the rear lift slings clear the hose reels as any pressure on these reels will result in damage.

- ① Attach a 16-foot (4-loop), type XXVI nylon sling to the front outside tiedown provision on each side of the trailer with a medium suspension clevis.
- ② Attach a 16-foot (4-loop), type XXVI nylon sling on the rear inner frame section on each side of the trailer with a medium suspension clevis.

Figure 9-17. Trailer Lift Slings Installed

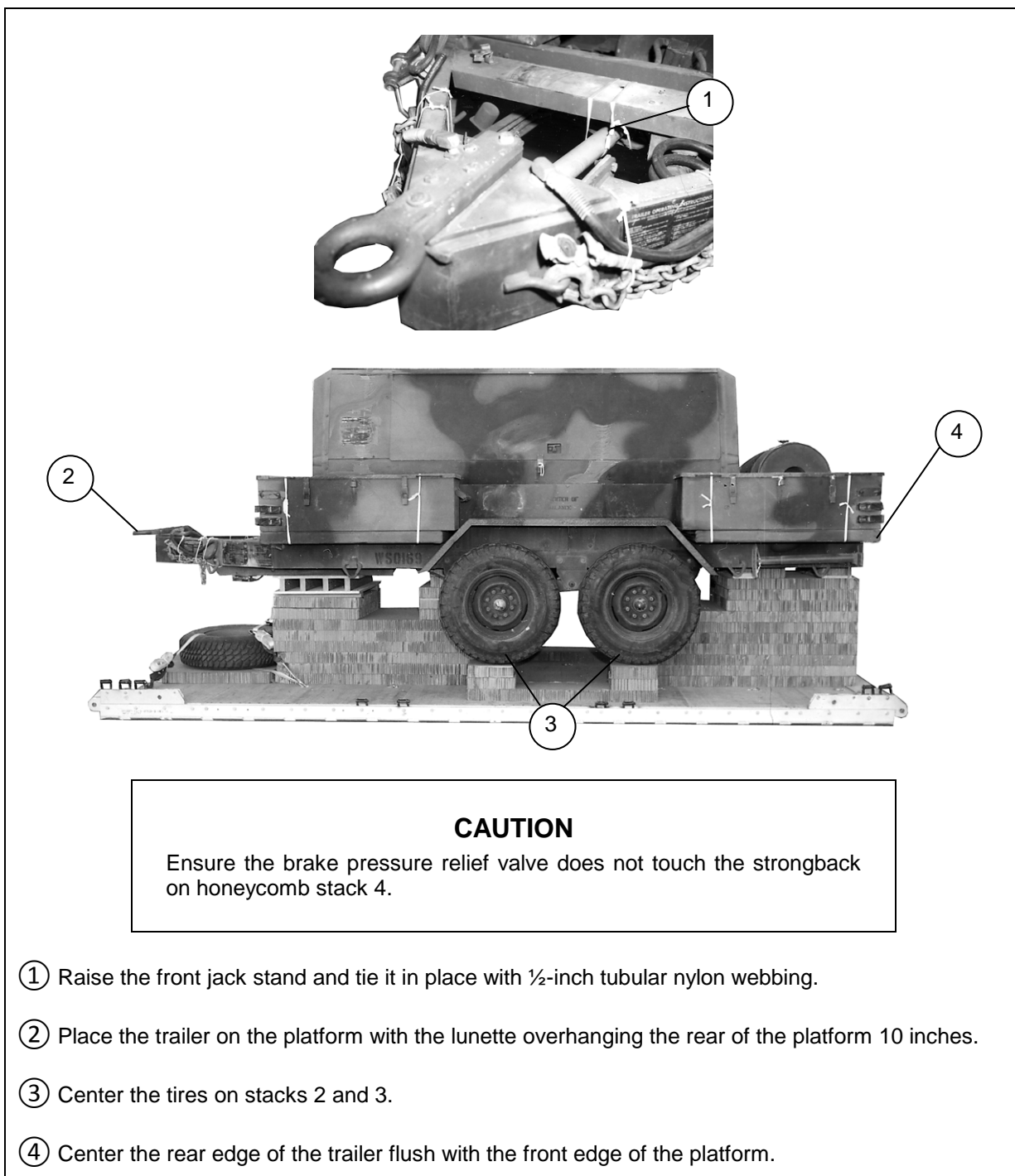


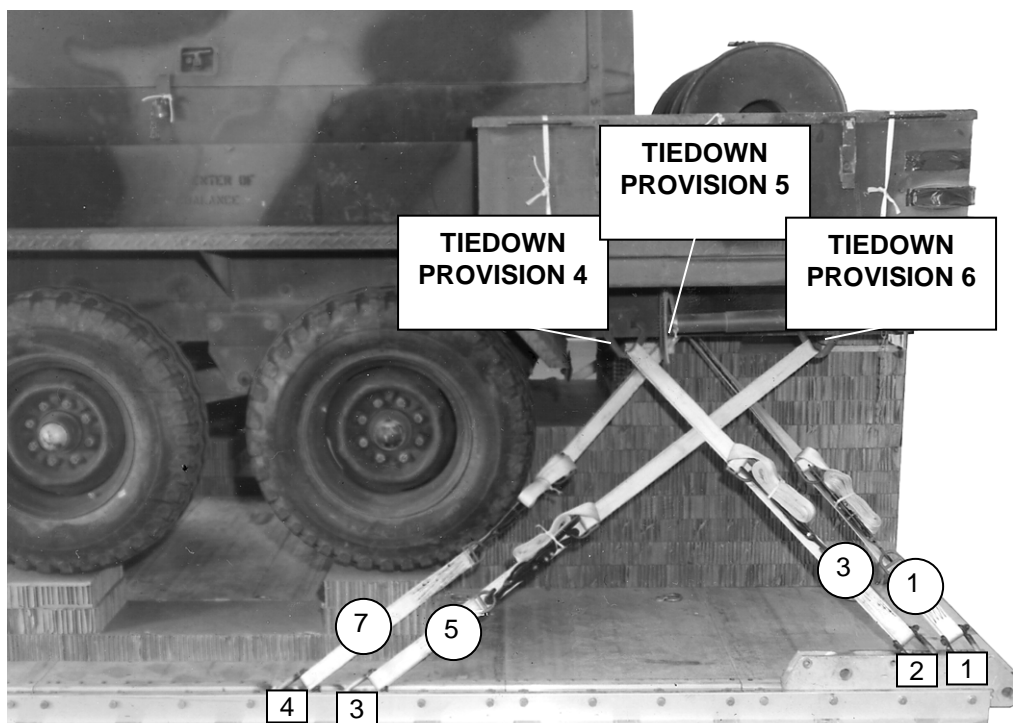
Figure 9-18. Trailer Positioned on Platform

LASHING TRAILER TO PLATFORM

9-6. Lash the trailer to the platform according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figures 9-19 and 9-20.

Note. Pad any sharp edges on the load where a lashing may pass.

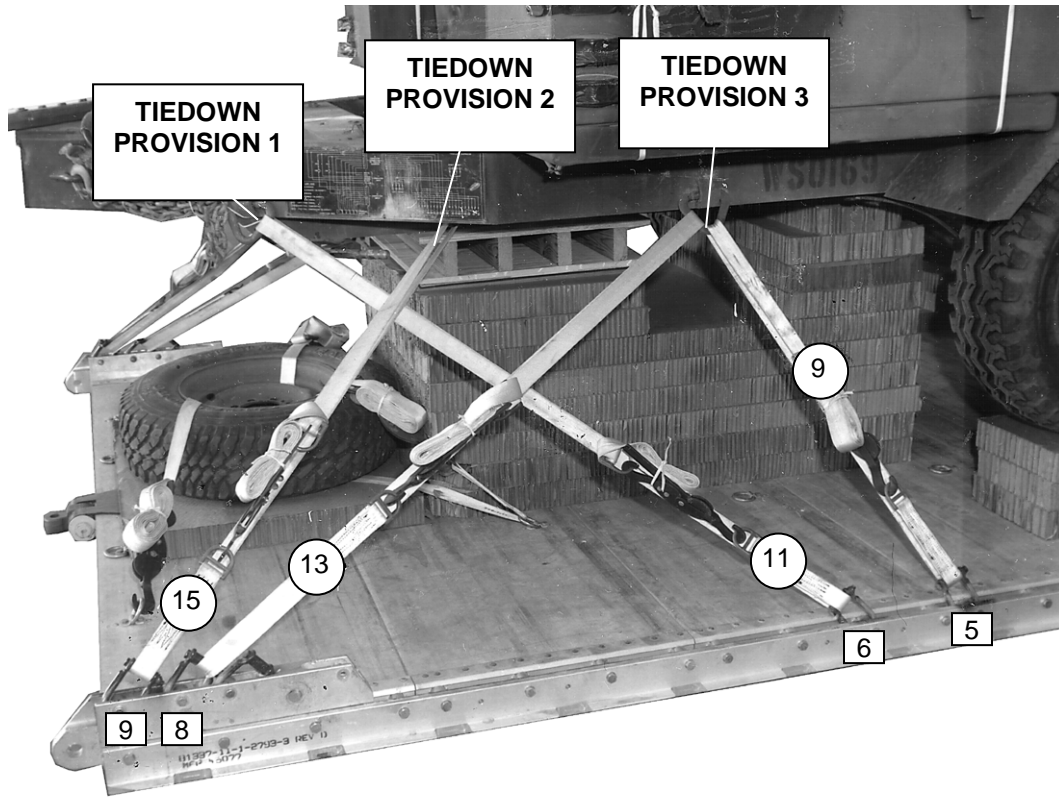
Note. Left, right, front, and rear refer to the trailer, NOT the platform.



Lashing Number	Tie-down Clevis Number	Instructions
1	1	Pass lashing: Through tiedown provision 5, left side.
2	1A	Through tiedown provision 5, right side.
3	2	Through tiedown provision 4, left side.
4	2A	Through tiedown provision 4, right side.
5	3	Through tiedown provision 6, left side.
6	3A	Through tiedown provision 6, right side.
7	4	Through tiedown provision 5, left side.
8	4A	Through tiedown provision 5, right side.

Figure 9-19. Lashings 1 through 8 Installed

Note. Left, right, front, and rear refer to the trailer, NOT the platform.



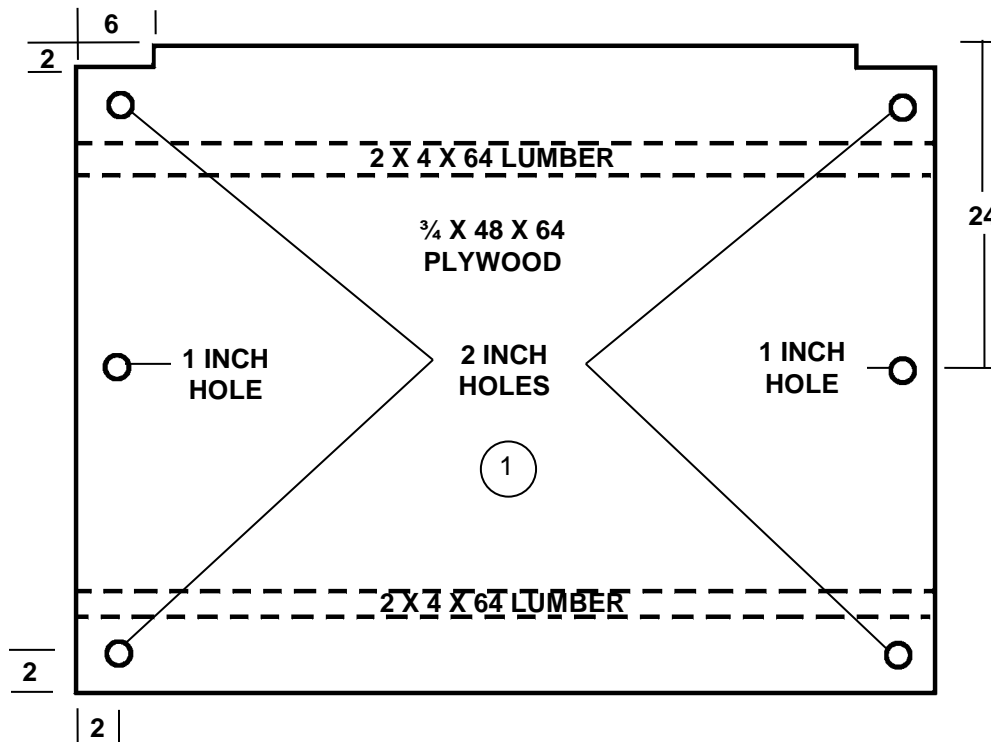
<i>Lashing Number</i>	<i>Tie-down Clevis Number</i>	<i>Instructions</i>
9	5	Pass lashing:
10	5A	Through tiedown provision 3, left side.
11	6	Through tiedown provision 3, right side.
12	6A	Through tiedown provision 1 left side.
13	8	Through tiedown provision 1, right side.
14	8A	Through tiedown provision 3 left side.
15	9	Through tiedown provision 3, right side.
16	9A	Through tiedown provision 2, left side.
		Through tiedown provision 2, right side.

Figure 9-20. Lashings 9 through 16 Installed

PREPARING THE PARACHUTE STOWAGE PLATFORM

9-8. Prepare the parachute stowage platform as shown in Figure 9-22. Secure the parachute stowage platform as shown in Figure 9-23.

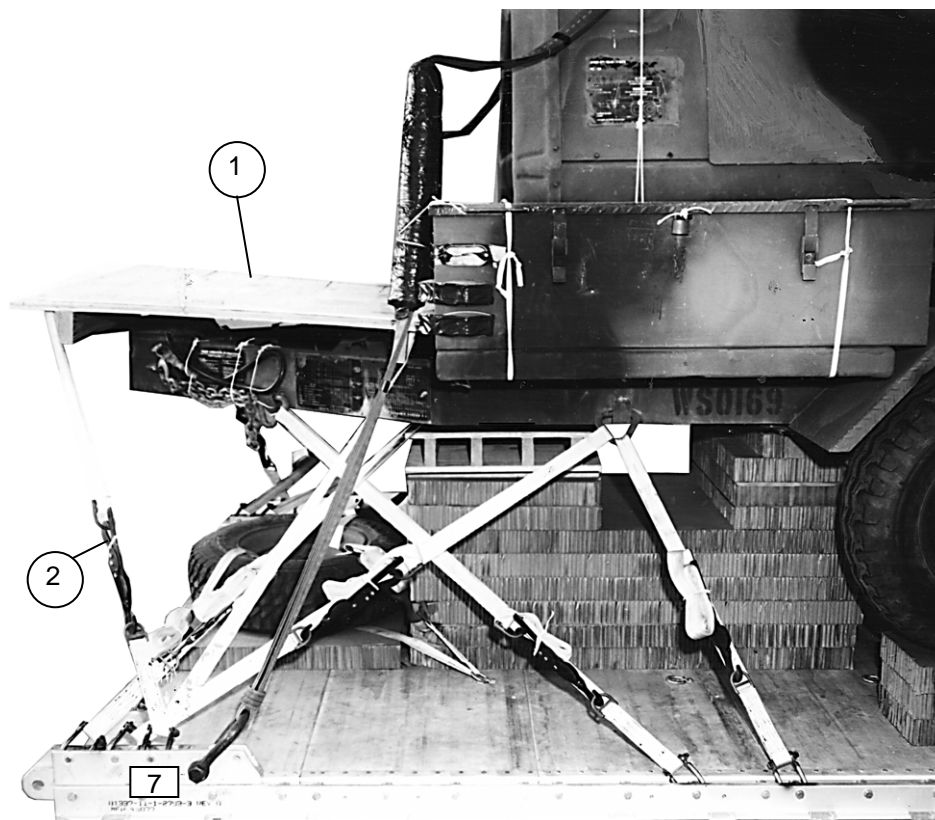
- Notes.** 1. All measurements are given in inches.
2. This drawing is not drawn to scale.
3. All holes are 2-inches in diameter.



- ① Build the parachute stowage platform as shown.

Figure 9-22. Parachute Stowage Platform Built

Note. All measurements are given in inches.



- ① Place the parachute stowage platform on the drawbar frame with the 2- by 6-inch cutouts facing the load and the 2- by 4- by 64-inch pieces of lumber facing down and parallel to the front of the load.
- ② Route a 15-foot lashing through clevis 7, through the front corner hole on the right side of the stowage platform, over the platform, and through the rear corner hole. Secure the lashing with a D-ring and load binder.
- ③ Repeat the procedure on the left side using clevis 7A (not shown).

Figure 9-23. Parachute Stowage Platform Installed

STOWING CARGO PARACHUTES

9-9. Prepare, stow, and restrain three G-11B cargo parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 9-24.

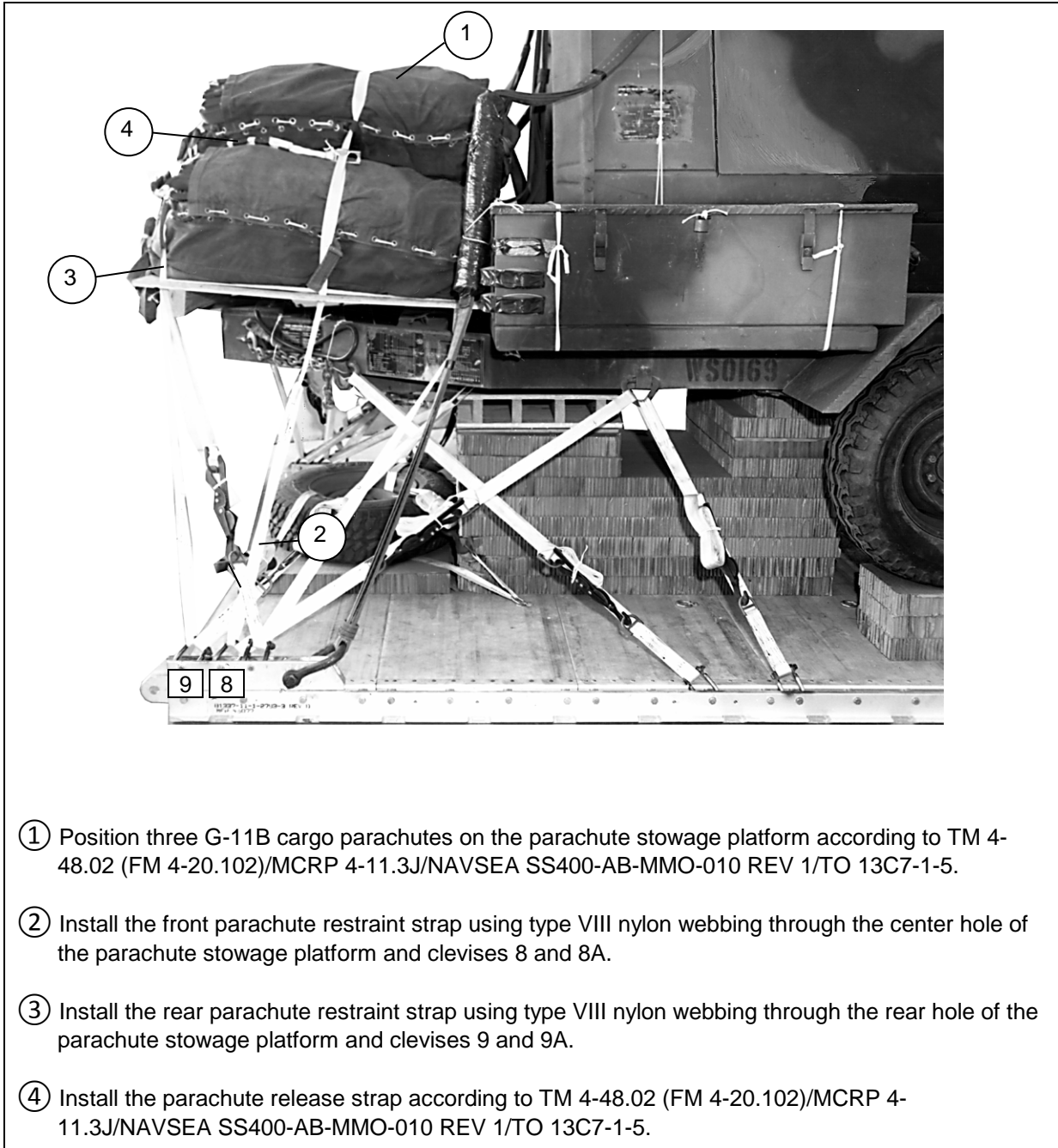


Figure 9-24. Cargo Parachutes Positioned and Restrained

INSTALLING PARACHUTE RELEASE SYSTEM

9-10. Prepare and install an M-1 parachute release system according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 9-25.

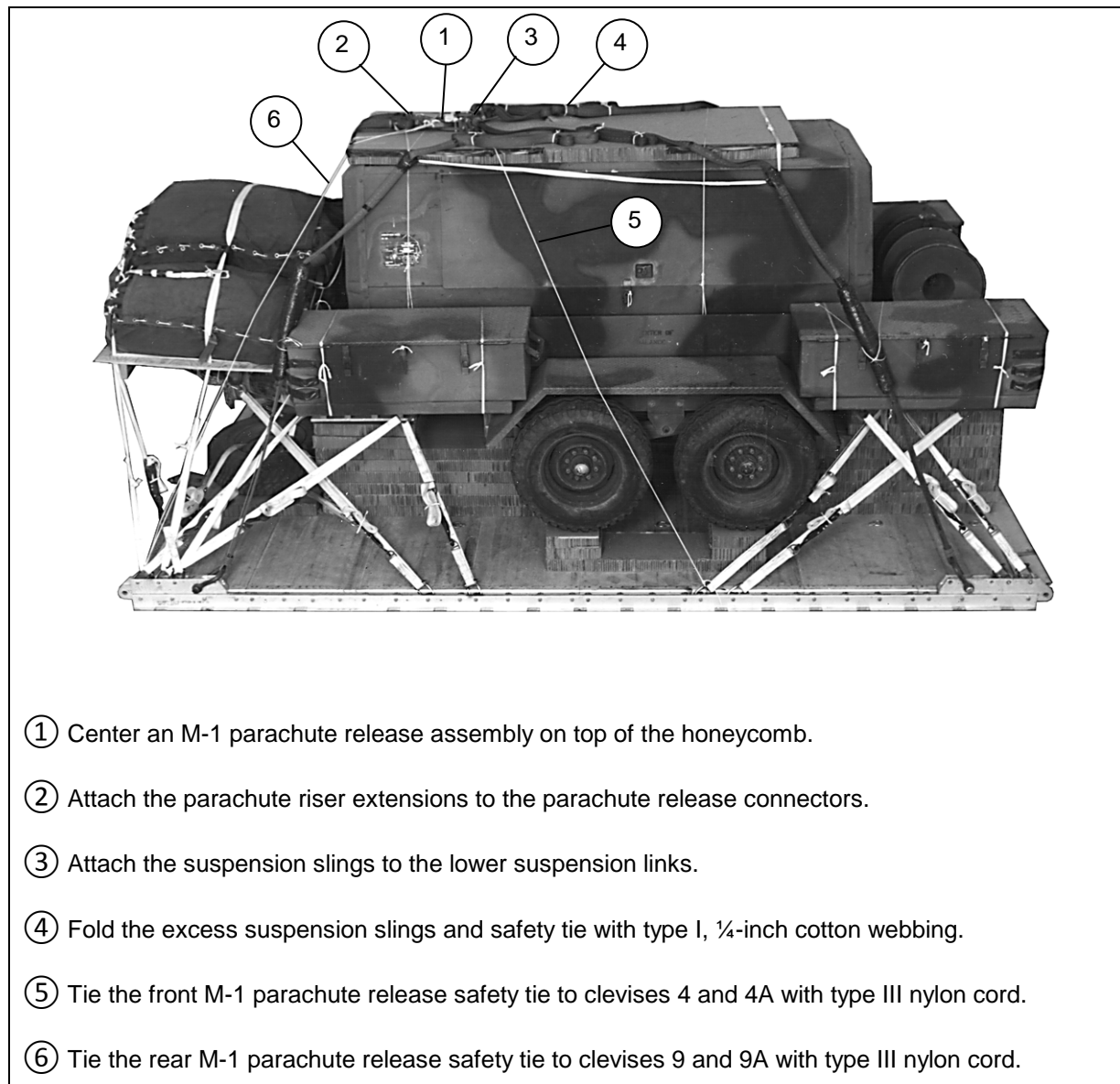


Figure 9-25. M-1 Parachute Release Installed

INSTALLING EXTRACTION SYSTEM

9-11. Install the extraction system as shown in Figure 9-26.

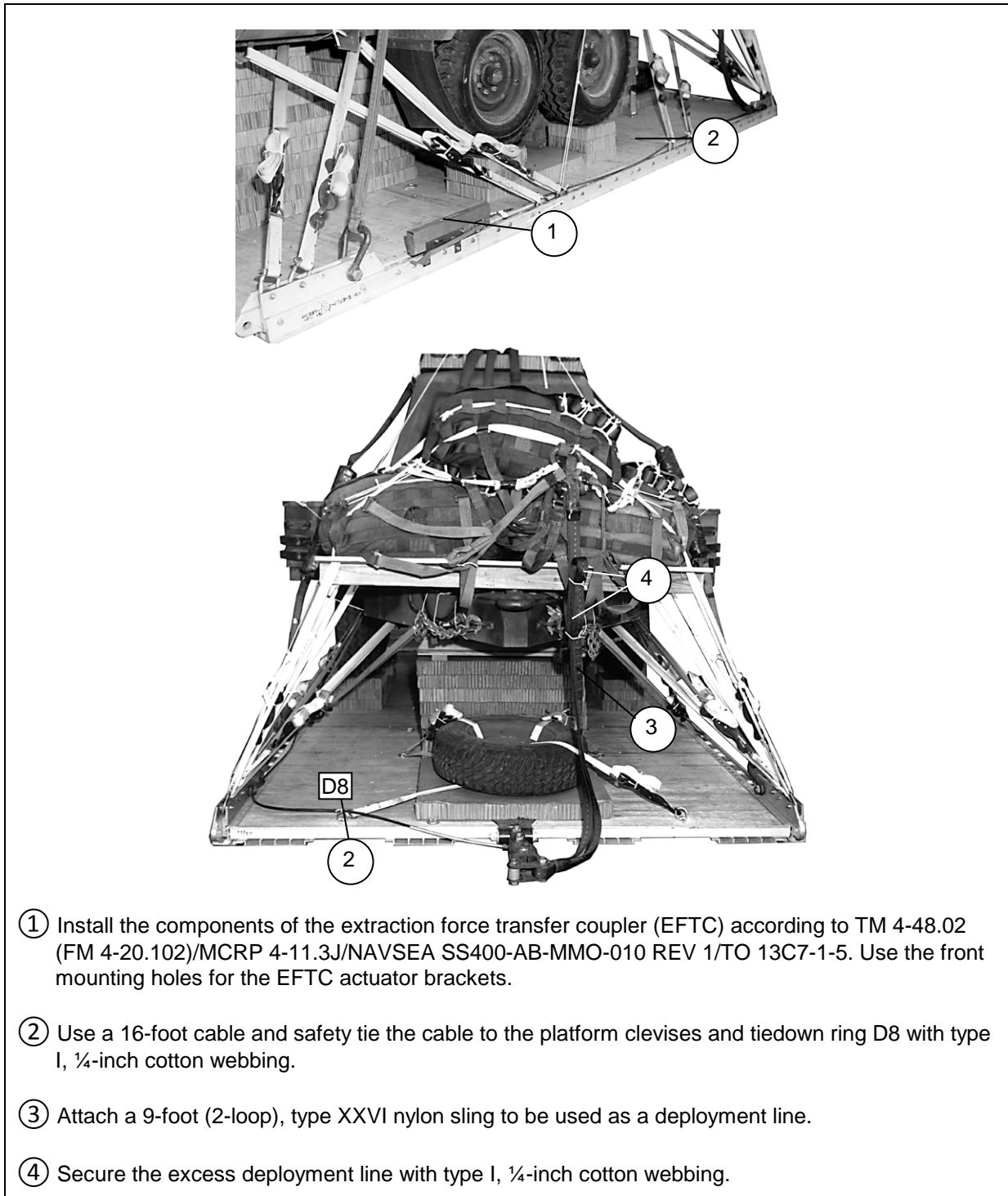


Figure 9-26. Extraction System Installed

Placing Extraction Parachute

9-12. Select the extraction parachute and extraction line needed using the extraction line requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Place the extraction parachute and line on the load for installation in the aircraft.

INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

9-13. Select and install the provisions for the emergency aft restraints according to the emergency aft restraint requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

MARKING RIGGED LOAD

9-14. Mark the rigged load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figure 9-26. Complete Shipper's Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, Center of Balance (CB), and parachute requirements must be recomputed.

EQUIPMENT REQUIRED

9-15. Use the equipment listed in Table 9-1 to rig this load.

CAUTION

Make the final rigger inspection required by AR 59-4 and TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 before the load leaves the rigging site.



Center of Balance (CB)

RIGGED LOAD DATA

Weight: Load Shown.....	10,100 pounds
Maximum Weight Load	10,500 pounds
Height.....	96 inches
Width.....	108 inches
Overall Length	214 ½ inches
Overhang: Front.....	0
Rear (Lunette).....	0 inches
Center of Balance (CB) (from front edge of the platform).....	94 ½ inches
Extraction System with 16-foot cable (adds 18 inches to the length of the load)	

Figure 9-27. Ingersol-Rand Model, 250-CFM, Trailer-Mounted Air Compressor Rigged on a 16-Foot, Type V Platform for Low-Velocity Airdrop

Table 9-1. Equipment Required for Rigging the Ingersol-Rand Model, 250-CFM, Trailer-Mounted Air Compressor on a 16-Foot, Type V Platform for Low-Velocity Airdrop

<i>National Stock Number</i>	<i>Item</i>	<i>Quantity</i>
8040-00-273-8713	Adhesive paste, 1-gal.	As required
1670-01-035-6054	Bridle, extraction line bag	1
4030-00-678-8562	Clevis, suspension, ¾-inch (medium)	6
4030-00-090-5354	Clevis, suspension, 1-inch (large)	8
4020-00-240-2146	Cord, nylon, type III, 550-lb	As required
1670-00-434-5785	Coupling, airdrop extraction force transfer, w/16-ft. cable	1
8135-00-664-6958	Cushioning material (Cellulose padding)	As required
8305-00-958-3685	Felt, ½-inch	As required
1670-01-183-2678	Leaf, extraction line (line bag) (add 2 for C-17)	2
	Line extraction:	
1670-01-062-6313	60-foot (3-loop), type XXVI (for C-130)	1
1670-01-107-7651	140-foot (3-loop), type XXVI (for C-17)	1
1670-01-064-4452	60-foot (1-loop), type XXVI (for C-17), (drogue line)	1
1670-00-783-5988	Link assembly, type IV (C-17 only)	1
1670-01-493-6418	Link assembly, small (3 ¾-inch):	2
	Lumber:	
5510-00-220-6274	2- by 4- by 96-inch	4
5315-00-010-4659	Nail, steel, common, 8D	As required
1670-00-753-3928	Pad, energy-dissipating (honeycomb)	18 sheets
1670-01-016-7841	Parachute, cargo, G-11B	3
	Parachute, cargo, extraction:	
1670-01-063-3716	22-foot	1
1670-01-063-3715	15-foot (C-17 only)	1
	Platform, airdrop, type V, 16-foot:	
1670-01-162-2372	Clevis assembly (type V)	14
1670-01-162-2376	Extraction bracket assembly	4
1670-01-162-2381	Tandem link assembly (Multipurpose link)	2
5530-00-129-7721	Plywood, 1/4-inch	1 sheet
5530-00-128-4981	Plywood, 1/2-inch	1 sheet
5530-00-128-4981	Plywood, 3/4-inch	3 sheets

Table 9-1. Equipment Required for Rigging the Ingersol-Rand Model, 250-CFM, Trailer-Mounted Air Compressor on a 16-Foot, Type V Platform for Low-Velocity Airdrop (continued)

<i>National Stock Number</i>	<i>Item</i>	<i>Quantity</i>
1670-01-097-8816	Release, cargo parachute, M-1	1
	Sling, cargo, airdrop:	
1670-00-753-3790	9-foot (2-loop), type XXVI	1
1670-01-063-6308	16-foot (4 loop), type XXVI	4
1670-01-062-6313	60-foot (3-loop), type XXVI	3
1670-00-040-8219	Strap, parachute, release, multi-cut	2
7501-00-266-5016	Tape, adhesive, 2-inch	As required
1670-00-937-0271	Tie-down assembly, 15-foot.	20
1670-01-483-8259	Link, Parachute, Connector (H-block) (C-17 only)	1
	Webbing:	
8305-00-268-2411	Cotton, 1/4-inch, type I	As required
8305-00-082-5752	Nylon, tubular, 1/2-inch	As required
8305-00-261-8585	Nylon, type VIII	As required
Legend:	gal= gallon, lb = pound, ft = feet, D = penny	

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Chapter 10

Rigging the Engineer Electrical Tool Outfit Trailer on a 12-Foot, Type V Platform for Low-Velocity Airdrop

DESCRIPTION OF THE LOAD

10-1. The trailer-mounted engineer electrical tool outfit (national stock number 5180-00-289-95690) (Figure 10-1) is rigged on a 12-foot, type V airdrop platform with one G-11 cargo parachute. The unriggered trailer weighs 2,720 pounds. The trailer is 147 inches long, 75 inches high, and 71 inches wide. Other trailer-mounted engineer electrical tool outfits may also be rigged for airdrop by adapting these procedures.

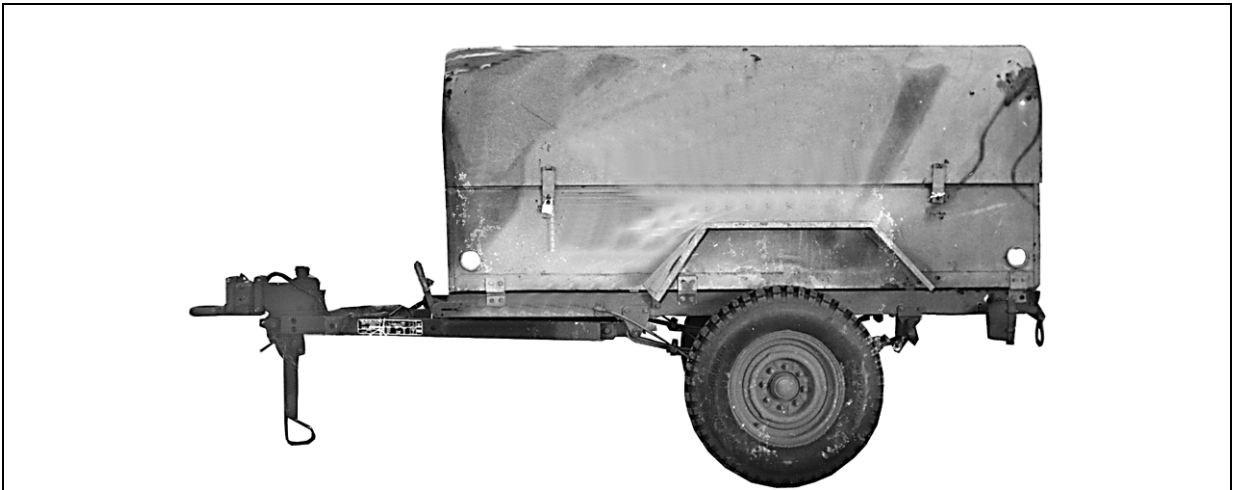


Figure 10-1. Trailer-Mounted Engineer Electrical Tool Outfit

PREPARING PLATFORM

10-2. Prepare a 12-foot, type V airdrop platform as shown in Figure 10-2.

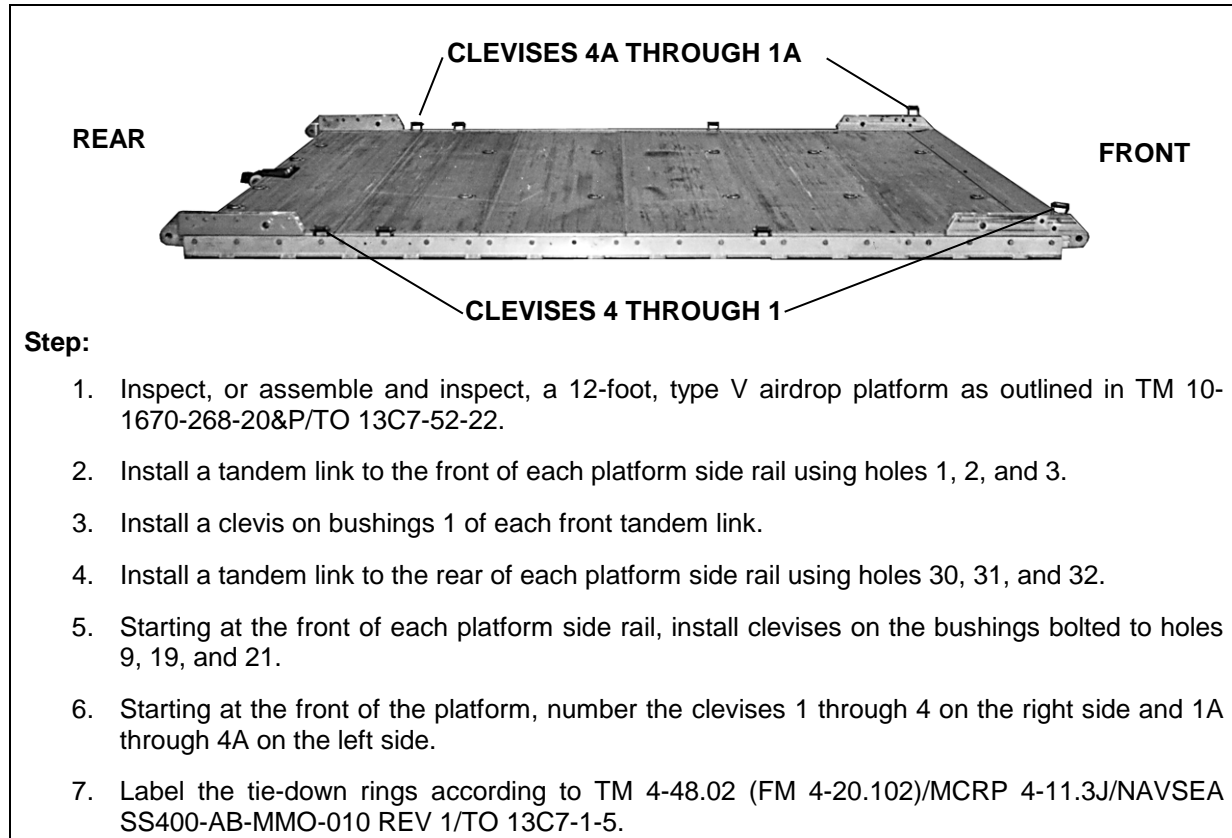
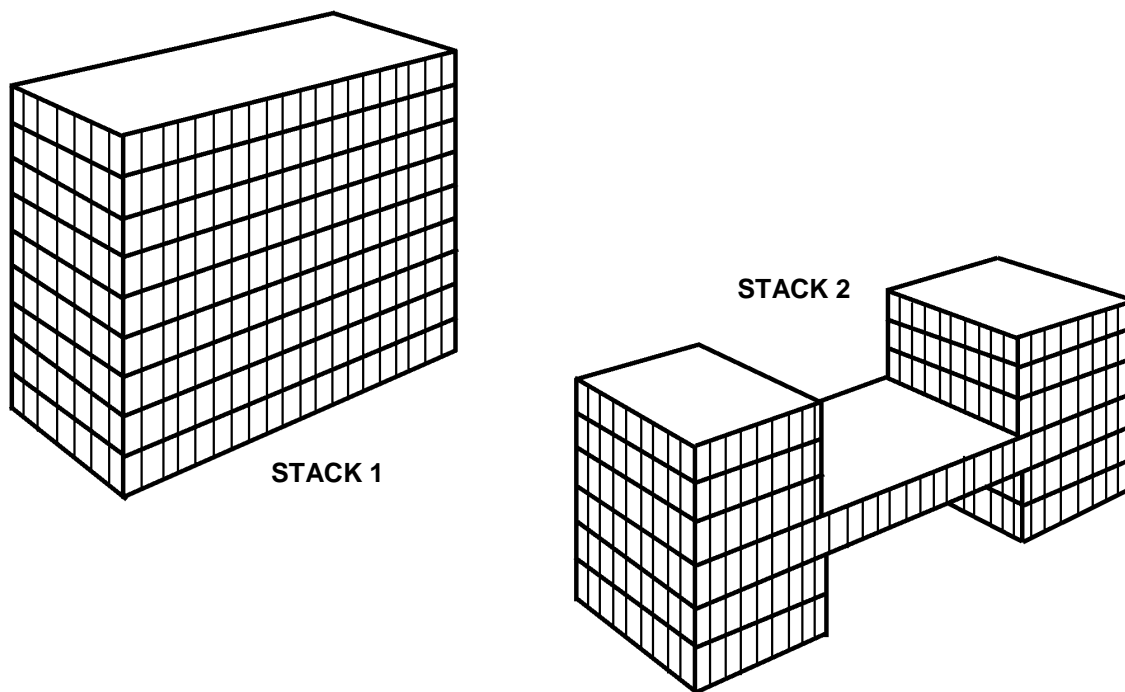


Figure 10-2. Platform Prepared

BUILDING AND POSITIONING HONEYCOMB STACKS

10-3. Build the honeycomb stacks as shown in Figures 10-3 and 10-4. Place the honeycomb stacks as shown in Figure 10-5.

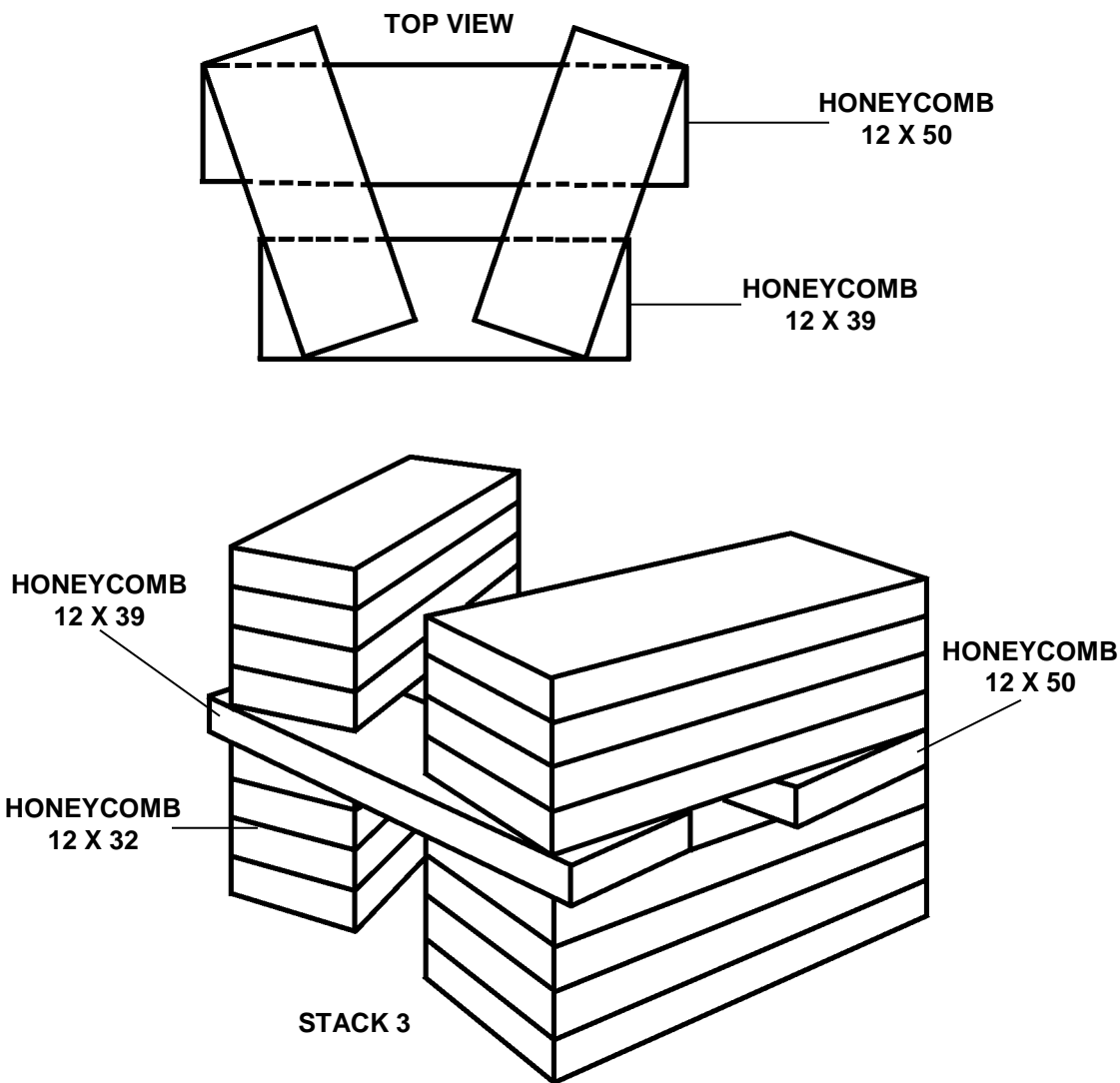
Note. This drawing is not drawn to scale.



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
1	9	12	36	Honeycomb	Glue to form a stack.
2	10	12	12	Honeycomb	Glue honeycomb flush.
	1	12	49	Honeycomb	Bridge the two stacks between the second and third layers as shown.

Figure 10-3. Honeycomb Stack 1 and 2 Built

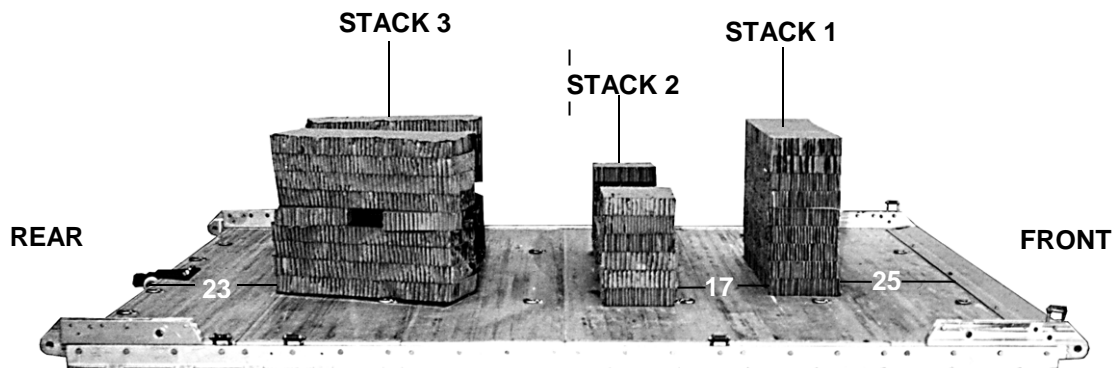
Notes. 1. All measurements are given in inches.
2. This drawing is not drawn to scale.



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
3	16	12	32	Honeycomb	Glue four stacks of four layers each. Place them at an angle as shown.
	1	12	39	Honeycomb	Bridge the two stacks between the fourth and fifth layers of honeycomb as shown.
	1	12	50	Honeycomb	Bridge the two stacks between the fourth and fifth layers of honeycomb as shown.

Figure 10-4. Honeycomb Stack 3 Built

Note. All measurements are given in inches.



Step:

1. Center stack one 25 inches from the front edge of the platform.
2. Center stack two 17 inches from the rear edge of stack one.
3. Center stack three 23 inches from the rear edge of the platform and the narrow part of the V facing the rear of the platform.

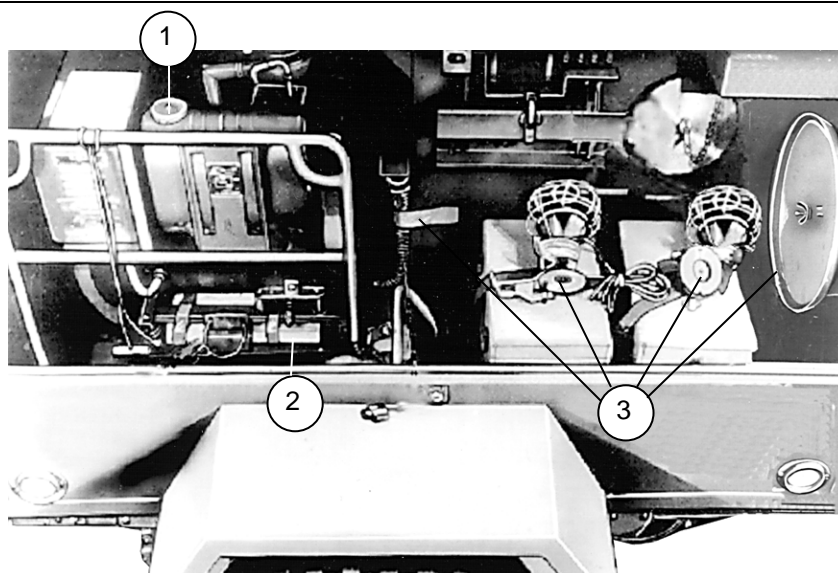
Figure 10-5. Honeycomb Stacks Positioned on Platform

PREPARING TRAILER

10-4. Prepare the trailer as shown in Figures 10-6 through 10-8.

CAUTION

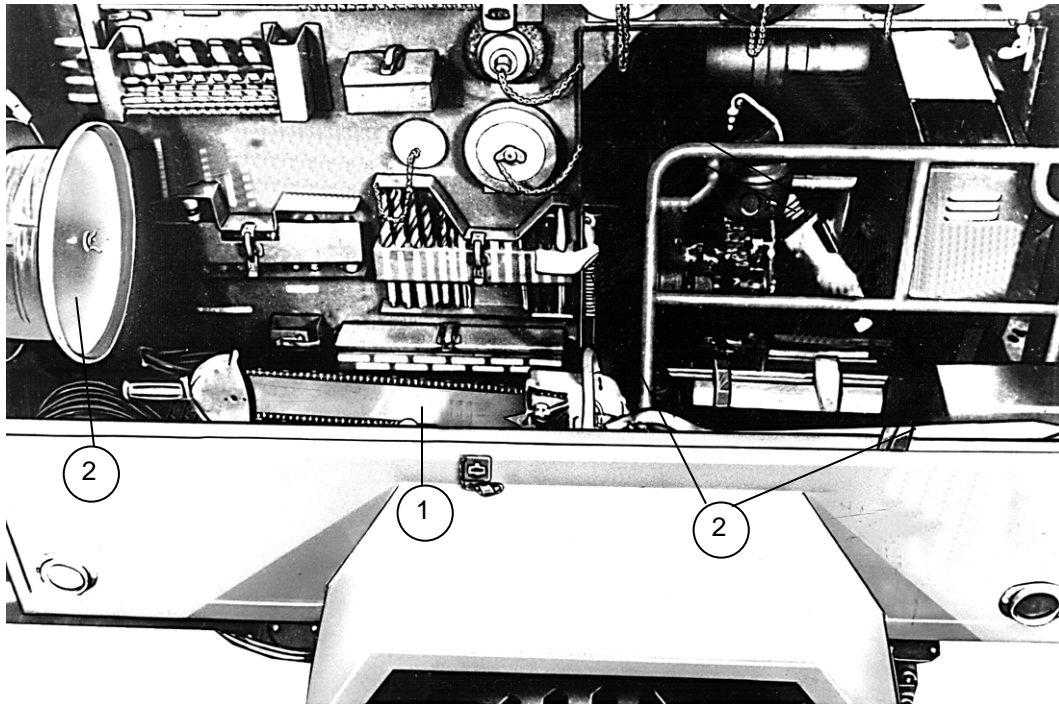
Package, mark, and label gasoline according to AFMAN 24-204 (I)/TM 38-250/NAVSUP PUB 505.MCOP4030.191/DLAI 4145.3



Note: Ensure the generator is bolted to the floor of the trailer. If the generator cannot be secured in this way, route a 15-foot lashing through each front tiedown ring and through its own D-ring. Route the lashing through each side of the generator frame. Secure the lashings with a D-ring and load binder. These lashings are shown in later pictures.

- ① Ensure the generator fuel tank is no more than three-fourths full.
- ② Position and tape two 2- by 4- by 15-inch pieces of lumber under the generator frame on the right and left sides.
- ③ Tape the nozzle, extension cables, and floodlights.
- ④ Tie the ground rods together with type III nylon cord, and place them in the storage area provided for long drill bits (not shown).

Figure 10-6. Right Side of Trailer Prepared



- ① Place the multipurpose saw on top of the circular saw. Secure it with a tiedown strap around the lower frame of the generator and through the handle of the circular saw.
- ② Tape the nozzle, extension cable, and survey stick.

Figure 10-7 Left Side of Trailer Prepared

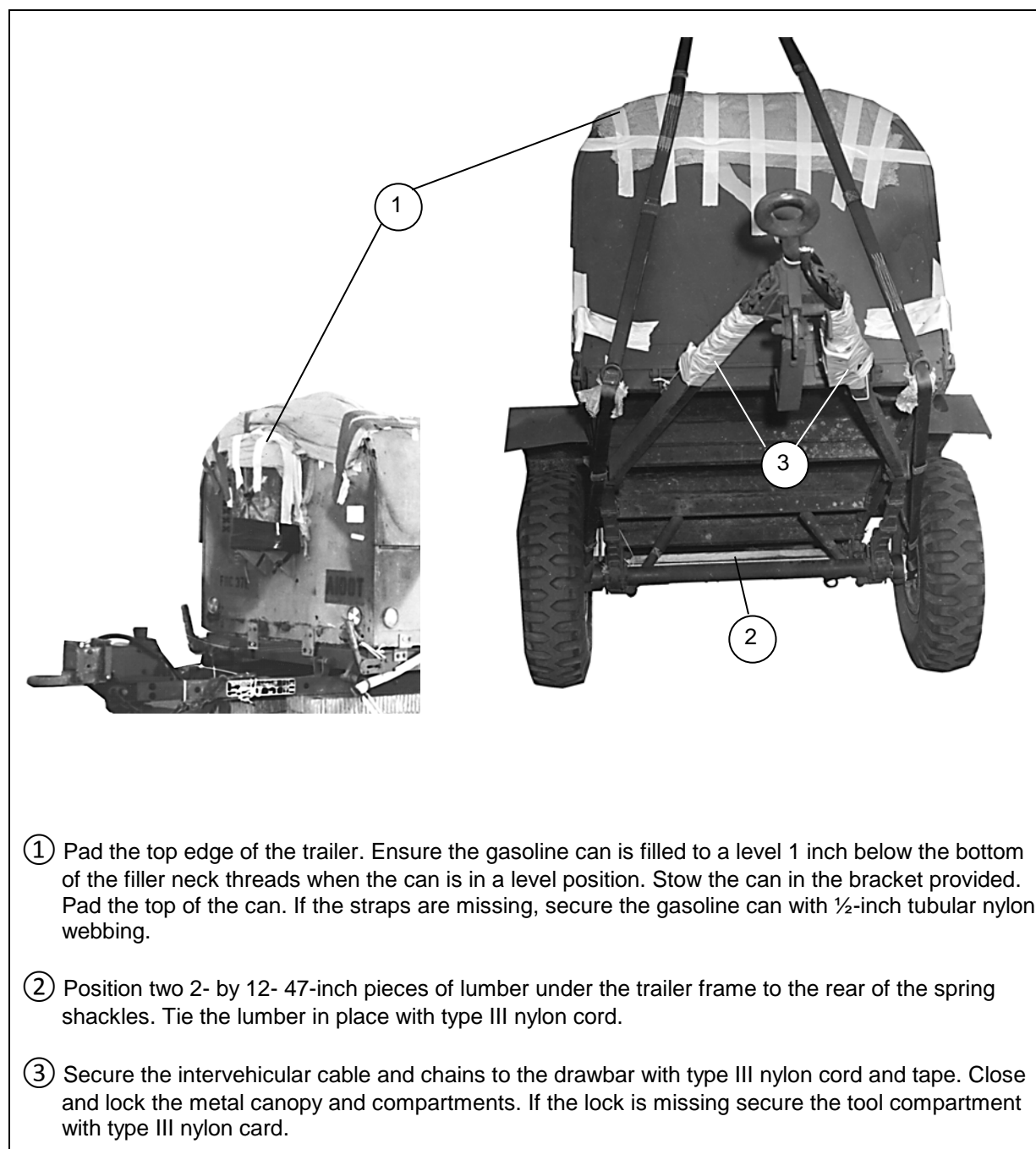


Figure 10-8. Outside of Trailer Prepared

LIFTING AND POSITIONING THE TRAILER

10-5. Install the lifting slings and position the trailer as shown in Figure 10-9.

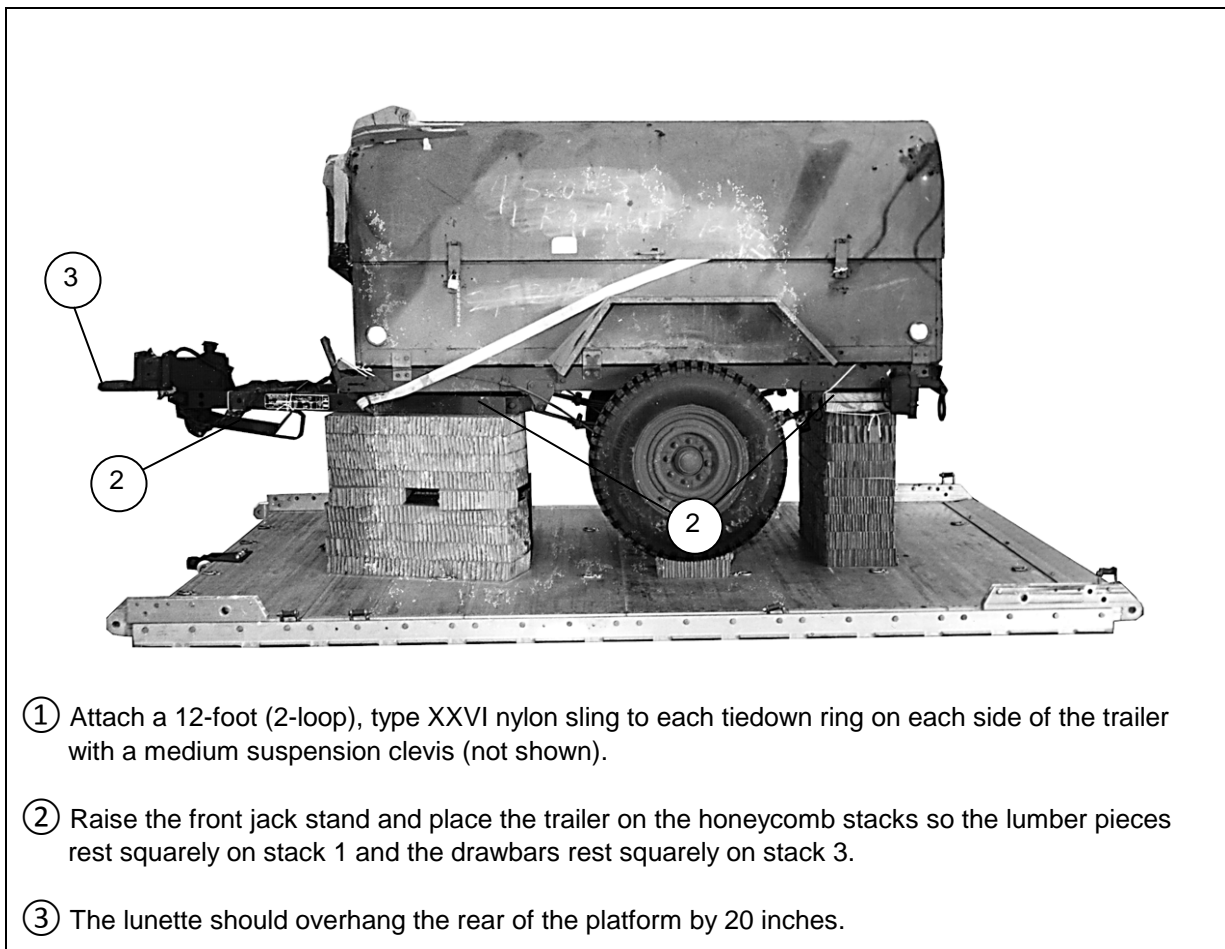


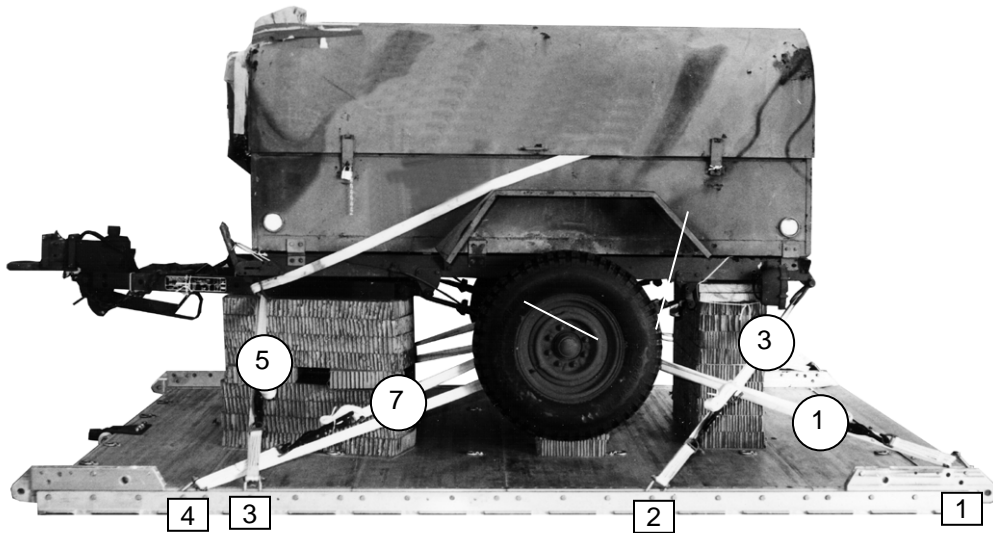
Figure 10-9. Trailer Lift Slings Installed

LASHING TRAILER TO PLATFORM

10-6. Lash the trailer to the platform according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figures 10-10.

Note. Pad any sharp edges on the load where a lashing may pass.

Note. Left, right, front, and rear refer to the trailer, NOT the platform.



Lashing Number	Tie-down Clevis Number	Instructions
1	1	Pass lashing:
2	1A	Around axle between shock absorber and spring, left side.
3	2	Around axle between shock absorber and spring, right side side.
4	2A	Through left rear tiedown provision.
5	3	Through right rear tiedown provision.
6	3A	Through left front tiedown provision.
7	4	Through right front tiedown provision.
8	4A	Around axle to right of shock absorber.
		Around axle to left of shock absorber.

Figure 10-10. Lashings 1 through 8 Installed

PREPARING THE PARACHUTE STOWAGE PLATFORM

10-7. Prepare and secure the parachute stowage platform as shown in Figure 10-11.

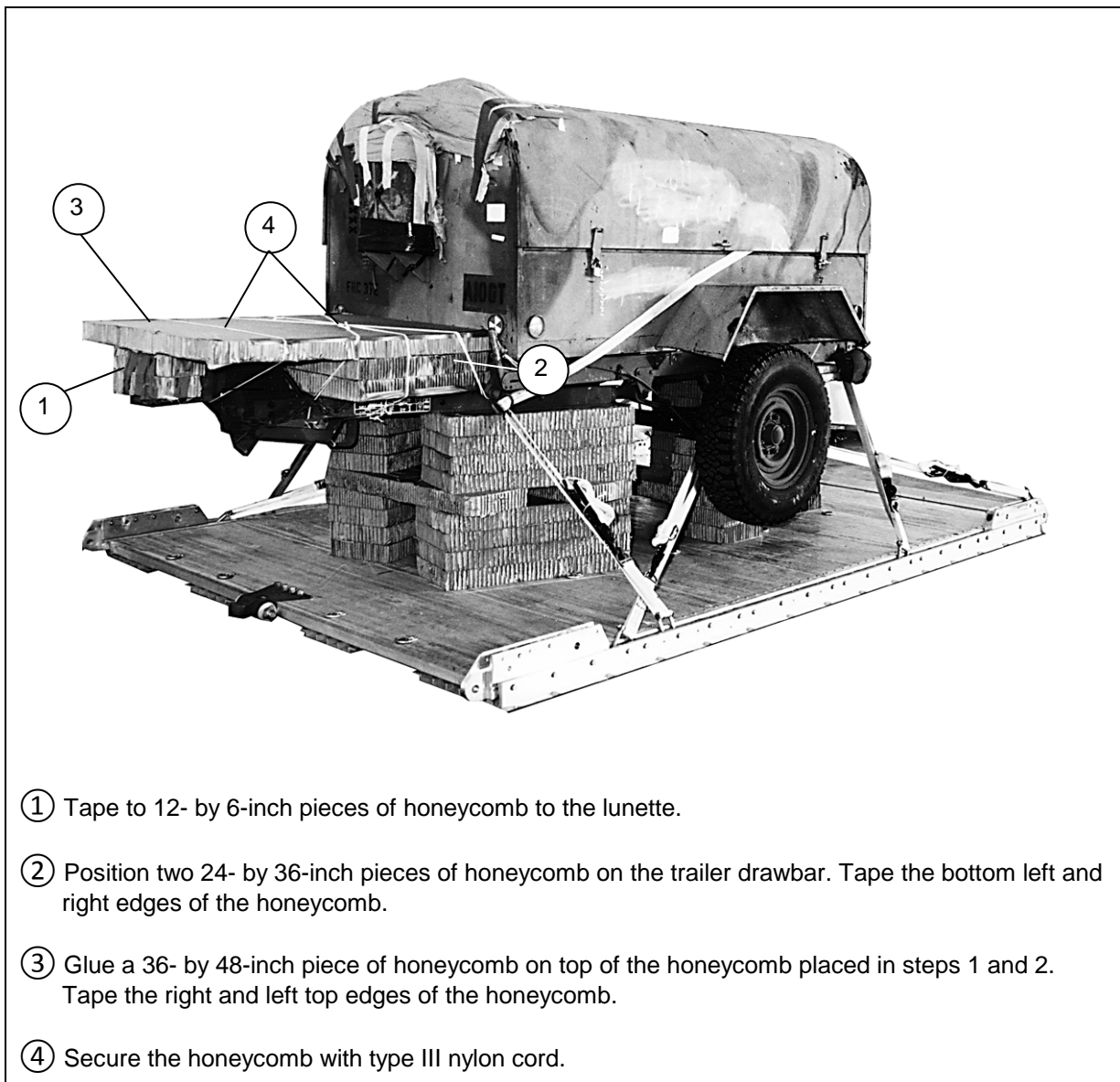


Figure 10-11. Parachute Stowage Platform Prepared and Positioned

INSTALLING AND SAFETY TIEING THE SUSPENSION SLINGS

10-8. Install and safety tie the suspension slings as shown in Figure 10-12.

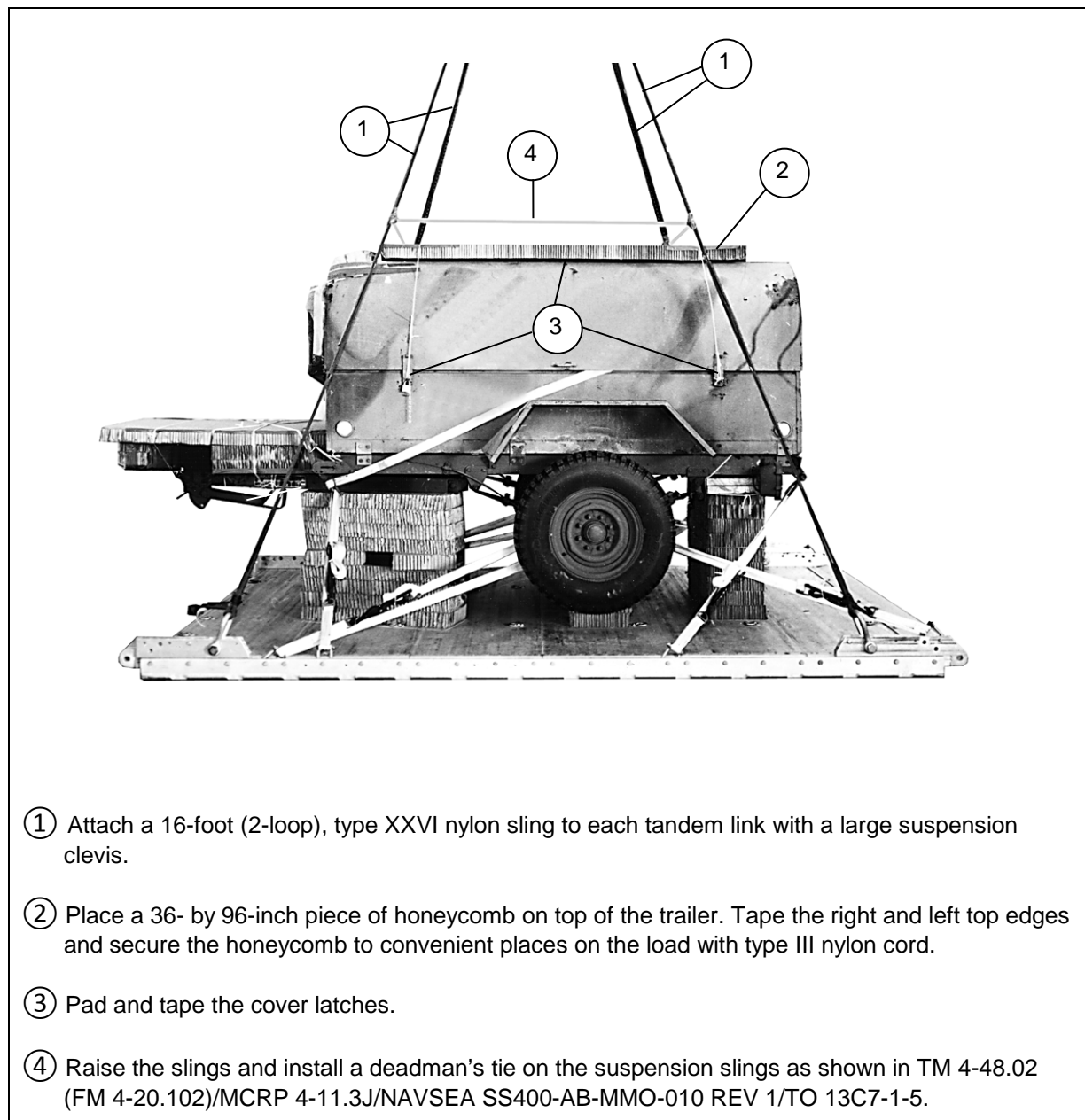
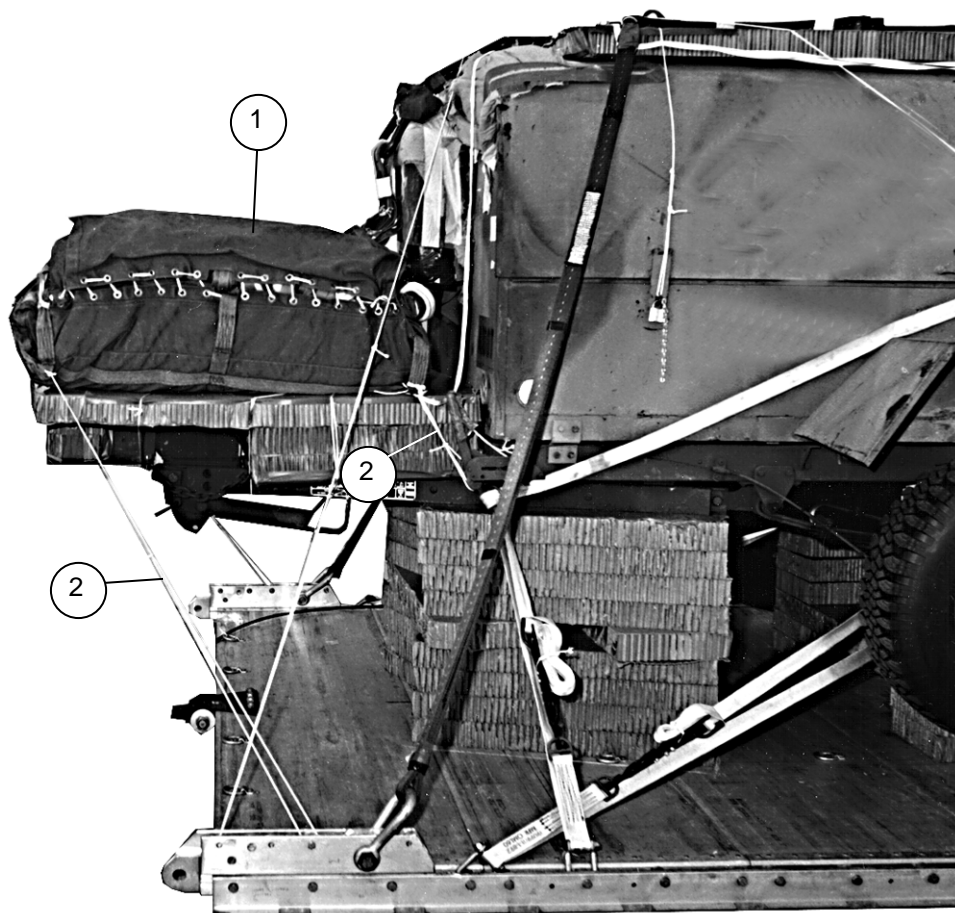


Figure 10-12. Suspension Slings Installed and Safety Tied

STOWING CARGO PARACHUTES

10-9. Prepare, stow, and restrain one G-11B cargo parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 10-13.

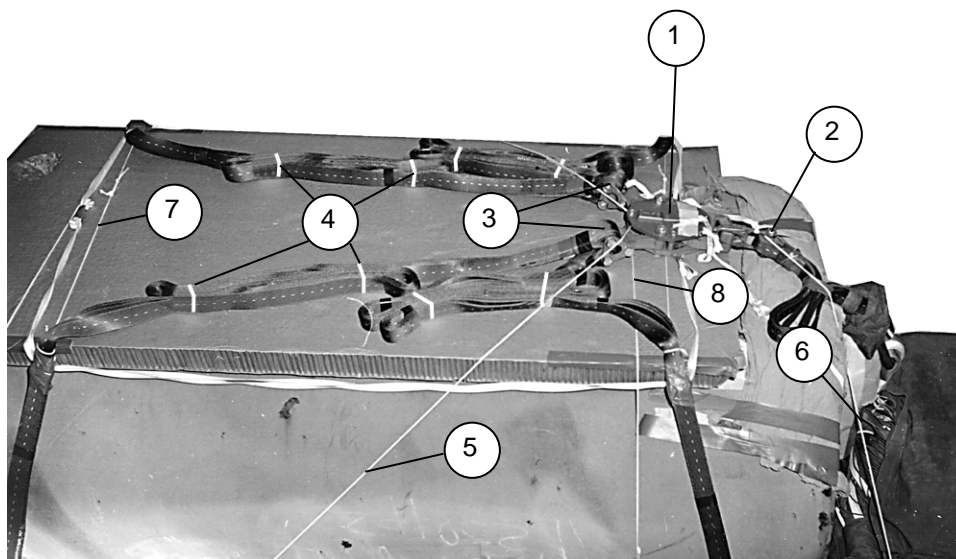


- ① Position a G-11B cargo parachutes on the parachute stowage platform according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.
- ② Secure the parachute with type III nylon cord from the front and rear carrying handles to a convenient place on the load.

Figure 10-13. Cargo Parachute Positioned and Restrained

INSTALLING PARACHUTE RELEASE SYSTEM

10-10. Prepare and install an M-1 parachute release system according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 10-14.



- ① Center an M-1 parachute release assembly on the top rear of the honeycomb.
- ② Attach the parachute riser extension to the parachute release connector.
- ③ Attach the suspension slings to the lower suspension links.
- ④ Fold the excess suspension slings and safety tie with type I, ¼-inch cotton webbing.
- ⑤ Tie the front M-1 parachute release safety tie to convenient points on the load with type III nylon cord.
- ⑥ Tie the rear M-1 parachute release safety tie to convenient points on the load with type III nylon cord.
- ⑦ Safety tie the front set of slings together just above the deadman's tie with type III nylon cord.
- ⑧ Safety tie the rear set of slings together just above the deadman's tie with type III nylon cord.

Figure 10-14. M-1 Parachute Release Installed

INSTALLING EXTRACTION SYSTEM

10-11. Install the extraction system as shown in Figure 10-15.

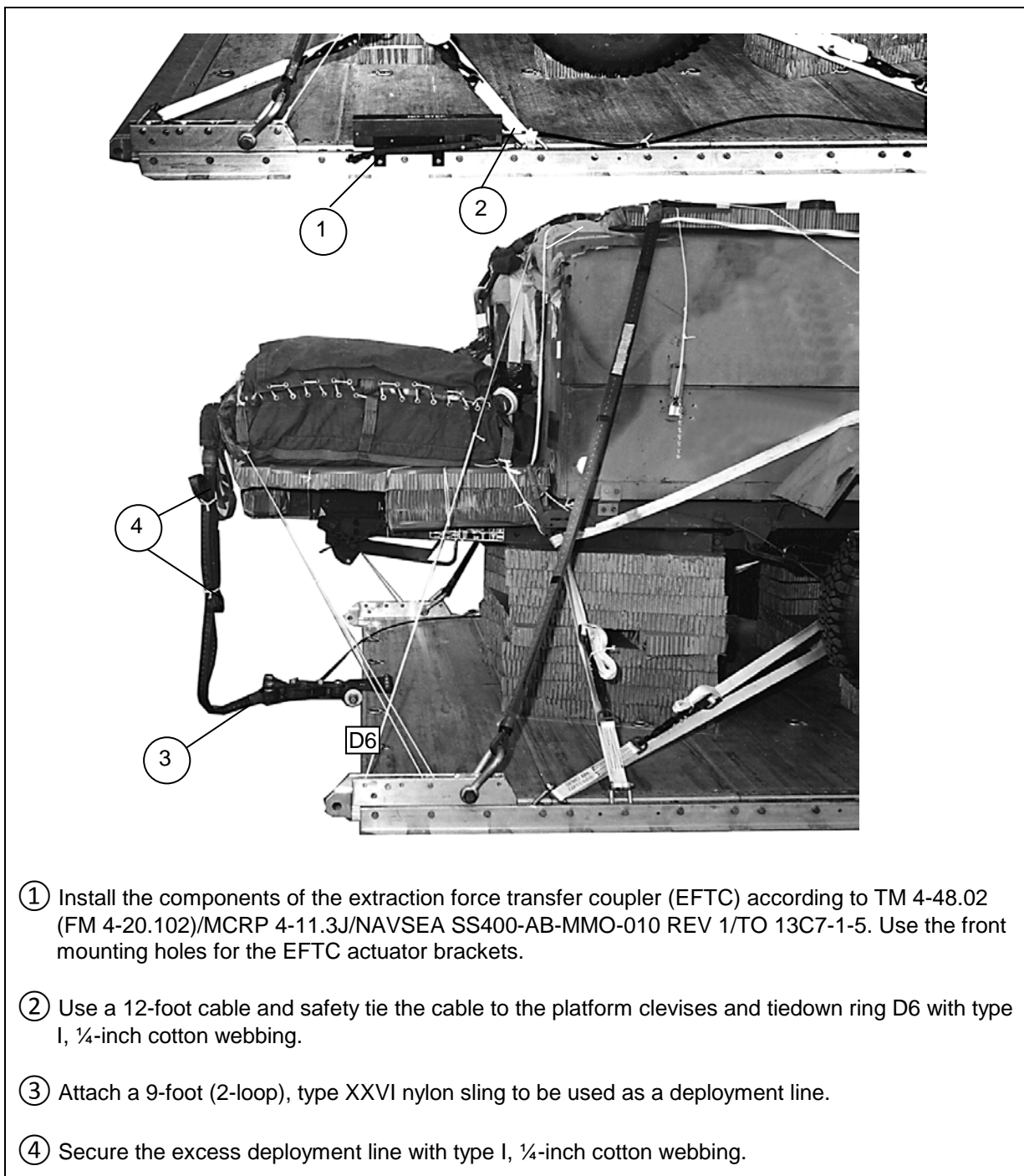


Figure 10-15. Extraction System Installed

PLACING EXTRACTION PARACHUTE

10-12. Select the extraction parachute and extraction line needed using the extraction line requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Place the extraction parachute and line on the load for installation in the aircraft.

INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

10-13. Select and install the provisions for the emergency aft restraints according to the emergency aft restraint requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

MARKING RIGGED LOAD

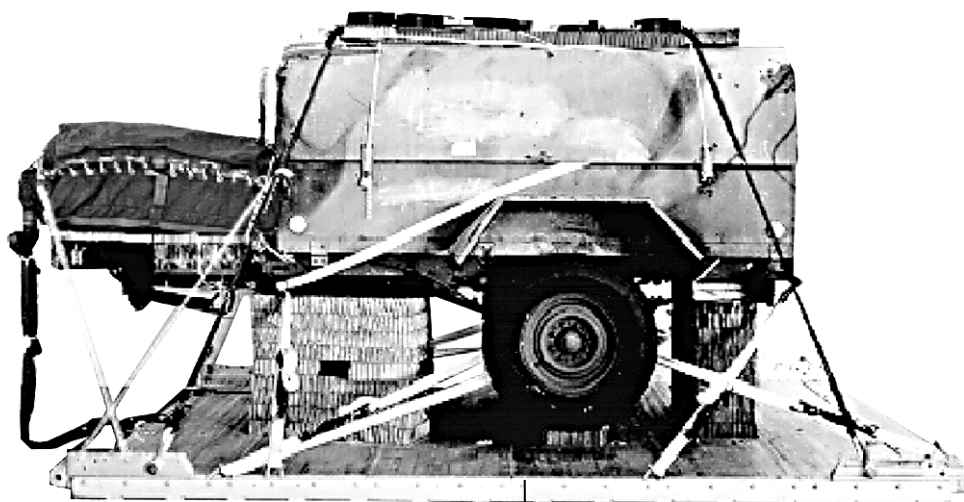
10-14. Mark the rigged load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figure 10-16. Complete Shipper's Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, Center of Balance (CB), and parachute requirements must be recomputed.

EQUIPMENT REQUIRED

10-15. Use the equipment listed in Table 10-1 to rig this load.

CAUTION

Make the final rigger inspection required by AR 59-4 and TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 before the load leaves the rigging site.



Center of Balance (CB)

RIGGED LOAD DATA

Weight: Load Shown.....	4,520 pounds
Maximum Weight Load	5,000 pounds
Height.....	82 inches
Width.....	108 inches
Overall Length	164 inches
Overhang: Front.....	0
Rear (Lunette).....	20 inches
Center of Balance (CB) (from front edge of the platform).....	72 inches
Extraction System with 12-foot cable (adds 0 inches to the length of the load)	

Figure 10-16. Trailer-Mounted Engineer Electrical Tool Outfit Rigged on a 12-Foot, Type V Platform for Low-Velocity Airdrop

Table 10-1. Equipment Required for Rigging the Trailer-Mounted Engineer Electrical Tool Outfit on a 12-Foot, Type V Platform for Low-Velocity Airdrop

<i>National Stock Number</i>	<i>Item</i>	<i>Quantity</i>
8040-00-273-8713	Adhesive paste, 1-gal.	As required
1670-01-035-6054	Bridle, extraction line bag	1
4030-00-678-8562	Clevis, suspension, ¾-inch (medium)	4
4030-00-090-5354	Clevis, suspension, 1-inch (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 (Cellulose padding)	As required
1670-01-183-2678	Leaf, extraction line (line bag) (add 2 for C-17)	2
	Line extraction:	
1670-01-062-6313	60-foot (3-loop), type XXVI (for C-130)	1
1670-01-107-7651	140-foot (3-loop), type XXVI (for C-17)	1
1670-01-064-4452	60-foot (1-loop), type XXVI (for C-17), (drogue line)	1
1670-00-783-5988	Link assembly, type IV (C-17 only)	1
1670-01-493-6418	Link assembly, small (3 ¾-inch):	1
	Lumber:	
5510-00-220-6274	2- by 4- by 96-inch	1
5510-00-220-6250	2- by 12- by 96-inch	1
1670-00-753-3928	Pad, energy-dissipating (honeycomb)	7 sheets
1670-01-016-7841	Parachute, cargo, G-11B	1
	Parachute, cargo, extraction:	
1670-01-063-3715	15-foot (add one for C-17 only)	1
	Platform, airdrop, type V, 12-foot:	
1670-01-162-2372	Clevis assembly (type V)	8
1670-01-162-2376	Extraction bracket assembly	1
1670-01-162-2381	Tandem link assembly (Multipurpose link)	4
1670-01-097-8816	Release, cargo parachute, M-1	1
	Sling, cargo, airdrop:	
1670-00-753-3790	9-foot (2-loop), type XXVI	1
1670-01-063-6308	16-foot (4 loop), type XXVI	4
1670-00-998-0116	Strap, parachute, release	1
7501-00-266-5016	Tape, adhesive, 2-inch	As required
1670-00-937-0271	Tie-down assembly, 15-foot.	10
1670-01-483-8259	Link, Parachute, Connector (H-block) (C-17 only)	1
	Webbing:	
8305-00-268-2411	Cotton, 1/4-inch, type I	As required
8305-00-082-5752	Nylon, tubular, 1/2-inch	As required
Legend:	gal= gallon, lb = pound, ft = feet	

Chapter 11

Rigging an M1101 Trailer with Load on a 12-Foot, Type V Platform for Low Velocity Air Drop

DESCRIPTION OF THE LOAD

11-1. The basic 120mm mortar system has already undergone air transport/air drop certification without the Quick Stow System (QSS). The basic M1101 Trailer has already undergone airdrop certification. The QSS consists of a hydraulic lift assembly and strut assembly that mounts on an M1101 series 1-Ton Cargo Trailer to assist in emplacing and displacing the 120-mm ground mounted mortar system and secure it for transport. The dimensions of the QSS are 79 inches in length, 47 inches in width and 33 inches in height and the QSS total weight is 550 lbs. The basic issue item for the QSS includes ammunition racks for stowage of 20 each 12-mm Mortar rounds on the M1101 Trailer during mortar operations. The total weight of the system mounted on the M1101 Trailer with the 120mm mortar system and the basic issue items without the 120-mm Mortar ammunition payload is approximately 2,600 pounds. The total weight of the system mounted on the trailer, with the 120-mm mortar system, the Basic Issue and with the full payload of 20 each 120mm Mortar rounds is 3,060 pounds. The total dimensions of the mounted system on the M1101 Trailer are length 156 inches, width 86 inches and height 69 inches. The trailer and mortar are shown in Figure 11-1.

CAUTION

Only ammunition listed in TM 4-48.16/MCRP 4-11.3B/TO 13C7-18-41 may be airdropped.

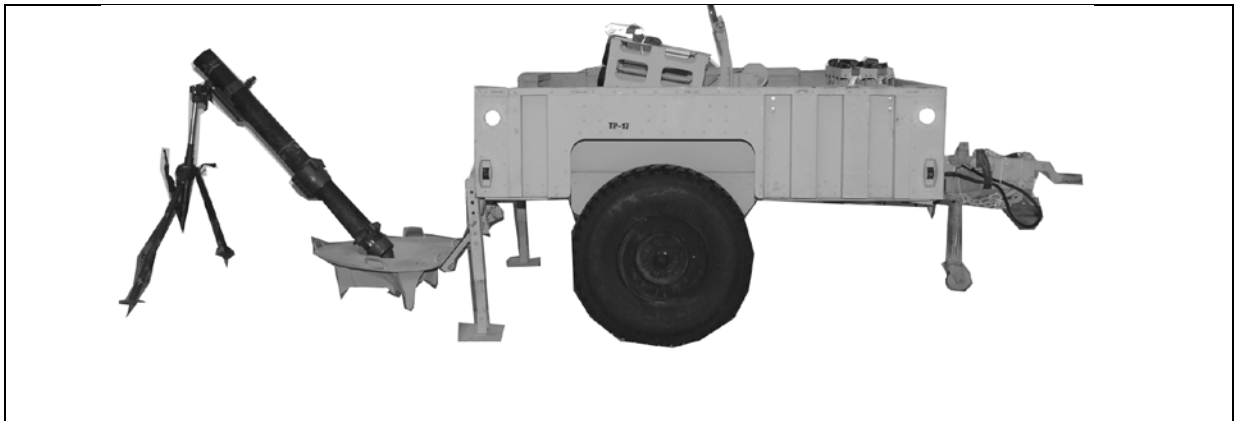


Figure 11-1. M1101 High Mobility Trailer, Light Variant (HMT-L) $\frac{3}{4}$ -Ton Trailer with Accompanying Load

PREPARING PLATFORM

11-2. Prepare a 12-foot, type V airdrop platform as shown in Figure 11-2.

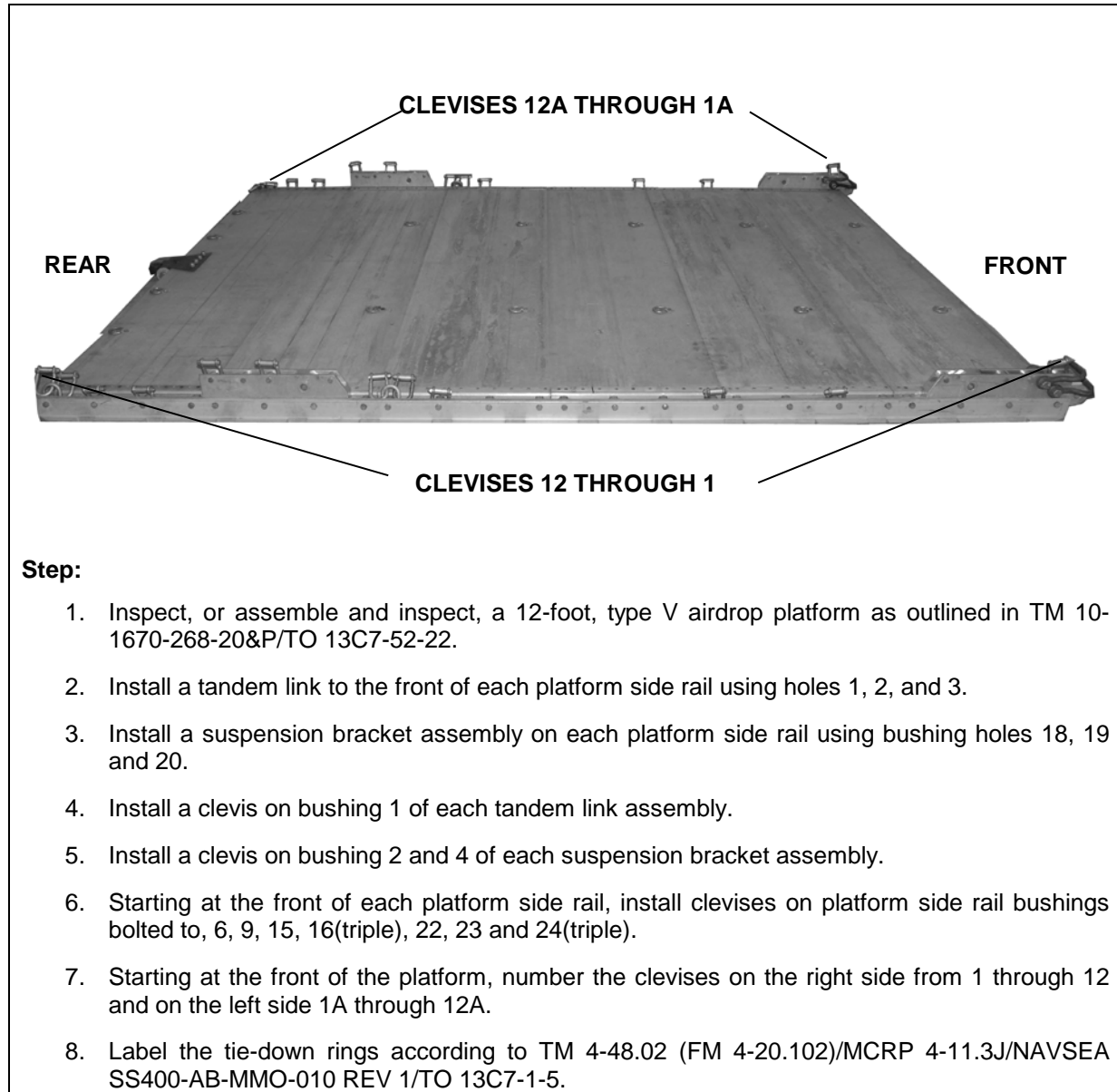
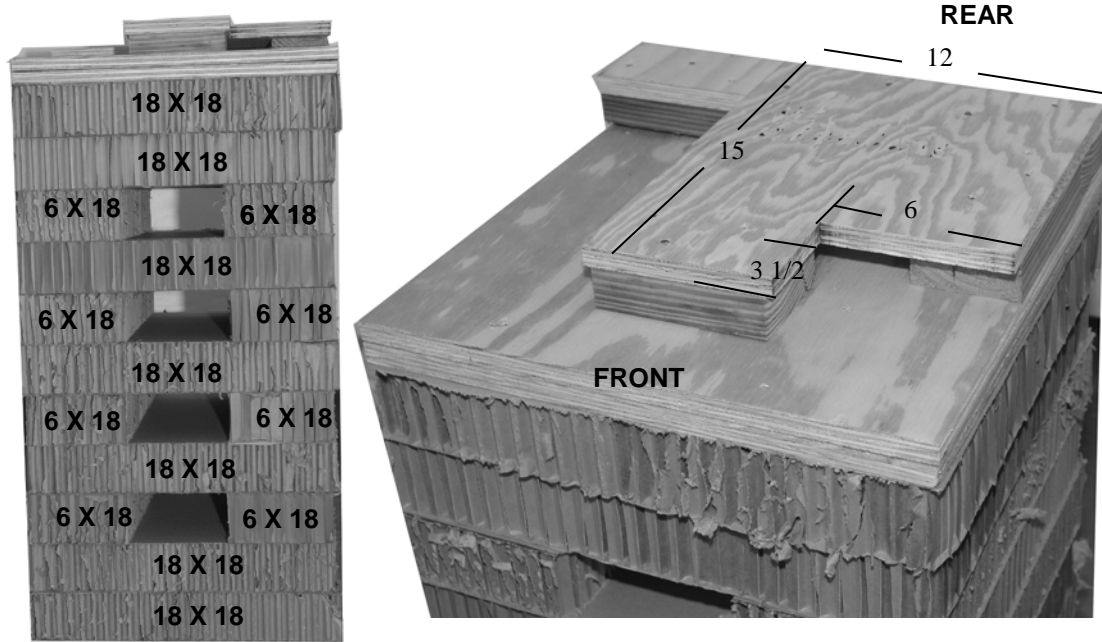


Figure 11-2. Platform Prepared

BUILDING AND POSITIONING HONEYCOMB STACKS

11-3. Build the honeycomb stacks as shown in Figures 11-3 through 11-6. Place the honeycomb stacks as shown in Figure 11-7.

Note. All measurements are given in inches.



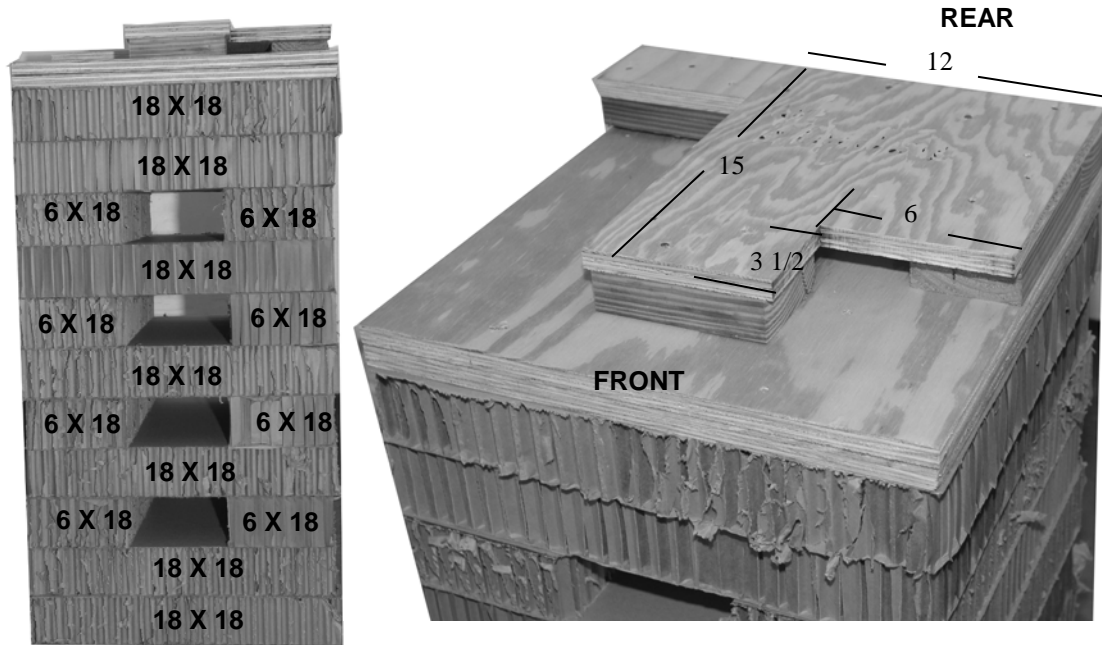
Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
1	7	18	18	Honeycomb	Form stack.
	8	6	18	Honeycomb	Form stack.
	2	18	18	3/4-inch plywood	Nail the pieces together.
	1		18	2- by 4-inch lumber	Nail this piece flush to the rear edge of the 18- by 18-inch pieces of plywood.
	1	12	15	3/4-inch plywood	Make a 3 1/2- by 6-inch cutout on the 15-inch side. This will now be referred to as the 11-inch side. Place it flush against the left and rear edges of the 18- by 2- by 4-inch lumber.

Figure 11-3. Honeycomb Stack 1 Built

Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
1	1	3 1/2	6	2- by 4-inch lumber	Insert flush under the front edge of the 15- by 12- by 3/4-inch plywood.
	1		6	3/4-inch plywood	Nail on top of the exposed portion of the 18- by 2- by 4-inch lumber.
	1		8	2- by 4-inch lumber	Place flush under the plywood on the right edge of the 18- by 18-inch plywood..

Figure 11-3. Honeycomb Stack 1 Built (Continued)

Note. All measurements are given in inches.



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
2	7	18	18	Honeycomb	Form stack.
	8	6	18	Honeycomb	Form stack.
	2	18	18	3/4-inch plywood	Nail the pieces together.
	1		18	2- by 4-inch lumber	Nail this piece flush to the rear edge of the 18- by 18-inch pieces of plywood.
	1	12	15	3/4-inch plywood	Make a 3 1/2- by 6-inch cutout on the 15-inch side. This will now be referred to as the 11-inch side. Place it flush against the left and rear edges of the 18- by 2- by 4-inch lumber.

Figure 11-4. Honeycomb Stack 2 Built

Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
2	1	3 1/2	6	2- by 4-inch lumber	Insert flush under the front edge of the 15- by 12- by 3/4-inch plywood.
	1		6	3/4-inch plywood	Nail on top of the exposed portion of the 18- by 2- by 4-inch lumber.
	1		8	2- by 4-inch lumber	Place flush under the plywood on the right edge of the 18- by 18-inch plywood..

Figure 11-4. Honeycomb Stack 2 Built (Continued)

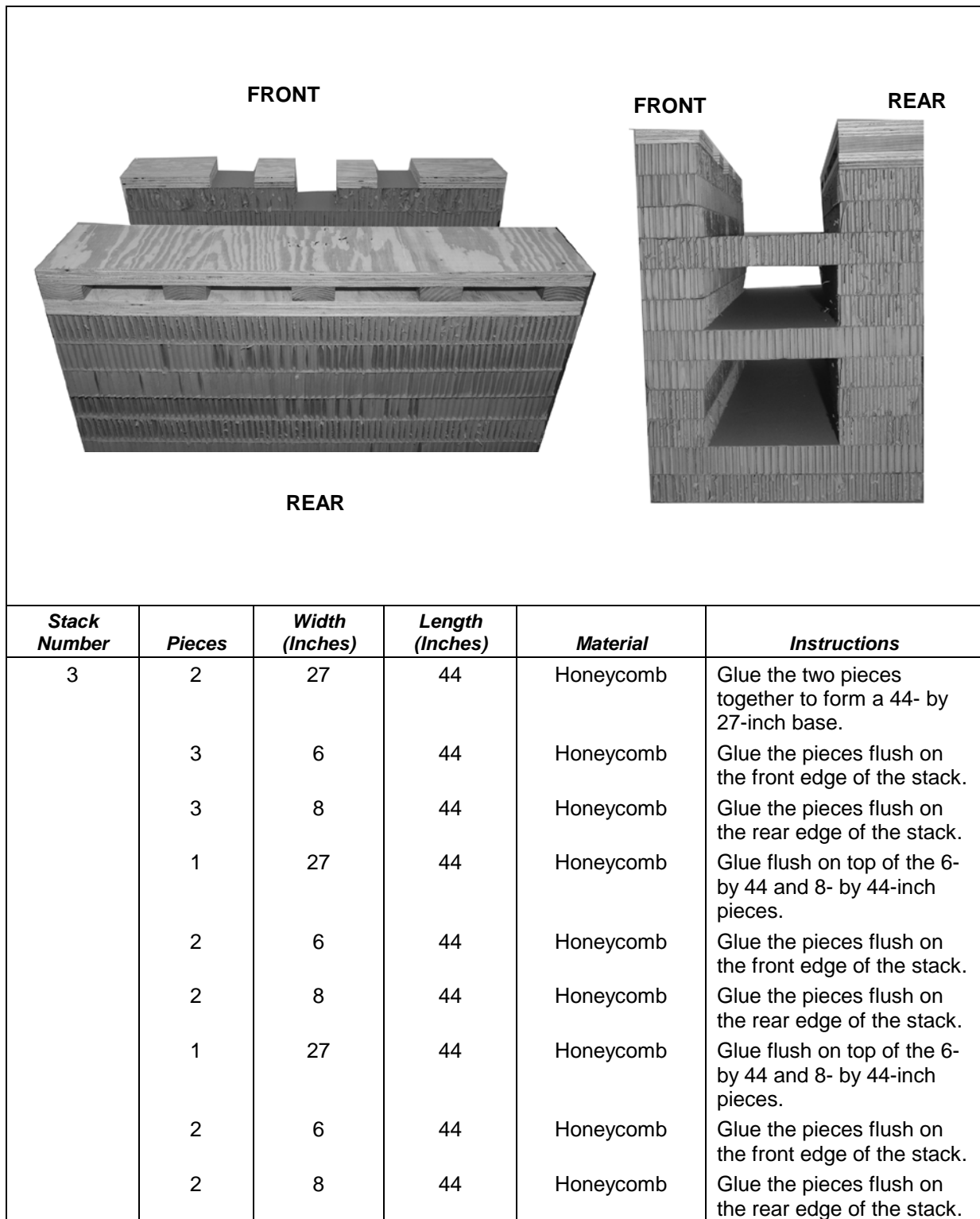
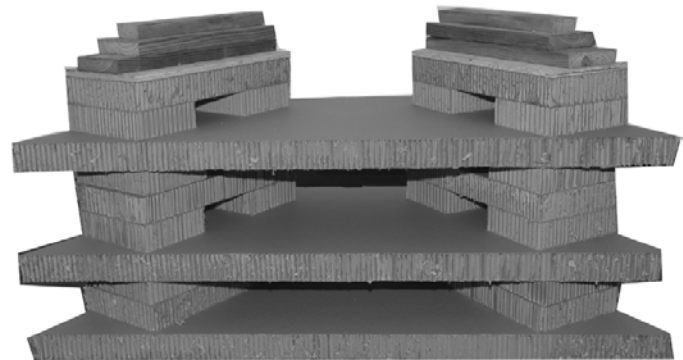
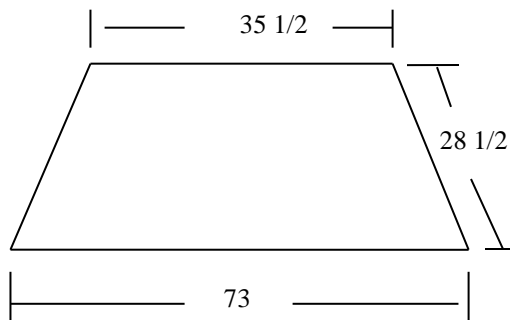


Figure 11-5. Honeycomb Stack 3 Built

Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
3	2	6	19 1/2	Honeycomb	Glue one piece flush on top of the 6- by 44-inch piece on the right side and the other piece on the left side.
	4	8	44	¾-inch plywood	Glue two pieces together to form a stack. Repeat the same step for a second stack.
	5		8	2- by 4-inch lumber	Nail a 2- by 4- by 8-inch piece of lumber flush along each 8-inch side of one of the ¾ -by 44 by 8-inch plywood stack previously built. Nail the remaining three pieces of lumber evenly spread between the two pre-positioned pieces of lumber. Nail the remaining 44 by 8 by ¾-inch plywood stack on top of the five pieces of lumber. Glue the completed plywood stack flush on top of the 44 by 8-inch pieces of honeycomb.
	4	6	10	¾-inch plywood	Glue two pieces together to form a stack. Repeat same step to for a second stack. Glue one stack on top of one 19 ½-inch piece of honeycomb flush on the outside edge. Repeat same step for the second plywood stack on the opposite side.
	4	6	4 1/2	¾-inch plywood	Glue two pieces together to form a stack. Repeat the same step for a second stack. Glue flush on inside edge of the 19 ½-inch pieces of honeycomb.

Figure 11-5. Honeycomb Stack 3 Built (Continued)

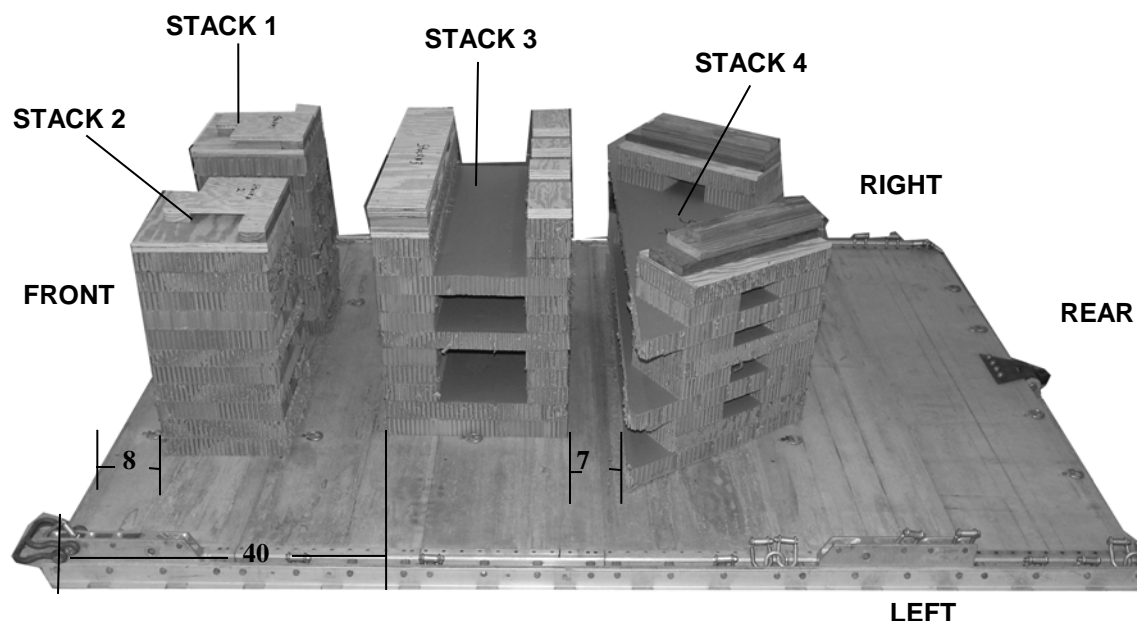
- Notes.** 1. All measurements are given in inches.
2. This drawing is not drawn to scale.



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
4	3	28 1/2	73	Honeycomb	Cut three pieces as shown above. One piece will become the base for the stack.
	16	9	12	Honeycomb	Glue as shown above.
	6	12	26	Honeycomb	Glue as shown above.
	2	12	26	3/4-inch plywood	Nail a 2-by 8-by 26-inch piece of lumber flush and centered to a 12- by 26-inch piece of plywood.
	2		26	2- by 8-inch lumber	Nail a 2-by 8-by 26-inch piece of lumber flush with the front edge of the 2- by 8- by 26-inch piece of lumber.
	2		23	2- by 8-inch lumber	Nail a 2-by 4-by 21 1/2-inch piece of lumber flush with the front edge and centered on the 2- by 8- by 23-inch piece of lumber.
	2		21 1/2	2- by 4-inch lumber	Repeat for a second piece. Glue each wooden stack to the last 12-by 26-inch pieces of honeycomb.

Figure 11-6. Honeycomb Stack 4 Built

Note. All measurements are given in inches.



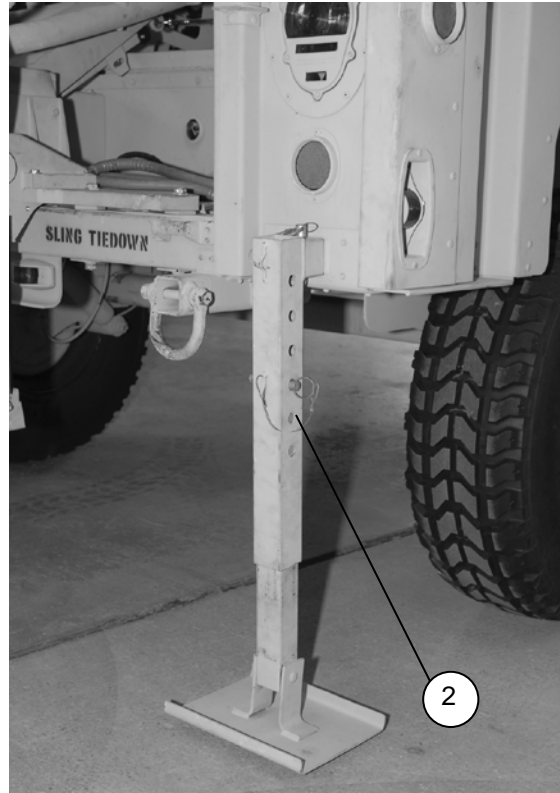
Step:

1. Position honeycomb stack 1, 8 inches from the front edge of the platform and 22 inches from the right side of the platform.
2. Position honeycomb stack 2, 8 inches from the front edge of the platform and 19 inches to the side of honeycomb stack 1.
3. Position honeycomb stack 3, 40 inches from the front edge of the platform and centered.
4. Position honeycomb stack 4, 7 inches from honeycomb stack 3 and centered.

Figure 11-7. Honeycomb Stacks Positioned on Platform

PREPARING TRAILER

11-4. Prepare the trailer as shown in Figures 11-8 through 11-16.



- ① Lower the front support leg (not shown).
- ② Remove the rear trailer support legs from their stowage racks at the front of the trailer and install at the rear of the trailer.
- ③ Engage the parking brakes in the down position at the front of the trailer (not shown).
- ④ Tape all lights and reflectors using 2-inch masking tape (not shown).
- ⑤ Remove the ammunition rack covers and secure them in the BII box (not shown).
- ⑥ Secure the BII box latches using type III nylon cord (not shown).
- ⑦ Safety-tie the chain hooks to themselves using a length of type III nylon cord. Secure the excess chain to the trailers drawbar frame to remove all slack (not shown).
- ⑧ Pad the electrical cable coupler with cellulose wadding and tape using 2-inch masking tape. Secure the coupler to the drawbar frame using a length of type III, nylon cord (not shown).

Figure 11-8. Trailer Prepared

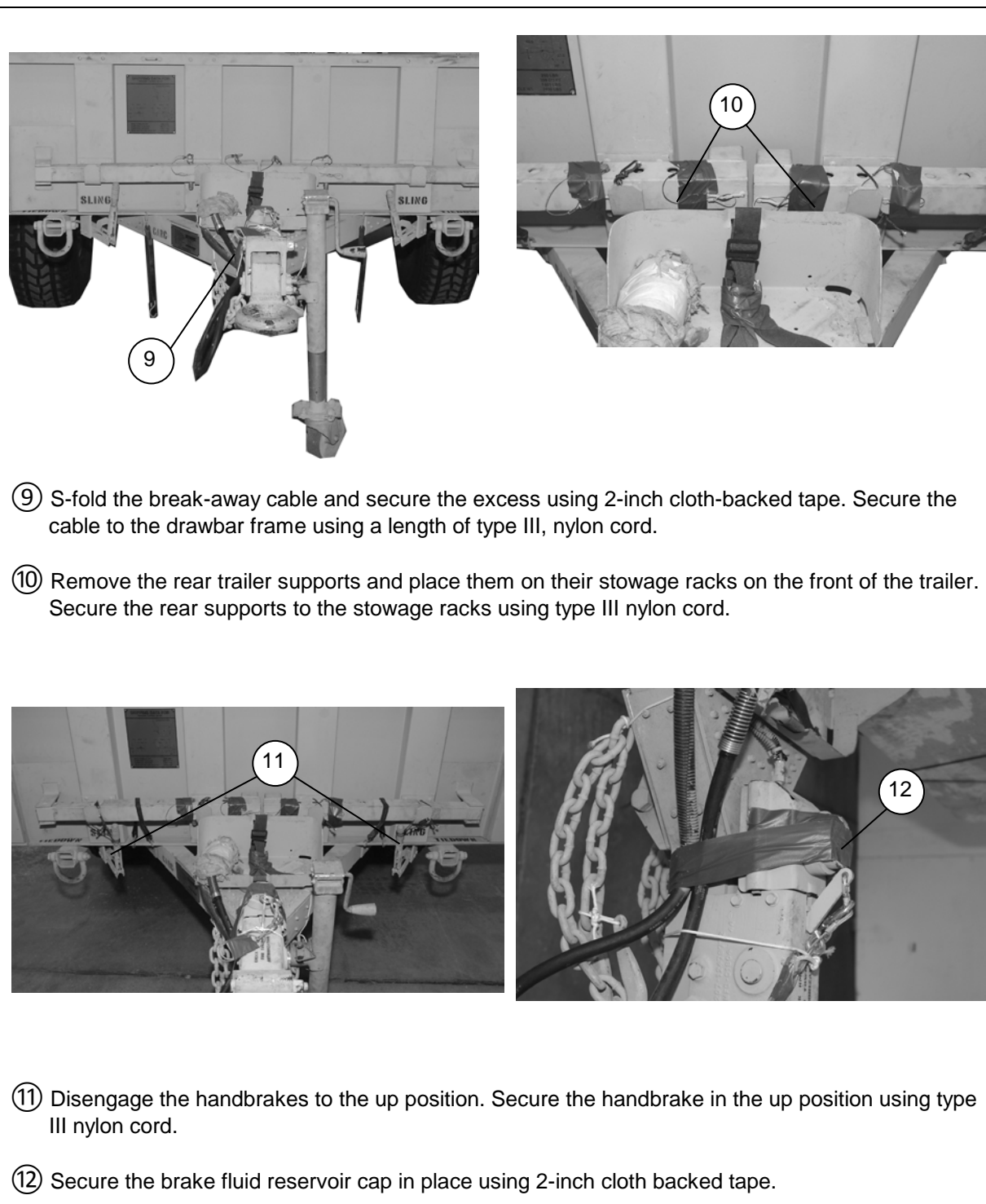
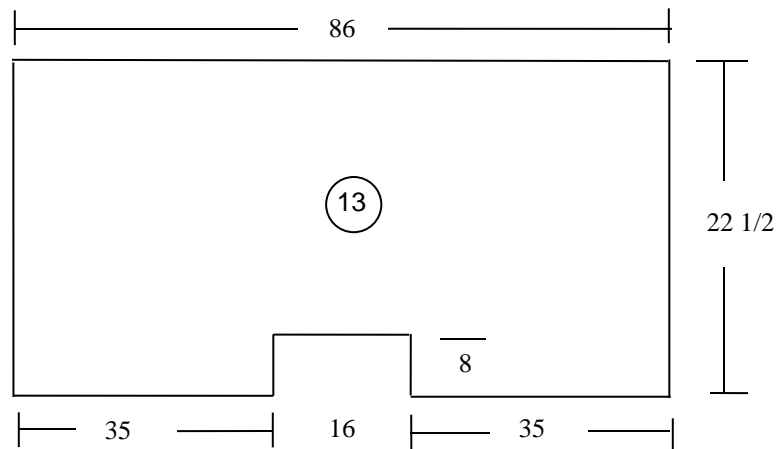
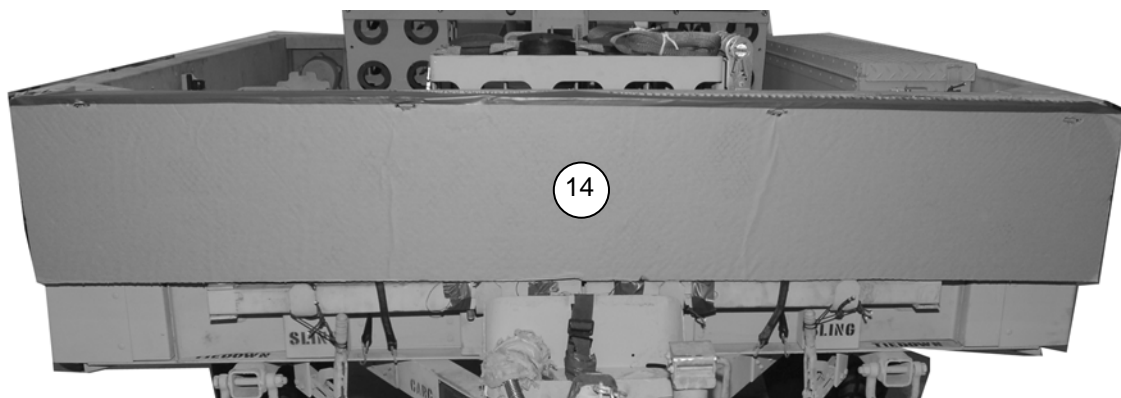


Figure 11-8. Trailer Prepared (Continued)

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

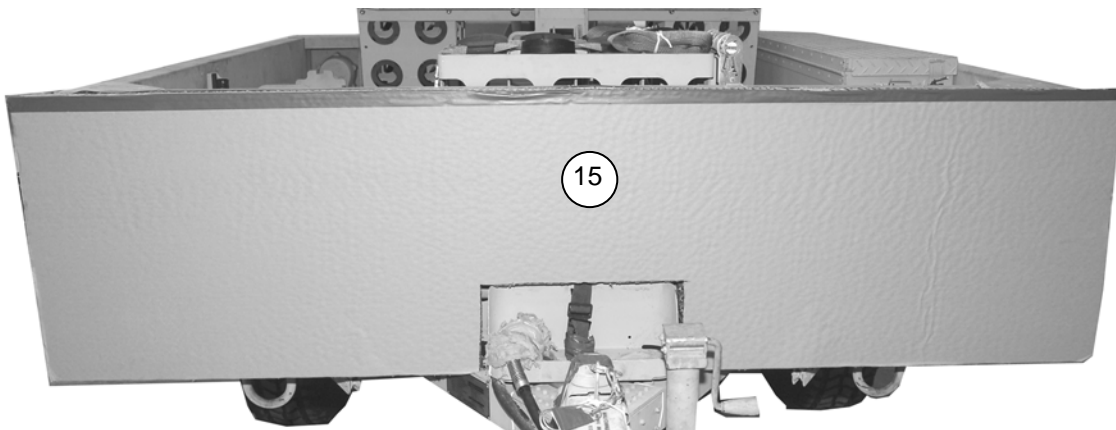


- ⑬ Cut a 14- by 86-inch piece of honeycomb. Cut a 22 ½- by 86-inch piece of honeycomb and make cutouts as shown above. Cut a 22 ½- by 86- by ¾-inch piece of plywood and make cutouts as shown above.

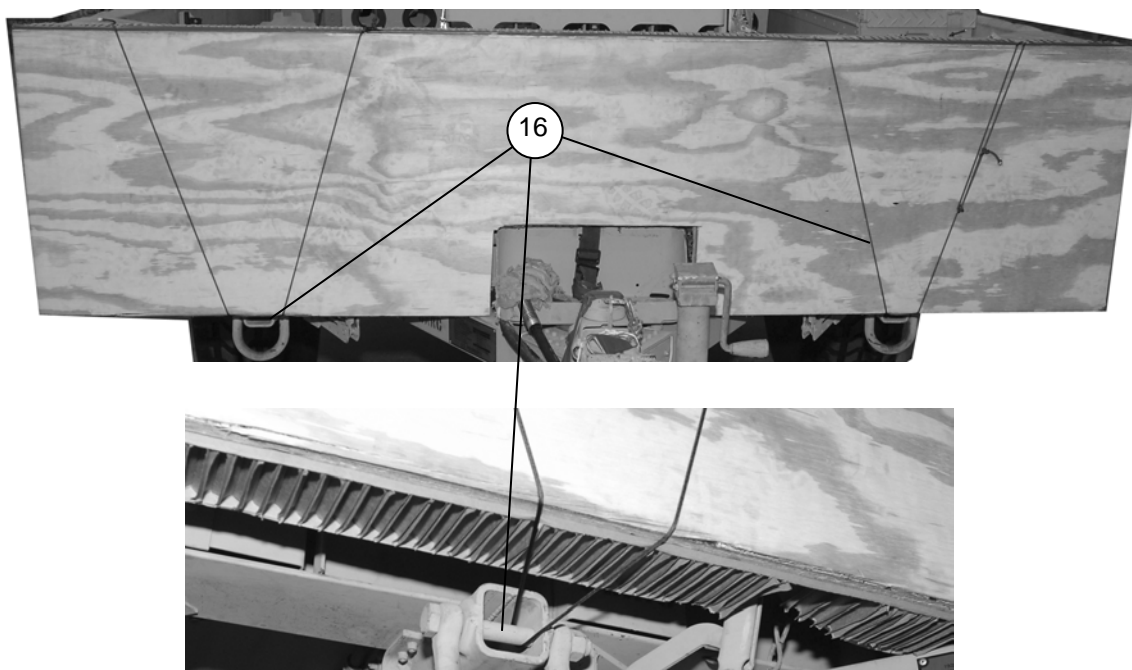


- ⑭ Position the 14- by 86-inch honeycomb piece against the front of the trailer.

Figure 11-8. Trailer Prepared (Continued)

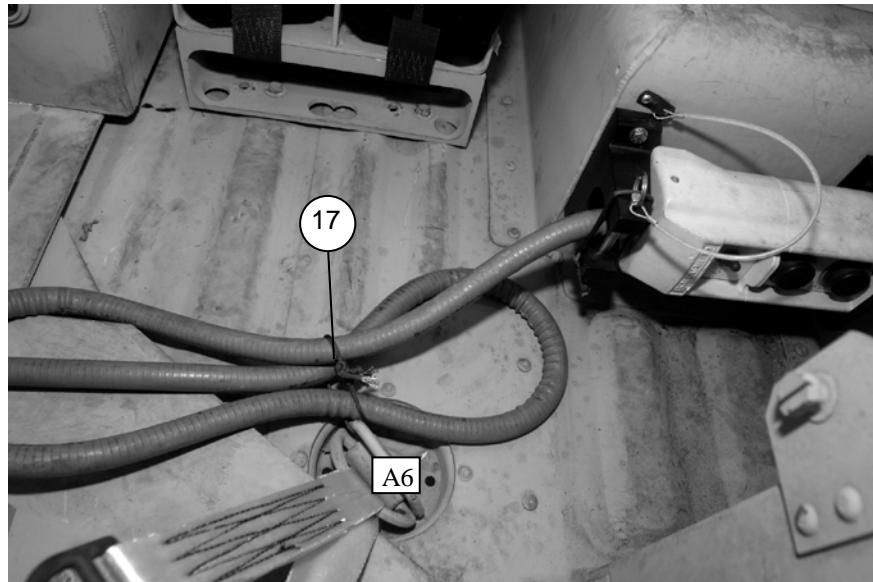


- ⑮ Position the 22 ½- by 86-inch piece of honeycomb in front of the first piece of honeycomb.



- ⑯ Position the 22 ½- by 86- by ¾-inch piece of plywood piece in front of the second honeycomb piece. Secure the pieces to the trailer in several places using several lengths of type III nylon cord.

Figure 11-8. Trailer Prepared (Continued)



- ⑰ Roll the Pendant Assembly cable and secure it to deck ring A6.

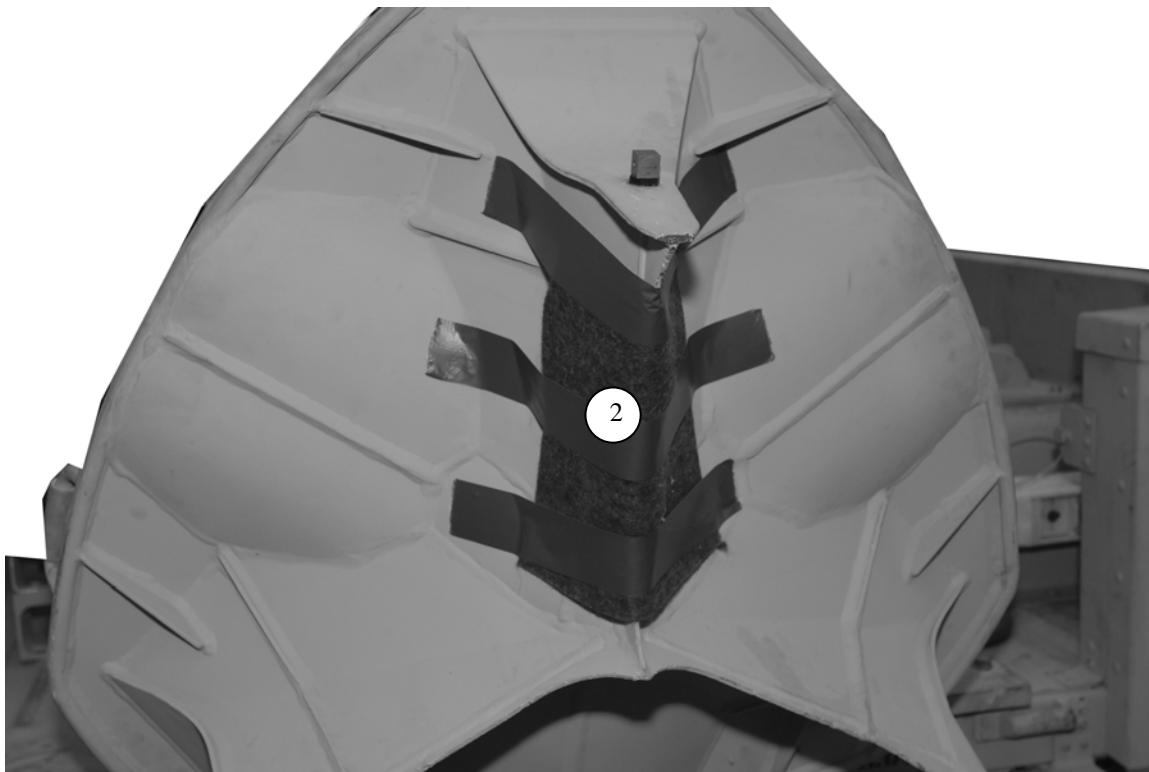


- ⑱ Secure all ammunition rack securing straps in place. Roll the excess strap and safety tie them using ¼-inch cotton webbing.

Figure 11-8. Trailer Prepared (Continued)

PREPARING AND SECURING THE M326

11-5. Prepare and secure the M326 as shown in Figure 11-9.



- ① With the help of the gunner, stow the mortar tube and the bipod on the mounted position (not shown).
- ② Secure a 10- by 10-inch piece of felt to the center edge of the bottom of the base plate using 2-inch cloth backed tape.

Figure 11-9. M326 Prepared and Secured

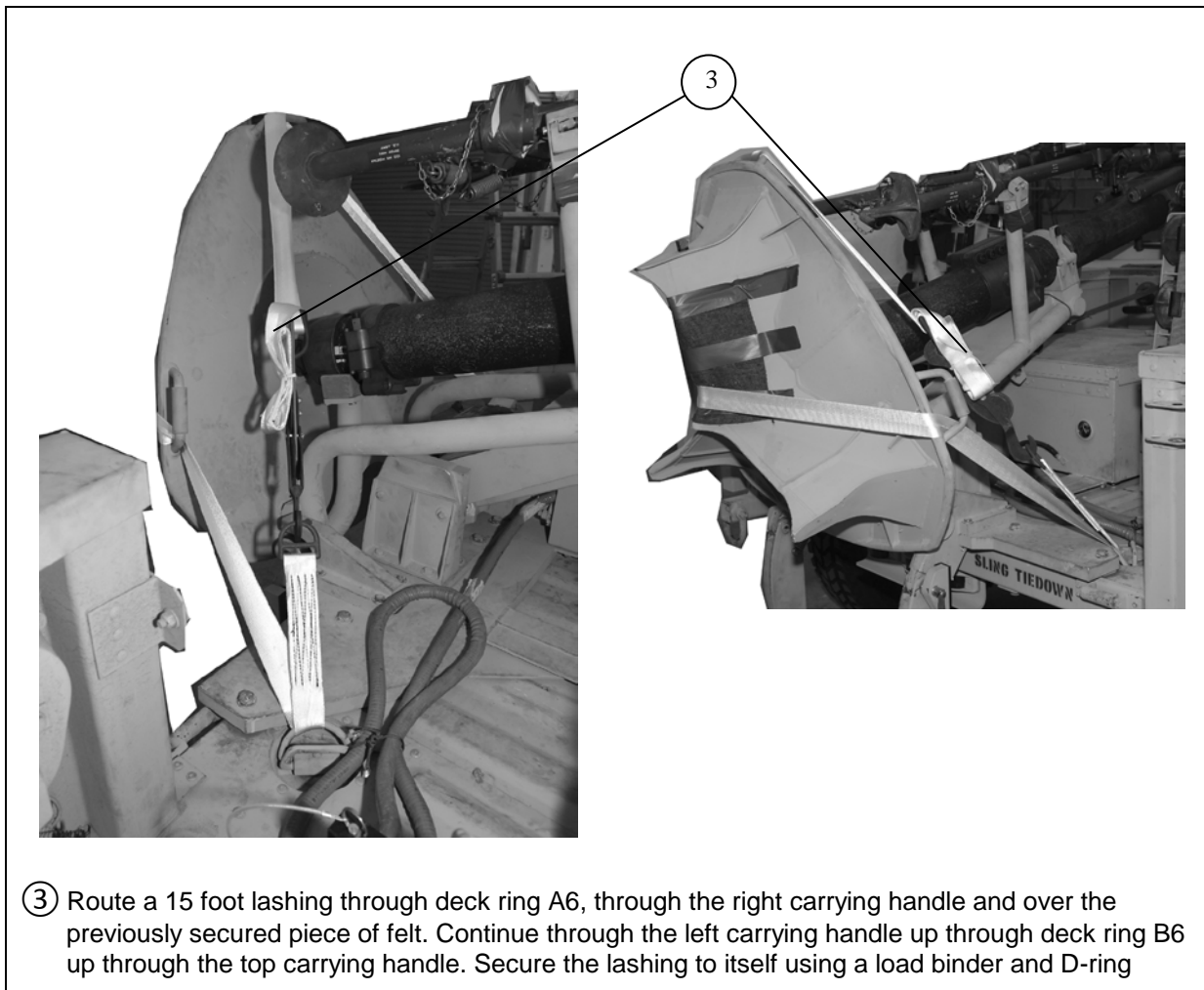
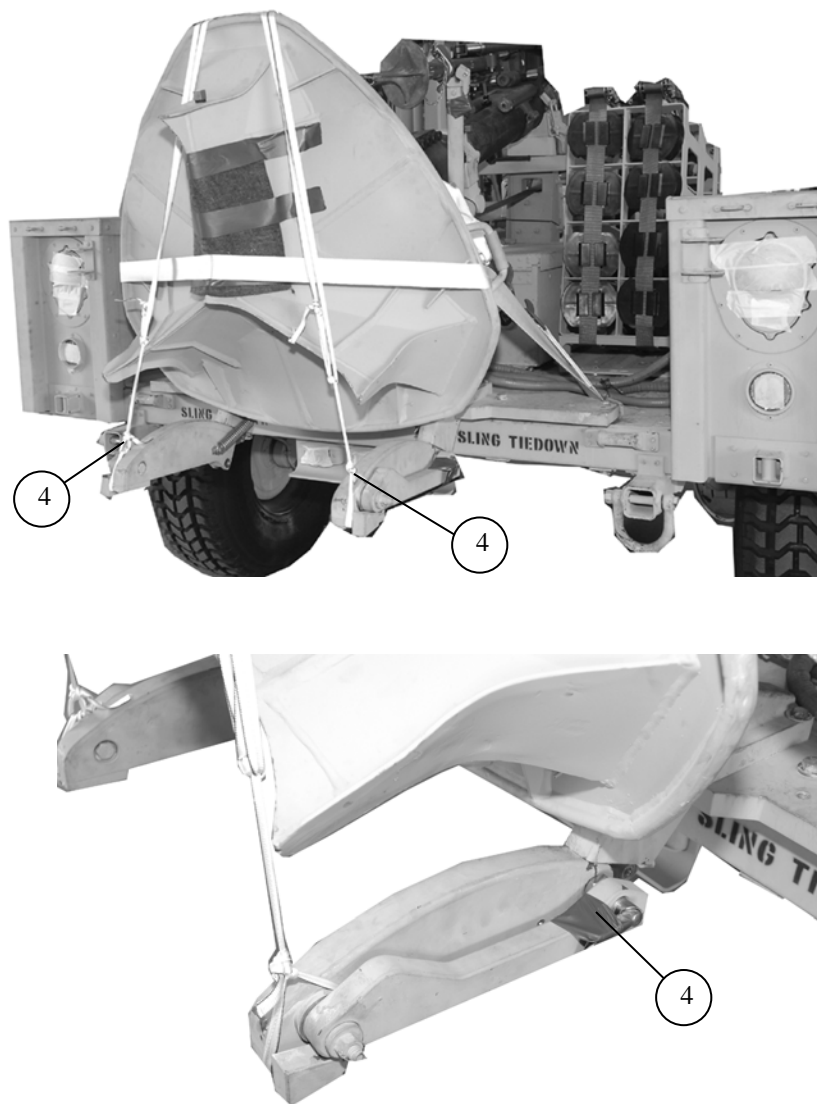


Figure 11-9. M326 Prepared and Secured (Continued)



- ④ Open the left run off leg and tie a length of $\frac{1}{2}$ -inch tubular nylon webbing using three alternating half hitches. Place the run off leg on the closed position. Route the free running end of the $\frac{1}{2}$ -inch tubular nylon thru the top base plate carrying handle and secure with a truckers hitch. Secure the run off legs securing pins using 2-inch cloth backed tape. Repeat for the right run off leg.

Figure 11-9. M326 Prepared and Secured (continued)

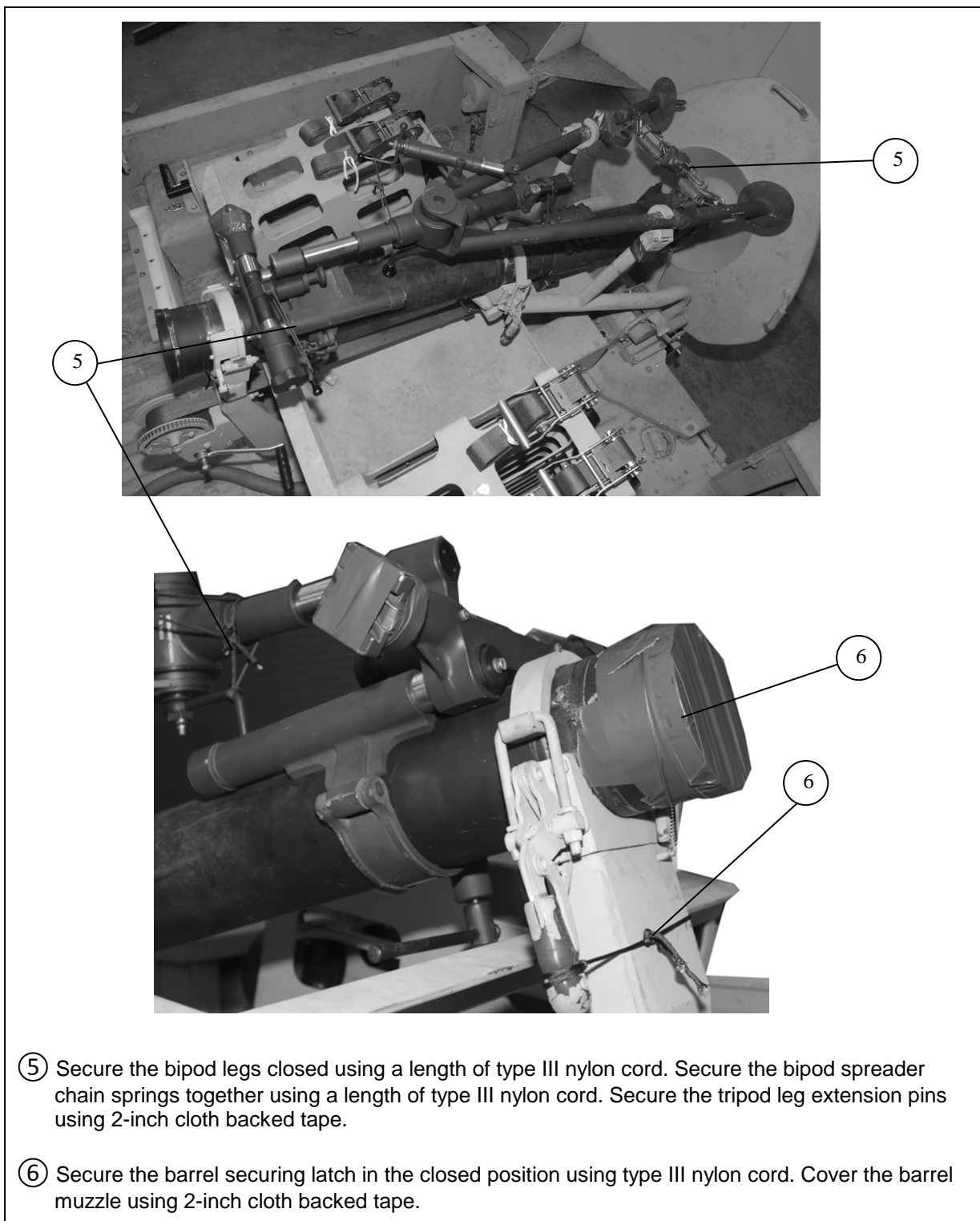
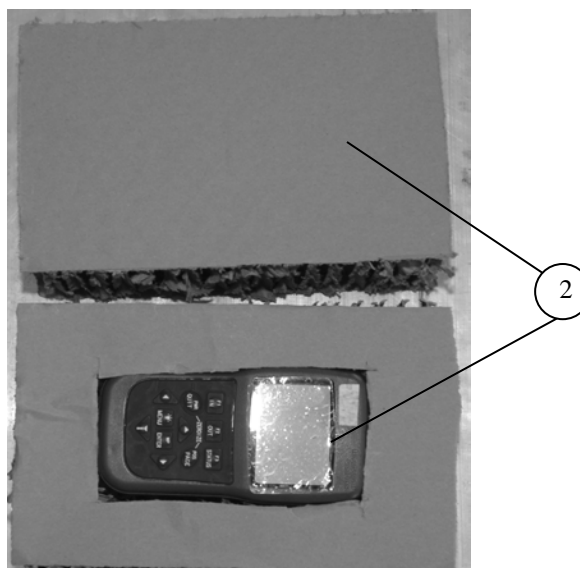
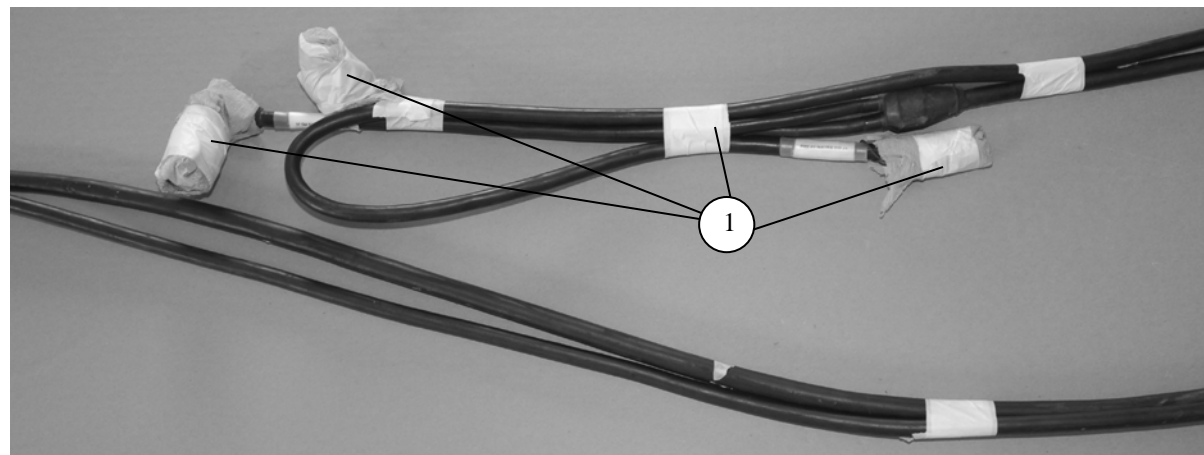


Figure 11-9. M326 Prepared and Secured (Continued)

PREPARING AND SECURING THE ELECTRONICS RACK

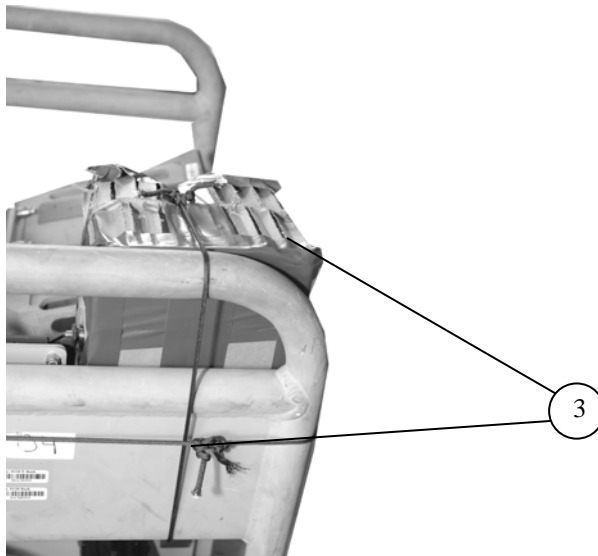
11-6. Prepare and secure the Electronics Rack as shown in Figure 11-10.



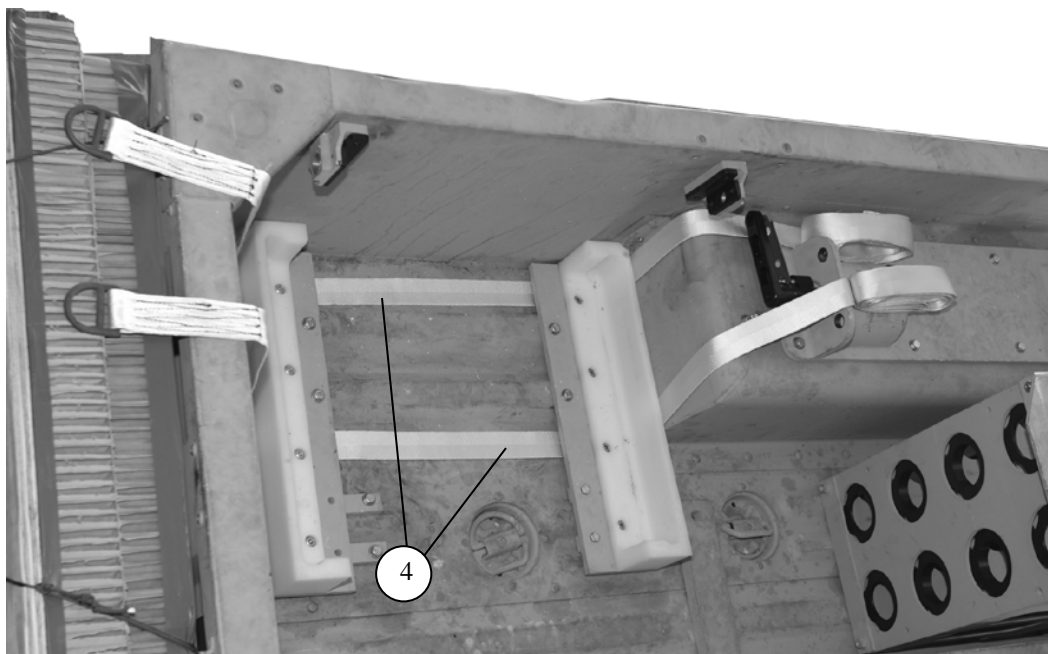
- ① Extend the 9W1 and the 9W2 cables. Secure the cables together using masking tape approximately every 15 inches. Pad all the connectors using cellulose wadding and masking tape.
- ② Cut two 10- by 6-inch pieces of honeycomb. Make a cutout (crushed) at the center of one of the 10- by 6-inch pieces to accommodate the Defense Advance GPS Receiver (DAGR). Place the DAGR inside the cutout and place the other 10- by 6-inch piece of honeycomb on top. Secure both pieces of honeycomb together using 2-inch cloth backed tape.

Legend: GPS = global positioning system

Figure 11-10. Electronics Rack Prepared and Secured



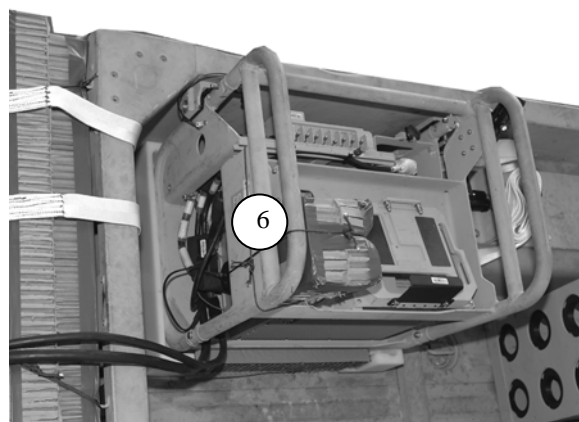
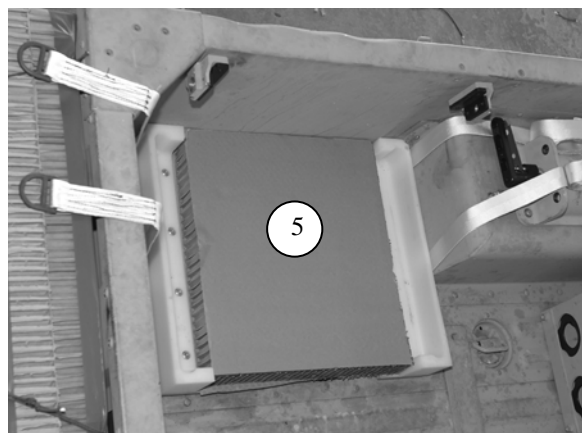
- ③ Secure the Defense Advance GPS Receiver (DAGR) inside the Electronics Rack using two lengths of type III nylon cord.



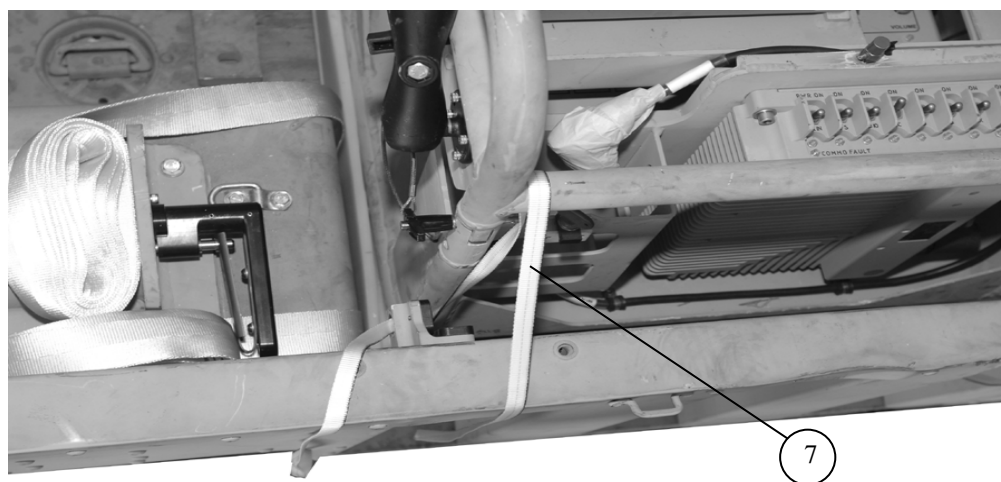
- ④ Route two 15-foot lashings from front to rear and under the Electronics Rack stowage brackets.

Legend: GPS = global positioning system

Figure 11-10. Electronics Rack Prepared and Secured (continued)

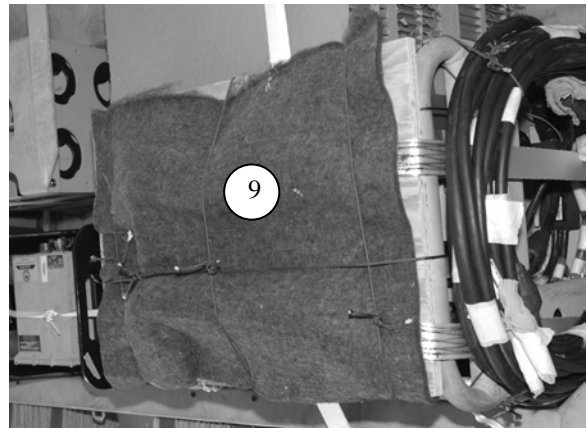
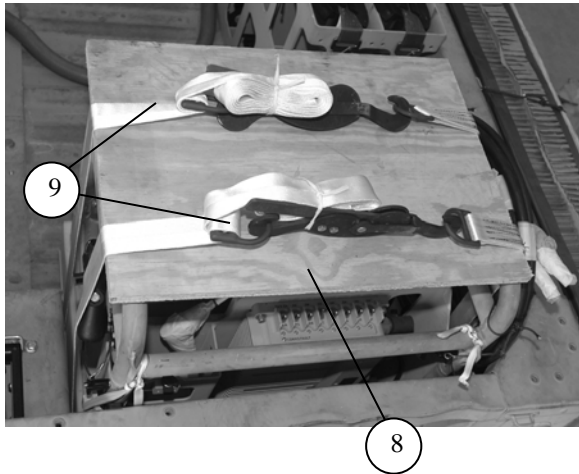


- ⑤ Cut an 18- by 20-inch piece of honeycomb and place it over the previously pre-positioned lashings between the brackets.
- ⑥ Place the Electronics-Rack on top of the honeycomb between the brackets.

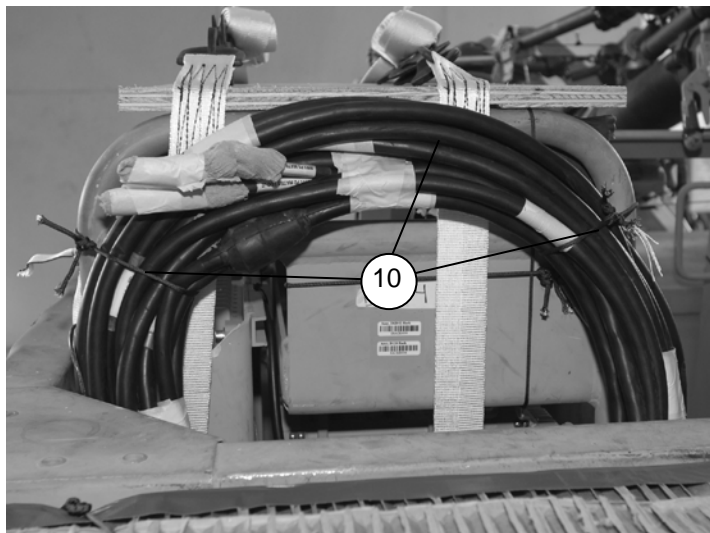


- ⑦ Route a length of ½-inch tubular nylon through the hole of each side bracket and around the Electronics Rack frame. Secure the ½-inch tubular nylon using two alternating half hitches.

Figure 11-10. Electronics Rack Prepared and Secured (Continued)



- ⑧ Cut a 24- by 17- by 3/4-inch piece of plywood and place it on top of the Electronics Rack.
- ⑨ Secure the Electronics-Rack with the two pre-positioned 15 foot lashings. Ensure the load binders are on top of the plywood. Place a 24- by 19-inch piece of felt on top of the load binders and secure the felt using type III nylon cord.

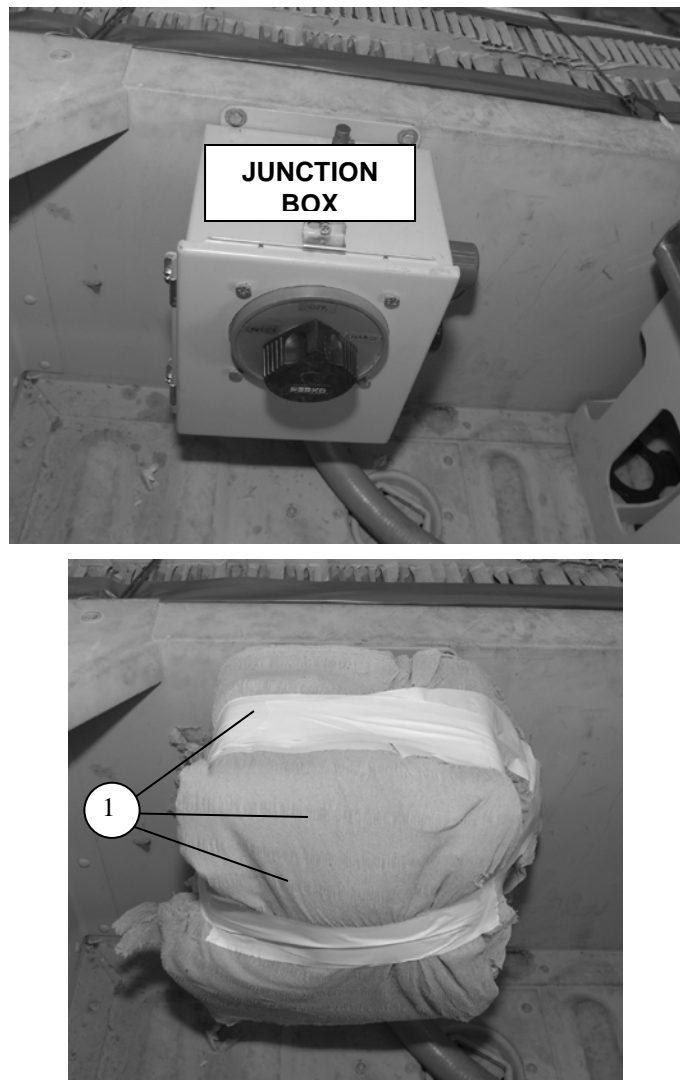


- ⑩ Roll and secure the 9W1 and 9W2 cables and secure them to the front of the Electronics-Rack using type III nylon cord.

Figure 11-10. Electronics Rack Prepared and Secured (Continued)

PREPARING AND SECURING THE THE JUNCTION BOX

11-7. Prepare and secure the Junction Box as shown in Figure 11-11.

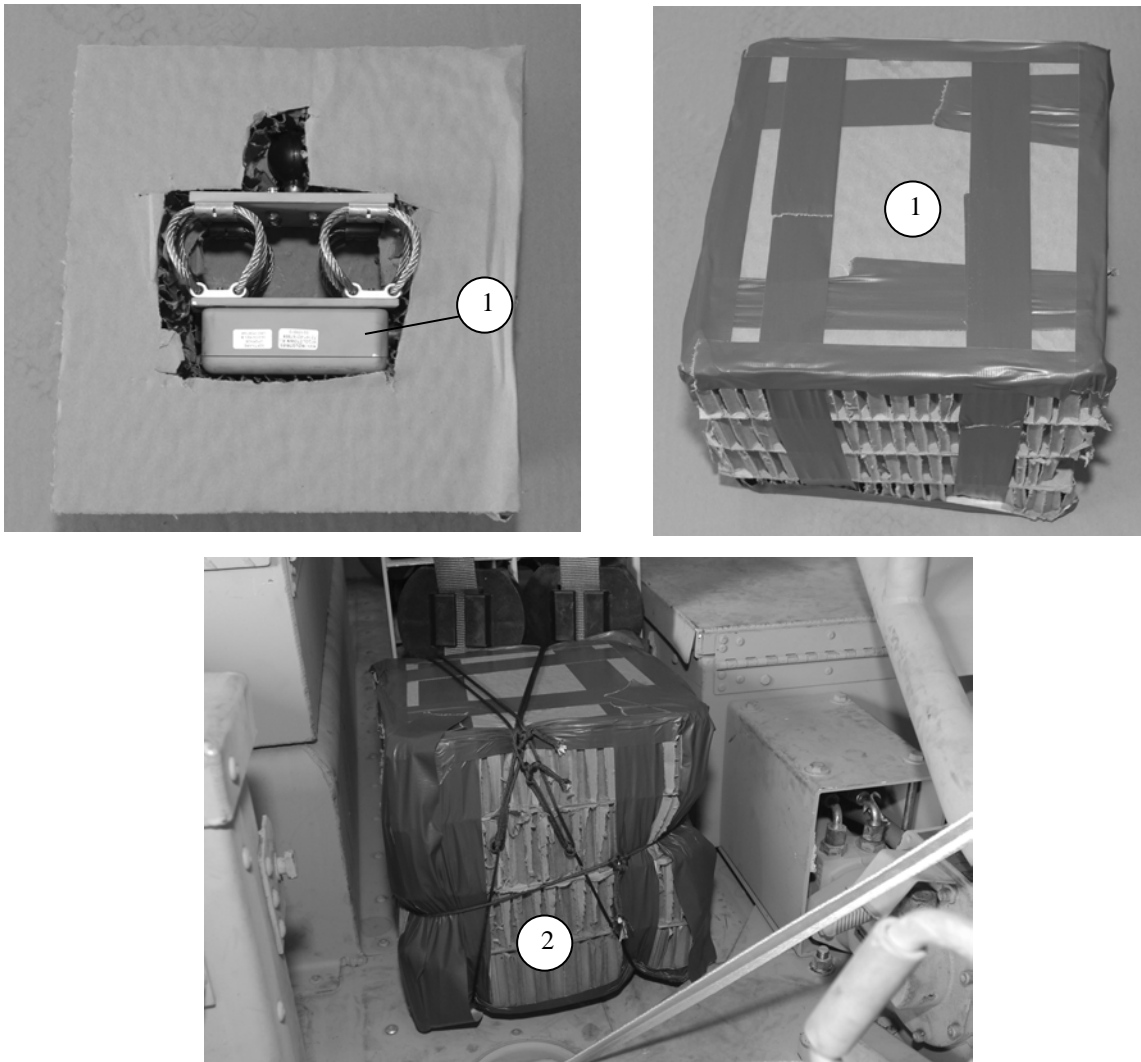


- ① Pad the Junction Box with cellulose wadding and masking tape.
- ② Pad the ends of the slave cable with cellulose wadding and tape. Tie cable to the floor of the trailer using type III nylon cord (not shown).

Figure 11-11. Gunners Display and Mount Prepared and Secured

PREPARING AND SECURING GUNNERS DISPLAY AND MOUNT

11-8. Prepare and secure the Gunners Display and Mount as shown in Figure 11-12.

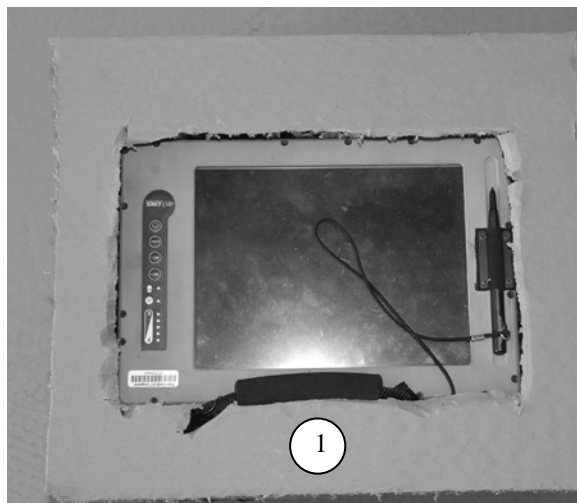


- ① Cut four 12- by 12-inch pieces of honeycomb. Make cutouts on two pieces to accommodate the Gunner's Display. Place the Gunners Display inside the two pieces of honeycomb and place a piece of 12- by 12-inch honeycomb on top and bottom keeping the Gunners Display inside. Secure the four pieces of honeycomb together using 2-inch cloth backed tape.
- ② Place the Gunner's Display and mount on the rear of the left ammunition rack and secure it to the rack using type III nylon cord.

Figure 11-12. Junction Box Prepared and Secured

PREPARING AND SECURING FIRE CONTROL COMPUTER

11-9. Prepare and secure the Fire Control Computer as shown in Figure 11-13.



- ① Cut three 14- by 16-inch pieces of honeycomb. Make cutouts on one piece to accommodate the Fire Control Computer (FCC). Wrap the FCC using cellulose wadding and masking tape. Place the FCC inside the piece of honeycomb that has the cutout and place a piece of 14- by 16-inch on top and bottom keeping the FCC inside. Secure the three pieces of honeycomb together using 2-inch cloth backed tape.
- ② Place the Fire Control Computer on the rear of the right ammunition rack and secure it to the rack using type III nylon cord.

Figure 11-13. Fire Control Computer (FCC) Prepared and Secured

PREPARING AND SECURING CABLES AND WINCH HANDLE

11-10. Prepare and secure the cables and winch handle as shown in Figure 11-14.

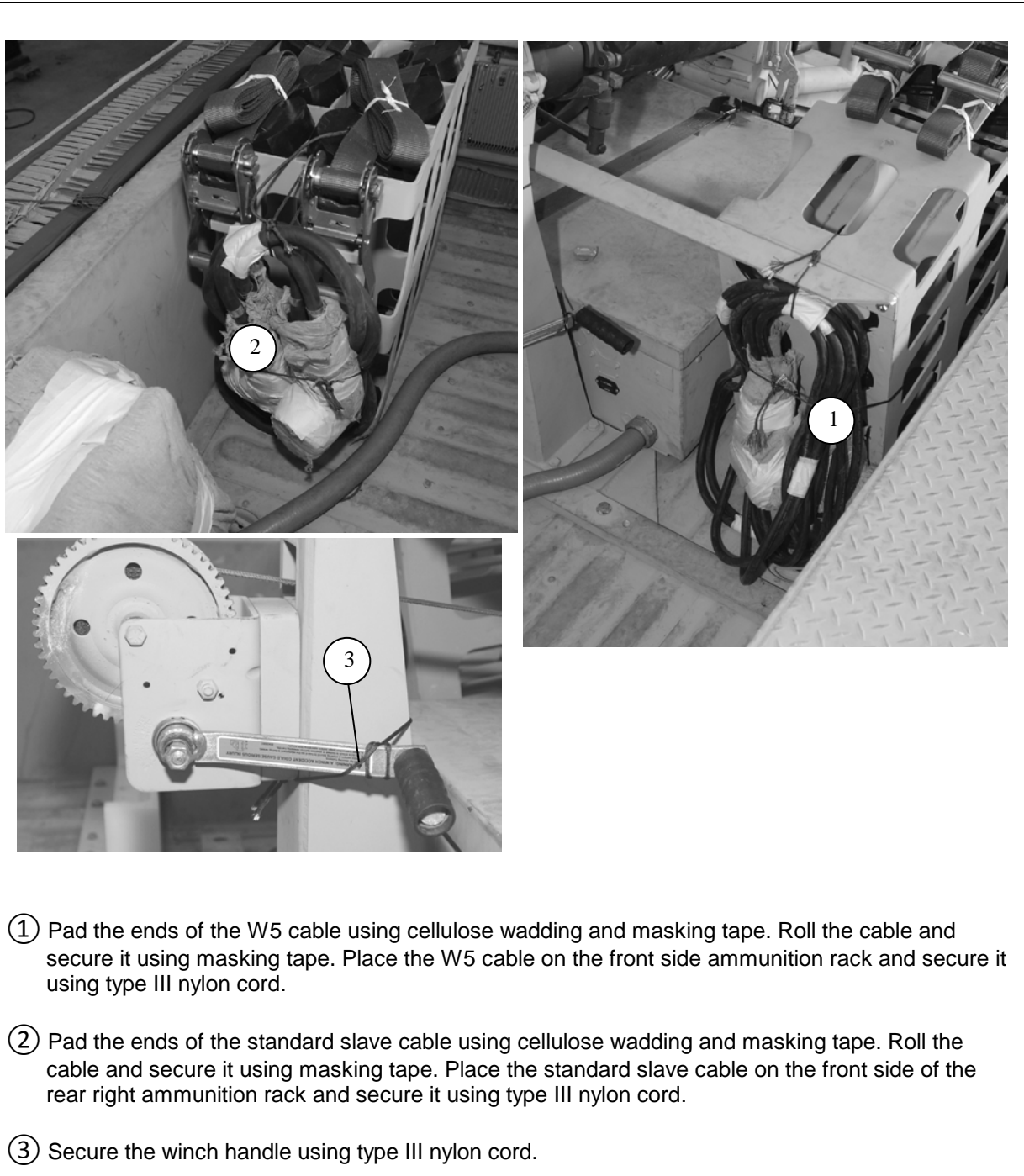


Figure 11-14. Cables and Winch Handle Prepared and Secured

PREPARING AND SECURING POINTING DEVICE MOUNT ASSEMBLY DISMOUNTED QUICK RELEASE

11-11. Prepare and secure the Pointing Device Mount Assembly Dismounted Quick Release as shown in Figure 11-15.

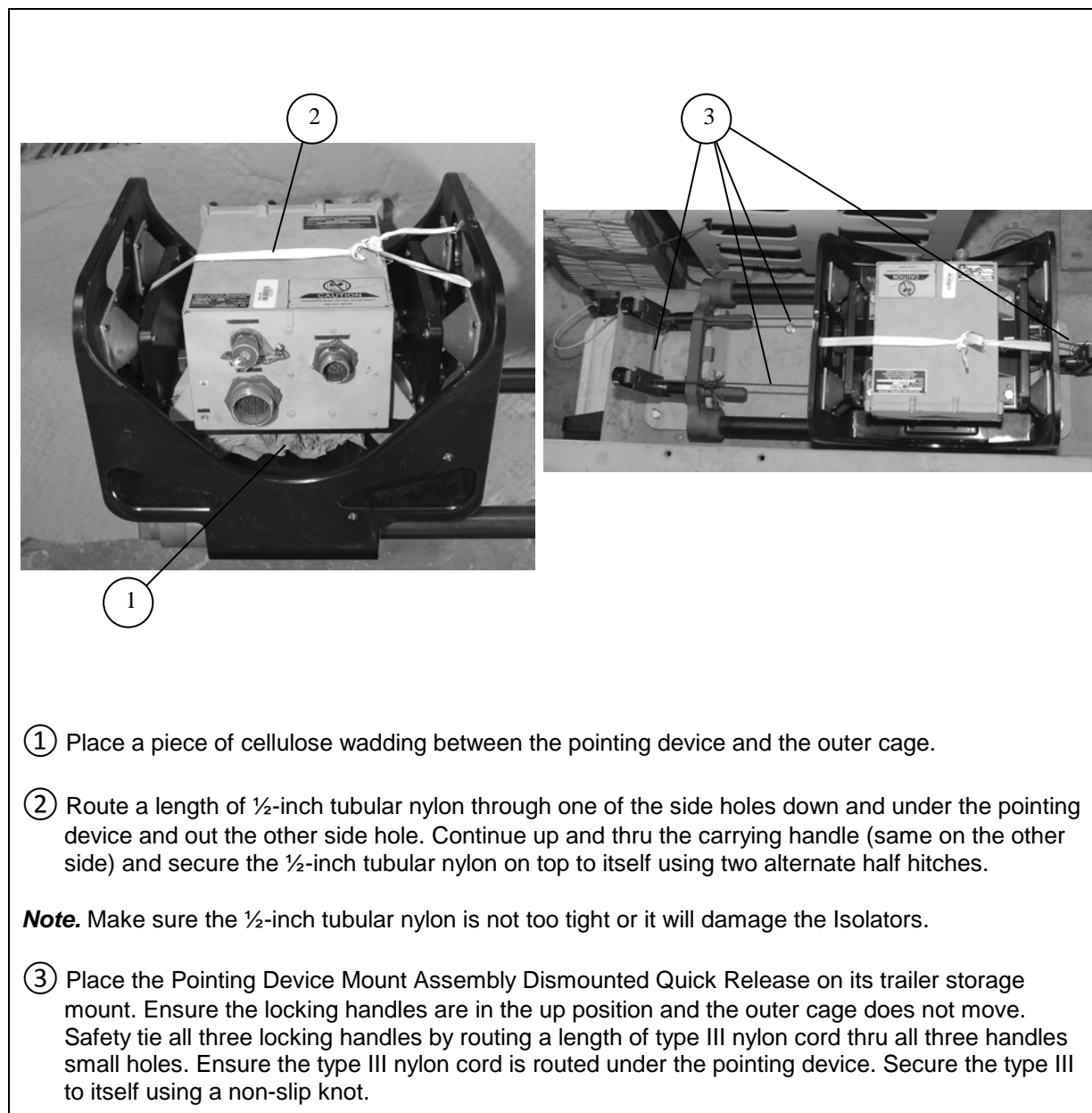


Figure 11-15. Pointing Device Mount Assembly Dismounted Quick Release Prepared and Secured

PREPARING AND INSTALLING THE SIDE BOARDS

11-12. Prepare and install the side boards as shown in Figure 11-16.

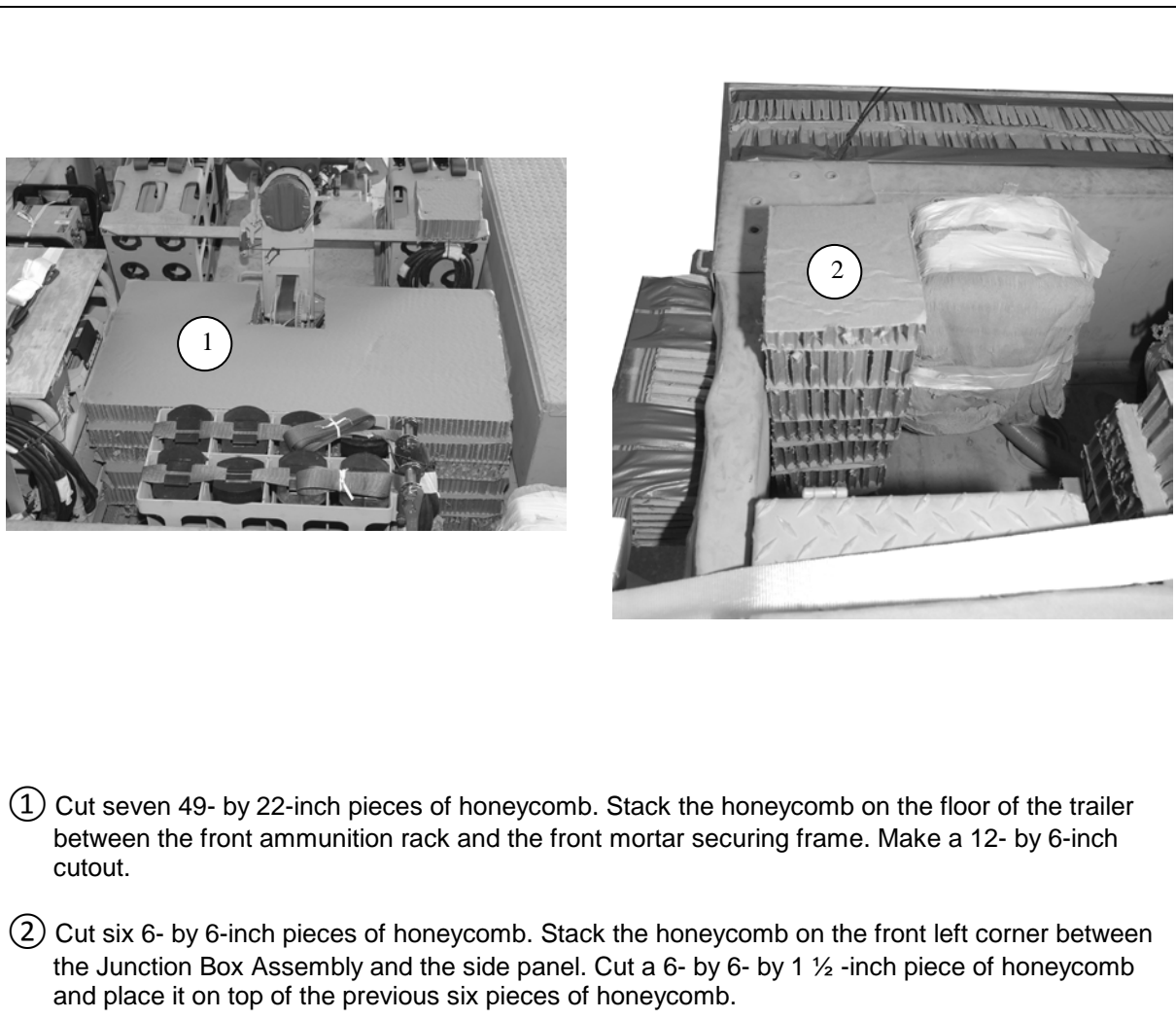
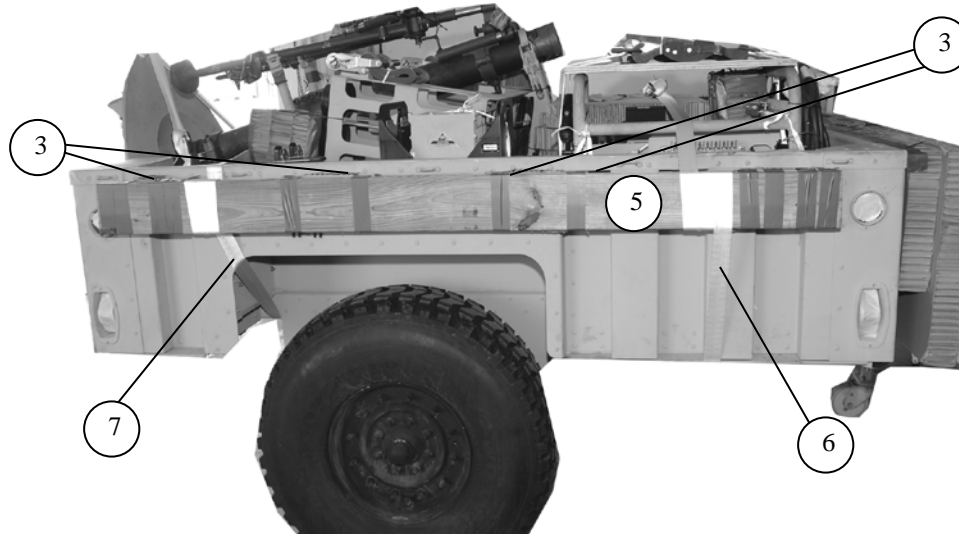


Figure 11-16. Side Boards Prepared and Installed

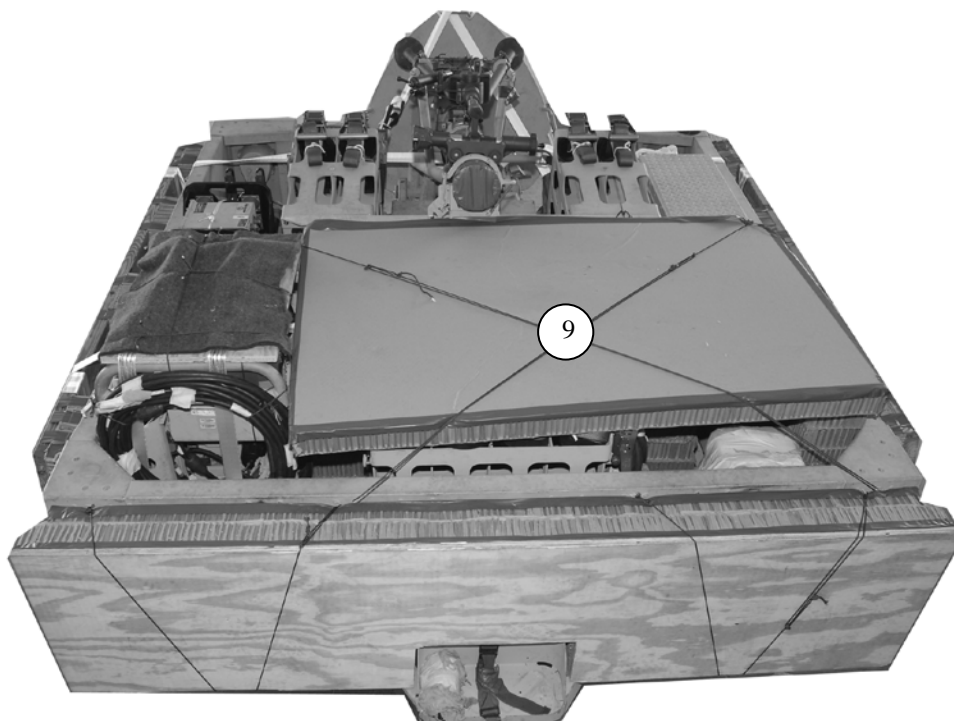
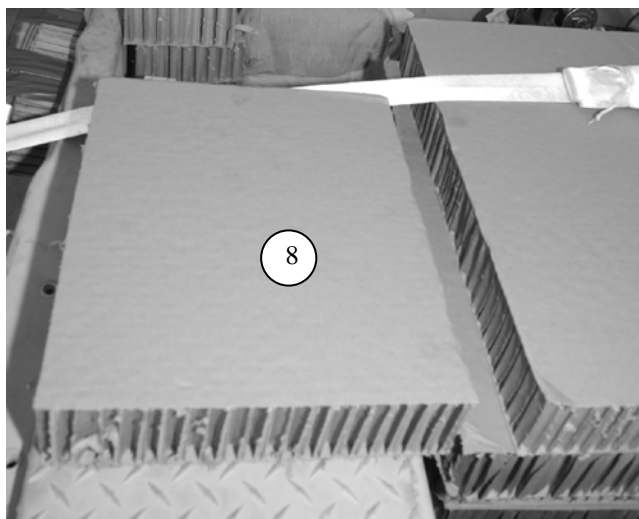


- ① Cut two, 2- by 6- by 77-inches pieces of lumber to be used as side boards. Cut six, 8- by 10-inch pieces of honeycomb. Position two of the honeycomb pieces flush along each end of the lumber pieces and secure in place using 2-inch cloth-backed tape. Place the remaining two pieces of honeycomb evenly spread on the lumber.
- ② Form two 30-foot lashings according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 (not shown).
- ③ Position each side board flush along the side of the trailer centered below the front and rear tarp eyelets on the left and right side of the trailer.

Note. When securing the side boards ensure the lashings are not routed over the brake lines or any wiring.

- ④ Route the first 30-foot lashing under the trailer frame at the front of the trailer, double wrap the lashing around the 2- by 6-inch lumber alternating wraps on the left and right. Route the free running end of the right side of the front lashing thru the Electronics-Rack. Secure the 30 foot lashing on top of the load using two D-rings and a load binder.
- ⑤ Route the second 30-foot lashing under the trailer frame at the rear of the trailer, just behind the rear wheel well, double wrap the lashing around the 2- by 6-inch lumber alternating wraps on the left and right. Route the free running end of the 30 foot lashing on the right side under the mortar tube. Secure the 30 foot lashing on top of the load using two D-rings and a load binder.

Figure 11-16. Side Boards Prepared and Installed (Continued)



- ⑧ Cut and place a 12-by 14-inch piece of honeycomb on top of the BII box.
- ⑨ Cut a 59-by 36-inch piece of honeycomb and tape all edges using 2-inch cloth-backed tape. Place it on the front of the trailer on top of the front 30 foot lashing. Secure the honeycomb to convenient points of the load using two lengths of type III nylon cord.

Note. This piece of honeycomb will become the release platform.

Figure 11-16. Side Boards Prepared and Installed (Continued)

LIFTING AND POSITIONING THE LOAD

11-13. Lift and position the load as shown in Figure 11-17.

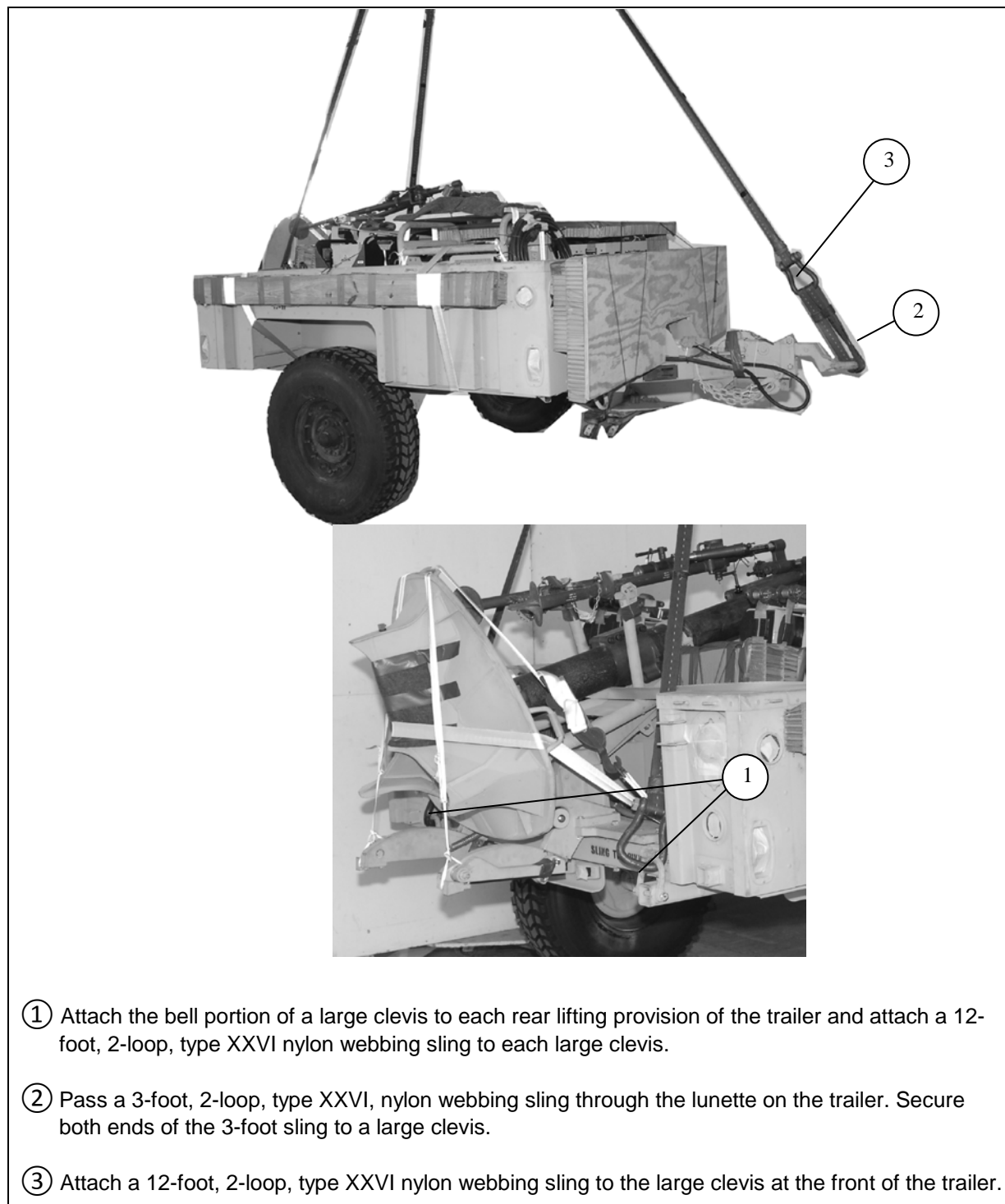
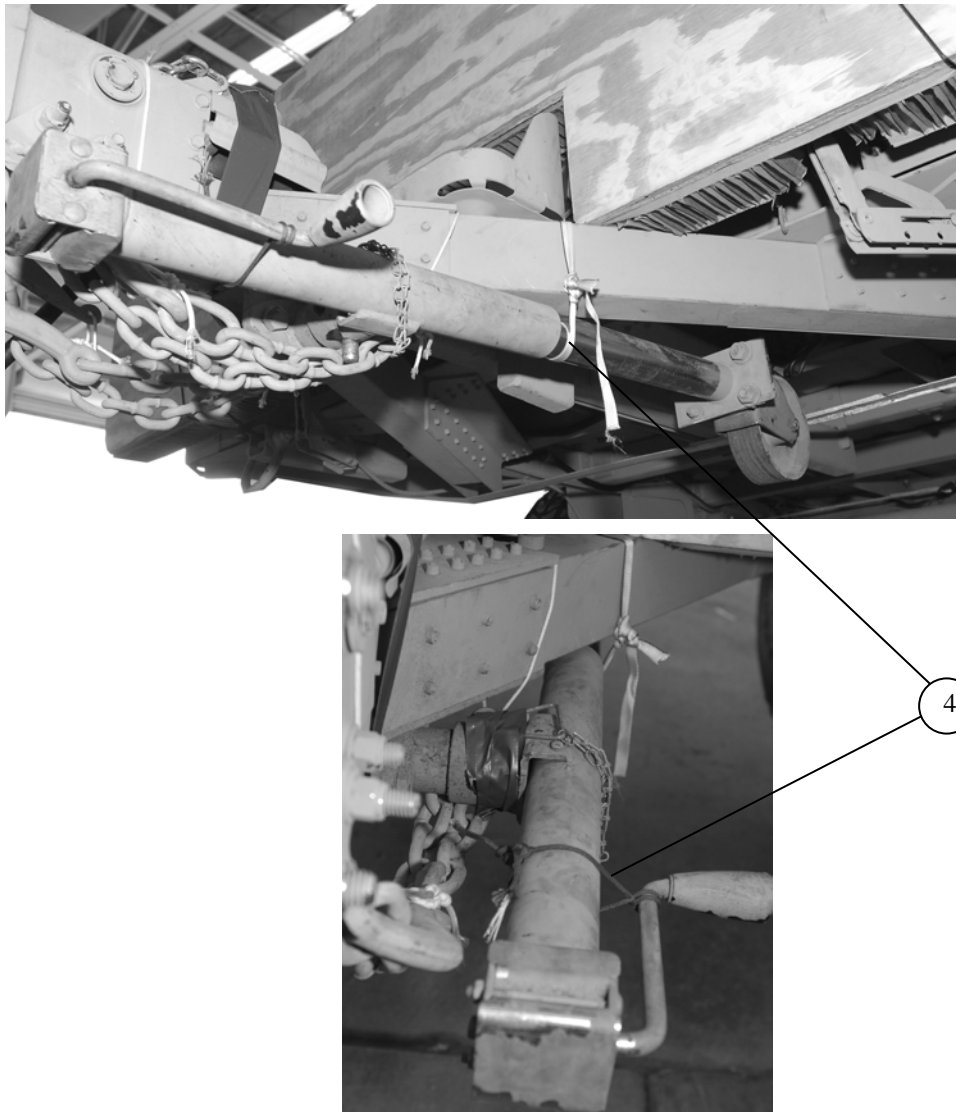


Figure 11-17. Load Lifted and Positioned



- ④ Attach the opposite ends of the slings to the lifting device. Lift the load and raise the front support stand and secure it to the trailer frame using two lengths of $\frac{1}{2}$ -inch tubular nylon webbing. Safety tie the crank handle using a length of type III, nylon cord.

Figure 11-17. Load Lifted and Positioned (Continued)

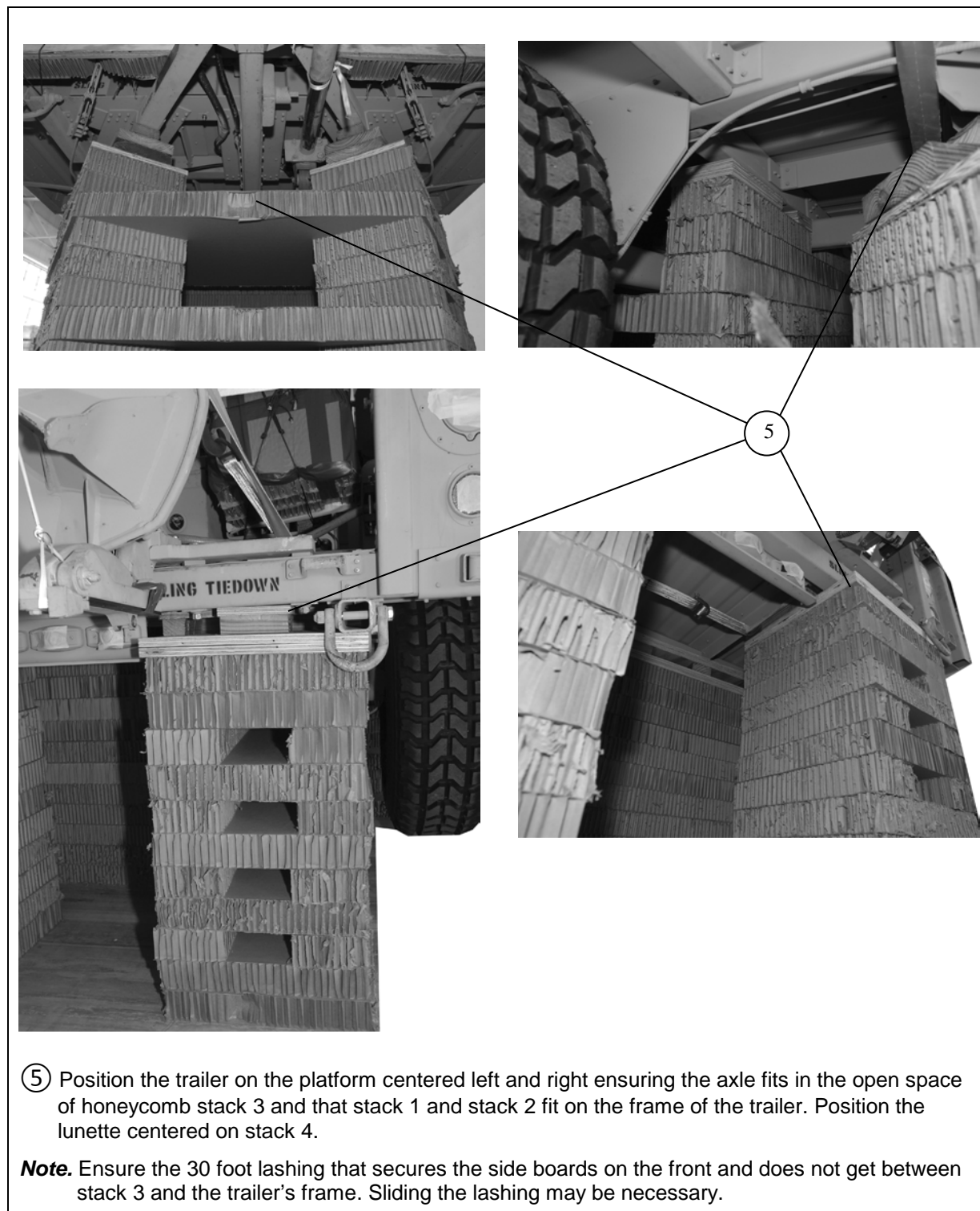


Figure 11-17. Load Lifted and Positioned (Continued)

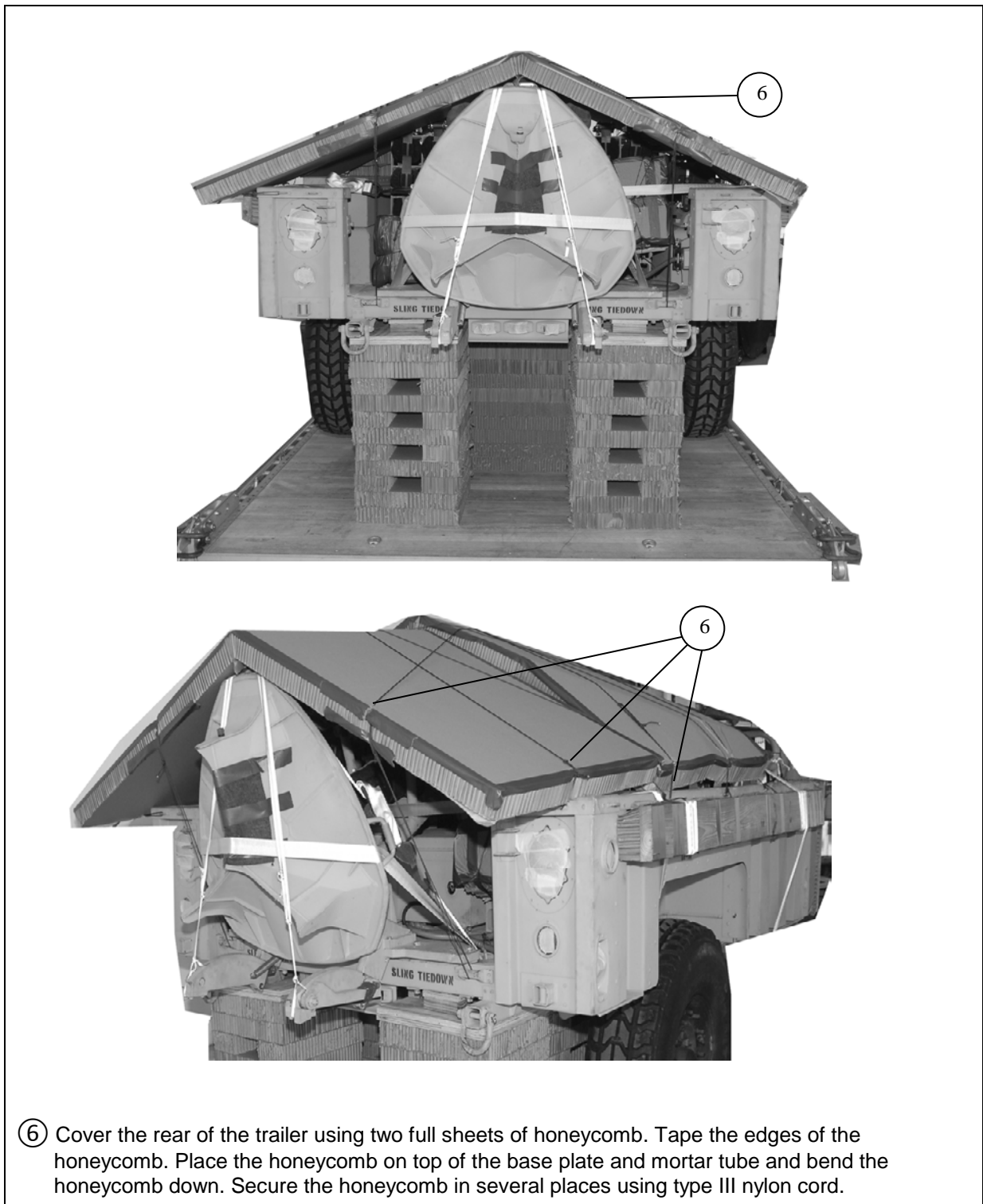


Figure 11-17. Load Lifted and Positioned (Continued)

POSITIONING AND SECURING THE ACCOMPANYING LOAD ON THE PLATFORM

11-14. Position and secure the accompanying load on the platform as shown in Figure 11-18.

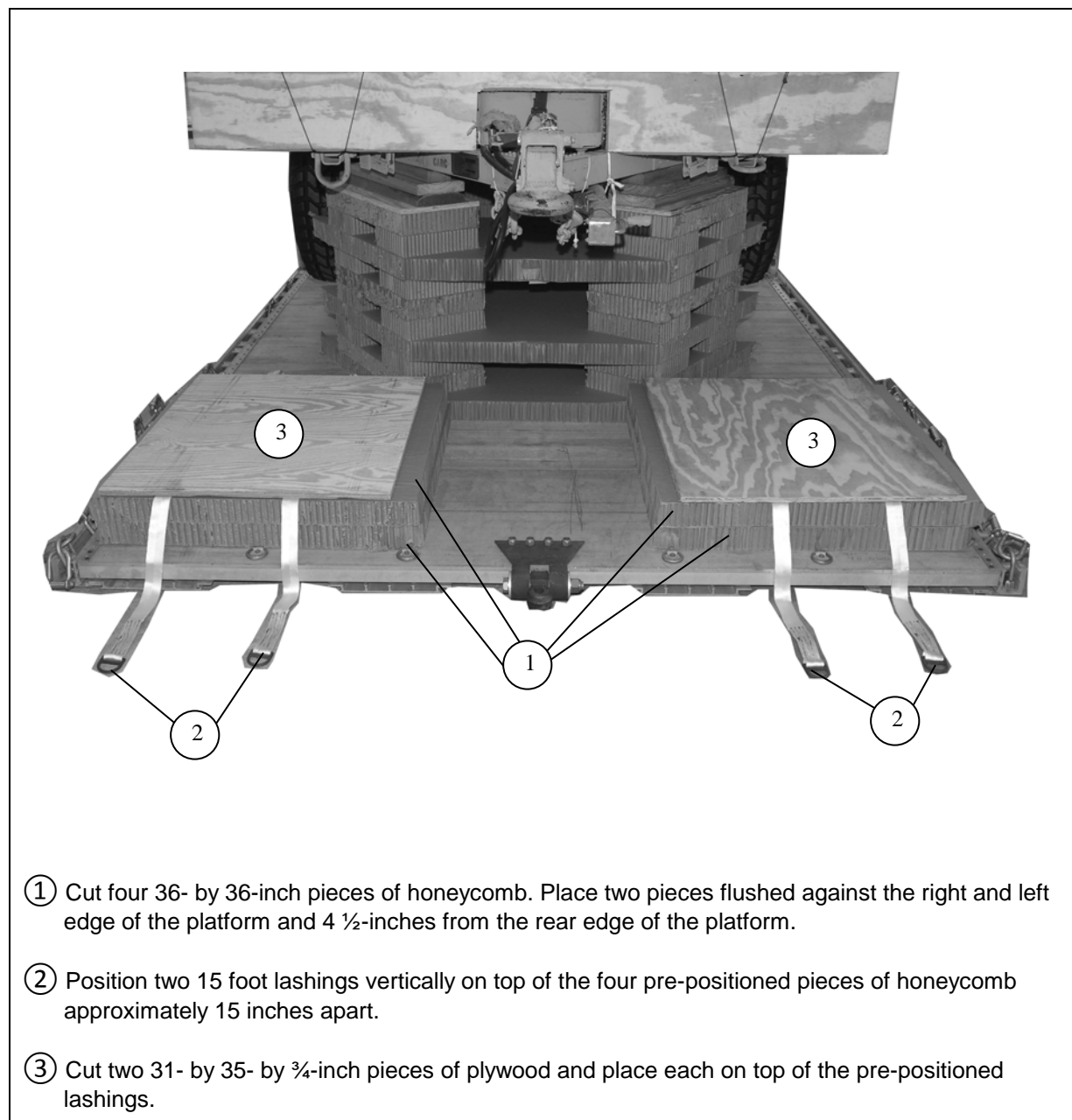


Figure 11-18. The Accompanying Load Positioned and Secured on the Platform

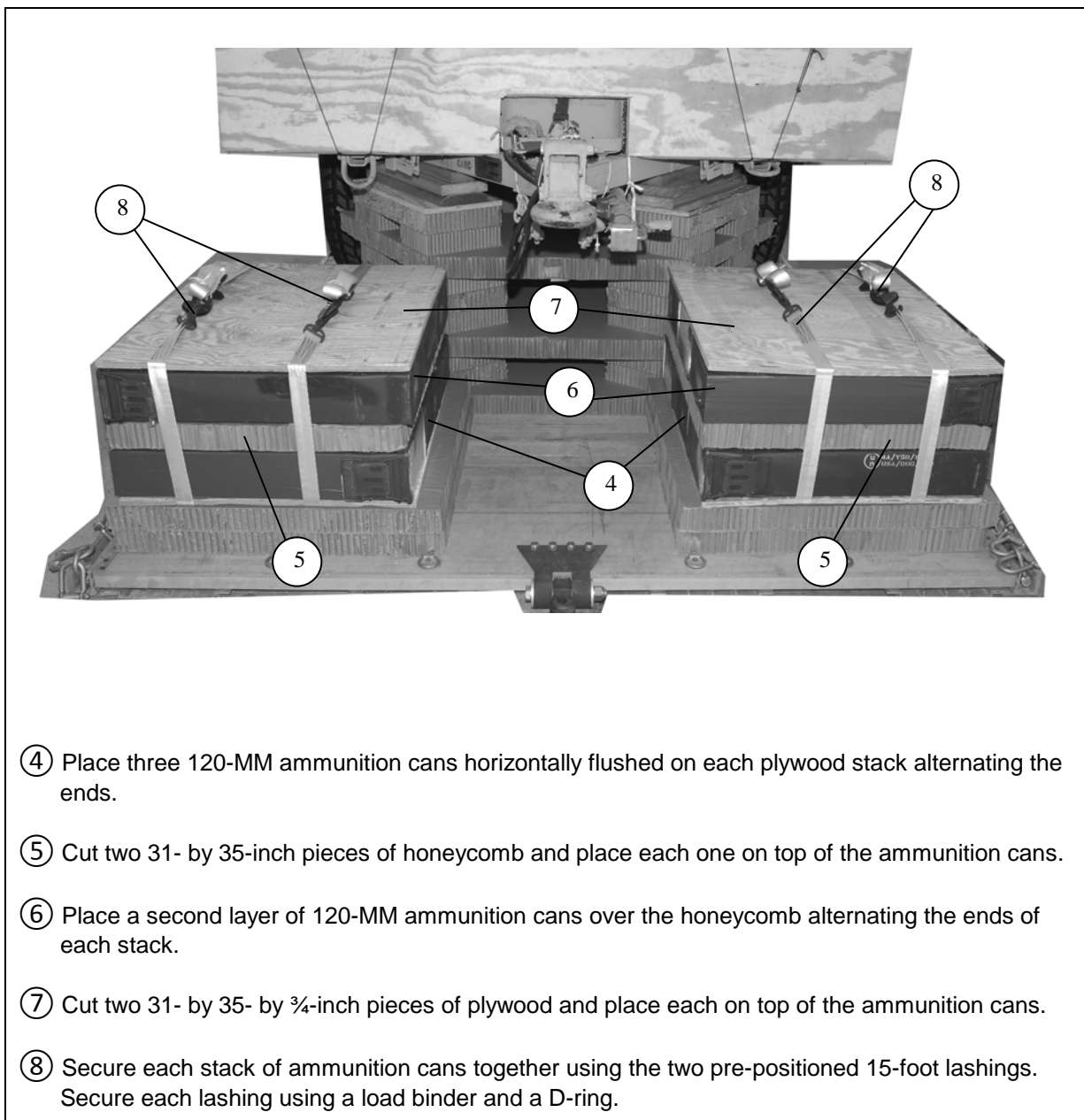
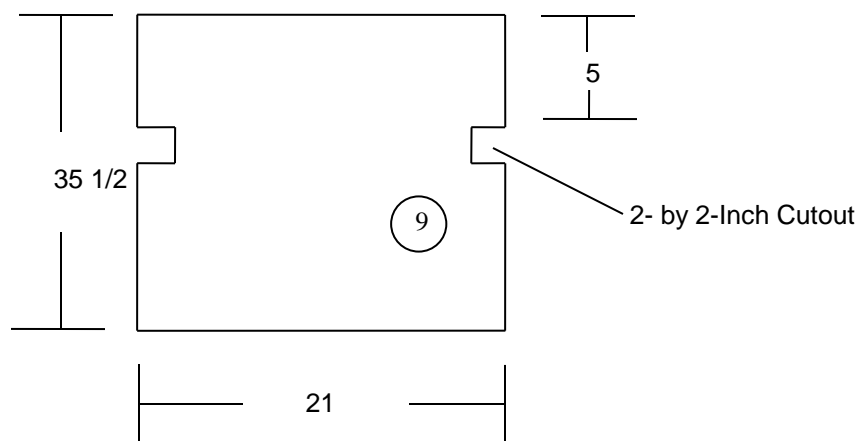


Figure 11-18. The Accompanying Load Positioned and Secured on the Platform (Continued)

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



- ⑨ Cut four 35 1/2- by 21- by 3/4-inch pieces of plywood. Make a 2 by 2-inch cutout five inches from the top on each corner on the 35-inch sides. These four pieces will be used as end boards for the ammunition stacks.
- ⑩ Cut four 36- by 15- by 3/4-inch pieces of plywood. These four pieces will be used as side boards for the ammunition stacks (not shown).
- ⑪ Place an end board on the front and rear of each ammunition stack. Place a side board on the left and right side of each ammunition stack (not shown).

Figure 11-18. The Accompanying Load Positioned and Secured on the Platform (Continued)

LASHING THE ACCOMPANYING LOAD TO THE PLATFORM

11-15. Lash the accompanying load to the platform as shown in Figure 11-19.

Note. Pad and tape any sharp edges on the load where a lashing may pass.

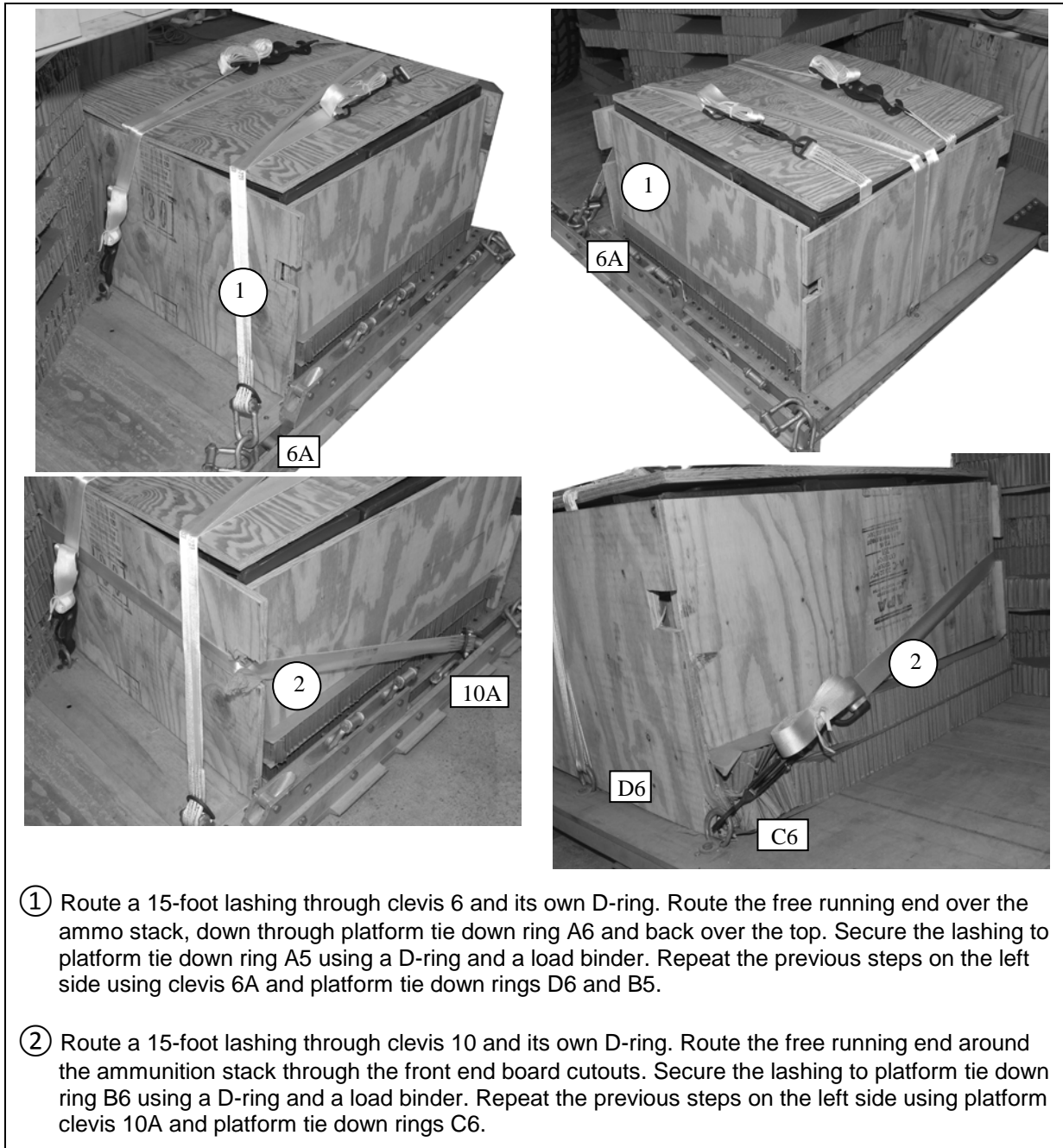


Figure 11-19. The Accompanying Load Lashed to the Platform

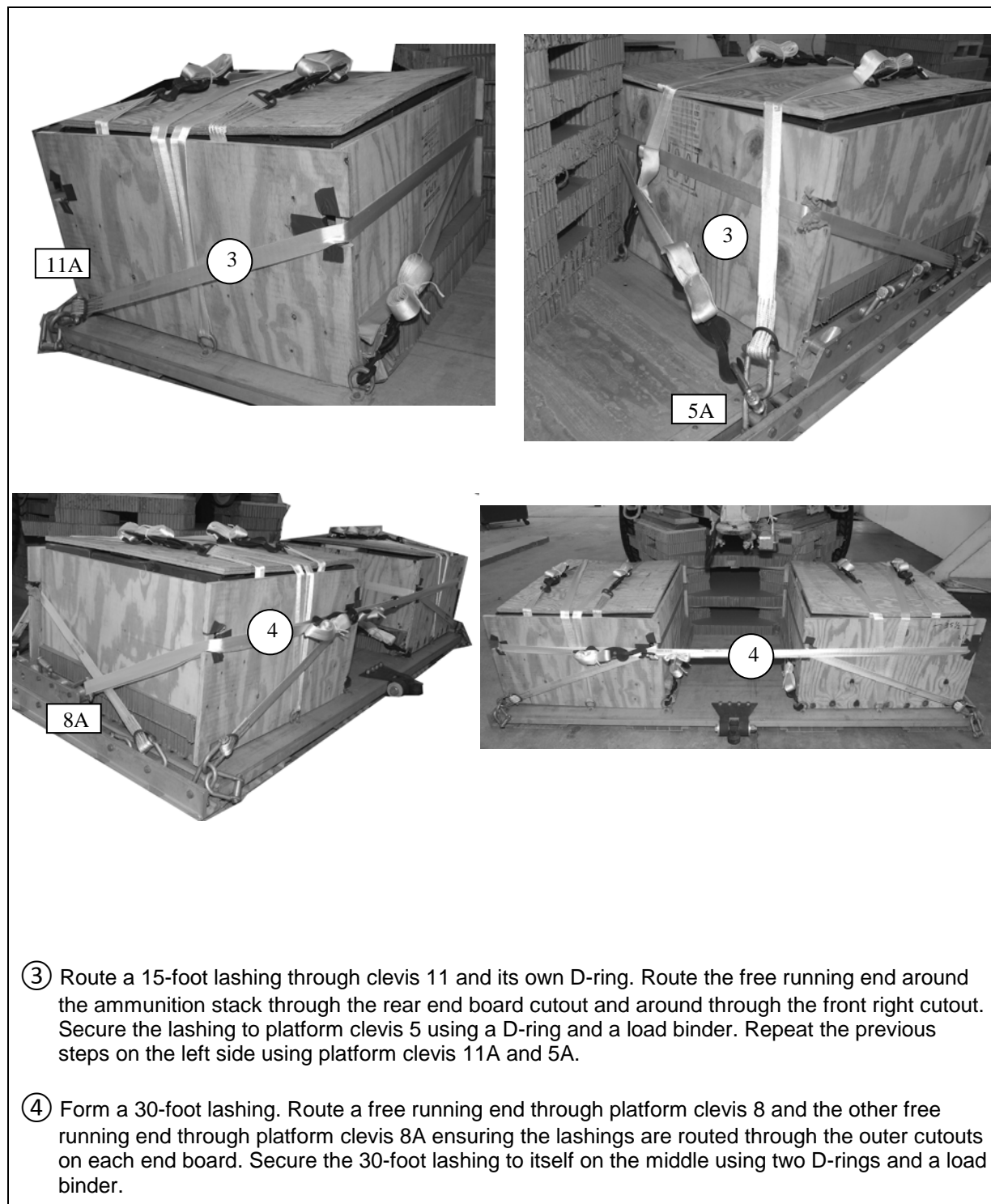


Figure 11-19. The Accompanying Load Lashed to the Platform (Continued)

LASHING THE TRAILER TO THE PLATFORM

11-16. Lash the trailer to the platform as shown in Figure 11-20.

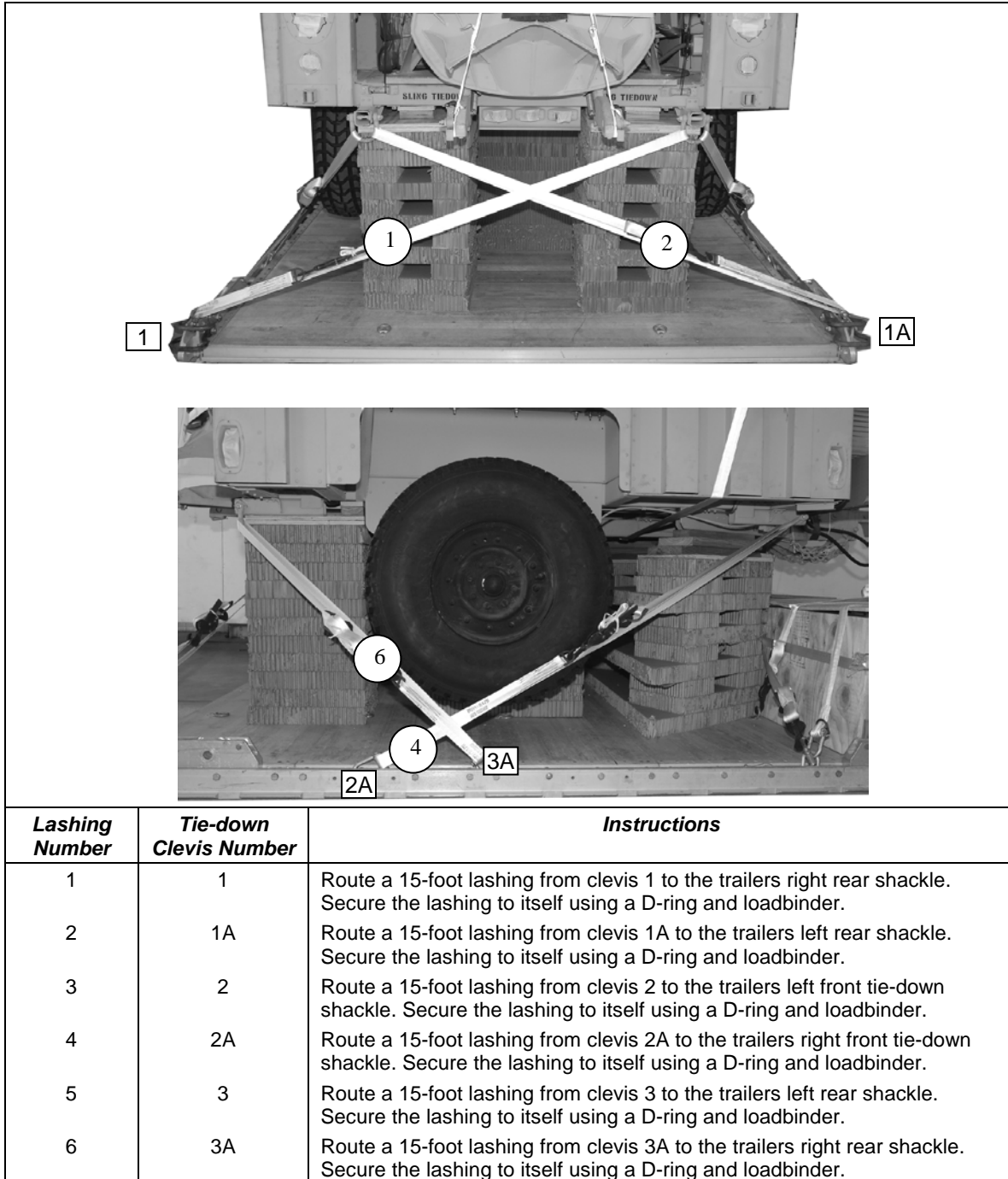


Figure 11-20. Trailer Lashed to Platform

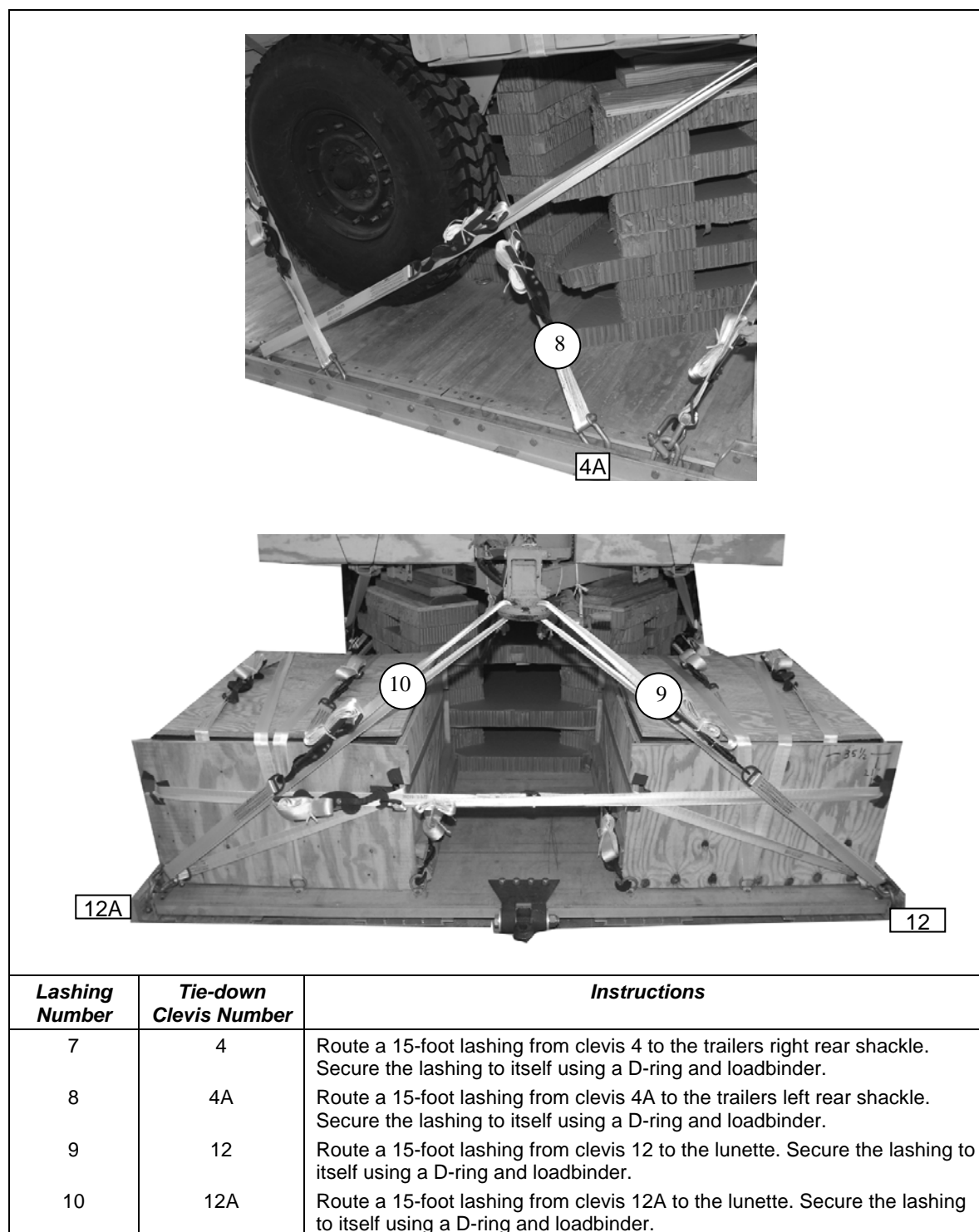


Figure 11-20. Trailer Lashed to Platform (Continued)

PREPARING, POSITIONING AND SECURING THE PARACHUTE STOWAGE PLATFORM

11-17. Prepare, position and secure the parachute stowage platform as shown in Figure 11-21.

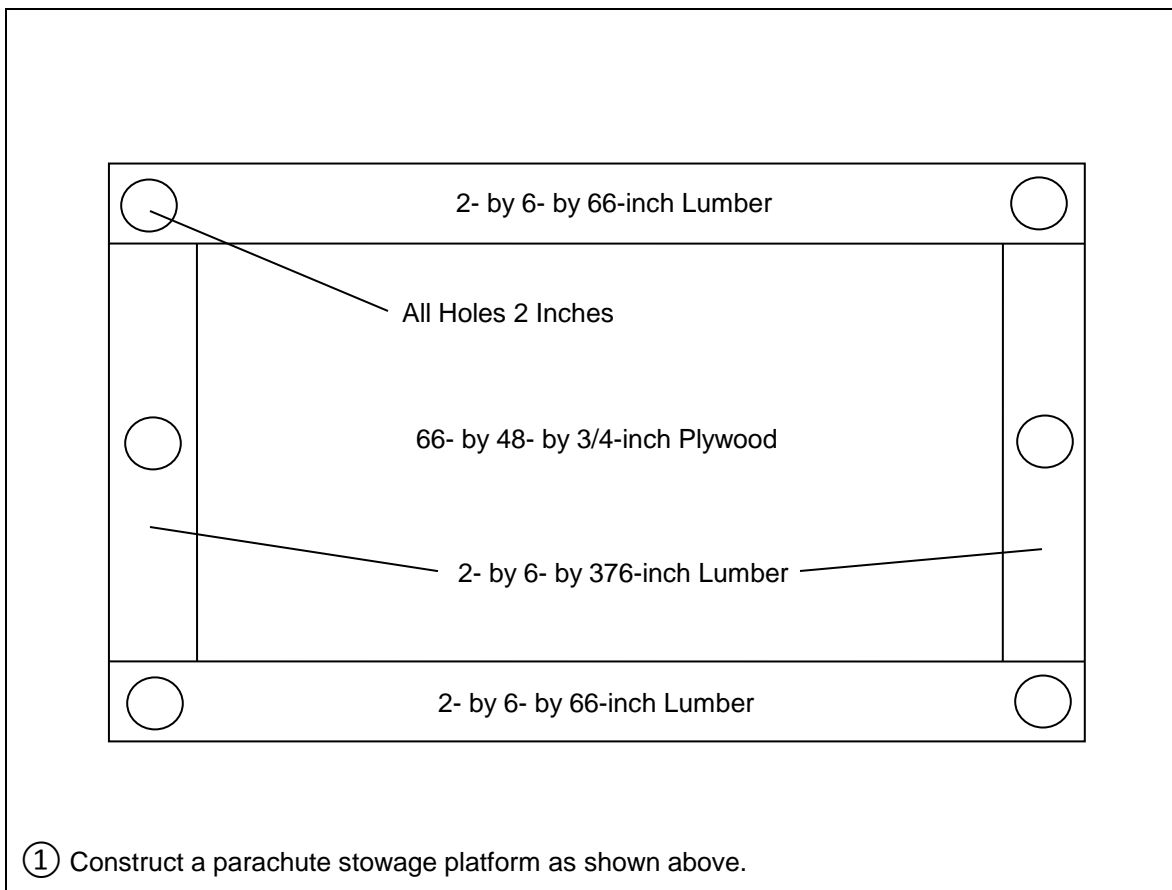
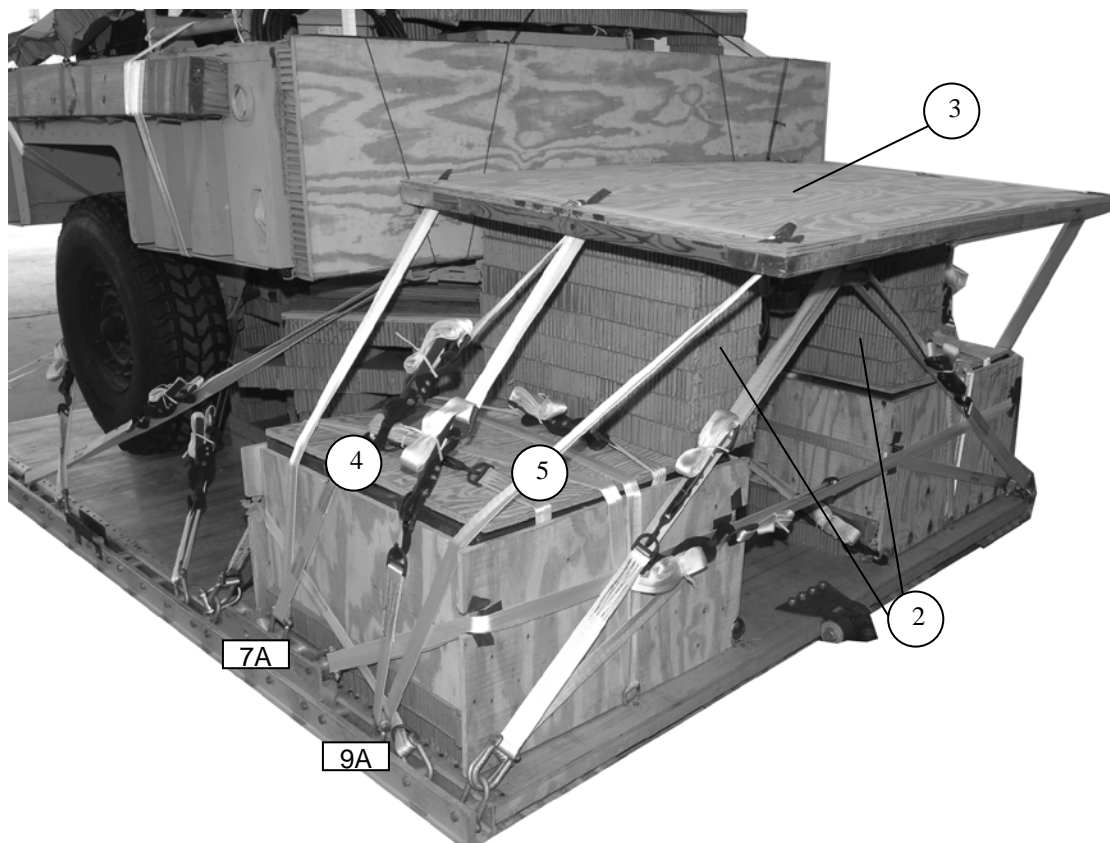


Figure 11-21. Parachute Stowage Platform Prepared, Positioned and Secured



- ② Cut sixteen 31- by 10-inch pieces of honeycomb. Stack eight pieces on top of each ammunition stack flush to the inside.
- ③ Position and center the parachute stowage platform on top of the previously positioned pieces and flush against the plywood on the trailers bulkhead.
- ④ Route a 15 foot lashing through platform clevis 7A and up the front hole of parachute platform and down the center hole of the platform. Secure the lashing to itself using a load binder and D-ring. Repeat same step on right using clevis 7.
- ⑤ Route a 15 foot lashing through platform clevis 9A and up the rear hole of parachute platform and down the center hole of the platform. Secure the lashing to itself using a load binder and D-ring. Repeat same step on the right using clevis 9.

Figure 11-22. Parachute Stowage Platform Prepared, Positioned and Secured (Continued)

INSTALLING AND SAFETY TIEING THE SUSPENSION SLINGS

11-18. Install and safety tie the suspension slings as shown in Figure 11-23.

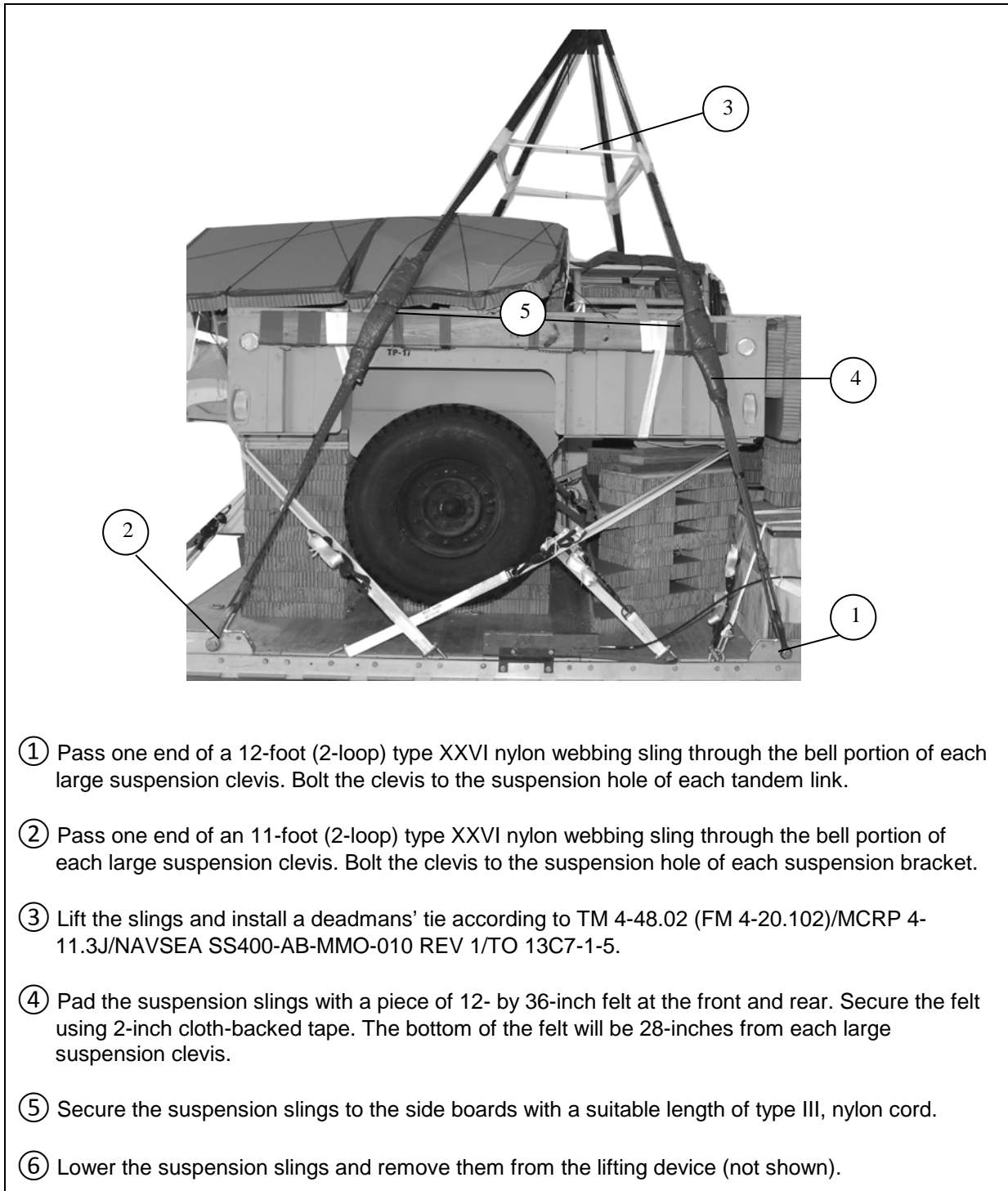


Figure 11-23. Suspension Slings Installed and Safety Tied

STOWING CARGO PARACHUTES

11-19. Prepare, stow, and restrain two G-11B cargo parachutes according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 11-24.

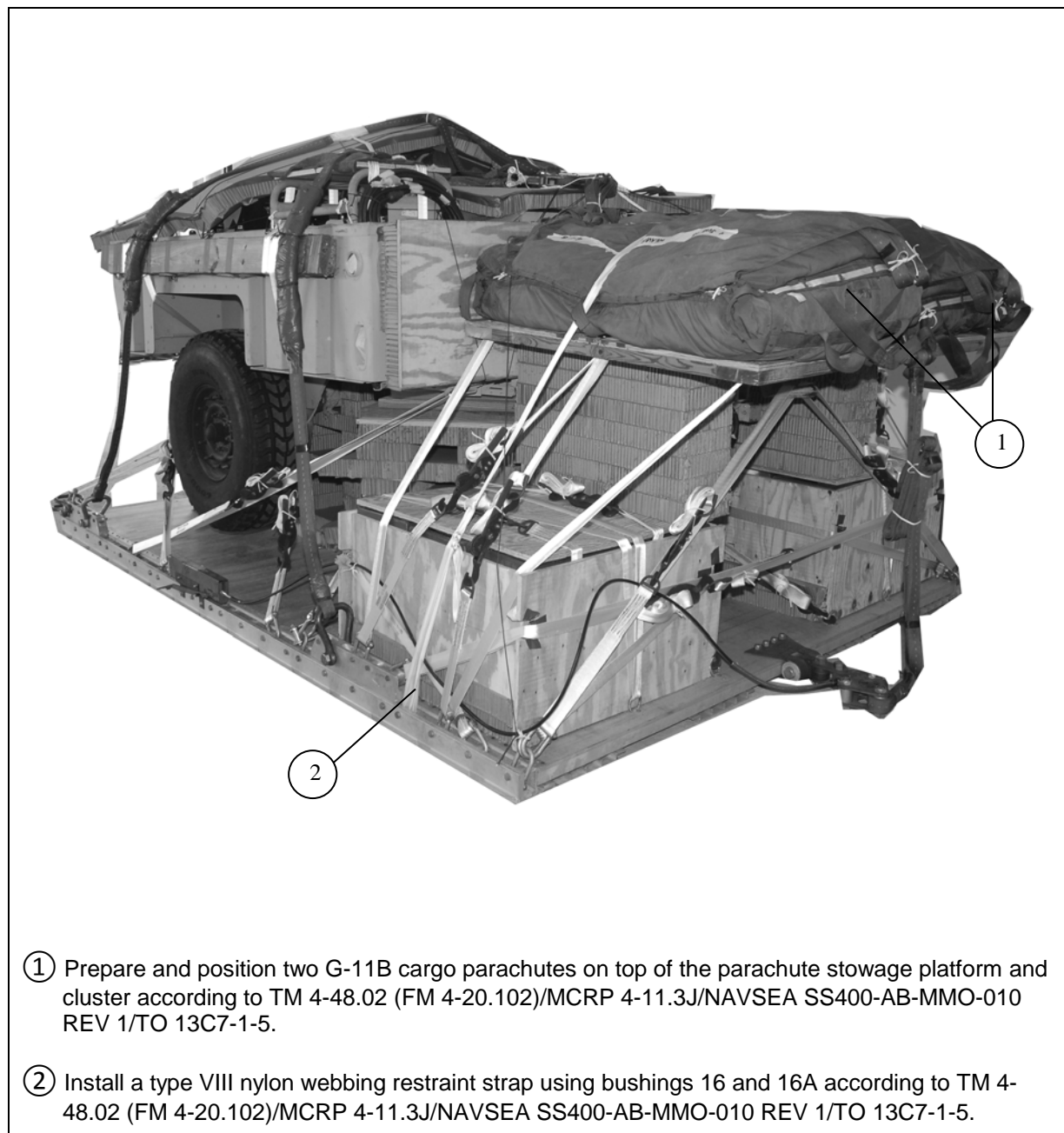
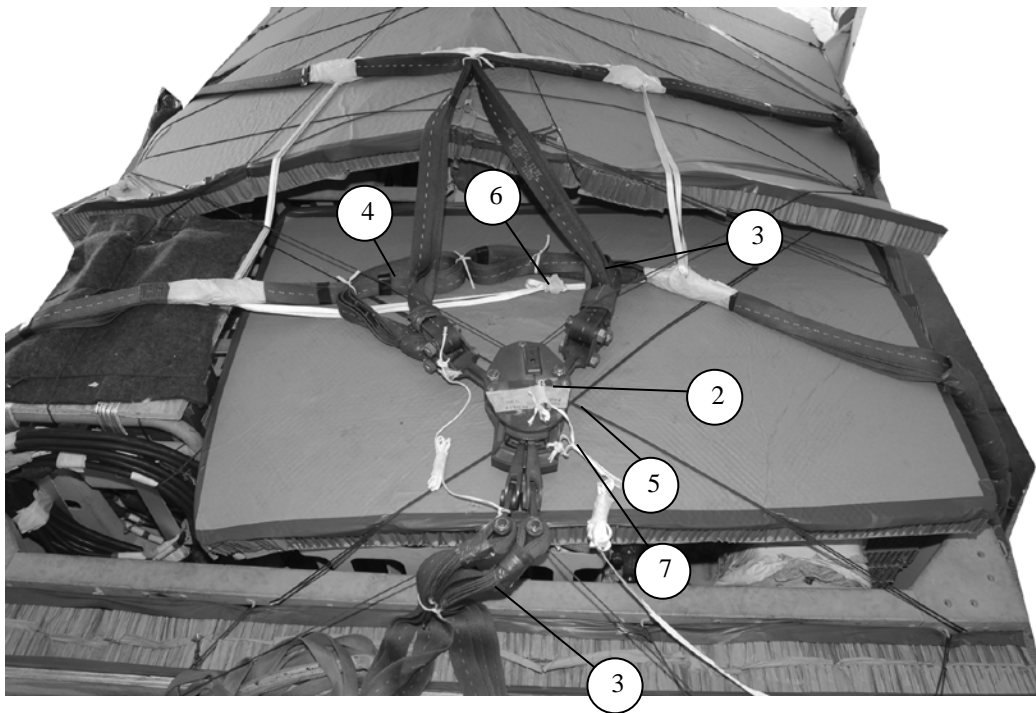


Figure 11-24. Cargo Parachute Positioned and Restrained

INSTALLING PARACHUTE RELEASE SYSTEM

11-20. Prepare and install an M-1 parachute release system according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 and as shown in Figure 11-25.



- ① Prepare an M-1 cargo parachute release assembly according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.
- ② Position the M-1 cargo parachute release assembly centered on the 59- by 36-inch honeycomb release platform.
- ③ Attach the suspension slings and riser extensions to the M-1 release according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.
- ④ S-fold the excess suspension slings and riser extensions. Secure with type I ¼-inch cotton.
- ⑤ Restrain the parachute release according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.
- ⑥ Tape the loose deadman's using a single wrap of masking tape.
- ⑦ Secure the arming wire and lanyard to the parachute carrying handle. S-fold any excess in the lanyard and secure using a single wrap of masking tape.

Figure 11-25. M-1 Parachute Release Installed

INSTALLING EXTRACTION SYSTEM

11-21. Install the extraction system as shown in Figure 11-26.

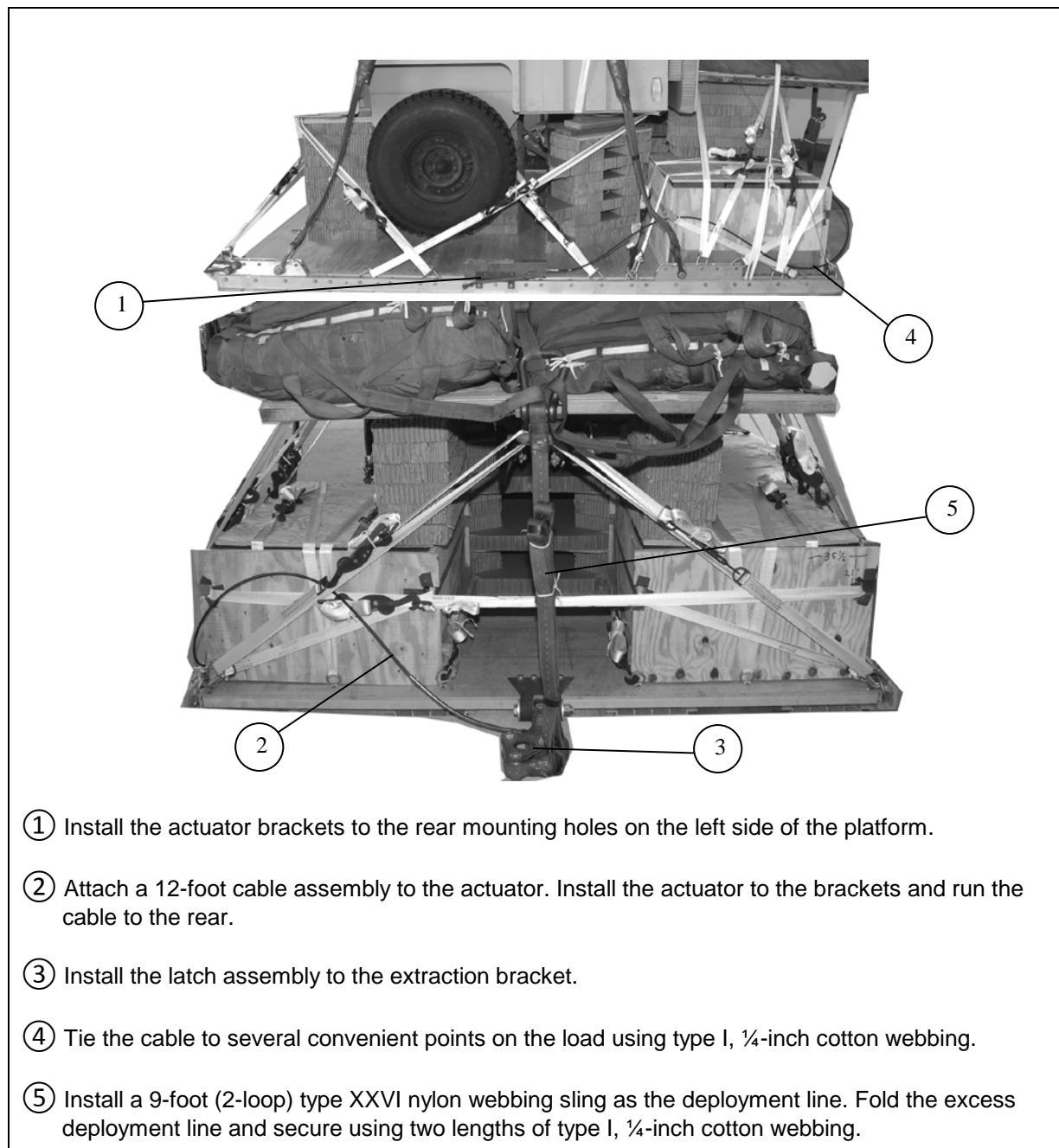


Figure 11-26. Extraction System Installed

PLACING EXTRACTION PARACHUTE

11-22. Select the extraction parachute and extraction line needed using the extraction line requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5. Place the extraction parachute and line on the load for installation in the aircraft.

INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

11-23. Select and install the provisions for the emergency aft restraints according to the emergency aft restraint requirements table in TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5.

MARKING RIGGED LOAD

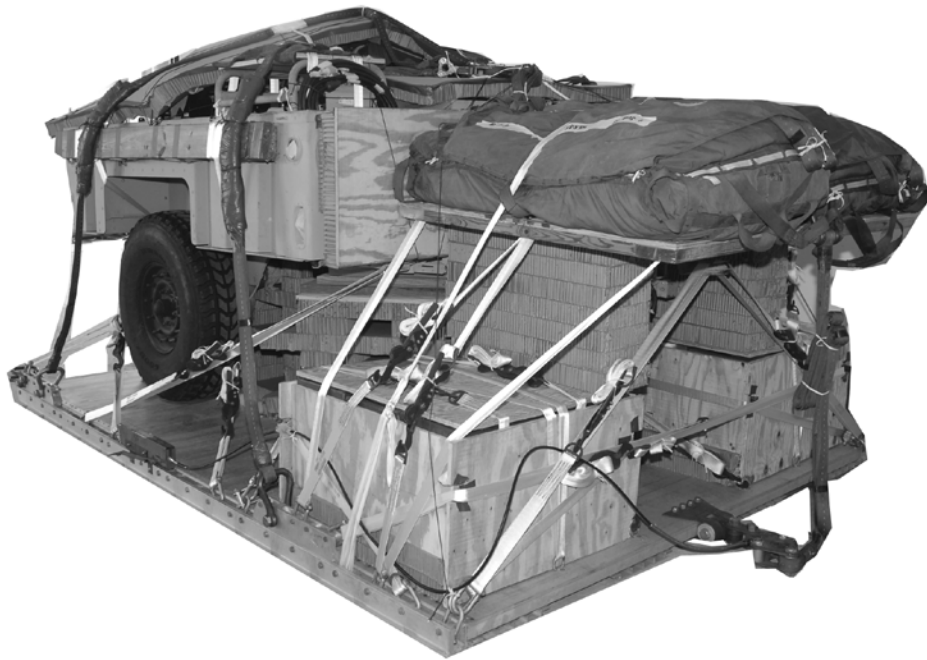
11-24. Mark the rigged load according to TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5, and as shown in Figure 11-27. Complete Shipper's Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, Center of Balance (CB), and parachute requirements must be recomputed.

EQUIPMENT REQUIRED

11-25. Use the equipment listed in Table 11-1 to rig this load.

CAUTION

Make the final rigger inspection required by AR 59-4 and TM 4-48.02 (FM 4-20.102)/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1-5 before the load leaves the rigging site.



RIGGED LOAD DATA

Weight: Load Shown.....	6,600 pounds
Height.....	84 inches
Width.....	108 inches
Overall Length	176 inches
Overhang: Front.....	14 inches
Rear (Lunette).....	18 inches
Center of Balance (CB) (from front edge of the platform).....	78 inches
Extraction System with 12-foot cable (adds 0 inches to the length of the load)	

Figure 11-27. Rigging an M1101 Trailer with Load on a 12-Foot, Type V Platform for Low Velocity Air Drop

Table 11-1. Equipment Required for Rigging an M1101 Trailer with Load on a 12-Foot, Type V Platform for Low Velocity Air Drop

<i>National Stock Number</i>	<i>Item</i>	<i>Quantity</i>
8040-00-273-8713	Adhesive paste, 1-gal.	As required
4030-00-090-5354	Clevis, suspension, 1-inch (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
1670-00-360-0328	Cover, clevis	2
8135-00-664-6958	Cushioning material (Cellulose padding)	As required
8305-00-958-3685	Felt, 1/2-inch thick	As required
1670-01-183-2678	Leaf, extraction line (line bag) (add 2 for C-17)	2
	Line extraction:	
1670-01-062-6313	60-foot (3-loop), type XXVI (for C-130)	1
1670-01-107-7651	140-foot (3-loop), type XXVI (for C-17)	1
1670-01-064-4452	60-foot (1-loop), type XXVI (for C-17), (drogue line)	1
1670-00-783-5988	Link assembly, type IV (C-17 only)	1
1670-01-493-6418	Link assembly, two-point, small, 3 ¾-inch	1
	Lumber:	
5510-00-220-6146	2- by 4- by 96-inch	3
5510-00-220-6148	2- by 6- by 96-inch	3
5315-00-010-4659	Nail, steel, common, 6D	As required
1670-00-753-3928	Pad, energy-dissipating (honeycomb)	20 sheets
1670-01-016-7841	Parachute, cargo, G-11B	2
	Parachute, cargo, extraction:	
1670-01-063-3715	15-foot (add one for C-17)	1
	Platform, airdrop, type V, 12-foot:	
1670-01-162-2372	Clevis assembly (type V)	14
1670-01-162-2376	Extraction bracket assembly	1
1670-01-247-2389	Link, suspension bracket, type V	2
1670-01-162-2381	Tandem link assembly (Multipurpose link)	2
5530-00-128-4981	Plywood, 3/4-inch	10 Sheets

Table 11-1. Equipment Required for Rigging an M1101 Trailer with Load on a 12-Foot, Type V Platform for Low Velocity Air Drop (continued)

<i>National Stock Number</i>	<i>Item</i>	<i>Quantity</i>
1670-01-097-8816	Release, cargo parachute, M-1	1
	Sling, cargo, airdrop:	
1670-01-062-6301	3-foot (2-loop), type XXVI	1
1670-01-062-6304	9-foot (2-loop), type XXVI	1
1670-01-062-6303	12-foot (2-loop), type XXVI	4
1670-01-062-6302	20-foot (2-loop), type XXVI	2
5340-00-040-8219	Strap, parachute, release, multi-knife	2
7501-00-266-5016	Tape, adhesive, 2-inch	As required
1670-00-937-0271	Tie-down assembly, 15-foot	38
1670-01-483-8259	Link, parachute, connector (H-block) (C-17 only)	1
	Webbing:	
8305-00-268-2411	Cotton, 1/4-inch, type I	As required
8305-00-082-5752	Nylon, tubular, 1/2-inch	As required
8305-00-261-8585	Nylon, type VIII	As required
Legend:	gal= gallon, lb = pound, ft = feet, D = penny	

Glossary

AFMAN	Air Force manual
AFTO	Air Force technical order
CB	center of balance
DA	Department of the Army
EFTC	extraction force transfer coupler
FM	field manual
HMT-L	high mobility trailer, light variant
MCO	Marine Corps order
MCRP	Marine Corps reference publication
MICLIC	mine-clearing line charge
NAVSEA	Naval Sea Systems Command
NAVSUP	Naval Supply Systems Command
TM	technical manual
TO	technical order

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15 March 2016

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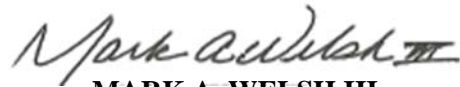
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