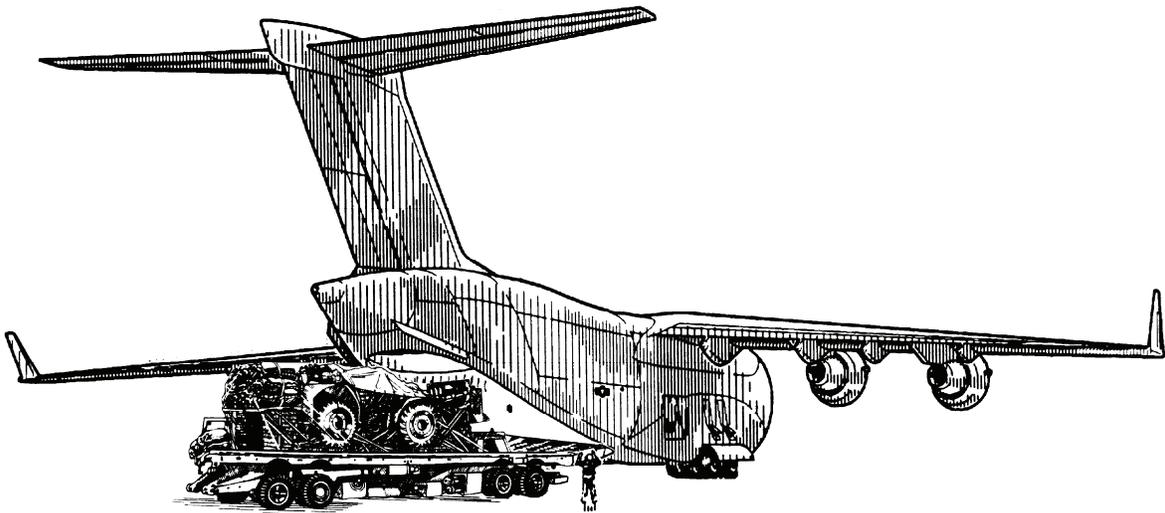


FM 4-20.167
TO 13C7-16-171
November 2006

**Airdrop of Supplies and Equipment:
Rigging Tracked Personnel – Cargo Carriers**



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Headquarters
Department of the Army
Department of the Air Force

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No. 4-20.167
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Headquarters
Department of the Army
Department of the Air Force
Washington, DC, 16 November 2006

Airdrop of Supplies and Equipment: Rigging Tracked Personnel – Cargo Carriers

Contents

	Page
PREFACE	iii
INTRODUCTION.....	iv
Chapter 1 RIGGING IC45 CRAWLER CARRIER ON A TYPE V PLATFORM FOR LOW-VELOCITY AIRDROP	1-1
Description of Load.....	1-1
Preparing Platform.....	1-2
Building and Positioning Honeycomb Stacks.....	1-3
Preparing the IC45 Crawler Carrier.....	1-8
Installing Lifting Slings and Positioning the Carrier	1-16
Lashing the Crawler Carrier	1-17
Installing and Lashing the Front Attitude Control Bar (ACB).....	1-19
Building the Parachute Stowage Platform.....	1-22
Installing and Restraining the Parachute Stowage Platform.....	1-23
Installing the Rear ACB	1-25
Installing Suspension Slings.....	1-29
Padding, Securing and Safety Tying Suspension Slings	1-30
Stowing Cargo Parachutes.....	1-31
Installing M-2 Release Assembly	1-32
Installing Extraction System	1-34
Installing Provisions for Emergency Restraints.....	1-35
Placing Extraction Parachute	1-35
Marking Rigged Load	1-35
Equipment Required.....	1-35
Chapter 2 RIGGING IC45-2 IHI CRAWLER CARRIER ON A TYPE V PLATFORM FOR LOW-VELOCITY AIRDROP	2-1
Description of Load.....	2-1
Preparing Platform.....	2-2
Building and Positioning Honeycomb Stacks.....	2-3
Preparing the IC45-2 IHI Crawler Carrier.....	2-9

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	Installing Lifting and Suspension Slings	2-31
	Lashing IC45-2 IHI Crawler Carrier	2-33
	Building the Parachute Stowage Platform	2-38
	Installing and Restraining the Parachute Stowage Platform	2-39
	Padding, Securing and Safety Tying Suspension Slings.....	2-41
	Stowing Cargo Parachutes	2-42
	Installing Extraction System.....	2-43
	Installing M-2 Release Assembly.....	2-44
	Installing Provisions for Emergency Restraints	2-45
	Placing Extraction Parachute.....	2-45
	Marking Rigged Load.....	2-45
	Equipment Required	2-45
Chapter 3	RIGGING M973A, 1 ½ -TON CARGO CARRIER SMALL UNIT SUPPORT VEHICLE (SUSV) ON A TYPE V PLATFORM FOR LOW-VELOCITY AIRDROP.....	3-1
	Description of Load	3-1
	Preparing Platform	3-2
	Building and Positioning Honeycomb Stacks	3-3
	Positioning Accompanying Load on the Platform	3-5
	Building Endboards and Lashing the Accompanying Load	3-6
	Lashing the Accompanying Load.....	3-7
	Preparing the SUSV.....	3-8
	Positioning the SUSV on the Platform	3-15
	Preparing the SUSV after Positioning.....	3-16
	Lashing the SUSV.....	3-18
	Installing Suspension Slings	3-22
	Padding and Securing Suspension Slings.....	3-24
	Building the Parachute Stowage Platform	3-25
	Installing Parachute Stowage Platform.....	3-26
	Stowing Cargo Parachutes	3-27
	Installing the M-2 Parachute Release Assembly	3-28
	Installing Extraction System.....	3-29
	Installing Provisions for Emergency Restraints	3-30
	Placing Extraction Parachute.....	3-30
	Marking Rigged Load.....	3-30
	Equipment Required	3-30
	GLOSSARY	Glossary-1
	REFERENCES.....	References-1

Preface

SCOPE

The purpose of this manual is to provide the latest approved procedures for rigging the IC45 crawler carrier, IC45-2 IHI crawler carrier and the M973A, 1 ½-ton cargo carrier small unit support vehicle (SUSV) on the type V platform for low-velocity airdrop from C-130 and C-17 aircraft. This manual is written for use by all parachute riggers.

This publication applies to the Active Army, the Army National Guard (ARNG)/Army National Guard of the United States (ARNGUS), and the United States Army Reserve (USAR) unless otherwise stated.

USER INFORMATION

The proponent of this publication is United States Army Training and Doctrine Command (TRADOC). You are encouraged to report any errors or omissions and to suggest ways of making this a better manual.

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Introduction

DESCRIPTION OF LOAD

- The IC45 crawler carrier is a small commercial off the shelf tracked dump truck. The IC45 crawler carrier is 98 ½ inches high (reducible to 77 ½ inches with the removal of the roll over protection system (ROPS) and canopy cover), 175 inches long, 101 ½ inches wide (reducible to 88 ½ inches with removal of the side mirrors) and weighs 12,790 pounds.
- The IC45-2 IHI crawler carrier is a small commercial off the shelf tracked dump truck with an attachment assembly. The IC45-2 IHI crawler carrier is 97 ½ inches in height (reducible to 81 ½ inches with the removal of the roll over protection system and canopy cover), 103 inches in width, 200 inches long, and weighs 16,500 pounds.
- The M973A, 1 ½-ton cargo carrier small unit support vehicle (SUSV) is a tracked vehicle with a driver's compartment and a cargo-troop carrier compartment attached to the rear. The vehicle is 271 inches long, 74 inches wide, 90 ½ inches high, and weighs 10,000 pounds. The vehicle must be rigged with an accompanying load that weighs at least 2,000 pounds but not more than 2,100 pounds. The accompanying load shown in this manual is 105-millimeter ammunition rigged on the front end of the platform; however other equipment may be used.

SPECIAL CONSIDERATIONS

CAUTION

Only ammunition listed in FM 4-20.153/MCRP 4-11.3B/TO 13C7-18-41 may be airdropped.

- The loads covered in this manual include hazardous material as defined in AFMAN 24-204(I)/TM 38-250/NAVSUP PUB 505.MCOP4030. The hazardous materials must be packaged, marked and labeled as required by AFMAN 24-204(I)/TM 38-250/NAVSUP PUB 505/MCO P4030.19H.
- A copy of this manual must be available to the Joint Airdrop Inspectors during the before and after loading inspection in accordance with AR 59-4/OPNAVINST 4630.24C/AFI 13-210(I)/MCO 13480.1B.

Chapter 1

Rigging IC45 Crawler Carrier on a Type V Platform for Low-Velocity Airdrop

DESCRIPTION OF LOAD

1-1. The IC45 crawler carrier is described in the introduction. The IC45 crawler carrier is rigged on a 16-foot, type V airdrop platform. The total rigged weight of the load is 17,480 pounds and this load requires four G-11 cargo parachutes. The IC45 crawler carrier is shown in Figure 1-1.



Figure 1-1. IC45 Crawler Carrier

PREPARING PLATFORM

1-2. Prepare a 16-foot, type V airdrop platform according to TM 10-1670-268-20&P/TO 13C7-52-22. Install 2 tandem links, 4 suspension brackets and 32 tiedown clevis assemblies as shown in Figure 1-2.

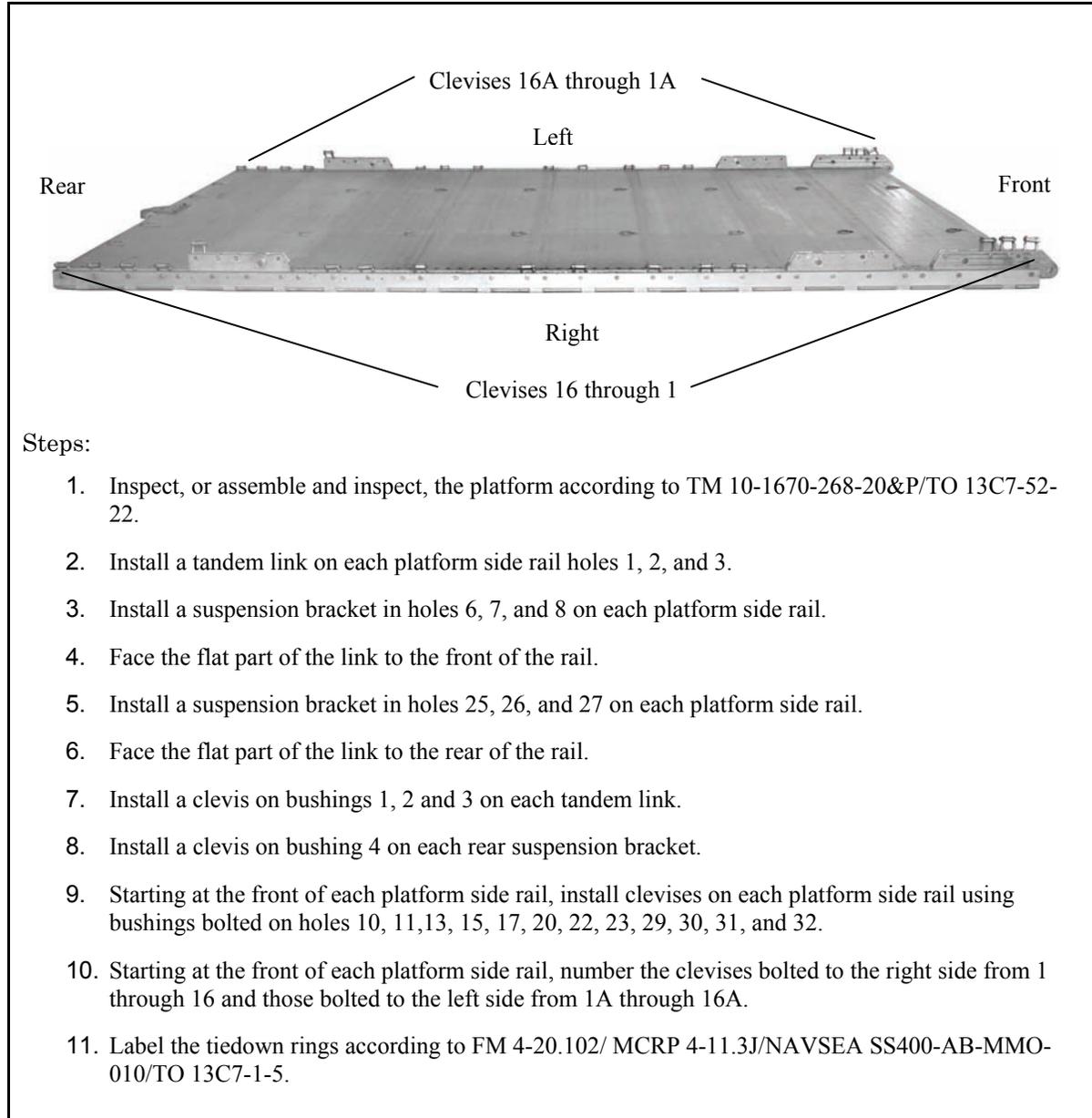


Figure 1-2. Platform Prepared

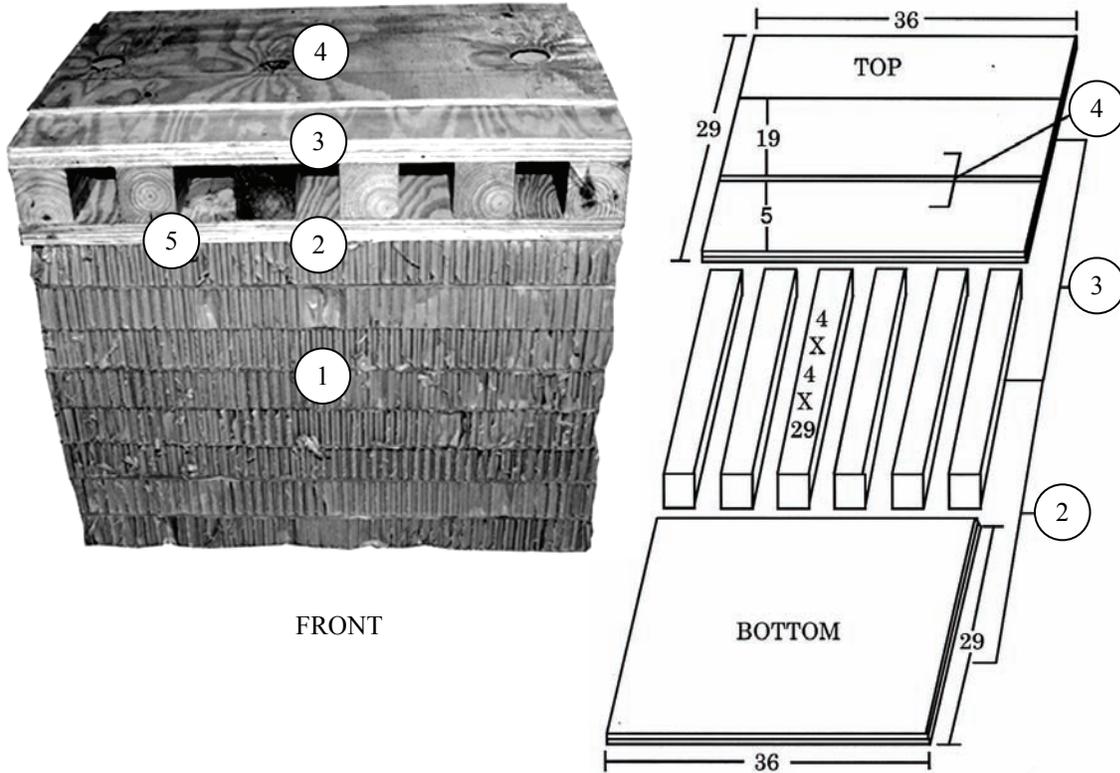
BUILDING AND POSITIONING HONEYCOMB STACKS

1-3. Build honeycomb stacks as shown in Figures 1-3 through 1-5 using the materials listed in Table 1-1. Position the honeycomb stacks on the platform as shown in Figure 1-6.

Table 1-1. Materials Needed for Honeycomb Stacks

<i>Stack Number</i>	<i>Pieces</i>	<i>Width (Inches)</i>	<i>Length (Inches)</i>	<i>Material</i>	<i>Instructions</i>
1	8	36	29	Honeycomb	See Figure 1-3.
	4	36	29	¾ inch Plywood	
	6	4 X 4	29	Lumber	
	1	36	19	½ inch Plywood	
2	8	36	19	Honeycomb	See Figure 1-4.
	4	36	19	¾ inch Plywood	
	6	4 X 4	19	Lumber	
	2	2 X 4	19	Lumber	
	2	2 X 6	19	Lumber	
3	8	36	19	Honeycomb	See Figure 1-5.
	3	36	19	¾ inch Plywood	
	6	4 X 4	19	Lumber	
	1	36	19	½ inch Plywood	
	2	2 X 8	19	Lumber	
	1	21	19	½ inch Plywood	
	1	21	19	¾ inch Plywood	
4 and 5	8	18	96	Honeycomb	See Figure 1-5.

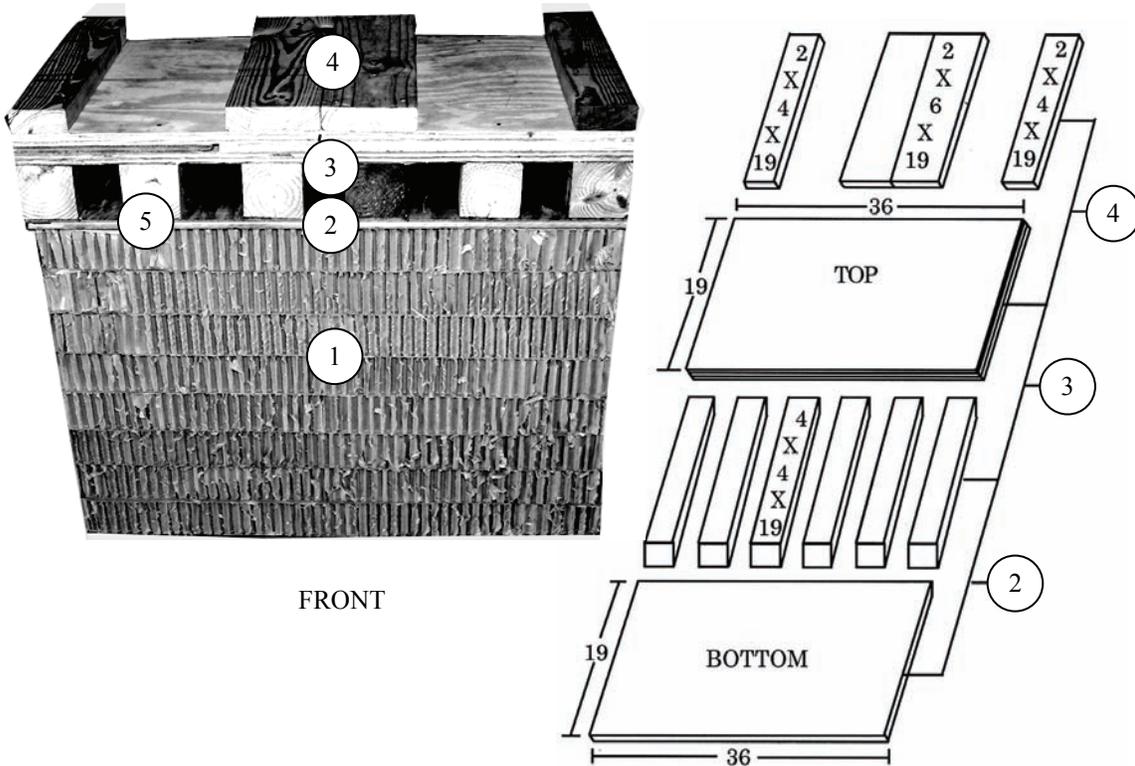
- Notes.** 1. Not drawn to scale.
2. All dimensions are given in inches.



- 1 Glue eight 29- by 36-inch pieces of honeycomb together to form a base.
- 2 Place and nail six 4- by 4- by 29-inch pieces of lumber on top of two 29- by 36- by $\frac{3}{4}$ -inch pieces of plywood. Place the 4- by 4-inch pieces of lumber flush with sides, front, back and evenly spaced.
- 3 Nail two 29- by 36- by $\frac{1}{2}$ -inch pieces of plywood flush on top of the six 4- by 4-inch pieces of lumber.
- 4 Place and nail a 19- by 36- by $\frac{1}{2}$ -inch piece of plywood flush with the sides and 5 inches from the front on top of the plywood placed in step 3.
- 5 Glue the wood stack on the honeycomb stack made in step 1.

Figure 1-3. Honeycomb Stack 1 Prepared

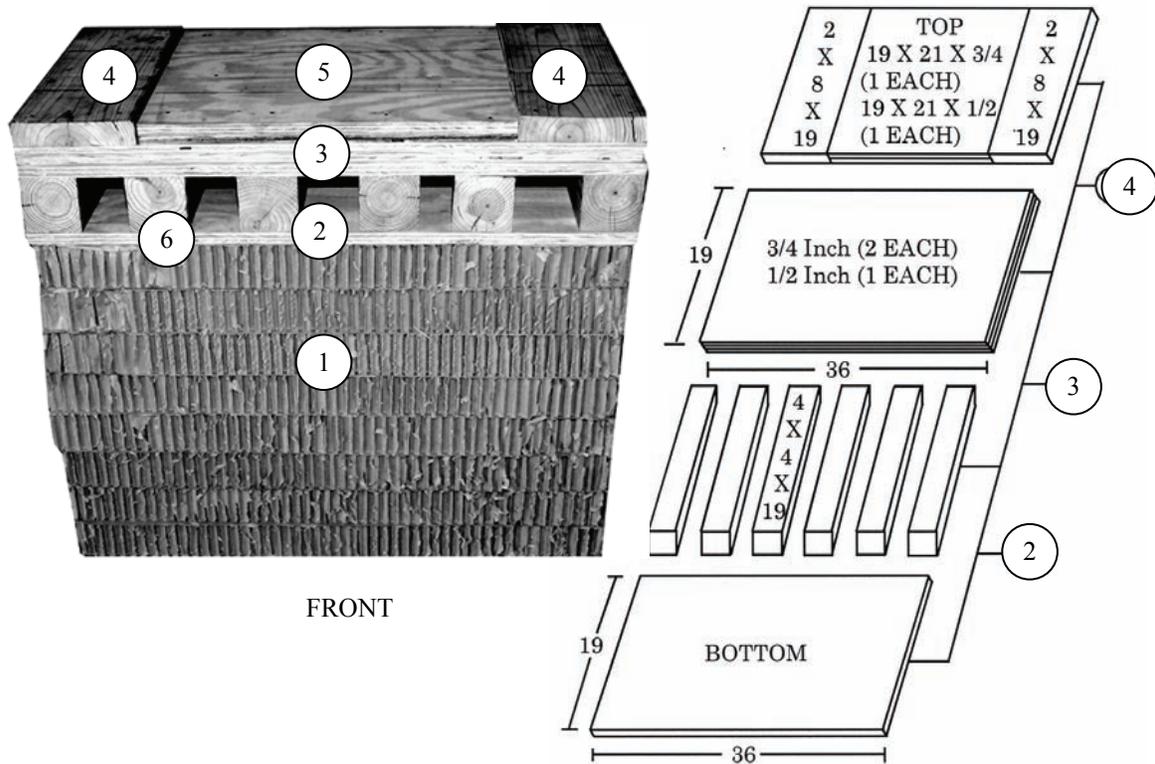
- Notes.** 1. Not drawn to scale.
2. All dimensions are given in inches.



- 1 Glue eight pieces of 19- by 36-inch honeycomb together to form a base.
- 2 Place and nail six 4- by 4- by 19-inch pieces of lumber on top of one 19- by 36- by 3/4-inch piece of plywood. Place the 4 by 4 pieces of lumber flush with sides, front, back and evenly spaced.
- 3 Nail three 19- by 36- by 3/4-inch pieces of plywood flush on top of the six 4- by 4-inch pieces of lumber.
- 4 Place and nail one 2- by 4- by 19-inch piece of lumber on the left and right edge, flush with the front and back. Place and nail two 2- by 6- by 19-inch pieces of lumber side by side in the center on top of the 19- by 36- by 3/4-inch piece of plywood placed in step 3.
- 5 Glue and place wood stack on honeycomb stack made in step 1.

Figure 1-4. Honeycomb Stack 2 Prepared

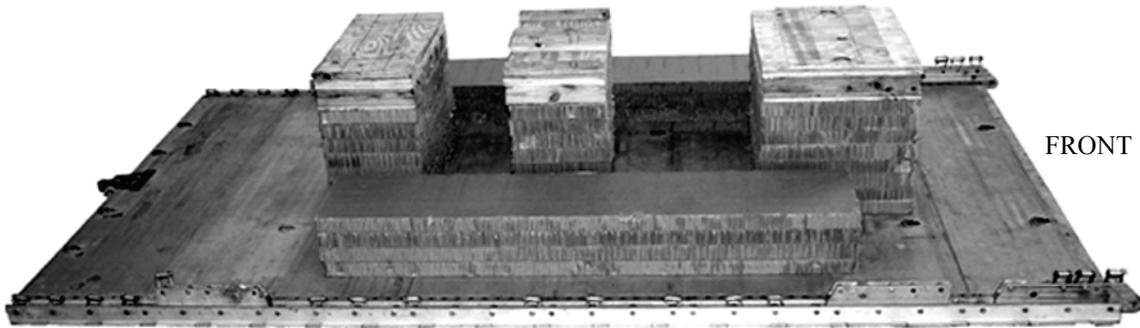
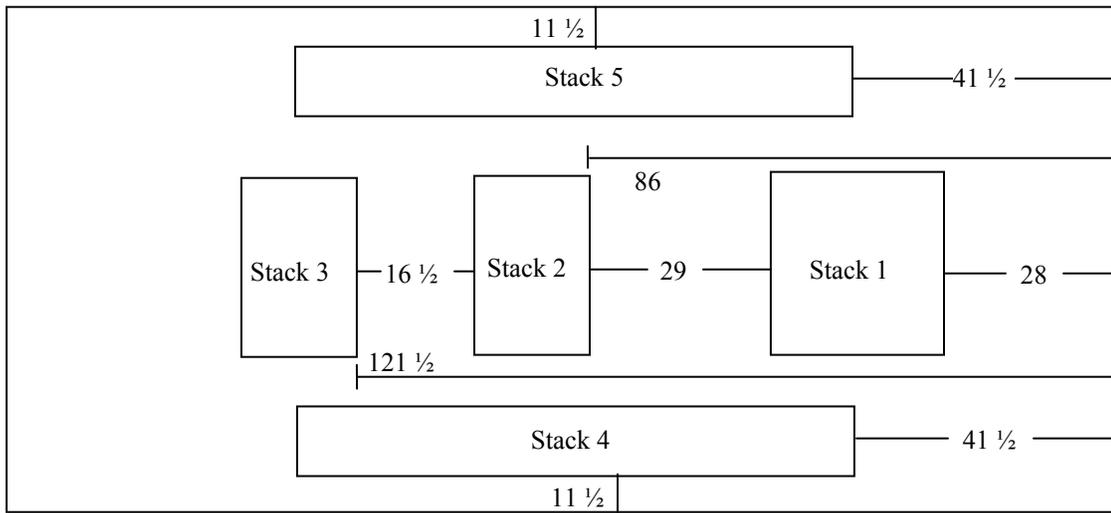
- Notes.** 1. Not drawn to scale.
2. All dimensions are given in inches.



- 1 Glue eight pieces of 19- by 36-inch honeycomb together to form a base.
- 2 Place and nail six 4- by 4- by 19-inch pieces of lumber on top of one 19- by 36- by $\frac{3}{4}$ -inch piece of plywood. Place the 4 by 4's flush with sides, front, back and evenly spaced.
- 3 Nail two 19- by 36- by $\frac{3}{4}$ -inch pieces and one 19- by 36- by $\frac{1}{2}$ -inch piece of plywood flush on top of the six 4- by 4-inch pieces of lumber.
- 4 Place and nail one 2- by 8- by 19-inch piece of lumber on the left and right edge, flush with the front and back on top of the plywood positioned in step 3.
- 5 Place and nail one piece of 19- by 21- by $\frac{1}{2}$ -inch plywood and one piece of 19- by 21- by $\frac{3}{4}$ -inch plywood on top of the 19- by 36- by $\frac{3}{4}$ -inch piece of plywood in step 3 and in between the lumber in step 4 flush with the front and back.
- 6 Glue and place wood stack on top of the honeycomb stack made in step 1.
- 7 To form stack 4, glue four 18- by 96-inch pieces of honeycomb together (Not Shown).
- 8 To form stack 5, glue four 18- by 96-inch pieces of honeycomb together (Not Shown).

Figure 1-5. Honeycomb Stack 3, 4 and 5 Prepared

- Notes.** 1. Not drawn to scale.
2. All dimensions are given in inches.



Stack Number	Position of Stacks on the Platform
1	Place stack: Centered 28 inches from the front edge of the platform.
2	Centered 29 inches from stack 1 or 86 inches from the front edge of the platform.
3	Centered 16 1/2 inches from the rear edge of stack 2 or 121 1/2 inches from the front edge of the platform.
4	41 1/2 inches from the front edge of the platform and 11 1/2 inches from the right side of the platform.
5	41 1/2 inches from the front edge of the platform and 11 1/2 inches from the left side of the platform.

Figure 1-6. Honeycomb Stacks Positioned on the Platform

PREPARING THE IC45 CRAWLER CARRIER

1-4. Prepare the IC45 crawler carrier as follows: Make sure the fuel tank is no more than $\frac{3}{4}$ full. Make sure the battery and battery compartment complies with AFMAN 24-204(I)/ TM 38-250. Prepare the rest of the IC45 crawler carrier using Table 1-2 and as shown in Figures 1-7 through 1-11.

CAUTION

Make sure all equipment is removed by a qualified operator or qualified maintenance personnel.

Table 1-2. Materials Required to Prepare the Bed and Build the Canopy Cover and Cab Protective box

<i>Pieces</i>	<i>Width</i>	<i>Length</i>	<i>Material</i>	<i>Instruction</i>
1	6	18	Honeycomb	See Figure 1-7
1	6	18	$\frac{3}{4}$ " Plywood	See Figure 1-7
1	32	75	Honeycomb	See Figure 1-9
1	36	75	Honeycomb	See Figure 1-9
1	22	75	Honeycomb	See Figure 1-9
1	31 $\frac{1}{2}$	51	$\frac{3}{4}$ " Plywood	See Figure 1-9
2	3	20	Honeycomb	See Figure 1-9
2	32	33	$\frac{3}{4}$ " Plywood	Cut a 6 $\frac{1}{2}$ - by 21-inch piece out of each side. See Figure 1-10
1	33	50 $\frac{1}{2}$	2 X 4 Lumber	See Figure 1-10
2	2 X 4	33	2 X 4 Lumber	See Figure 1-10
2	2 X 4	12	$\frac{3}{4}$ " Plywood	See Figure 1-10
1	12	50 $\frac{1}{2}$	$\frac{3}{4}$ " Plywood	See Figure 1-10
1	32	52	$\frac{3}{4}$ " Plywood	See Figure 1-10

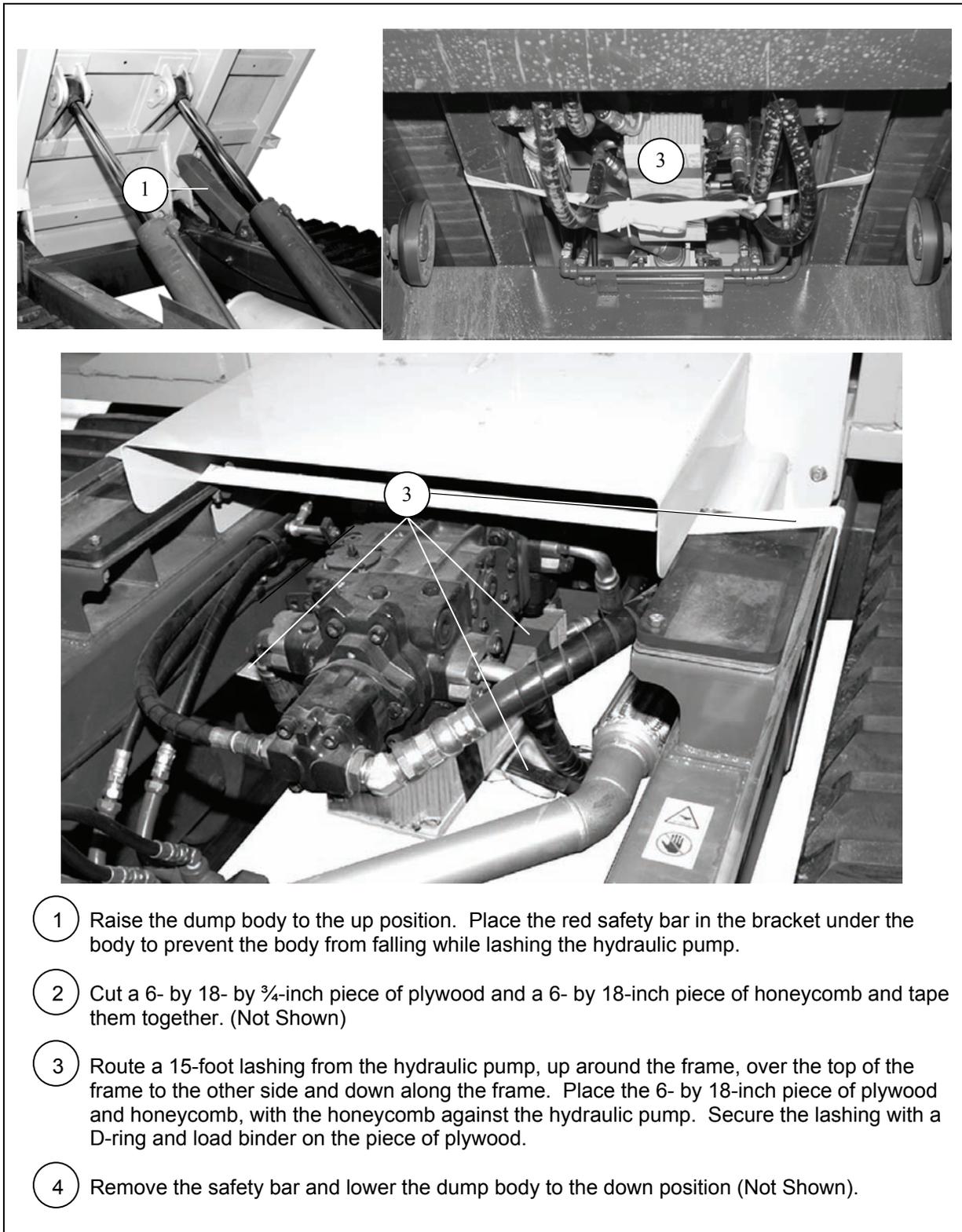
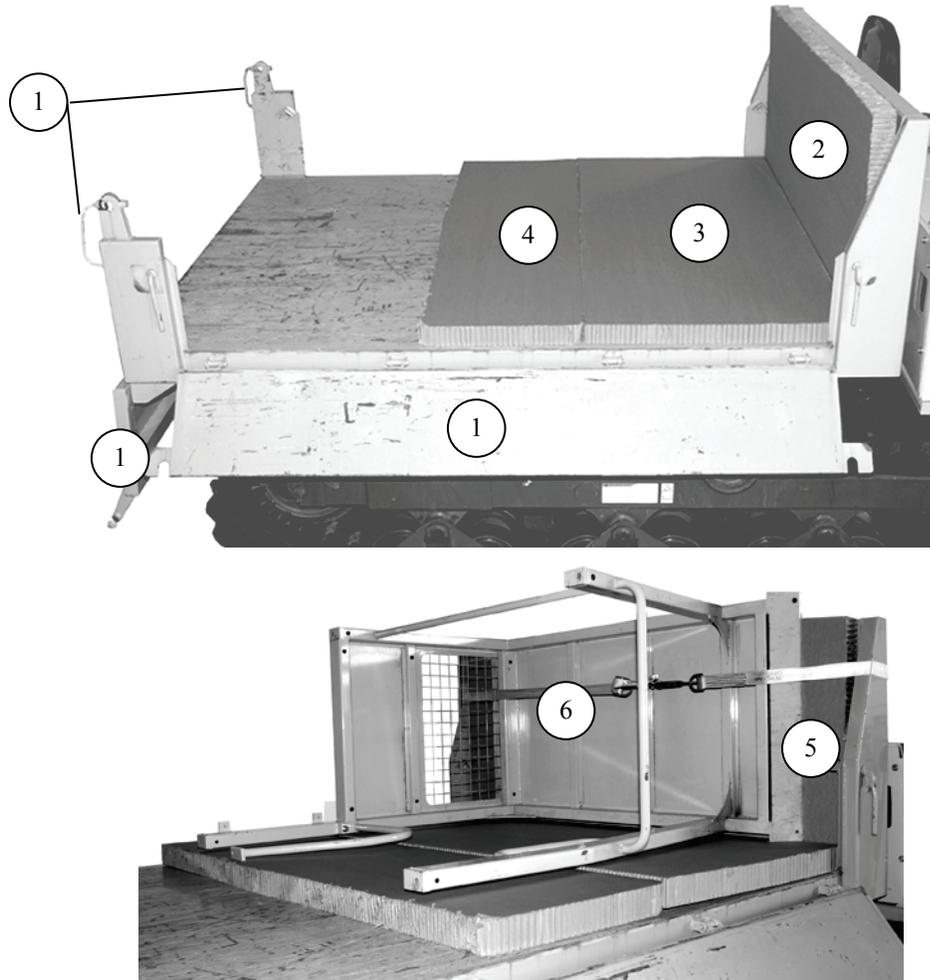


Figure 1-7. Dump Body Prepared



Figure 1-8. Components Stowed



- 1 Lower the dump body's side and rear gate panels. Move the gate locking levers to the down position.
- 2 Cut a 32- by 75-inch piece of honeycomb. Position the honeycomb flush against the forward end of the dump body in the vertical position.
- 3 Cut a 36- by 75-inch piece of honeycomb. Position the honeycomb flush against the honeycomb placed in step 2.
- 4 Cut a 22- by 75-inch piece of honeycomb. Position the honeycomb flush against the honeycomb placed in step 3.
- 5 Place the cab canopy cover top against and centered on the honeycomb placed in step 2 through 4. Place the rear of the cab canopy cover to the left side of the dump body.
- 6 Route a 15-foot lashing around the front of the dump body and around the cab canopy cover. Secure the lashing with a D-ring and load binder inside the cab canopy cover.

Figure 1-9. Dump Body, Gates, and Cab Canopy Cover Prepared

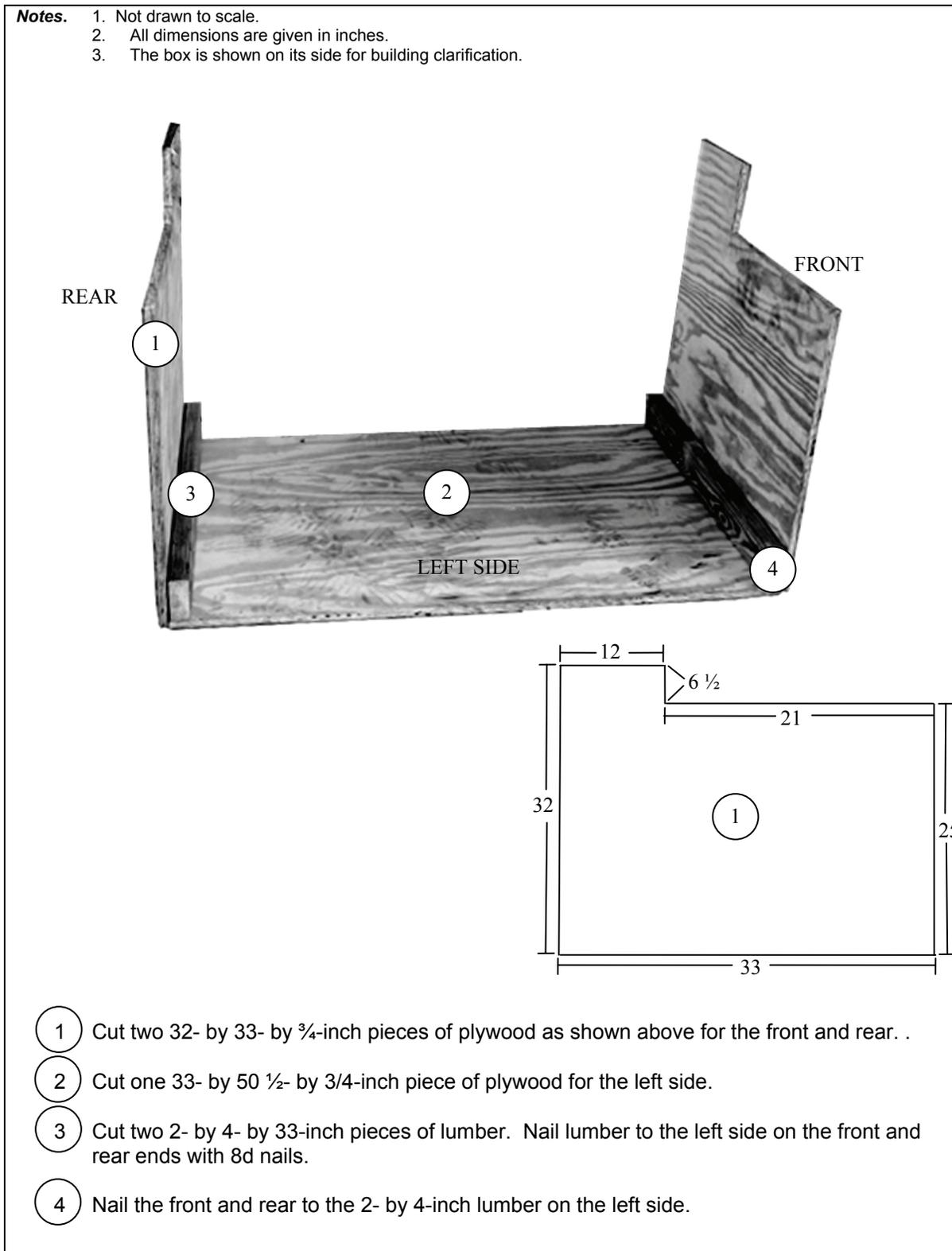
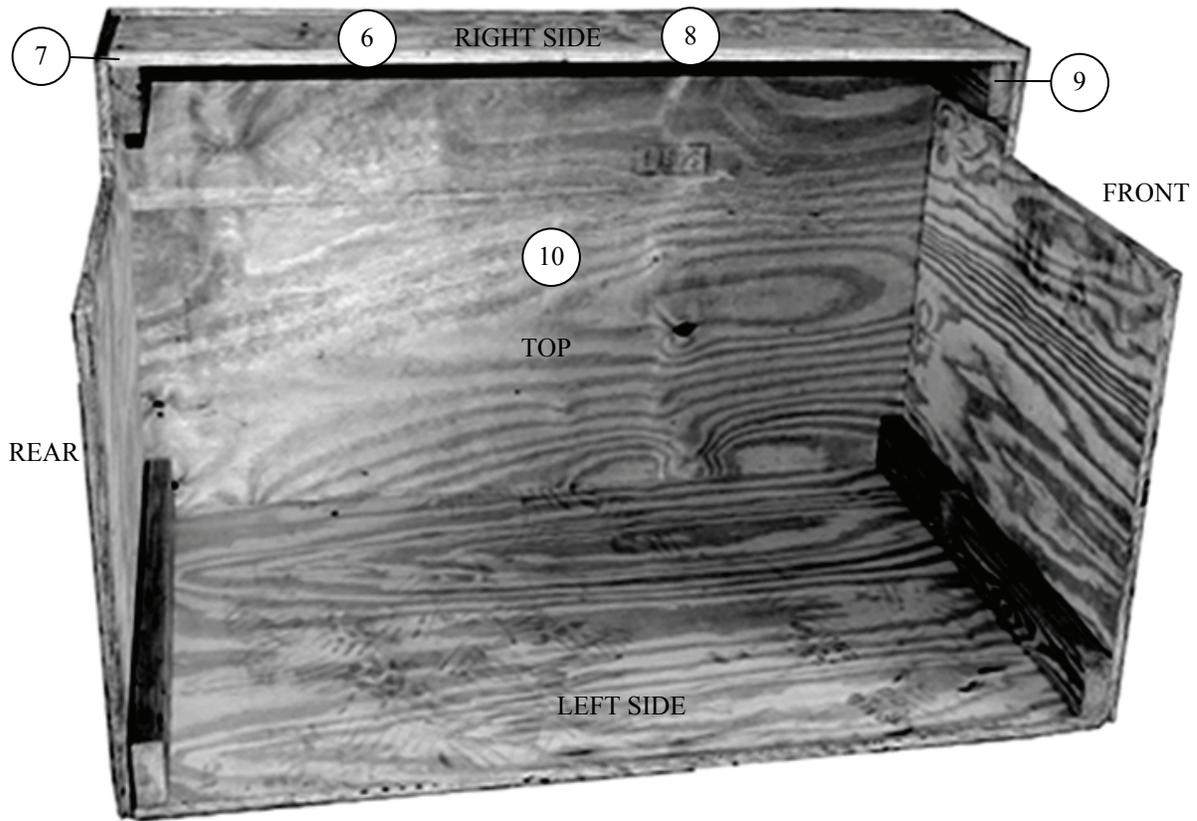


Figure 1-10. Protective Cab Box Built

- Notes.**
1. Not drawn to scale.
 2. All dimensions are given in inches.
 3. The box is shown on its side for building clarification.



- 5 Cut two 2- by 4- by 12-inch pieces of lumber. (Not Shown)
- 6 Cut a 12- by 50 1/2- by 3/4-inch piece of plywood for the right side.
- 7 Nail the right side to the 2- by 4- by 12- inch piece of lumber with 8d nails.
- 8 Place the right side in between the front and rear pieces.
- 9 Nail the front and rear to the right side with 8d nails.
- 10 Cut a 32- by 52- by 3/4-inch piece of plywood for the top. Nail the top to the sides, the front and the rear with 8d nails.

Figure 1-10. Protective Cab Box Built (Continued)

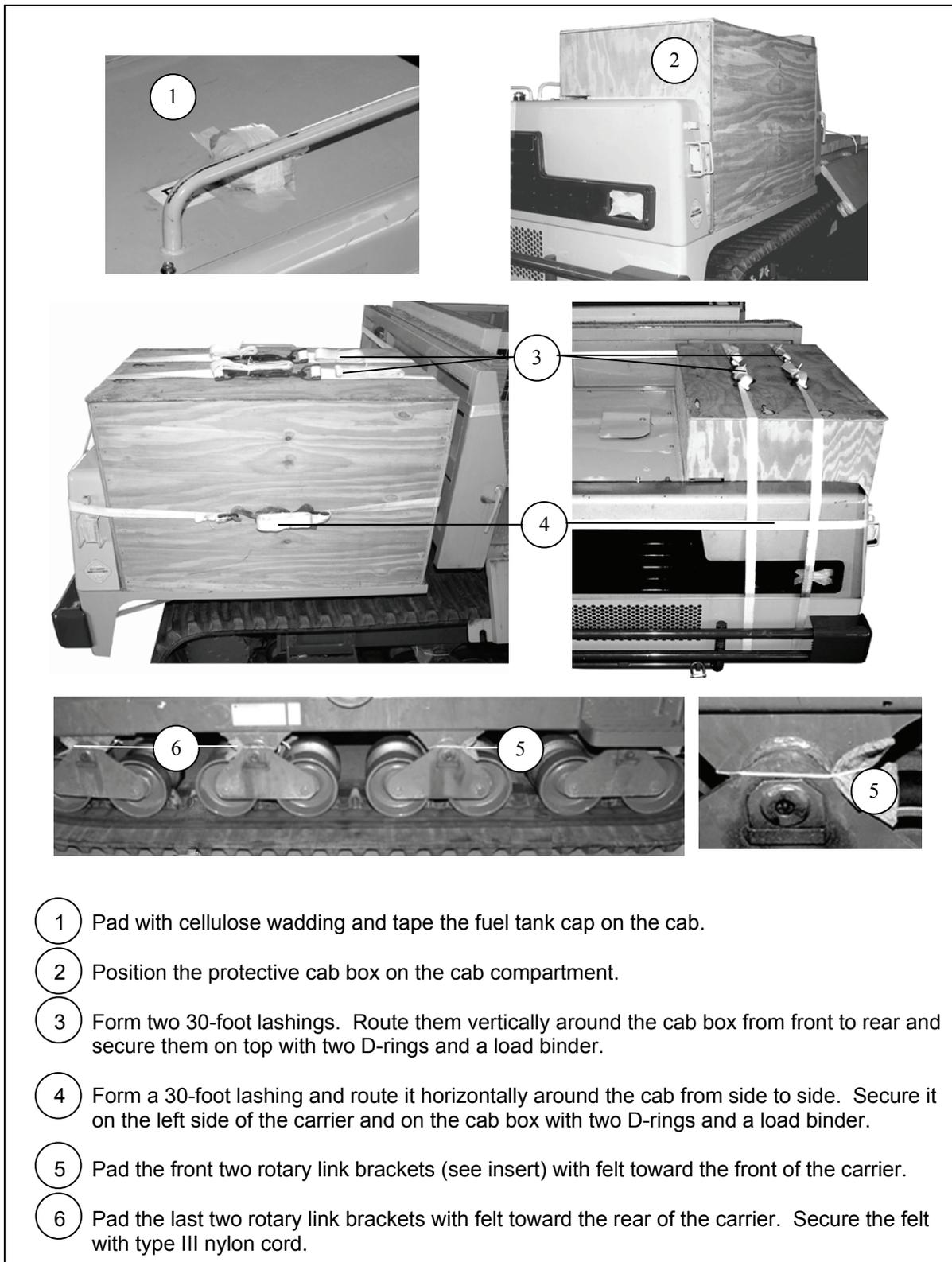


Figure 1-11. Protective Cab Box, Fuel Cap and Brackets Prepared

INSTALLING LIFTING SLINGS AND POSITIONING THE CARRIER

1-5. Install lifting slings and position the IC45 crawler carrier as shown in Figure 1-12.

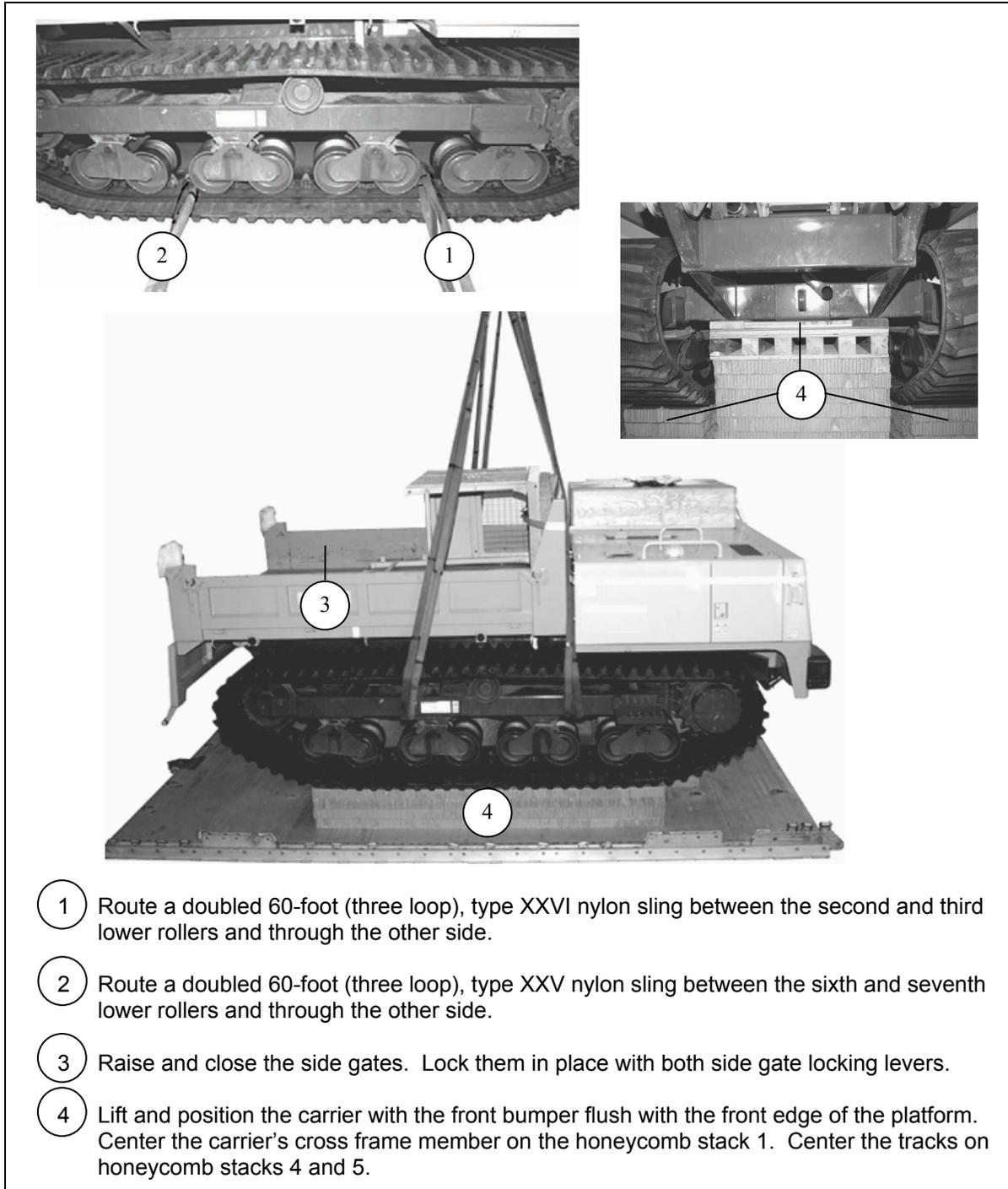


Figure 1-12. Carrier Positioned

LASHING THE CRAWLER CARRIER

1-6. Lash the IC45 crawler carrier to the platform with sixteen 15-foot tiedown assemblies according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figures 1-13 and 1-14. Pad all sharp edges the lashings may come into contact with.

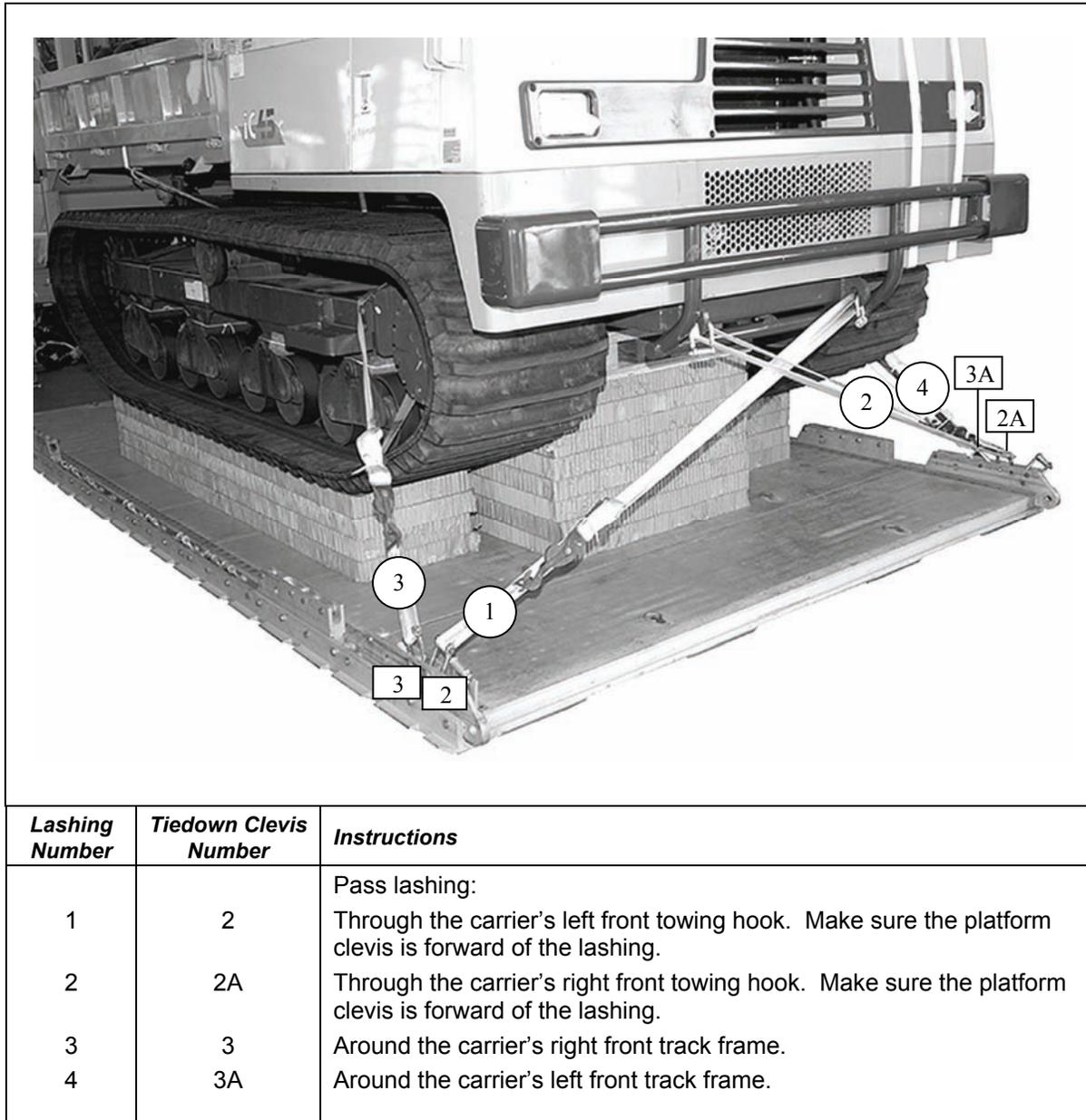
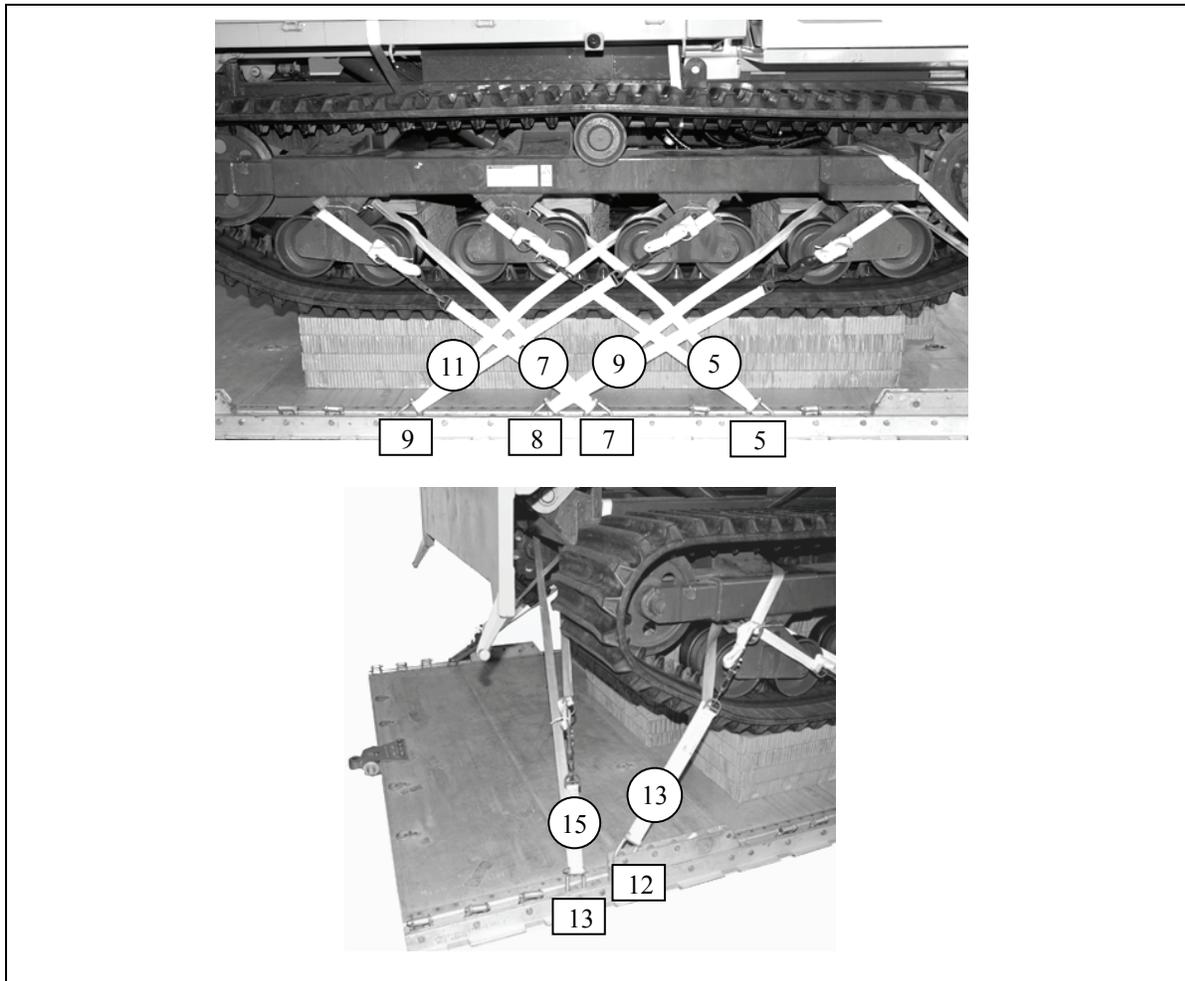


Figure 1-13. Lashings 1 Through 4 Installed



Lashing Number	Tiedown Clevis Number	Instructions
5	5	Pass lashing: Around the carrier's right side third rotary link bracket.
6	5A	Around the carrier's left side third rotary link bracket.
7	7	Around the carrier's right side fourth rotary link bracket.
8	7A	Around the carrier's left side fourth rotary link bracket.
9	8	Around the carrier's right side first rotary link bracket.
10	8A	Around the carrier's left side first rotary link bracket.
11	9	Around the carrier's right side second rotary link bracket.
12	9A	Around the carrier's left side second rotary link bracket.
13	12	Around the carrier's right rear track frame.
14	12A	Around the carrier's left rear track frame.
15	13	To the carrier's left side main frame.
16	13A	To the carrier's right side main frame.

Figure 1-14. Lashings 5 Through 16 Installed

INSTALLING AND LASHING THE FRONT ATTITUDE CONTROL BAR (ACB)

1-7. Install and lash the front ACB to the platform using eight 15-foot tiedown assemblies. Install the lashings as shown in Figure 1-15.

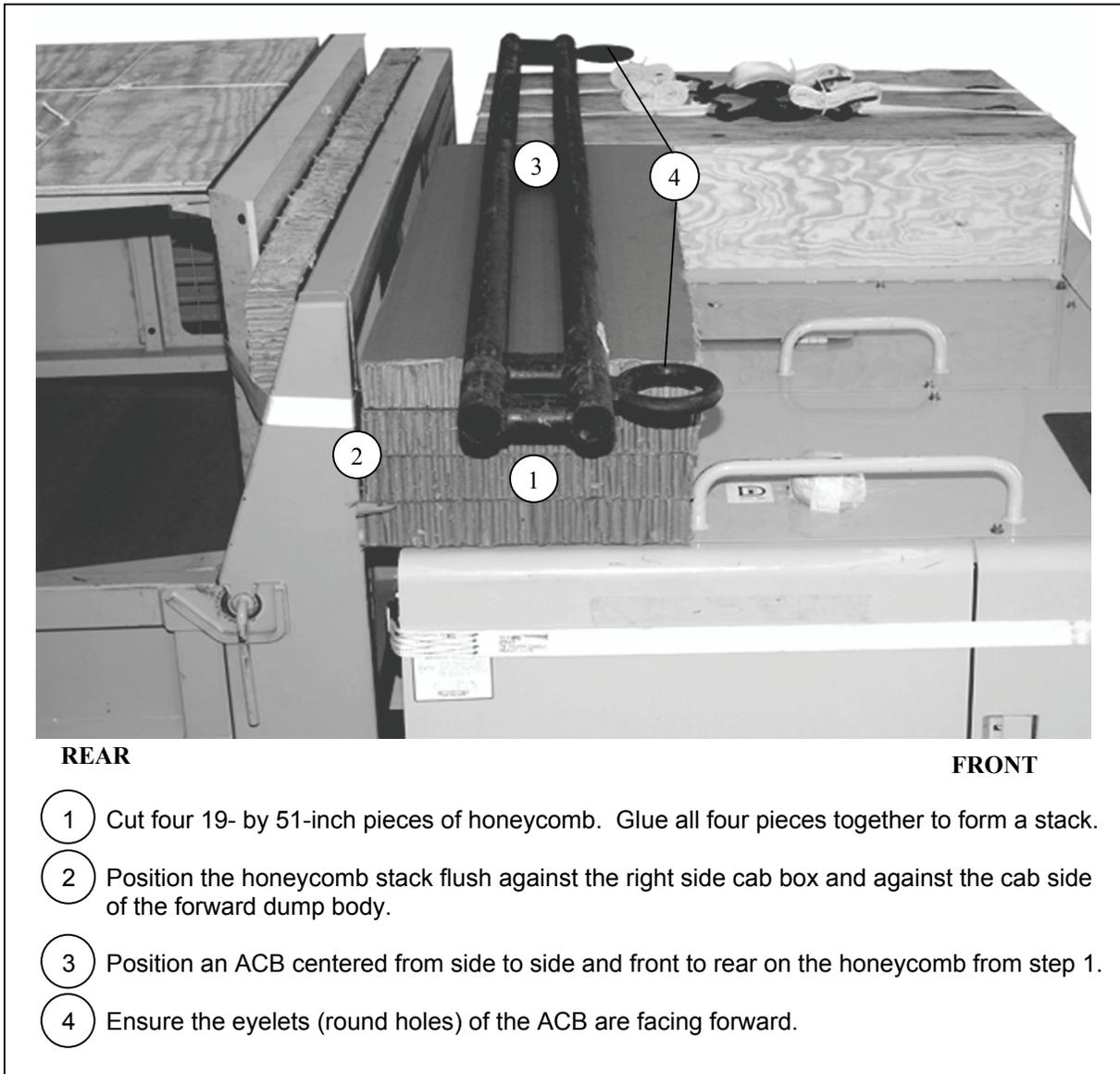
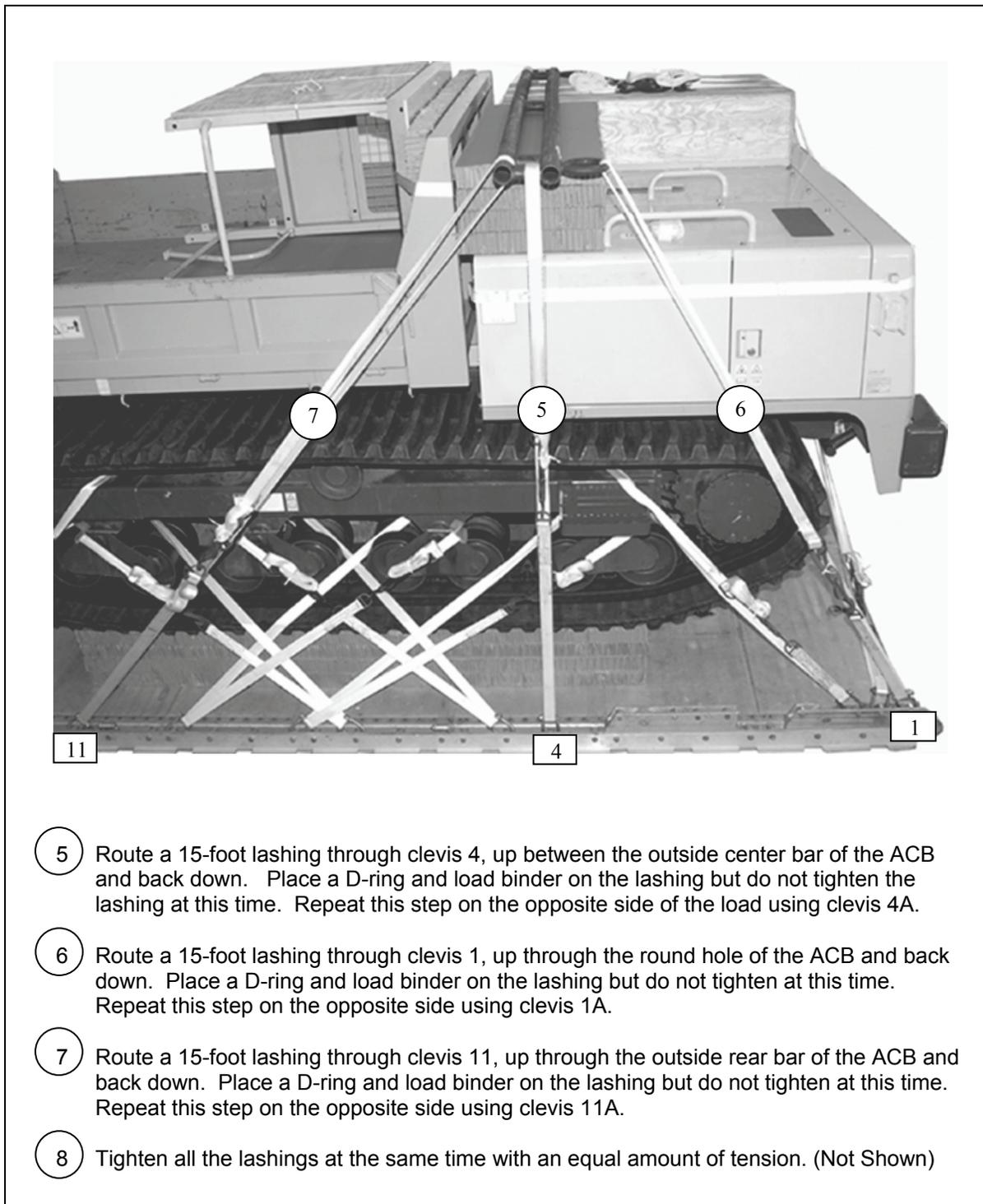


Figure 1-15. Front ACB Lashed



- 5 Route a 15-foot lashing through clevis 4, up between the outside center bar of the ACB and back down. Place a D-ring and load binder on the lashing but do not tighten the lashing at this time. Repeat this step on the opposite side of the load using clevis 4A.
- 6 Route a 15-foot lashing through clevis 1, up through the round hole of the ACB and back down. Place a D-ring and load binder on the lashing but do not tighten at this time. Repeat this step on the opposite side using clevis 1A.
- 7 Route a 15-foot lashing through clevis 11, up through the outside rear bar of the ACB and back down. Place a D-ring and load binder on the lashing but do not tighten at this time. Repeat this step on the opposite side using clevis 11A.
- 8 Tighten all the lashings at the same time with an equal amount of tension. (Not Shown)

Figure 1-15. Front ACB Lashed (Continued)

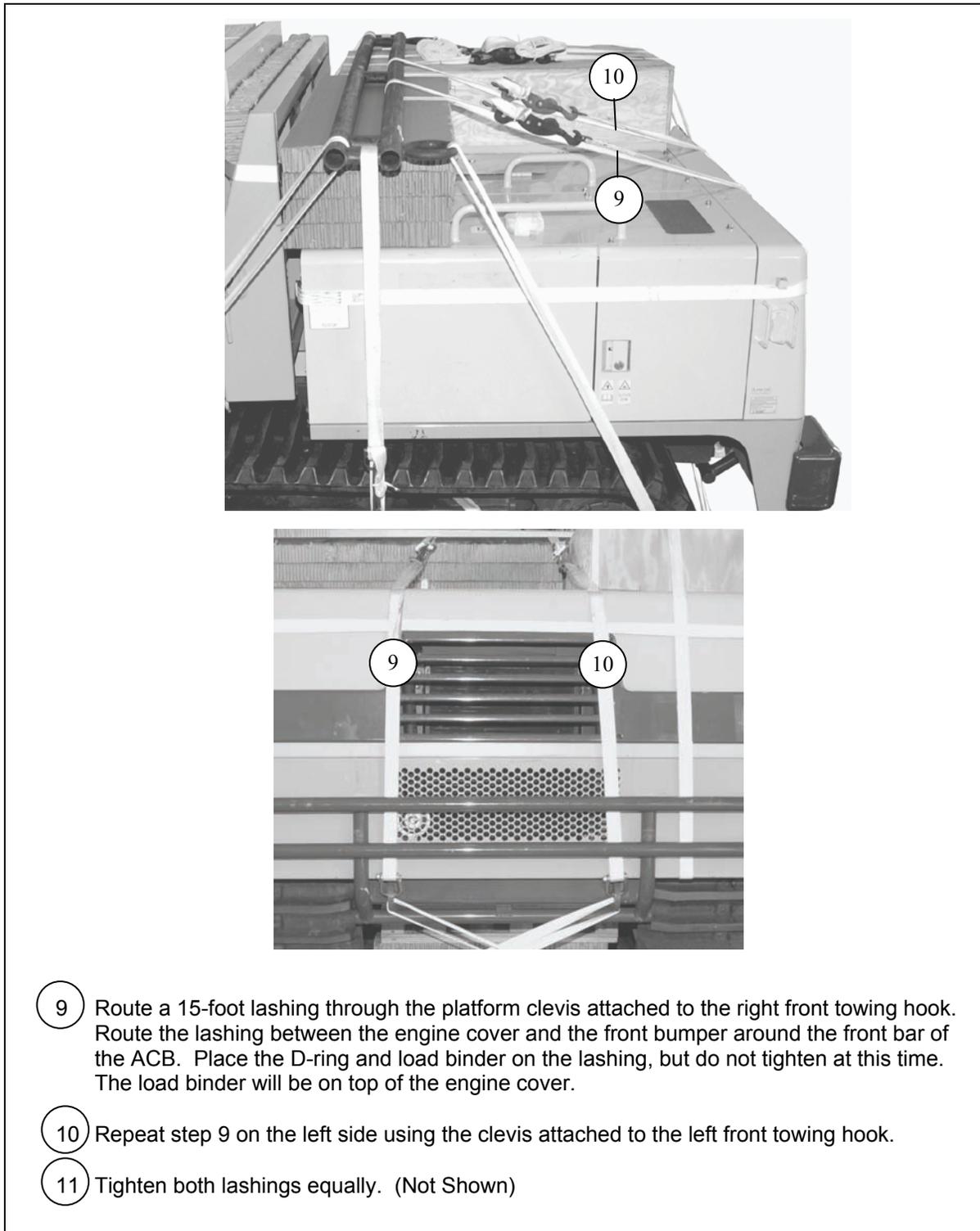


Figure 1-15. Front ACB Lashed (Continued)

BUILDING THE PARACHUTE STOWAGE PLATFORM

1-8. Build a parachute stowage platform as shown in Figure 1-16.

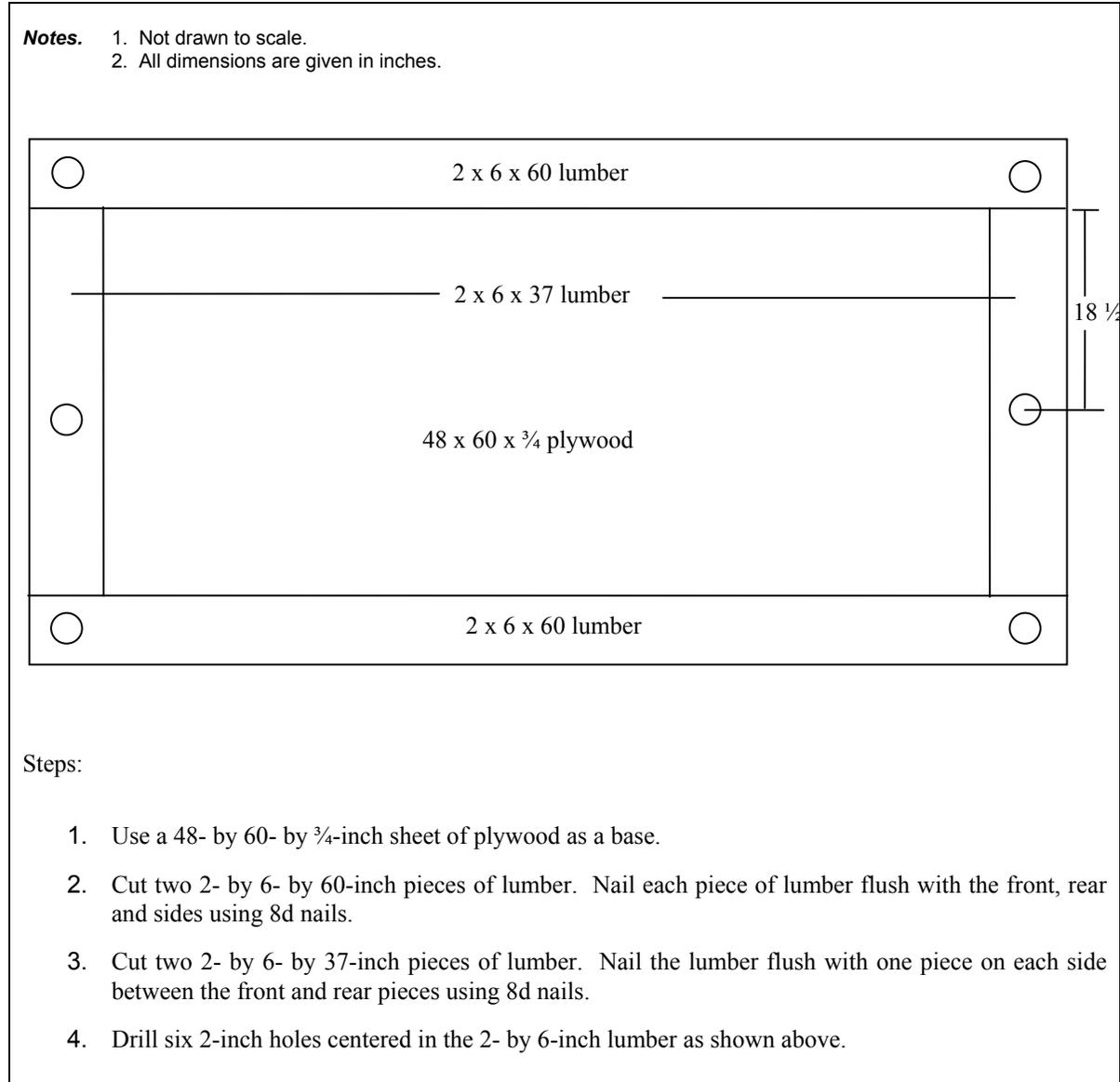


Figure 1-16. Parachute Stowage Platform Built

INSTALLING AND RESTRAINING THE PARACHUTE STOWAGE PLATFORM

1-9. Install the parachute stowage platform as shown in Figure 1-17.

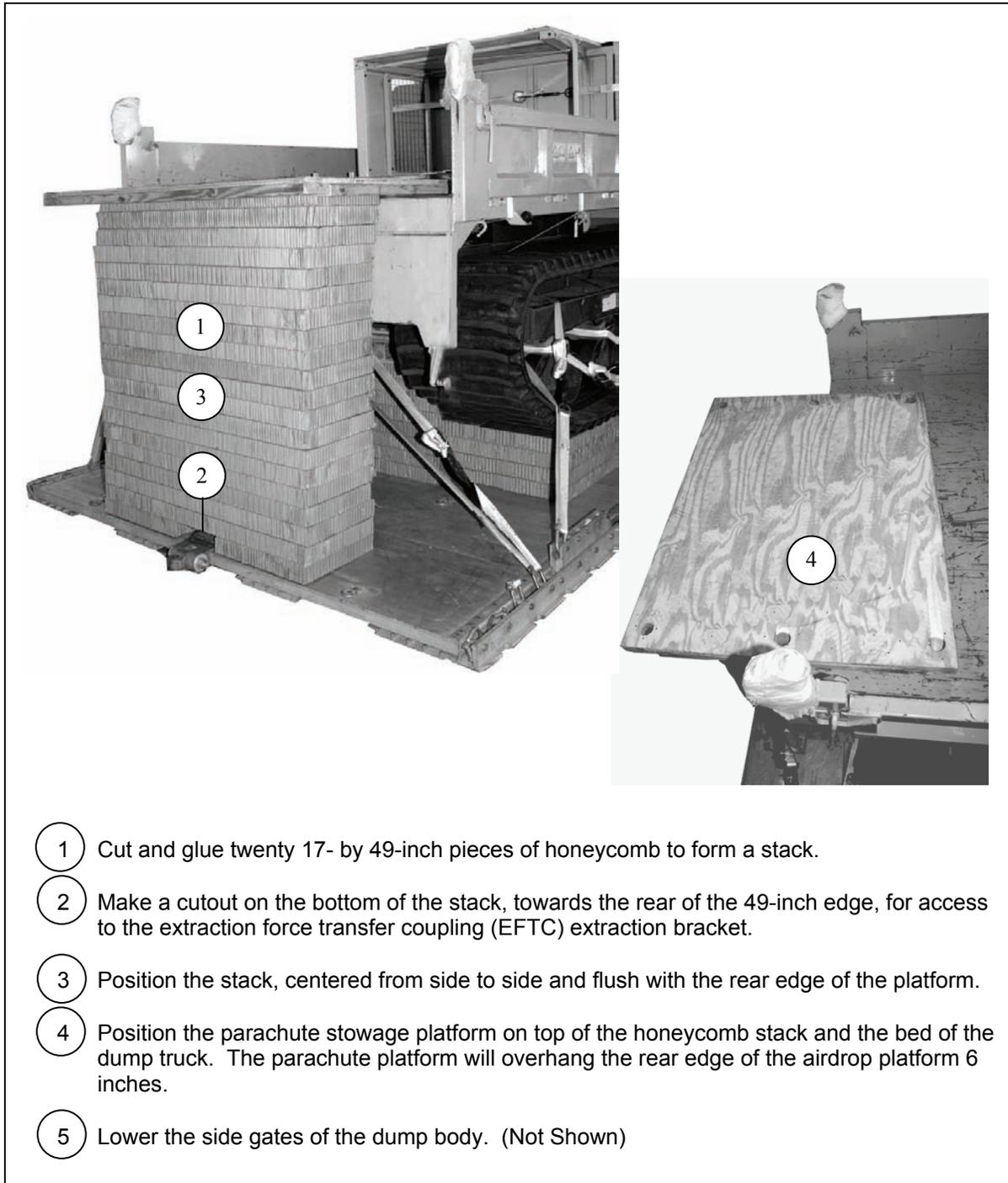
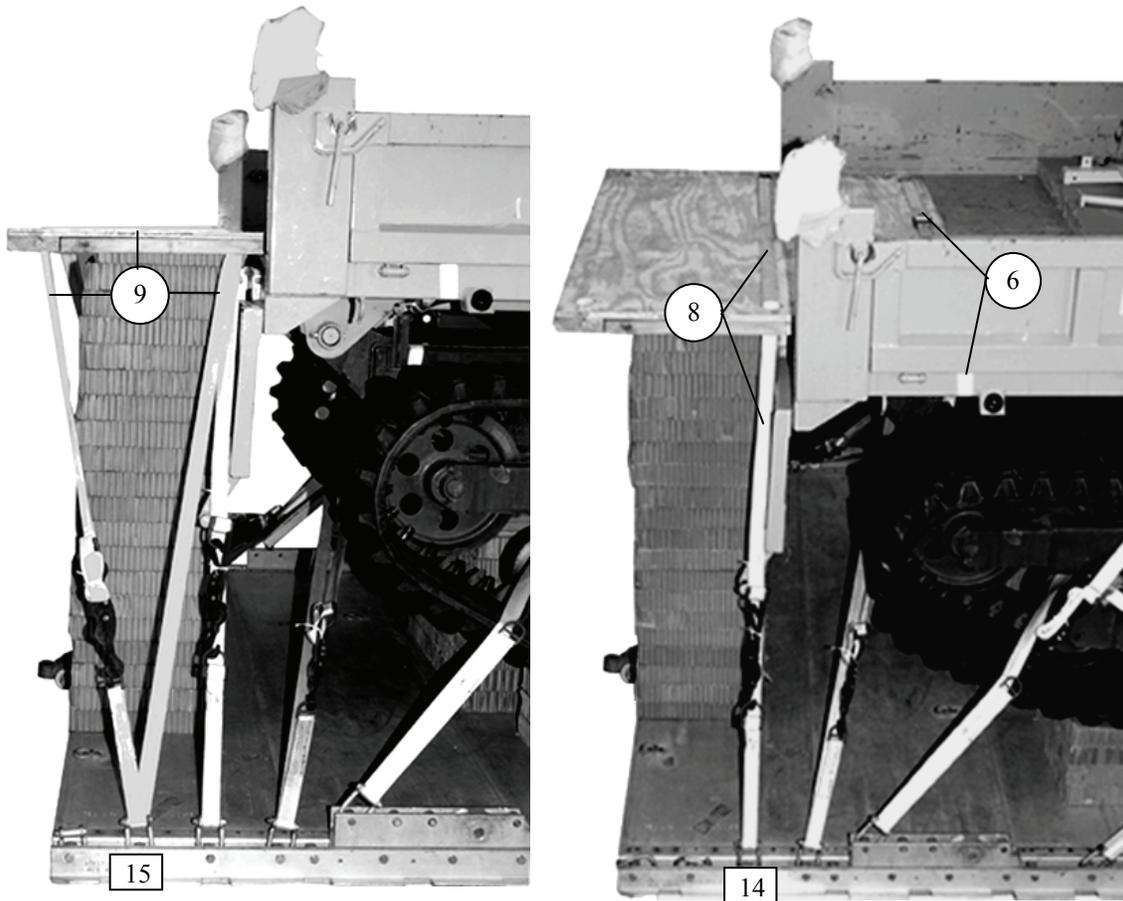


Figure 1-17. Parachute Stowage Platform Installed



- 6 Form a 30-foot lashing and route the free ends down through the front holes of the parachute stowage platform and between the side gates of the dump body on both sides. Continue running both free ends underneath the bed and secure the lashing underneath the bed between the frame with two D-rings and a load binder.
- 7 Raise and close the side gates of the dump body. (Not Shown)
- 8 Form a 30-foot lashing and route one end up through the middle left side hole in the parachute stowage platform. Run the lashing across the parachute platform and down through the middle right side hole and through clevis 14. Route the other free end through clevis 14A and back up through the middle left side hole, across the platform, and down through the middle right side hole. Secure the lashing with two D-rings and a load binder on the right side.
- 9 Route a 15-foot lashing through clevis 15, up through the right side center hole, and down through the right side rear hole. Secure the lashing with a D-ring and a load binder. Repeat on the left side using clevis 15A.

Figure 1-17. Parachute Stowage Platform Installed (Continued)

INSTALLING THE REAR ACB

1-10. Install the rear ACB as shown in Figure 1-18.

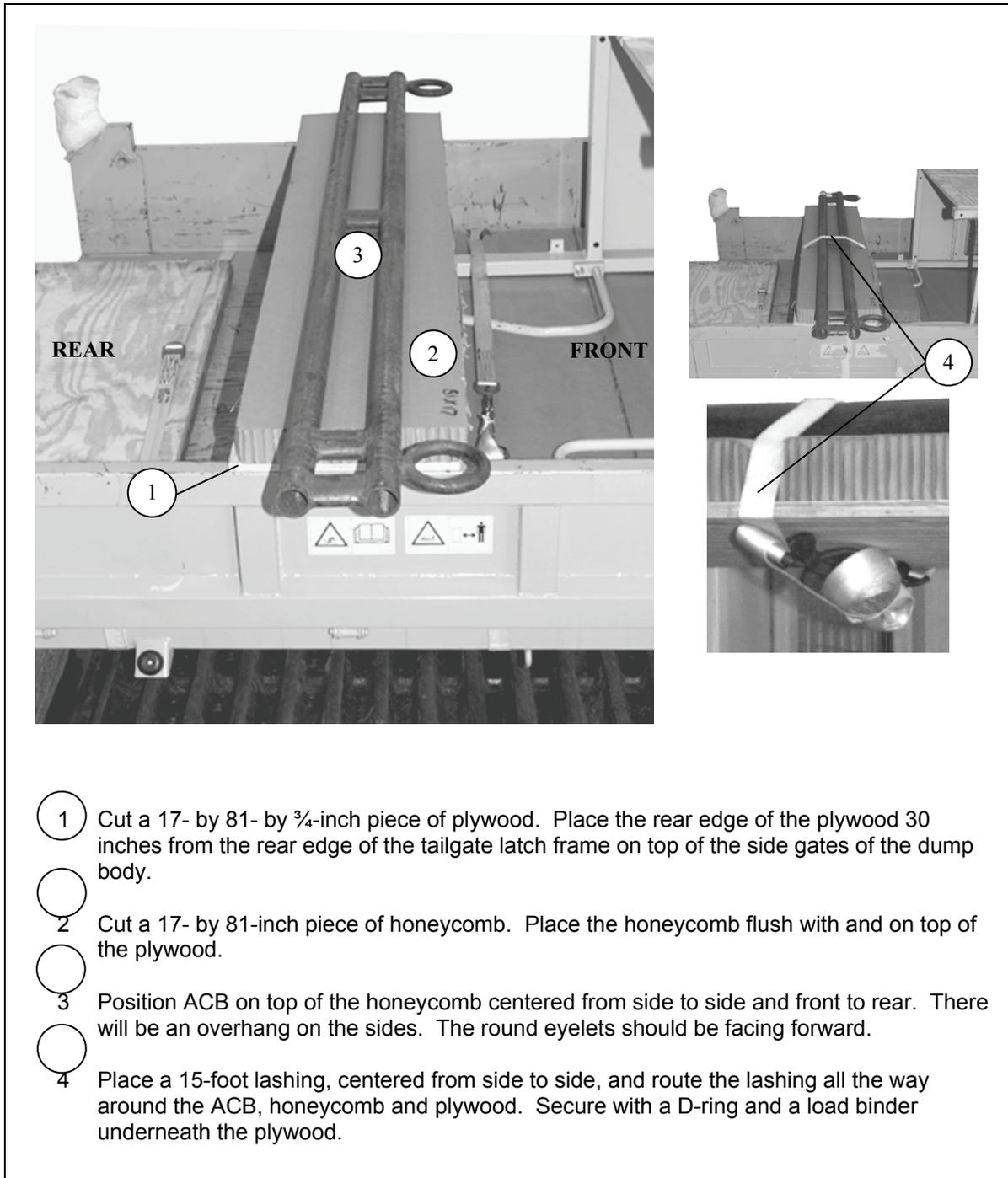


Figure 1-18. Rear ACB Installed and Secured

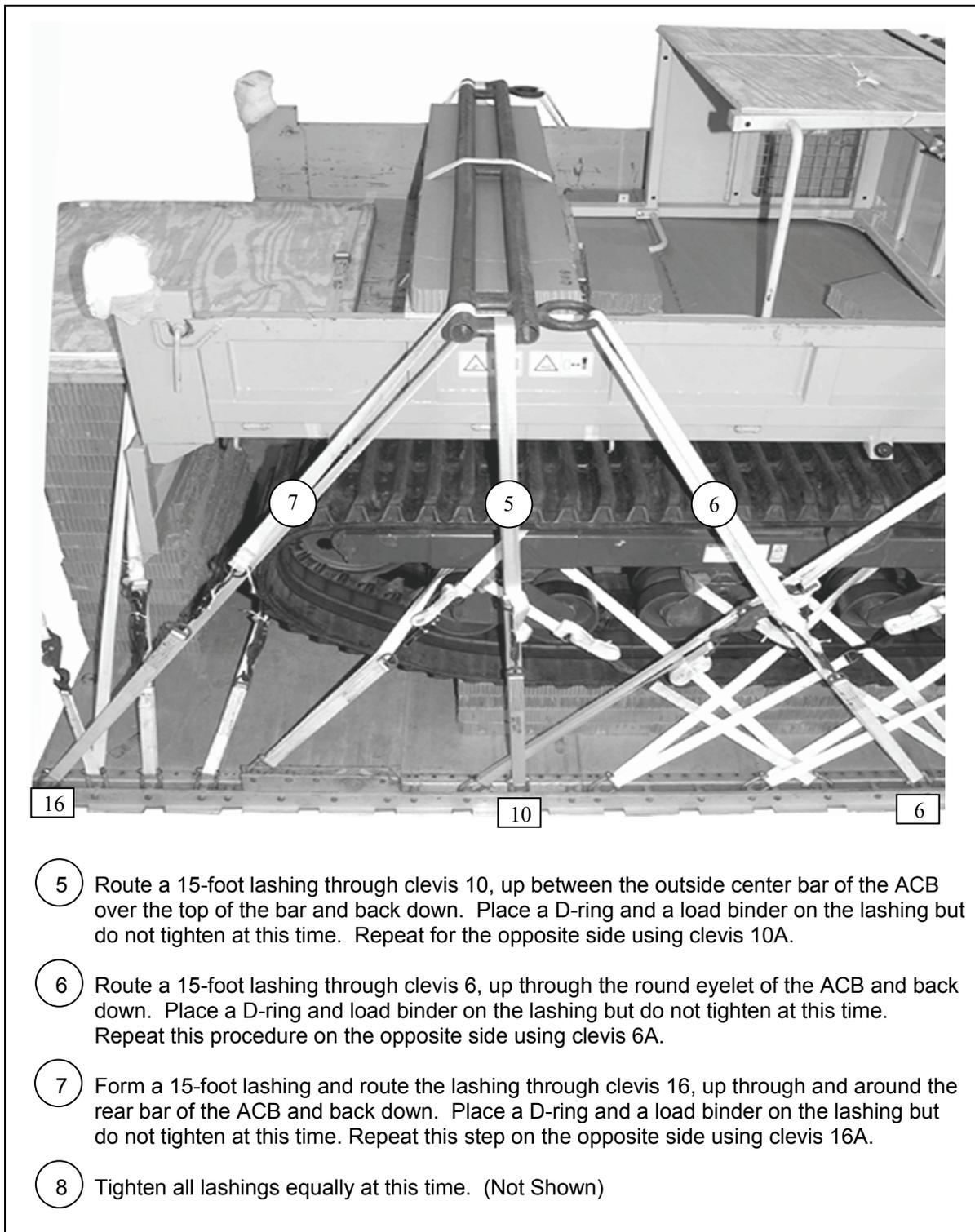


Figure 1-18. Rear ACB Installed and Secured (Continued)

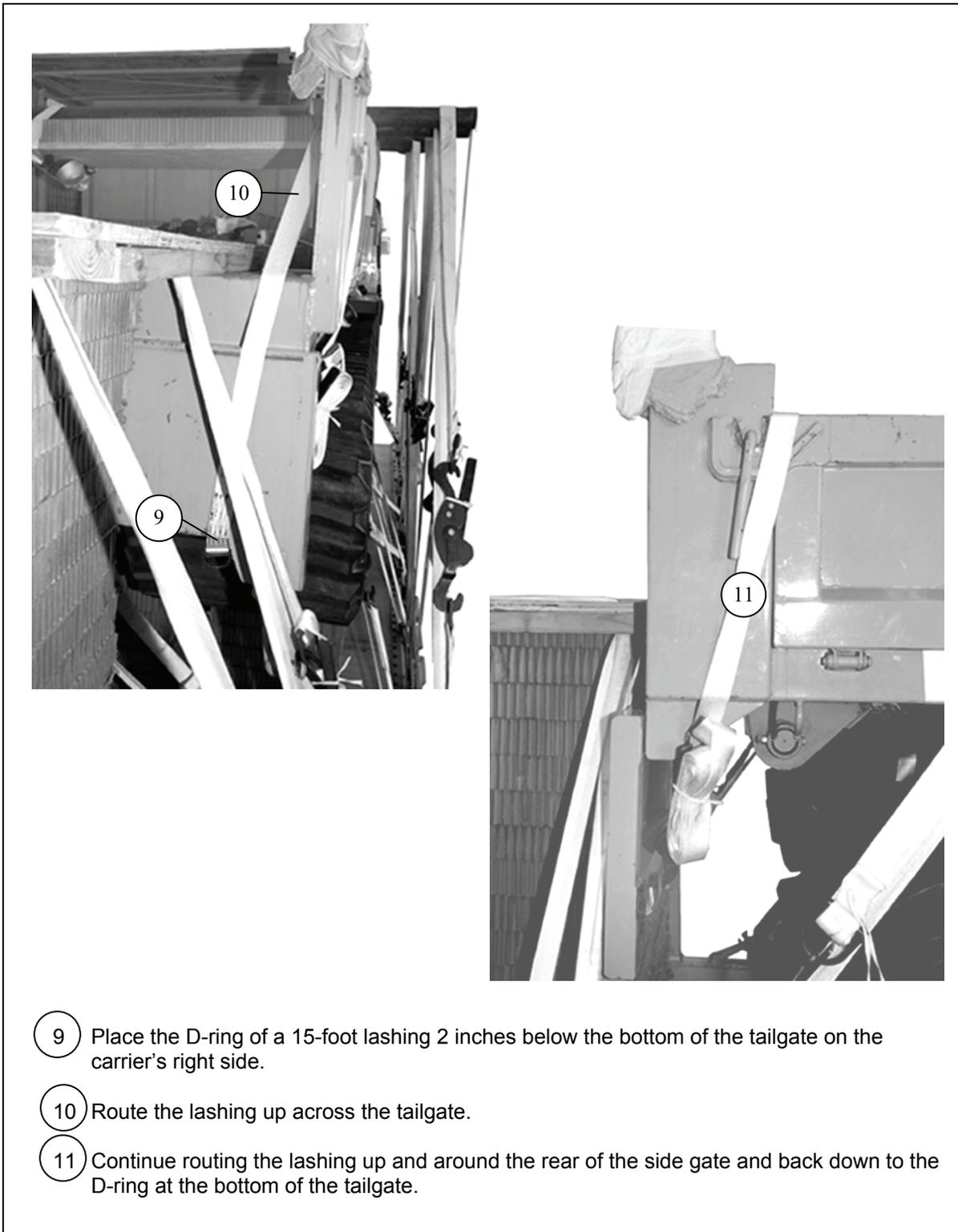
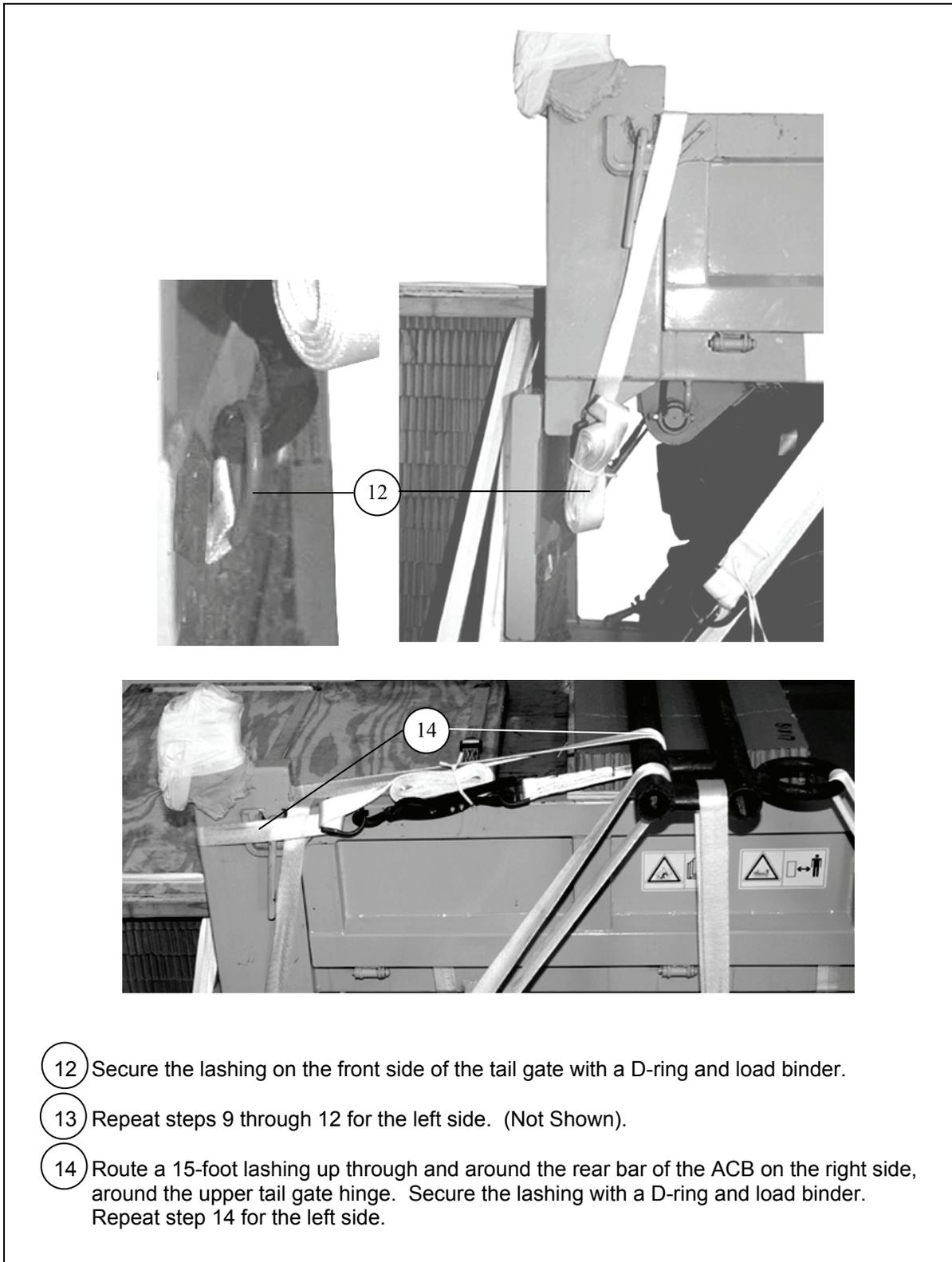


Figure 1-18. Rear ACB Installed and Secured (Continued)



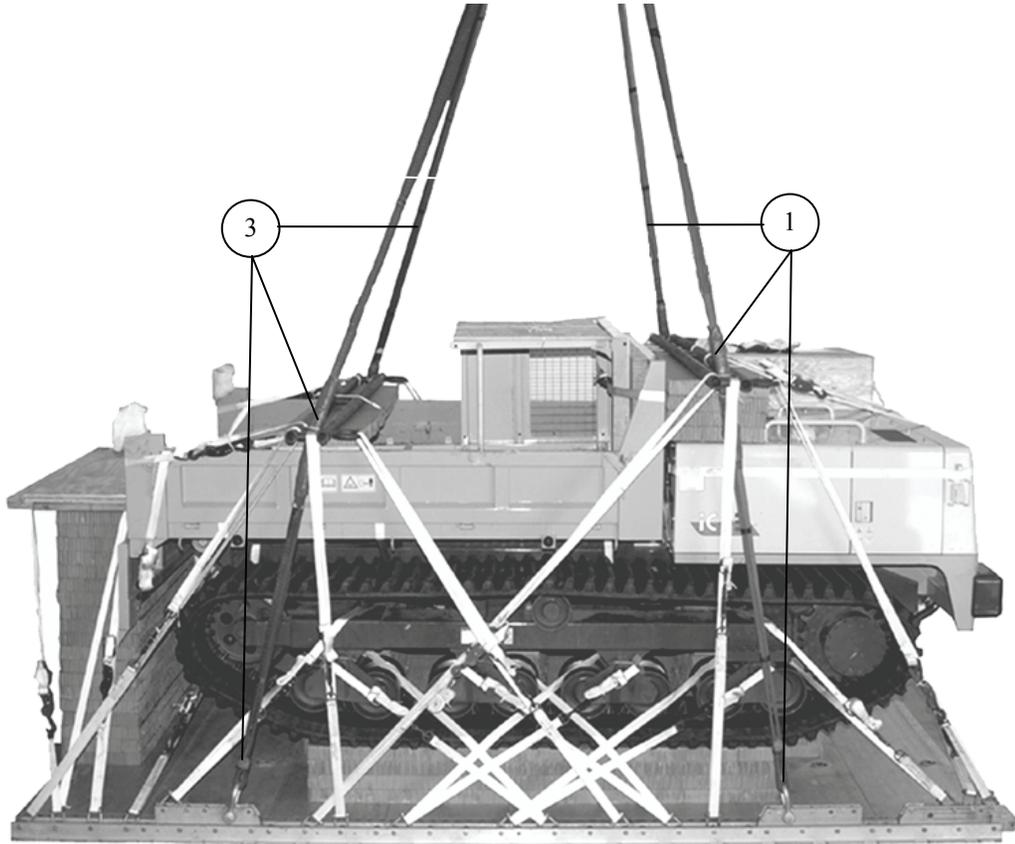
- 12 Secure the lashing on the front side of the tail gate with a D-ring and load binder.
- 13 Repeat steps 9 through 12 for the left side. (Not Shown).
- 14 Route a 15-foot lashing up through and around the rear bar of the ACB on the right side, around the upper tail gate hinge. Secure the lashing with a D-ring and load binder. Repeat step 14 for the left side.

Figure 1-18. Rear ACB Installed and Secured (Continued)

INSTALLING SUSPENSION SLINGS

1-11. Install the suspension slings according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 1-19.

Note: Pad and tape any sharp areas the suspension slings may come into contact with.



- 1 Attach a 16-foot (4-loop), type XXVI nylon sling to each front suspension bracket with a large clevis. Route each 16-foot (4-loop), type XXVI nylon sling through the front ACB on each side.
- 2 Attach a 3-foot (4-loop), type XXVI nylon sling to the top of each 16-foot (4-loop), type XXVI nylon sling with a 5 1/2 -inch two-point link. Pad each link with felt and tape. (Not Shown)
- 3 Attach a 20-foot (4-loop), type XXVI nylon sling to each rear suspension bracket with a large clevis. Route each 20-foot (4-loop), type XXVI nylon sling through the rear ACB on each side.

Figure 1-19. Suspension Slings Installed

PADDING, SECURING AND SAFETY TIEING SUSPENSION SLINGS

1-12. Pad, secure and safety tie the suspension slings according to FM 4-20.102/MCRP 4-11.3J /NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 1-20.

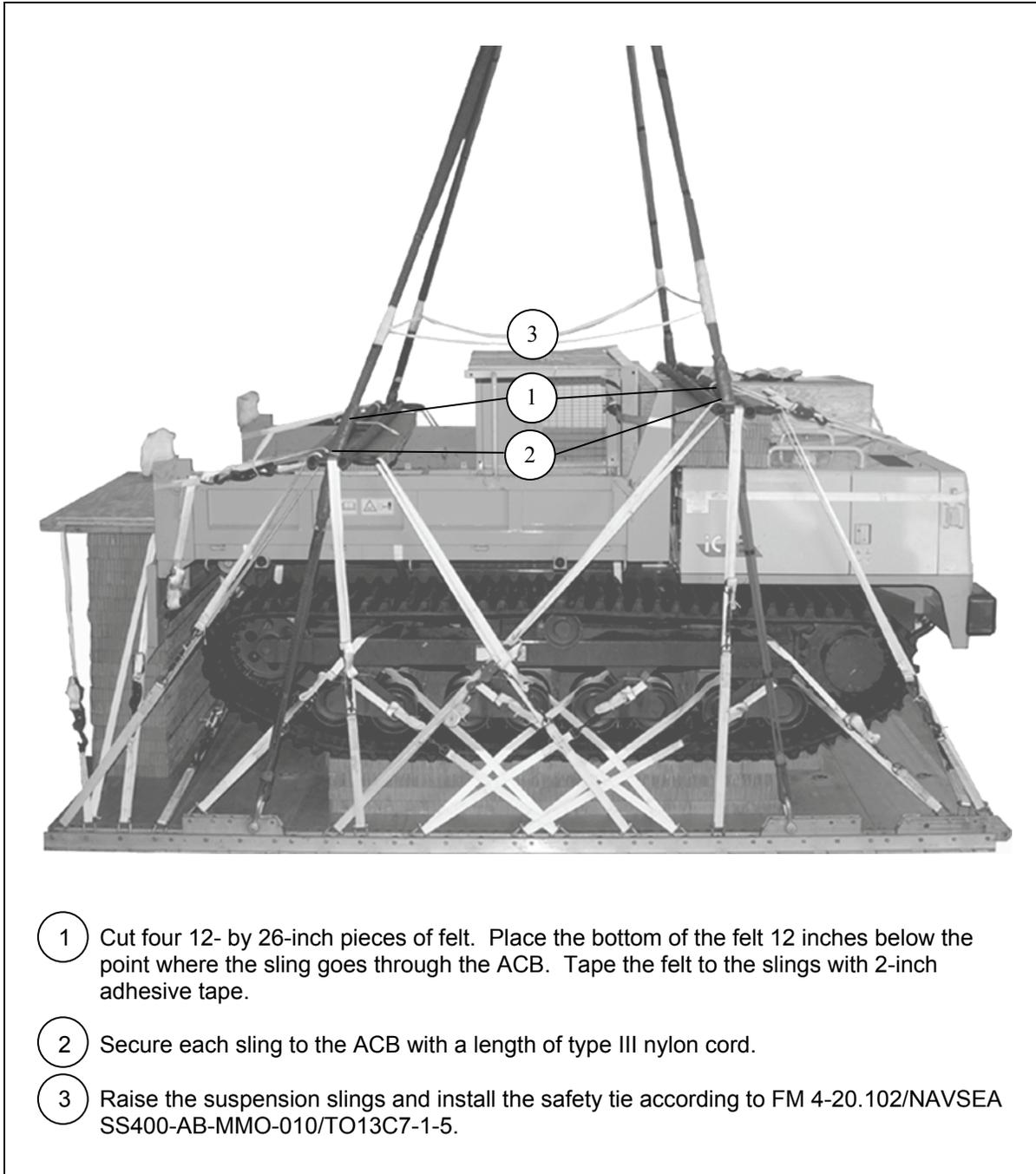


Figure 1-20. Suspension Slings Padded, Secured and Safe Tied

STOWING CARGO PARACHUTES

1-13. Prepare, stow, cluster, and restrain four G-11 cargo parachutes according to FM 4-20.102/ MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 1-21.

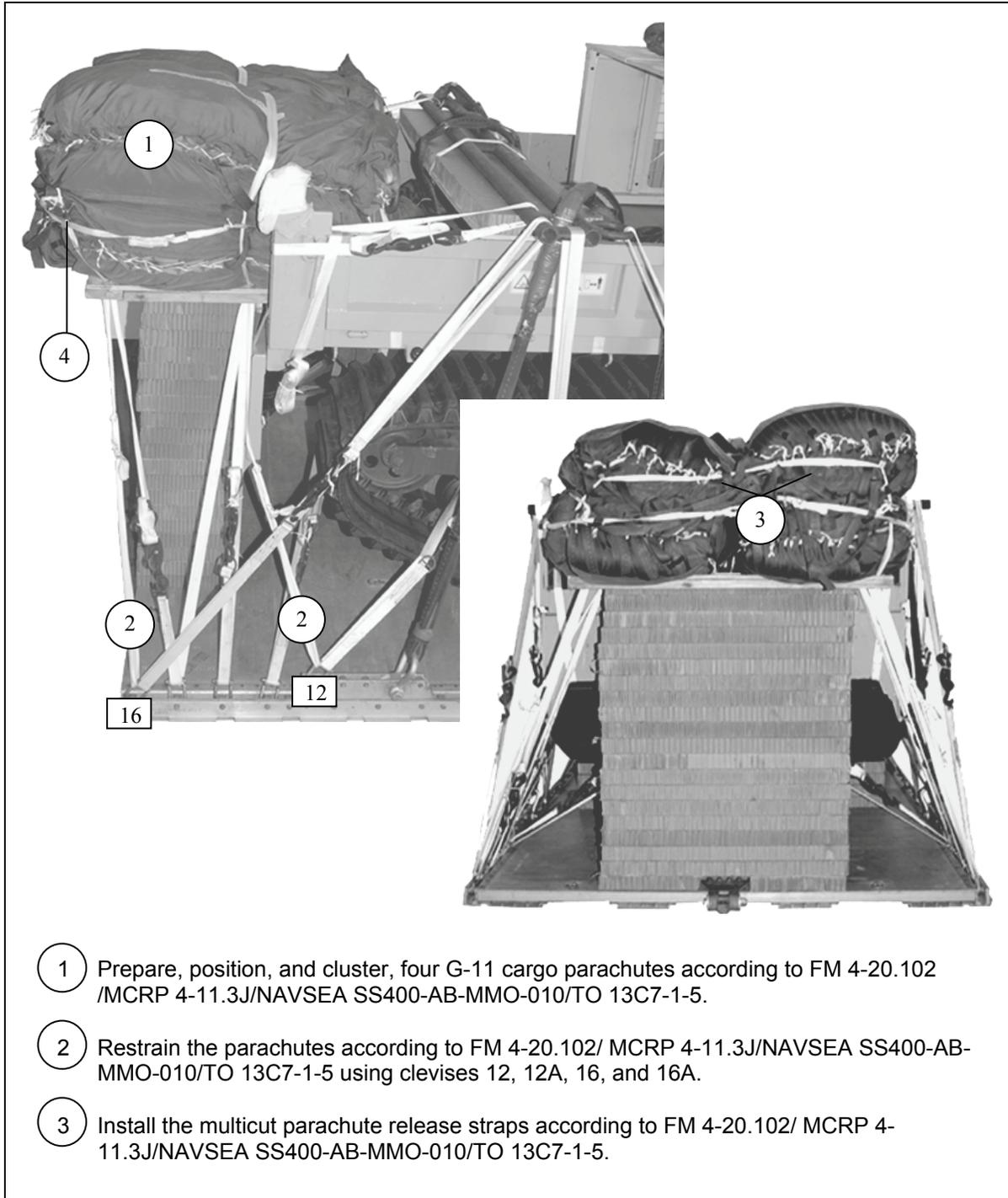


Figure 1-21. Cargo Parachutes Stowed and Restrained

INSTALLING M-2 RELEASE ASSEMBLY

1-14. Install the M-2 parachute release assembly according to FM 4-20.102/ MCRP 4-11.3J /NAVSEA SS 400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 1-23.

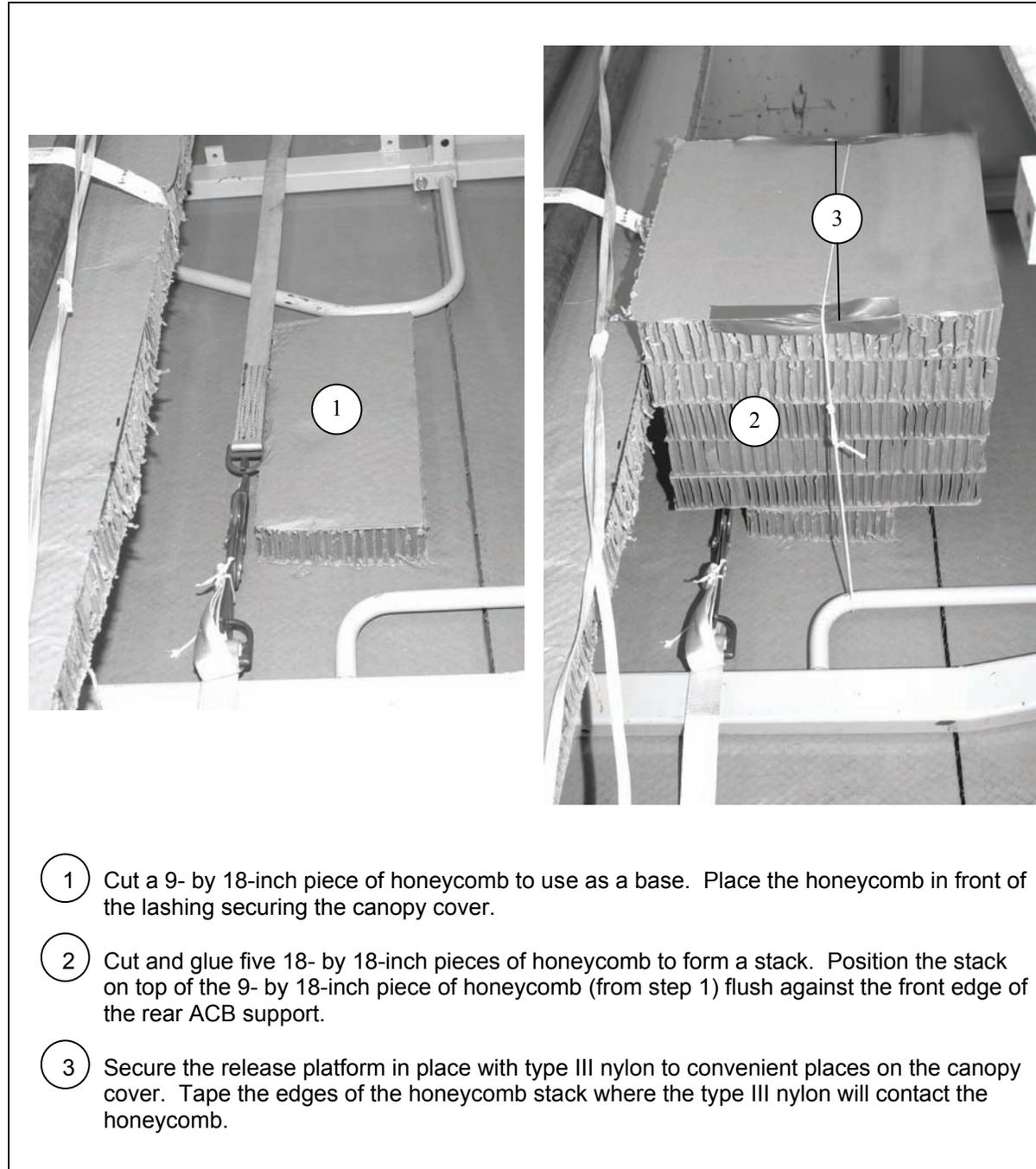
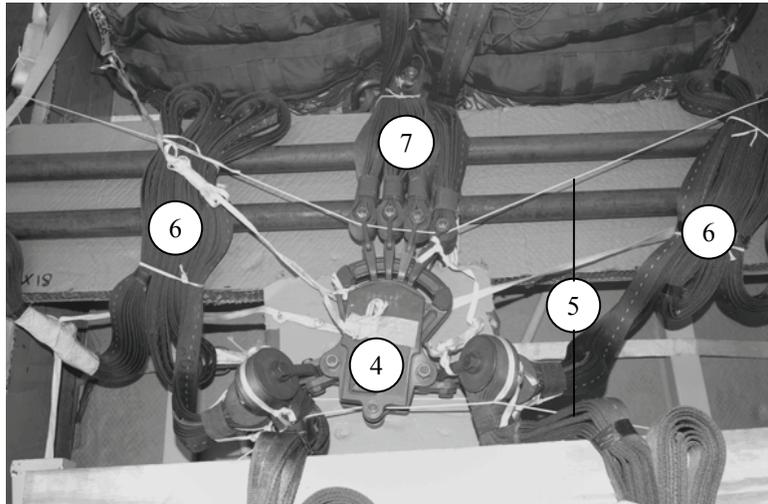


Figure 1-23. M-2 Parachute Release Assembly Installed



- 4 Install an M-2 parachute release with the top of the upper suspension link flush with the rear edge of the release platform. Attach the suspension slings and riser extensions according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5.
- 5 Restrain the release with type III nylon cord routed through the parachute release connectors to bushings 3 and 3A of the rear suspension bracket and around the spacer using bushings 4 and 4A of the front suspension bracket.
- 6 S-fold the suspension slings and secure with a length of ¼-inch cotton webbing.
- 7 Tie the exposed riser extensions with lengths of type I, ¼-inch cotton webbing.

Figure 1-23. M-2 Parachute Release Assembly Installed (Continued)

INSTALLING EXTRACTION SYSTEM

1-15. Install the Extraction Force Transfer Coupling (EFTC) system according to FM 4-20.102/ MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 1-22. Install the Extraction Parachute Jettison System (EPJS) according to FM 4-20.102/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 if applicable.

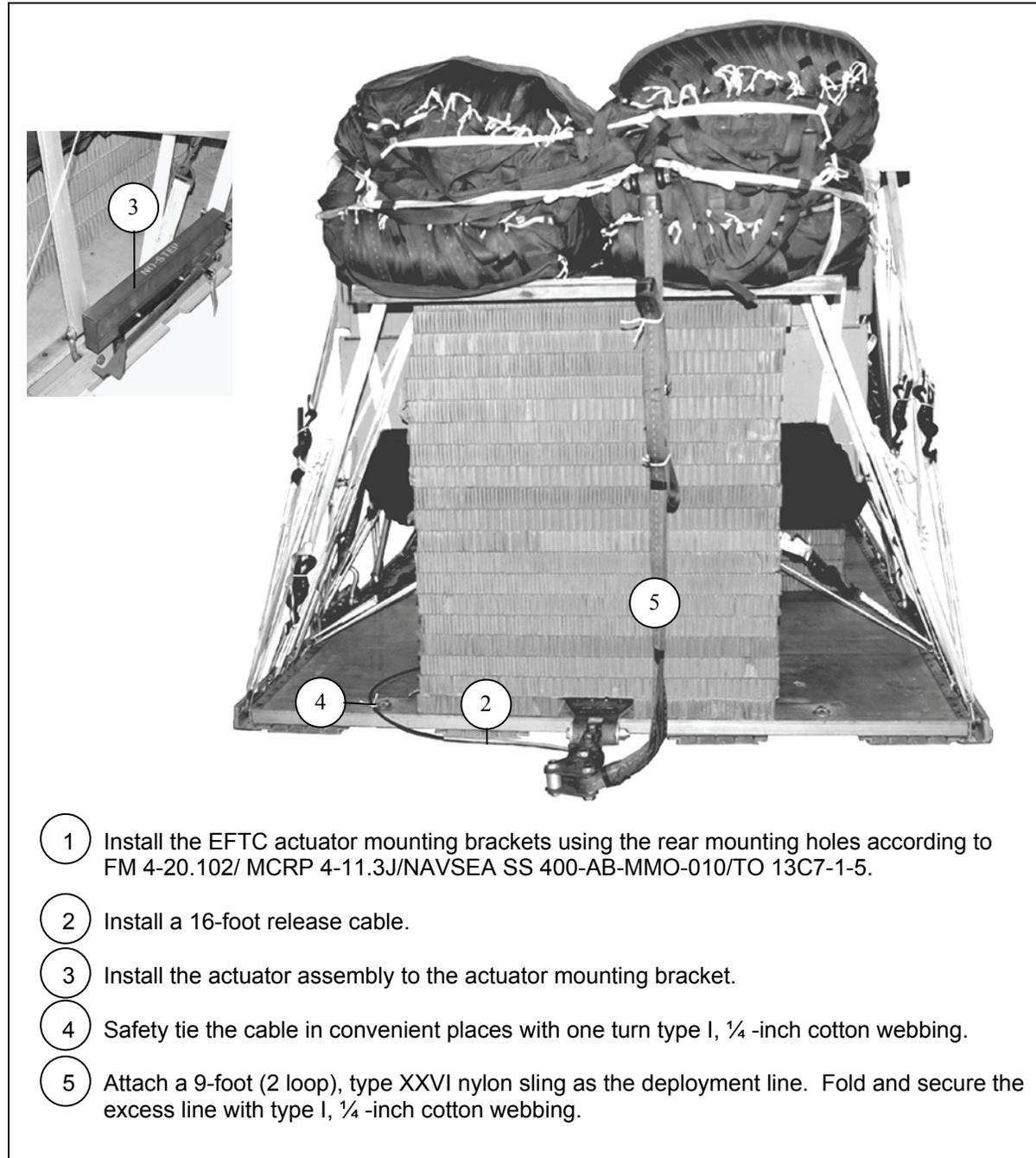


Figure 1-22. Extraction System Installed

INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

1-16. Install the provisions for the emergency restraints on the platform according to FM 4-20.102/ MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5.

PLACING EXTRACTION PARACHUTE

1-17. Select the extraction parachute and extraction line according to FM 4-20.102/ MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010/TO 13C7-1-5. Place the extraction parachute and extraction line on the load for installation in the aircraft. If a drogue parachute and drogue line are required, place them on the load for installation in the aircraft as well.

MARKING RIGGED LOAD

1-18. Mark the rigged load according to FM 4-20.102/ MCRP 4-11.3J/NAVSEA SS 400-AB-MMO-010/ TO 13C7-1-5 and as shown in Figure 1-24. Complete the 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

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

CAUTION

Make the final rigger inspection required by FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MM0-010/TO 13C7-1-5 and AR 59-4/OPNAVINST 4630.24C/AFJ 13-210(I)/MCO 13480.1B before the load leaves the rigging site.



RIGGED LOAD DATA

Weight.....	17,480 pounds
Maximum Weight.....	17,900 pounds
Height	98 ½ inches
Width.....	108 inches
Length.....	210 inches
Overhang: Front.....	0 inches
Rear (EFTC)	18 inches
Rear (EPJS).....	30 inches
Center of Balance (CB) (from front edge of platform)	88 inches

Figure 1-24. IC 45 Crawler Carrier Rigged on a Type V Platform for Low-Velocity Airdrop

Table 1-3. Equipment Required for Rigging the IC 45 Crawler Carrier on a 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 lead, (line bag for DES)	1
4030-00-090-5354	Clevis, large	5
4030-00-678-8562	Clevis, medium	6
1670-00-360-0328	Cover, clevis, large	4
8135-00-664-6958	Cushioning material, packaging, cellulose wadding	As required
	Extraction Force Transfer Coupling (EFTC)	
1670-00-434-5785	Coupling assembly, airdrop, EFTC, w / 16-ft cable	1
1670-01-475-1990	Extraction Parachute Jettison System (EPJS)	1
8305-00-290-5584	Felt, 1/2-inch	As required
8305-00-290-5584	Felt, 3/16-inch	As required
1670-00-003-4391	Knife, parachute bag (for DES)	2
5340-00-040-8219	Knife, multi-parachute release strap, webbing	2
1670-01-183-2678	Leaf, extraction line (line bag)(add 2 for DES)	2
	Line Multi-Loop:	
	For deployment line:	
1670-01-062-6304	9-ft (2-loop), type XXVI nylon webbing	1
	For drogue:	
1670-01-064-4452	60-ft 1-loop, type XXVI nylon webbing (DES)	1
	For extraction:	
1670-01-062-6313	60-ft (3-loop), type XXVI nylon (C-130 aircraft)	1
1670-01-107-7651	140-ft (3-loop), type XXVI nylon (C-17 aircraft)	1
	For riser extension:	
1670-01-062-6313	60-ft (3-loop), type XXVI nylon webbing	4
	For suspension:	
1670-01-062-6306	3-ft (4-loop), type XXVI nylon webbing	2
1670-01-062-6308	16-ft (4-loop), type XXVI nylon webbing	2
1670-01-064-4453	20-ft (4-loop), type XXVI nylon webbing	2
	Link:	1
1670-01-493-6418	Assembly small, two-point, 3 3/4-inch (drogue)	1
1670-01-493-6420	Assembly large, two-point 5 1/2-inch	3
1670-01-072-5637	Jettison, C-130 (DES)	1
1670-01-483-8259	Link, Parachute connector (TRM H-block) (C-17)	1

Table 1-3. Equipment Required for Rigging the IC 45 Crawler Carrier on a Type V Platform for Low-Velocity Airdrop (Continued)

<i>National Stock Number</i>	<i>Item</i>	<i>Quantity</i>
	Lumber:	
5510-00-220-6146	2-by 4-inch	2
5510-00-220-6148	2-by 6-inch	4
5510-00-220-6246	2- by 8-inch	1
5510-00-220-6274	4-by 4-inch	5
5530-00-128-4981	Plywood, 3/4-inch sheet	5
5530-00-262-8195	Plywood, 1/2-inch sheet	1
	Nail, steel wire, common:	
5315-00-010-4659	8d	As required
1670-00-753-3928	Pad, energy-dissipating, honeycomb,	23 sheets
	Parachute:	
1670-01-016-7841	G-11	4
1670-00-040-8135	28-ft, extraction, heavy-duty	1
1670-01-063-3717	15-ft, Extraction Drogue (DES)	1
	Platform, airdrop, type V, 16-ft:	1
1670-01-353-8425	Bracket assembly, component (EFTC)	1
1670-01-353-8424	Bracket, assembly, extraction	1
1670-01-162-2372	Clevis, load tiedown	34
1670-01-247-2389	Link, Suspension bracket, type V	4
1670-01-162-2381	Link, Tandem, link sups. assembly	2
1670-01-097-8817	Release, cargo parachute, M-2,	1
7510-00-266-5016	Tape, adhesive, 2-in	As required
1670-00-937-0271	Tiedown assembly, 15-ft webbing	50
5365-00-937-0147	D-ring, heavy duty, 10,000-lb	50
1670-00-937-0272	Binder, load, 10-000-lb	45
	Webbing:	
4020-00-240-2146	Cord, nylon, type III, 550-lb	As required
8305-00-268-2411	Cotton, type I, 1/41/4-inch	As required
8305-00-082-5752	Nylon, tubular, 1/2-in, natural	As required
8305-00-263-3591	Nylon, type VIII	As required

Chapter 2

Rigging IC45-2 IHI Crawler Carrier on a Type V Platform for Low-Velocity Airdrop

DESCRIPTION OF LOAD

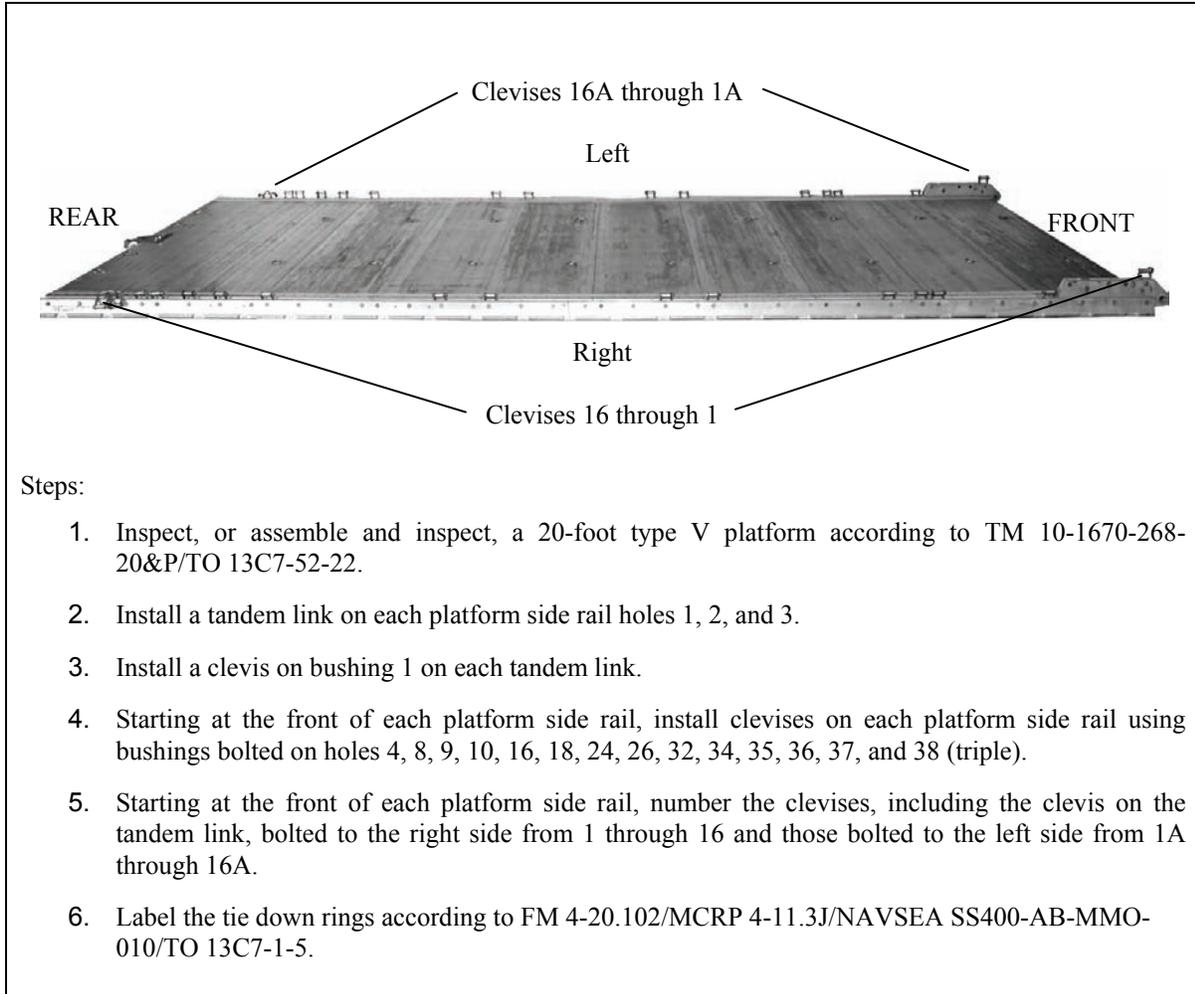
2-1. The IC45-2 IHI crawler carrier is described in the introduction. The accompanying load consists of fifteen 5-gallon diesel cans, fifteen 5-gallon water cans, one 5-gallon engine oil can, one 5-gallon hydraulic oil can, and six cases of Meals-Ready-to-Eat (MRE) for a total weight of 1,640 pounds. The load is rigged on a 20-foot, type V airdrop platform and requires five G-11 cargo parachutes. The total rigged weight of the load is 21,480 pounds. The IC45-2 IHI crawler carrier is shown in Figure 2-1.



Figure 2-1. IC45-2 IHI Crawler Carrier

PREPARING PLATFORM

2-2. Prepare a 20-foot, type V airdrop platform according to TM 10-1670-268-20&P/TO 13C7-52-22 using 34 tiedown clevises and as shown in Figure 2-2.



Steps:

1. Inspect, or assemble and inspect, a 20-foot type V platform according to TM 10-1670-268-20&P/TO 13C7-52-22.
2. Install a tandem link on each platform side rail holes 1, 2, and 3.
3. Install a clevis on bushing 1 on each tandem link.
4. Starting at the front of each platform side rail, install clevises on each platform side rail using bushings bolted on holes 4, 8, 9, 10, 16, 18, 24, 26, 32, 34, 35, 36, 37, and 38 (triple).
5. Starting at the front of each platform side rail, number the clevises, including the clevis on the tandem link, bolted to the right side from 1 through 16 and those bolted to the left side from 1A through 16A.
6. Label the tie down rings according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5.

Figure 2-2. Platform Prepared

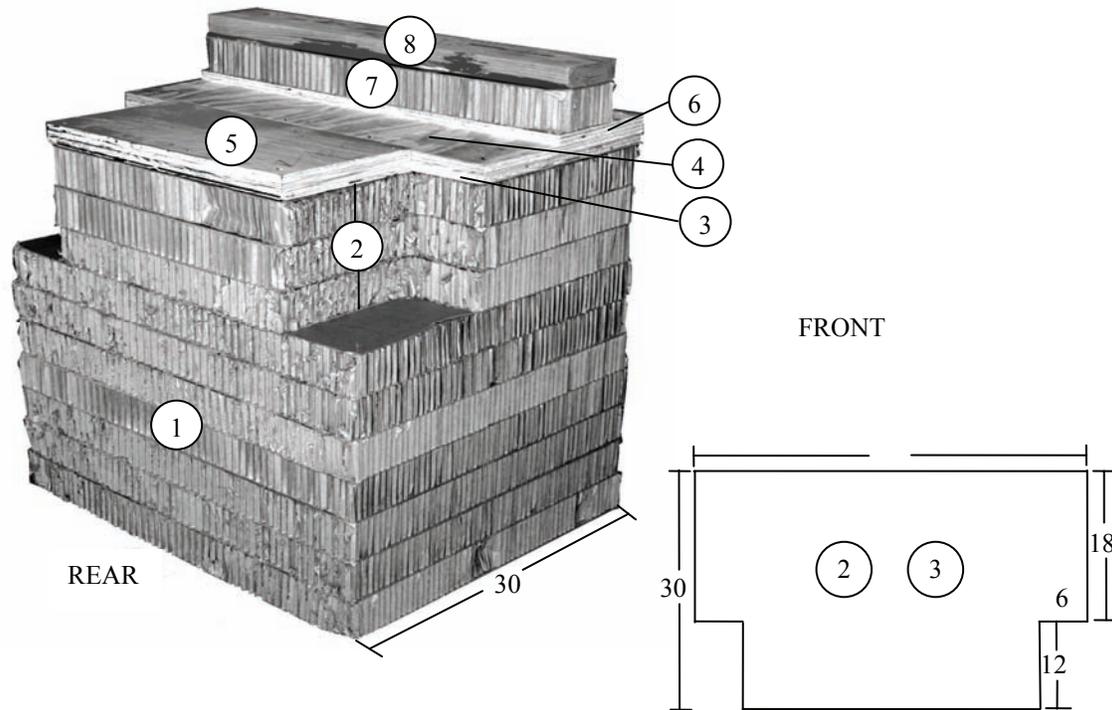
BUILDING AND POSITIONING HONEYCOMB STACKS

2-3. Build honeycomb stacks as shown in Figures 2-3 through 2-6 using the materials listed in Table 2-1. Position the honeycomb stacks on the platform as shown in Figure 2-7.

Table 2-1. Materials Needed for Honeycomb Stacks

Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
1	10	36	30	Honeycomb	See Figure 2-3.
	1	36	6	Honeycomb	
	1	36	18	¾-Inch Plywood	
	1	36	10	¾-Inch Plywood	
	1	36	30	¾-Inch Plywood	
	1	24	12	1-Inch Plywood	
	1	2 X 6	36	Lumber	
2	8	36	29	Honeycomb	See Figure 2-4.
	3	36	29	¾-Inch Plywood	
	6	4 X 4	29	Lumber	
3	8	36	19	Honeycomb	See Figure 2-5.
	2	36	19	¾-Inch Plywood	
	1	36	19	1-Inch Plywood	
	2	2 X 4	19	Lumber	
	2	2 X 6	19	Lumber	
	6	4 X 4	19	Lumber	
4	8	36	19	Honeycomb	See Figure 2-6.
	3	36	19	¾-Inch Plywood	
	1	23 ¾	16	1-Inch Plywood	
	2	2 X 6	19	Lumber	
	6	4 X 4	19	Lumber	
5	4	24	96	Honeycomb	See Figure 2-6.
6	4	24	96	Honeycomb	See Figure 2-6.

- Notes.** 1. Not drawn to scale.
2. All dimensions are given in inches.



- 1 Glue seven 30- by 36-inch pieces of honeycomb together to form a base.
- 2 Cut three 30- by 36-inch pieces of honeycomb as shown above and glue to the honeycomb prepared in step 1.
- 3 Cut one 30- by 36-inch piece of $\frac{3}{4}$ -inch plywood as shown above and glue on top of the honeycomb prepared in step 2.
- 4 Cut one 18- by 36- by $\frac{3}{4}$ -inch piece of plywood and glue it flush with the front edge of the stack.
- 5 Cut one 12- by 24- by 1-inch piece of plywood and glue it flush with the rear edge of the stack.
- 6 Cut one 10- by 36- by $\frac{3}{4}$ -inch piece of plywood and glue it flush with the front edge of the stack.
- 7 Cut one 6- by 36- by $\frac{3}{4}$ -inch piece of honeycomb and glue it 4 inches from the front edge of the stack.
- 8 Cut one 2- by 6- by 36-inch piece of lumber and glue it on the honeycomb placed in step 7.

Figure 2-3. Honeycomb Stack 1 Prepared

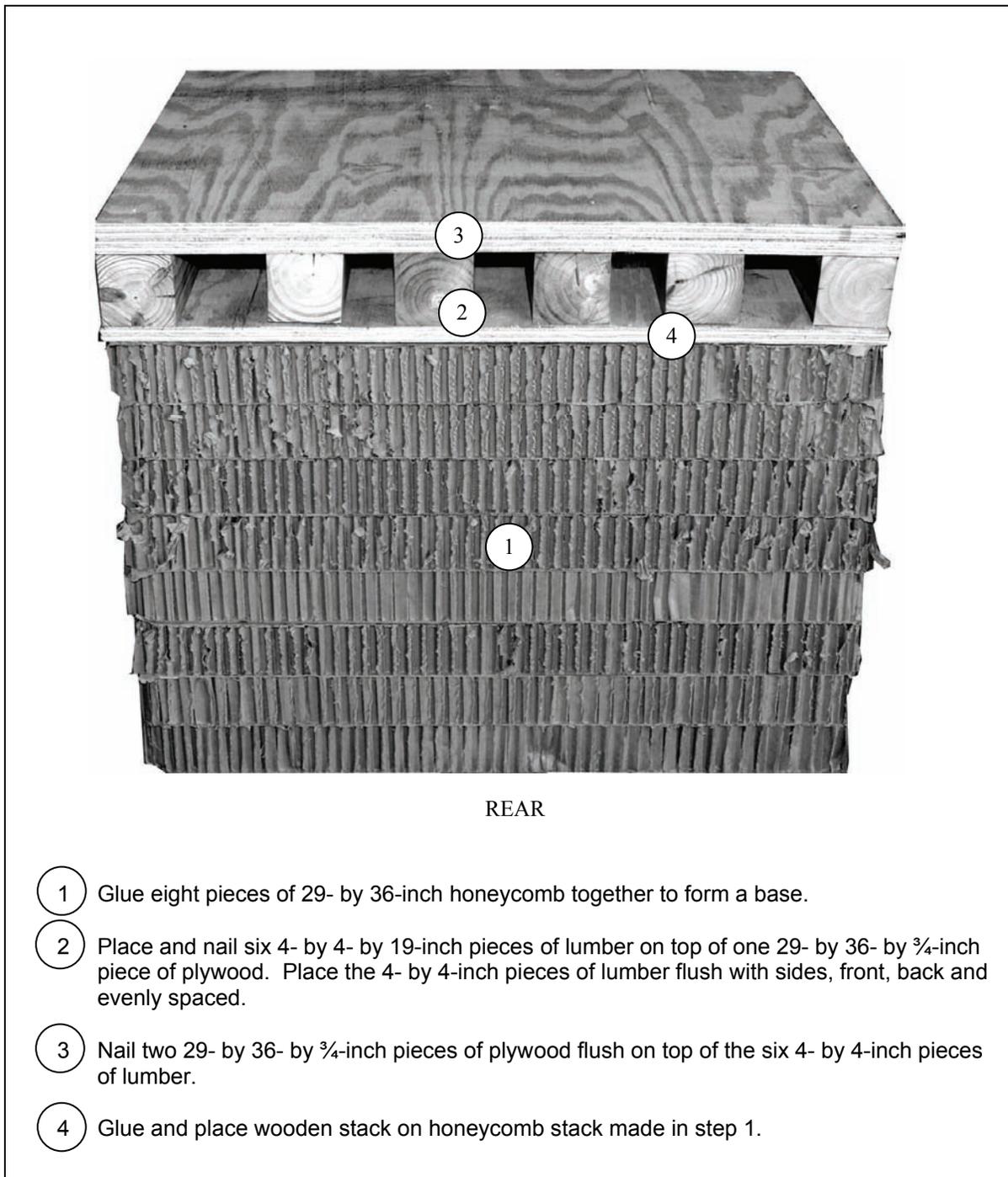


Figure 2-4. Honeycomb Stack 2 Prepared

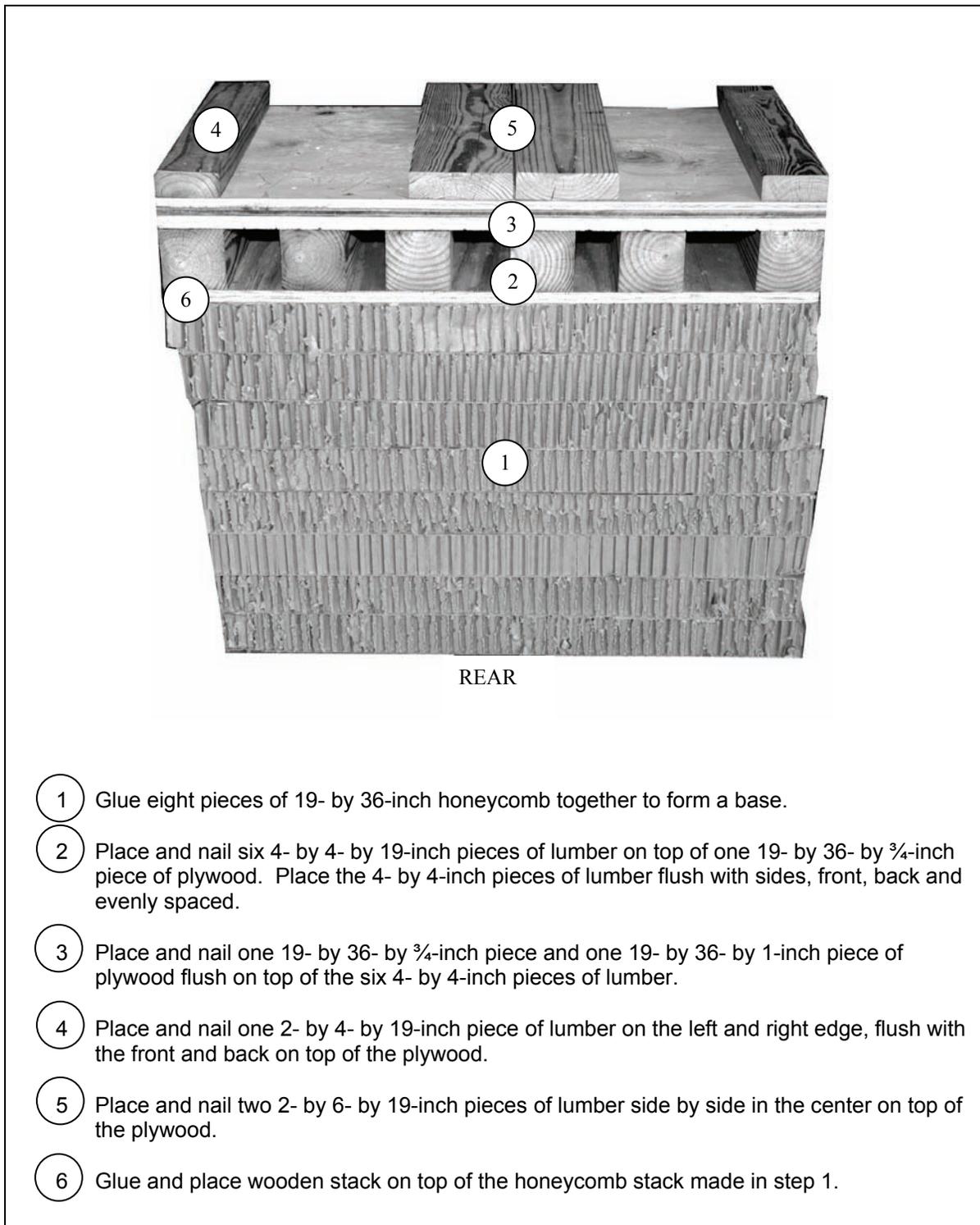


Figure 2-5. Honeycomb Stack 3 Prepared

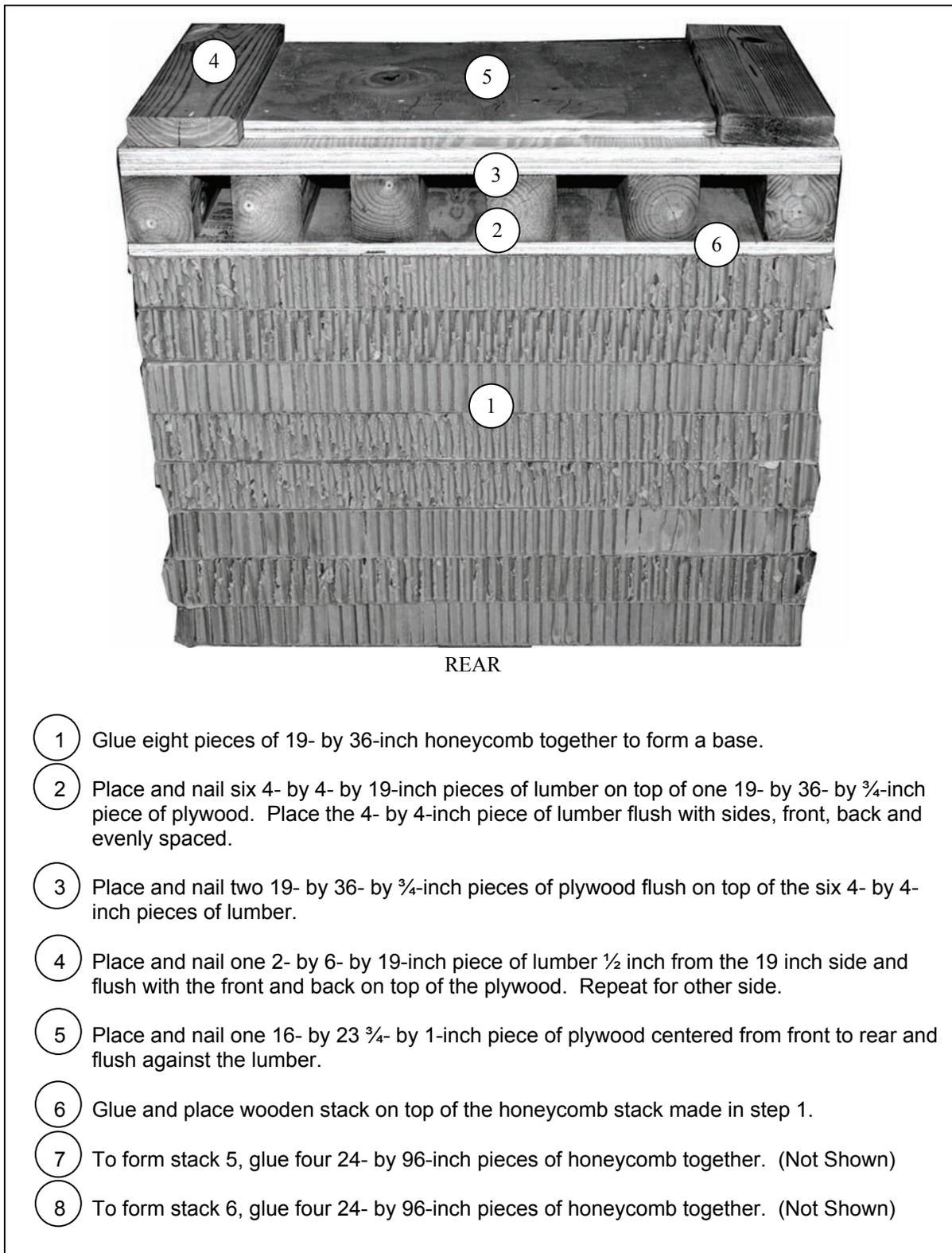
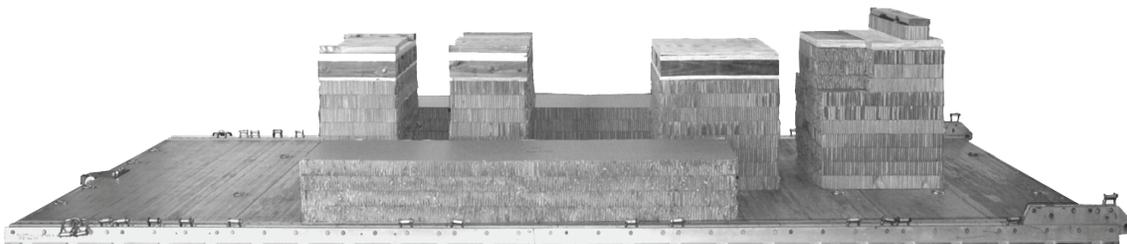
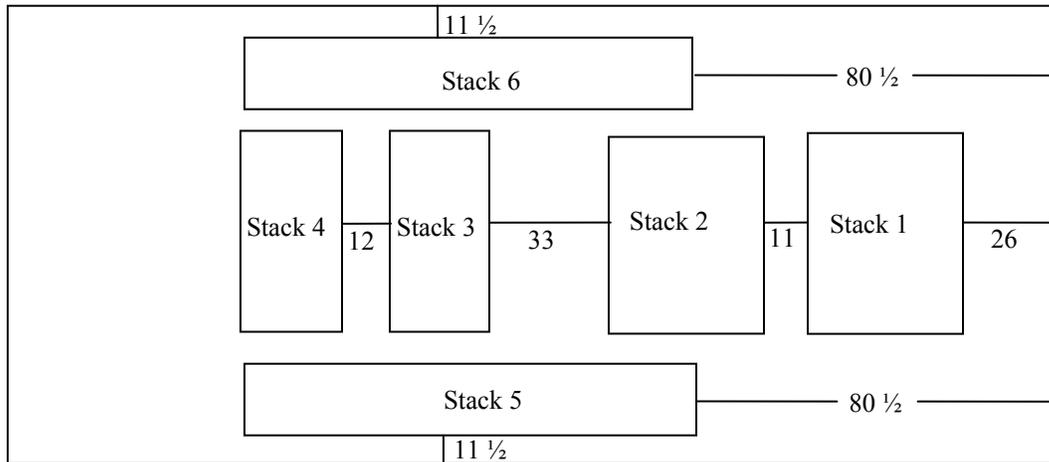


Figure 2-6. Honeycomb Stacks 4, 5 and 6 Prepared

- Notes.** 1. Not drawn to scale.
2. All dimensions are given in inches.



Stack Number	Position of Stacks on the Platform
1	Place stack:
2	Centered 26 inches from the front edge of the platform.
3	Centered 11 inches from stack 1 or 67 inches from the front edge of the platform.
4	Centered 33 inches from the rear edge of stack 2 or 129 inches from the front edge of the platform.
5	12 inches from the rear edge of stack 3 or 160 inches from the front edge of the platform.
6	80 1/2 inches from the front edge of the platform and 11 1/2 inches from the right side of the platform.
7	80 1/2 inches from the front edge of the platform and 11 1/2 inches from the left side of the platform.

Figure 2-7. Honeycomb Stacks Positioned on the Platform

PREPARING THE IC45-2 IHI CRAWLER CARRIER

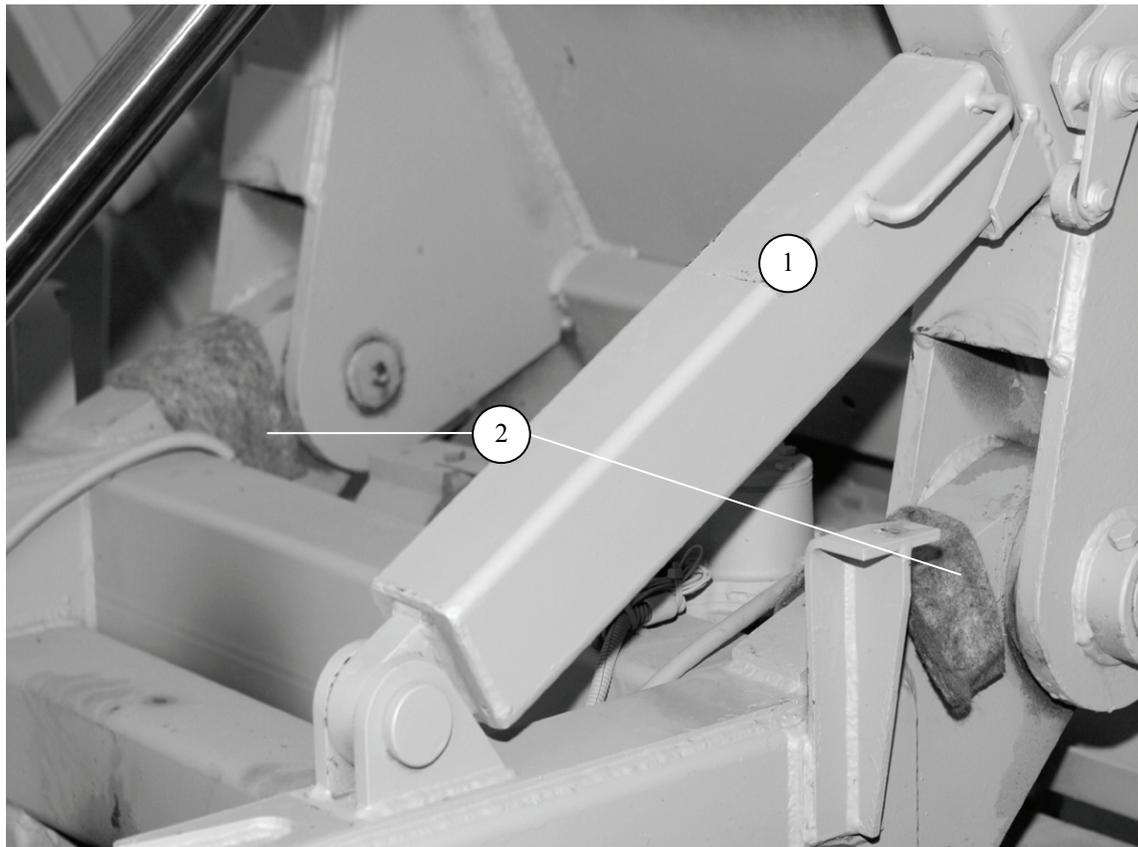
2-4. Prepare the IC45-2 IHI crawler carrier as follows: Make sure the fuel tank is no more than $\frac{3}{4}$ full. Make sure the battery and battery compartment complies with AFMAN 24-204(I)/ TM 38-250. Prepare the rest of the IC45-2 IHI crawler carrier using Table 2-2 and as shown in Figures 2-8 through 2-20.

CAUTION

Make sure all equipment is removed by a qualified operator or qualified maintenance personnel.

Table 2-2. Materials Required to Prepare the Cage, Build the Canopy Cover, Build the Cab Protective Box and Prepare the Bed

<i>Pieces</i>	<i>Width</i>	<i>Length</i>	<i>Material</i>	<i>Instruction</i>
3	As required	As required	Honeycomb	See Figure 2-9.
2	32	33	$\frac{3}{4}$ -Inch Plywood	See Figure 2-10.
1	32	52	$\frac{3}{4}$ -Inch Plywood	See Figure 2-10.
1	33	50 $\frac{1}{2}$	$\frac{3}{4}$ -Inch Plywood	See Figure 2-10.
1	12	50 $\frac{1}{2}$	$\frac{3}{4}$ -Inch Plywood	See Figure 2-10.
2	2 X 4	10	Lumber	See Figure 2-10.
2	2 X 4	23 $\frac{1}{2}$	Lumber	See Figure 2-10.
2	2 X 4	28 $\frac{1}{2}$	Lumber	See Figure 2-10.
1	2 X 4	49	Lumber	See Figure 2-10.
2	2 X 4	50 $\frac{1}{2}$	Lumber	See Figure 2-10.
1	32	66	Honeycomb	See Figure 2-14.
1	36	66	Honeycomb	See Figure 2-14.
1	19	43	$\frac{3}{4}$ -Inch Plywood	See Figure 2-15.
1	35	43	$\frac{3}{4}$ -Inch Plywood	See Figure 2-15.
1	19	31	$\frac{3}{4}$ -Inch Plywood	See Figure 2-15.
1	28	52	$\frac{3}{4}$ -Inch Plywood	See Figure 2-15.
1	2 X 4	41	Lumber	See Figure 2-15.
1	2 X 4	52	Lumber	See Figure 2-15.
1	17	18	Honeycomb	See Figure 2-16.
1	17	37	Honeycomb	See Figure 2-16.
1	15	28	Honeycomb	See Figure 2-16.
2	14	18	Honeycomb	See Figure 2-16.
1	17	37	$\frac{3}{4}$ -Inch Plywood	See Figure 2-16.
1	17	61	$\frac{3}{4}$ -Inch Plywood	See Figure 2-16.
3	19	63	$\frac{3}{4}$ -Inch Plywood	See Figure 2-17.
1	17	64	$\frac{3}{4}$ -Inch Plywood	See Figure 2-17.
1	43	64	$\frac{3}{4}$ -Inch Plywood	See Figure 2-17.
1	25	36	Honeycomb	See Figure 2-19.



- 1 Lift the dump bed and place the safety blocks in place.
- 2 Pad the bed hinge with felt.
- 3 Remove the safety blocks and lower the dump bed. (Not Shown)

Figure 2-8. Dump Body Prepared

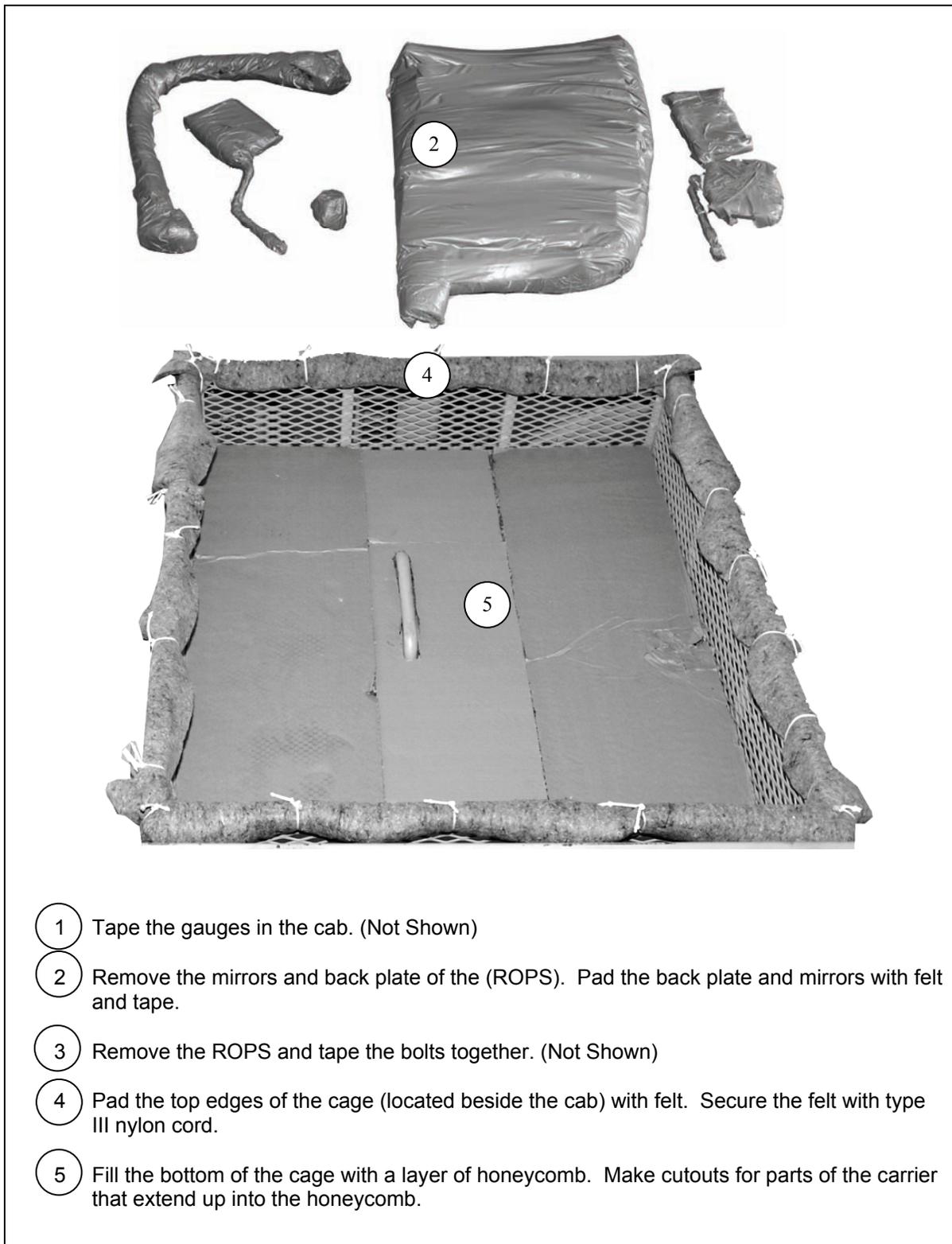
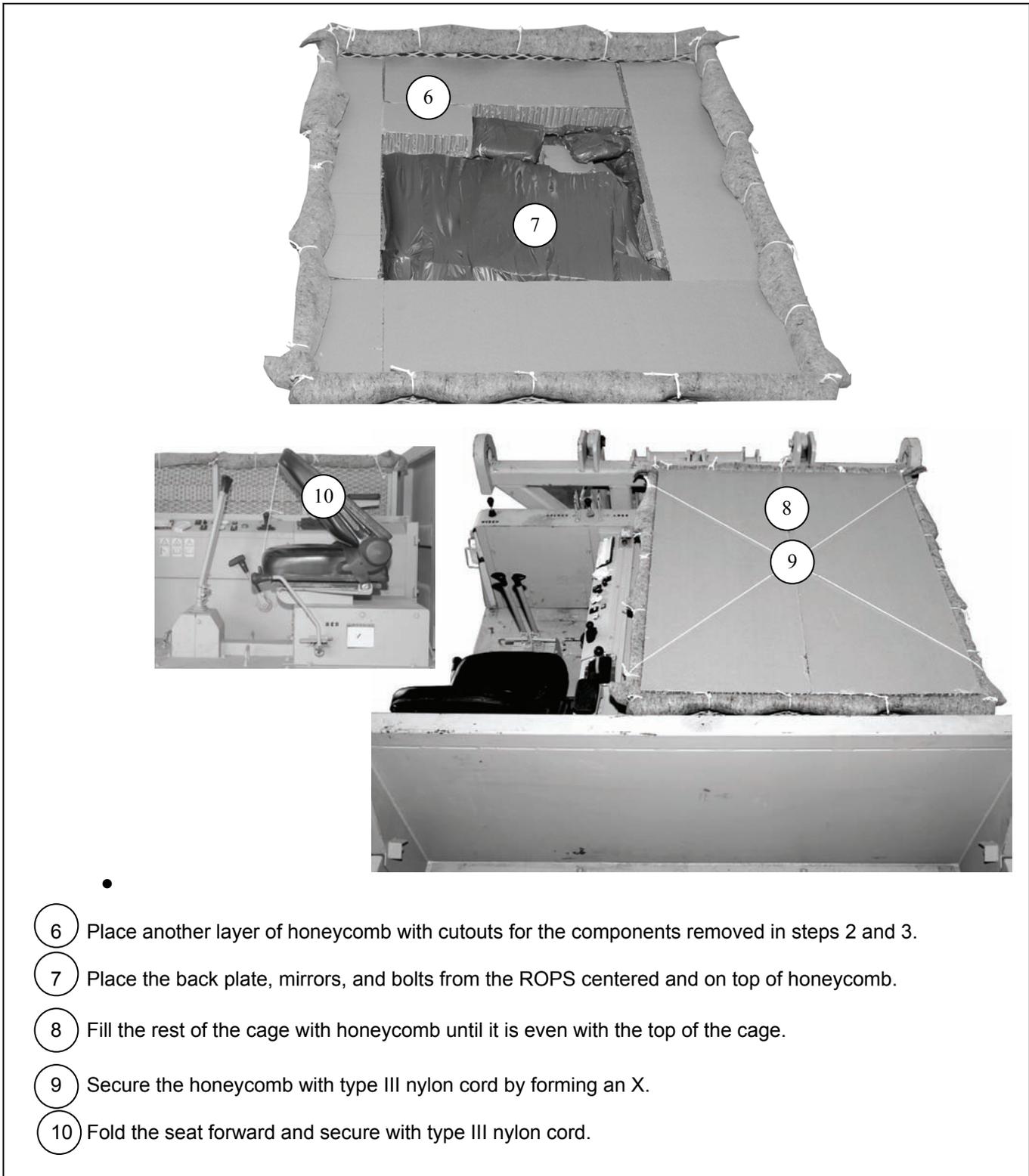


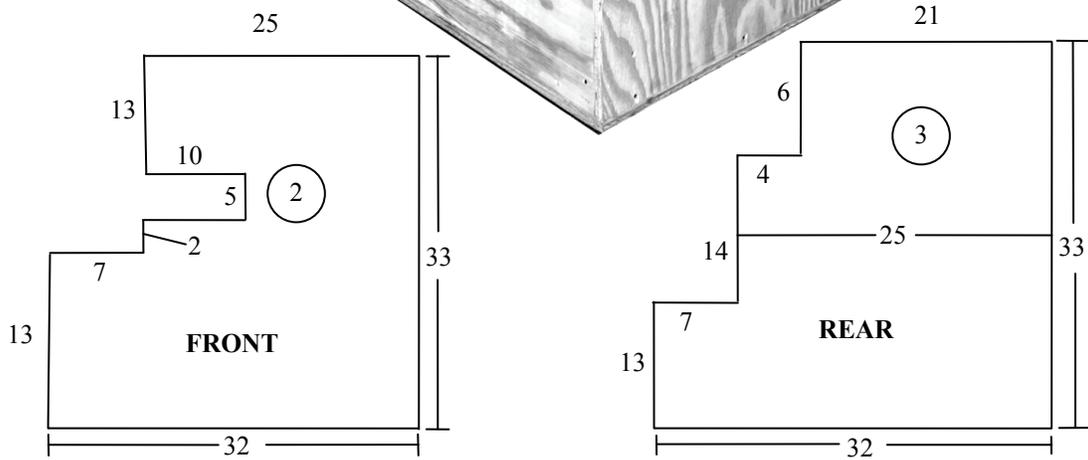
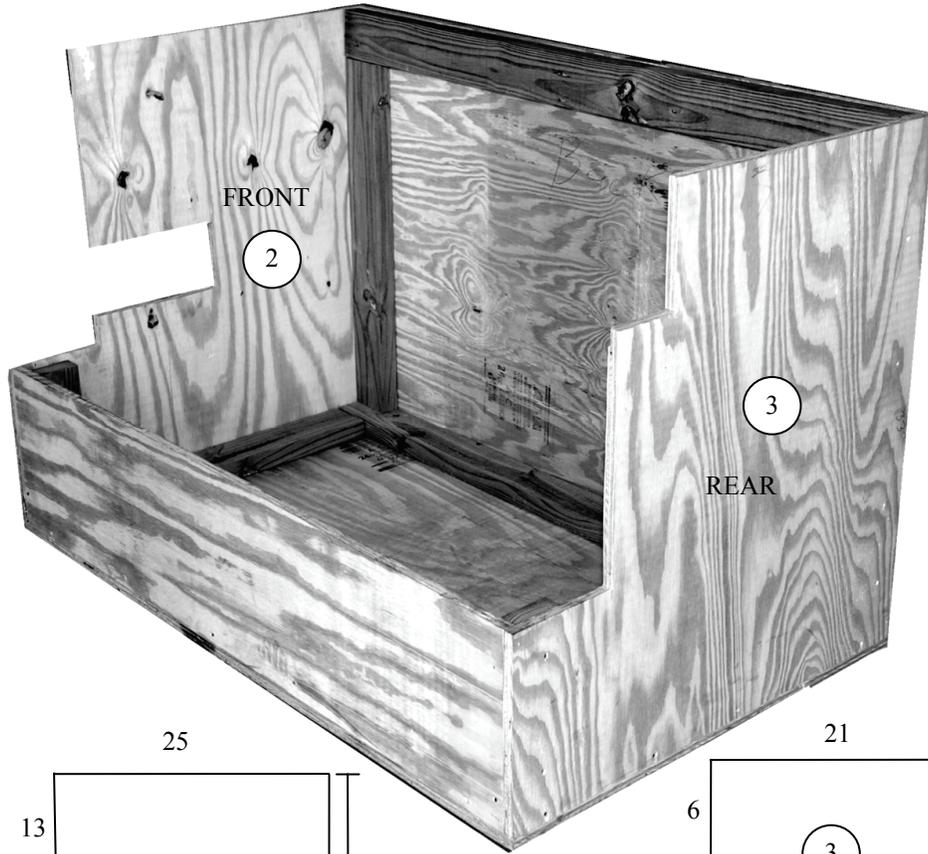
Figure 2-9. Components Stowed and Secured



-
- 6 Place another layer of honeycomb with cutouts for the components removed in steps 2 and 3.
- 7 Place the back plate, mirrors, and bolts from the ROPS centered and on top of honeycomb.
- 8 Fill the rest of the cage with honeycomb until it is even with the top of the cage.
- 9 Secure the honeycomb with type III nylon cord by forming an X.
- 10 Fold the seat forward and secure with type III nylon cord.

Figure 2-9. Components Stowed and Secured (Continued)

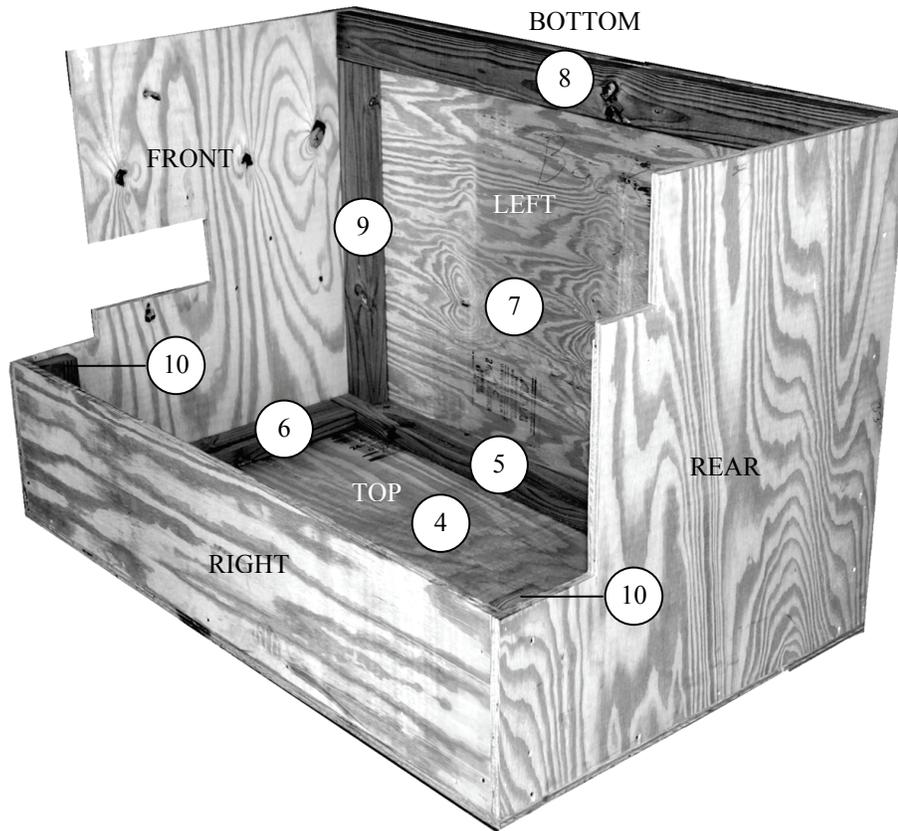
- Notes.**
1. Not drawn to scale.
 2. All dimensions are given in inches.
 3. The box is shown upside down for building clarification.



- 1 Cut two 32- by 33- by $\frac{3}{4}$ -inch pieces of plywood for the front and rear.
- 2 Cut front as shown.
- 3 Cut rear as shown.

Figure 2-10. Protective Cab Box Built

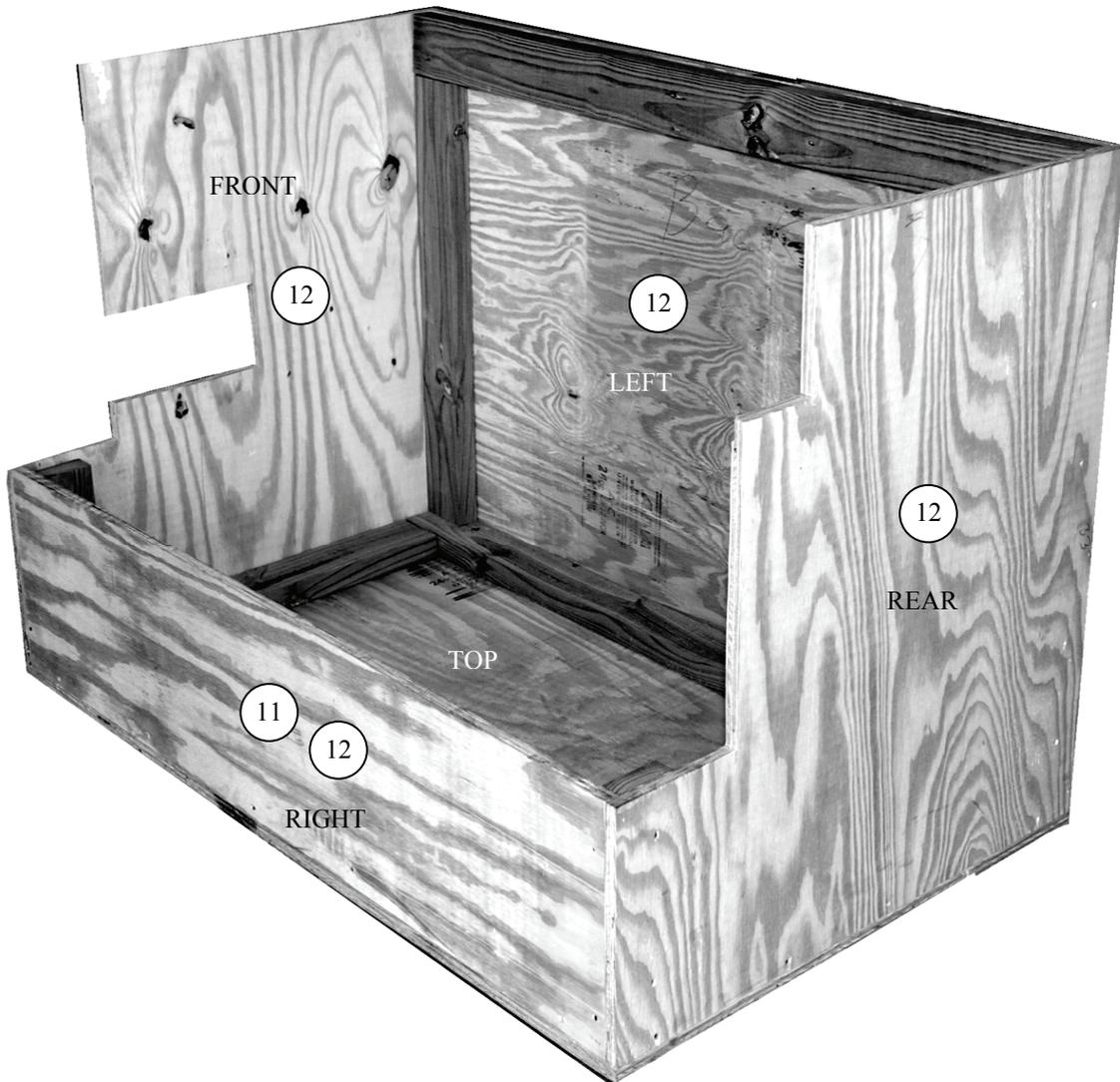
Note. The box is shown upside down for building clarification.



- 4 Cut a 32- by 52- by $\frac{3}{4}$ -inch piece of plywood for the top.
- 5 Cut two 2- by 4- by 50 $\frac{1}{2}$ -inch pieces of lumber. Nail to the top with a $\frac{3}{4}$ - inch border from the left edge using 8d nails. Repeat for the right edge.
- 6 Cut two 2- by 4- by 23 $\frac{1}{2}$ -inch pieces of lumber. Nail to the top with a $\frac{3}{4}$ - inch border from the front edge using 8d nails. Repeat for the rear edge.
- 7 Cut one 33- by 50 $\frac{1}{2}$ - by $\frac{3}{4}$ -inch piece of plywood for the left side.
- 8 Cut one 2- by 4- by 50 $\frac{1}{2}$ -inch piece of lumber. Nail to the bottom of the left side with a $\frac{3}{4}$ - inch border from the rear and front sides with 8d nails.
- 9 Cut two 2- by 4- by 28 $\frac{1}{2}$ -inch pieces of lumber. Nail to the left front edge with a $\frac{3}{4}$ - inch border from the left edge with 8d nails. Repeat for the right edge(Not Shown).
- 10 Cut two 2- by 4- by 10-inch pieces of lumber. Nail to the front with a $\frac{3}{4}$ -inch from the front edge and with 8d nails. Repeat for the rear edge.

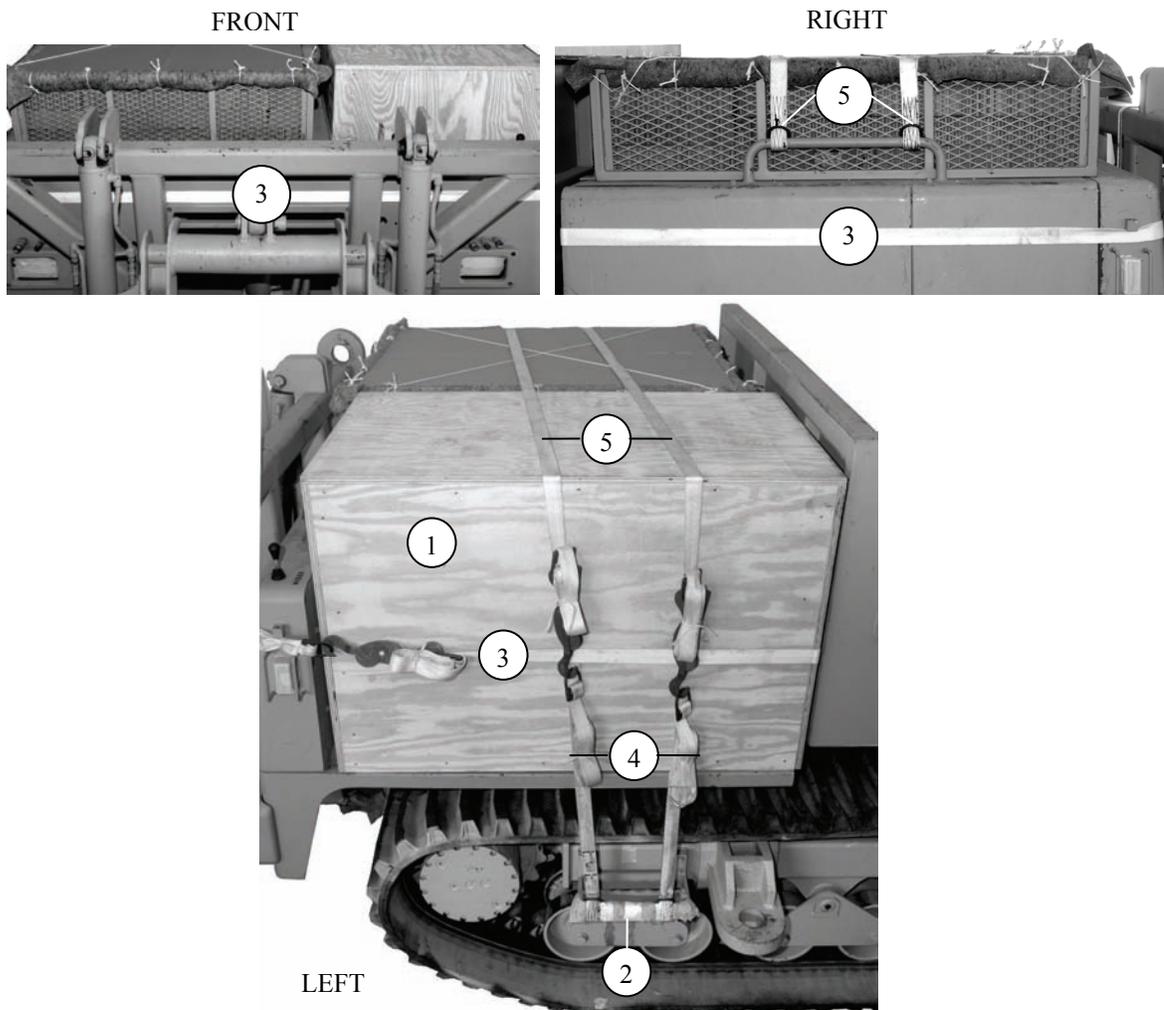
Figure 2-10. Protective Cab Box Built (Continued)

Note. The box is shown upside down for building clarification.



- 11 Cut a 12- by 50 1/2- by 3/4-inch piece of plywood for the right side.
- 12 Nail the left, rear, front and right sides to the top to each other with 8d nails.

Figure 2-10. Protective Cab Box Built (Continued)



- 1 Position the cab protection box over the cab.
- 2 Pad the step to the cab with cellulose wadding and tape.
- 3 Route a 30-foot lashing horizontally around the front of the vehicle, behind the attachment assembly, and around the cab protection box. Secure the lashings with two D-rings and a load binder on the left side of the cab protection box.
- 4 Route two 15-foot lashings through the padded step below the cab and through its own D-ring.
- 5 Route two 15-foot lashings through the bar on the right side of the cage and through its own D-ring. Route the lashings from the bar over top of the cab protection box toward the lashing installed on the step. Secure the lashings with four D-rings and two load binders on the left side of the cab protection box.

Figure 2-11. Cab Protective Box Placed and Secured

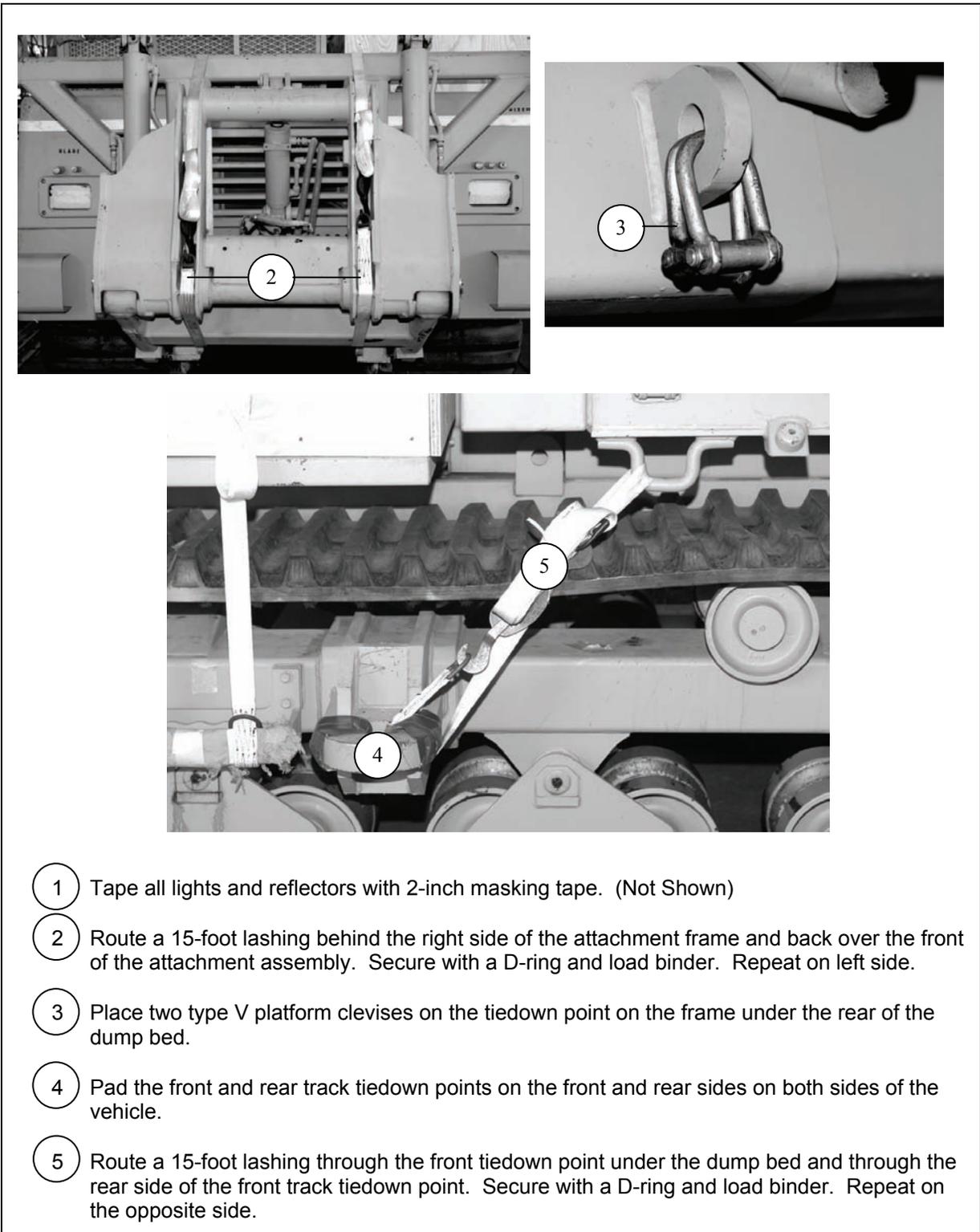
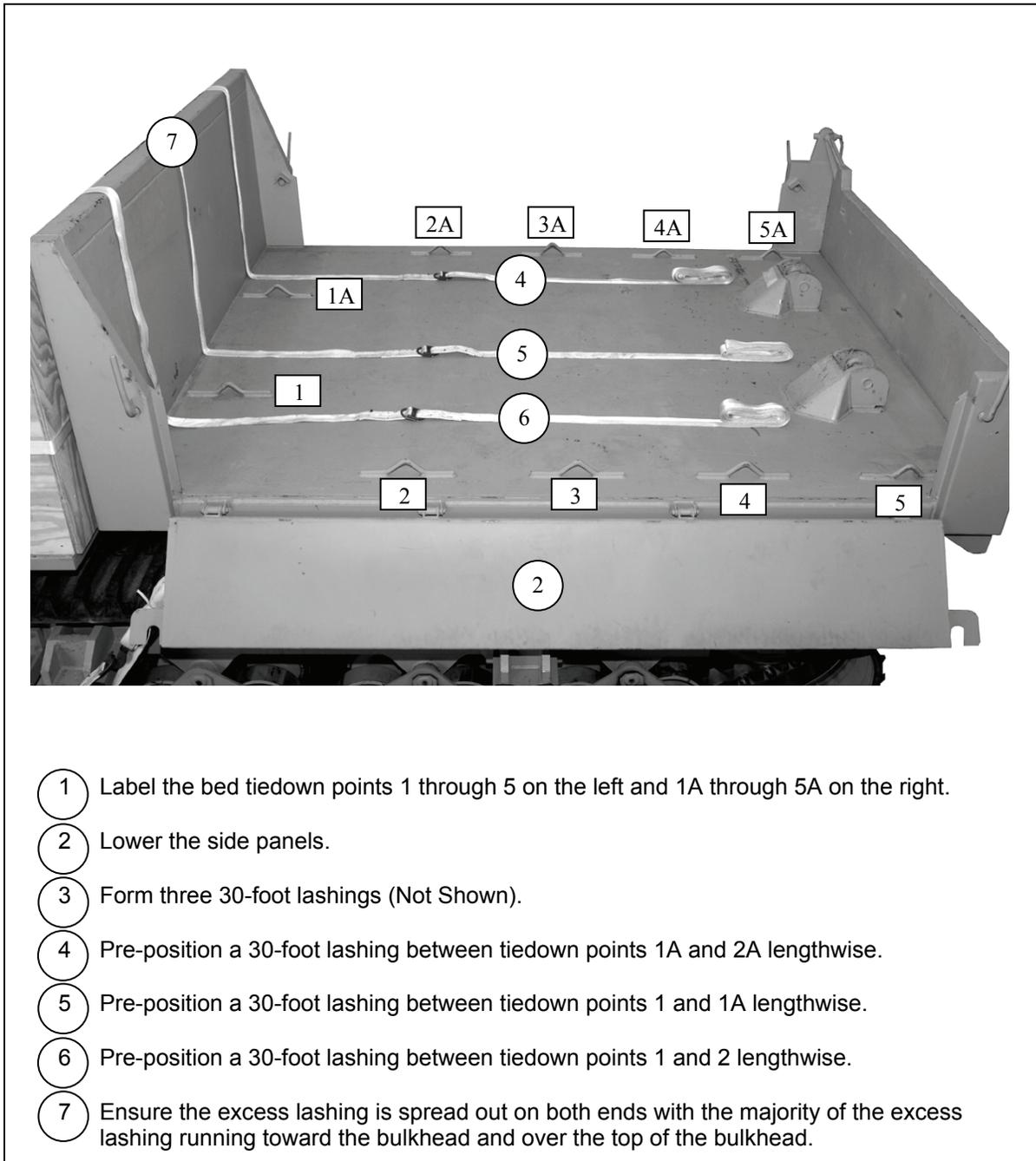
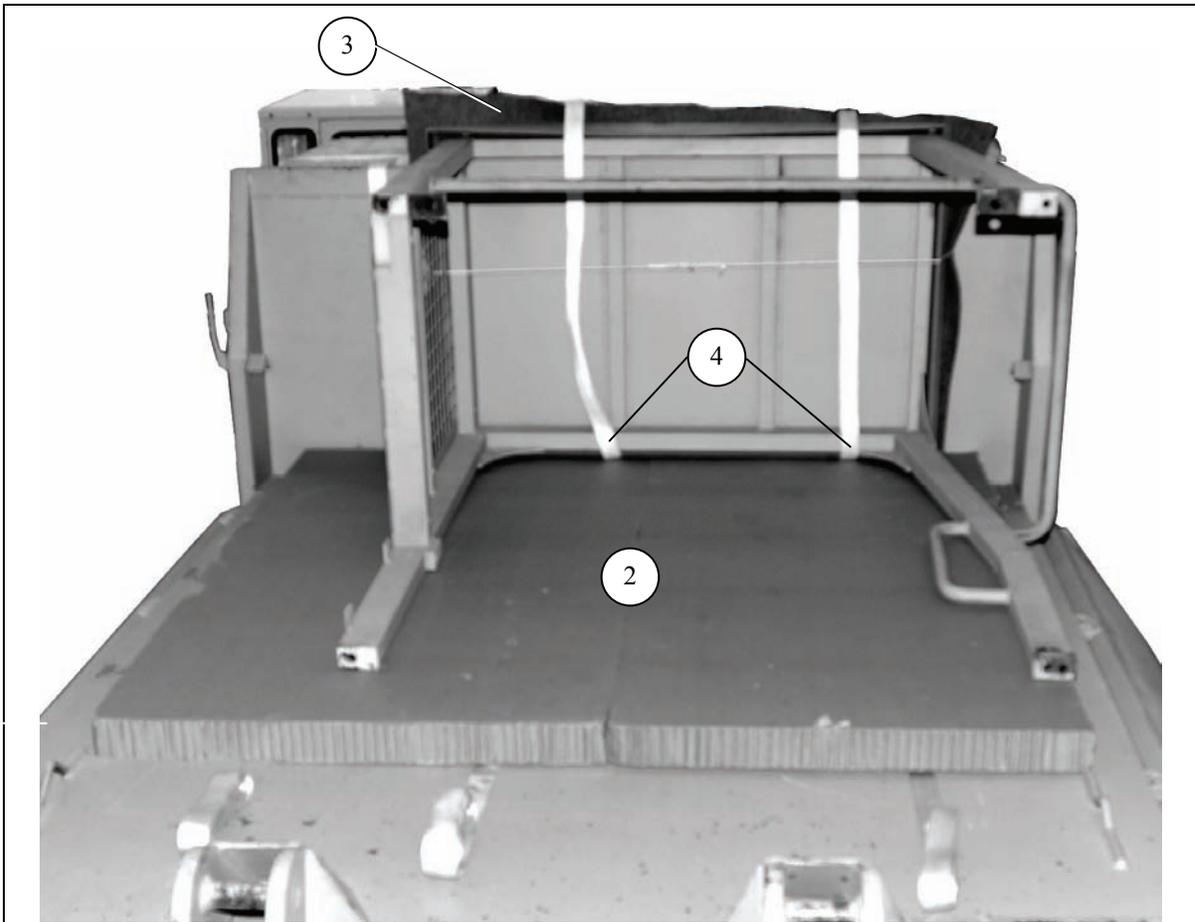


Figure 2-12. External Body Prepared



- ① Label the bed tiedown points 1 through 5 on the left and 1A through 5A on the right.
- ② Lower the side panels.
- ③ Form three 30-foot lashings (Not Shown).
- ④ Pre-position a 30-foot lashing between tiedown points 1A and 2A lengthwise.
- ⑤ Pre-position a 30-foot lashing between tiedown points 1 and 1A lengthwise.
- ⑥ Pre-position a 30-foot lashing between tiedown points 1 and 2 lengthwise.
- ⑦ Ensure the excess lashing is spread out on both ends with the majority of the excess lashing running toward the bulkhead and over the top of the bulkhead.

Figure 2-13. Tiedowns Numbered and Lashings Positioned



- ① Cut a 36- by 66-inch and a 32- by 66-inch piece of honeycomb. (Not Shown)
- ② Position the honeycomb flush with the dump bed bulkhead, inside the outer tiedown points on top of the pre-positioned lashings.
- ③ Cut a piece of felt to cover the top of the ROPS and secure it in place with type III nylon cord.
- ④ Place the ROPS on the right front side of the vehicle bed. Run the pre-positioned lashings under and inside (rear) the top of the ROPS and lay the excess toward the front of the vehicle.

Figure 2-14. ROPS Placed

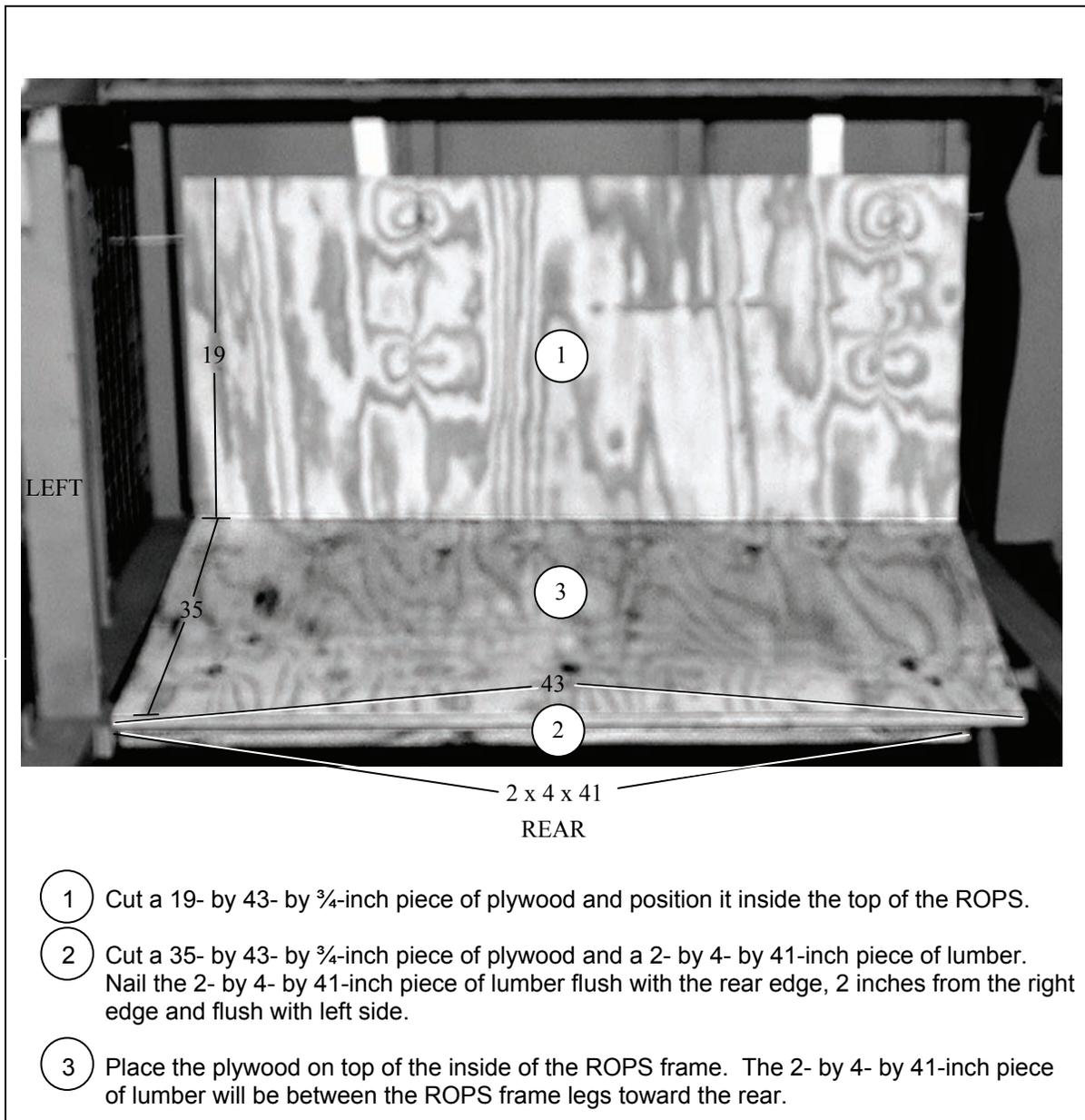


Figure 2-15. ROPS and Cargo Bed Prepared for Accompanying Load

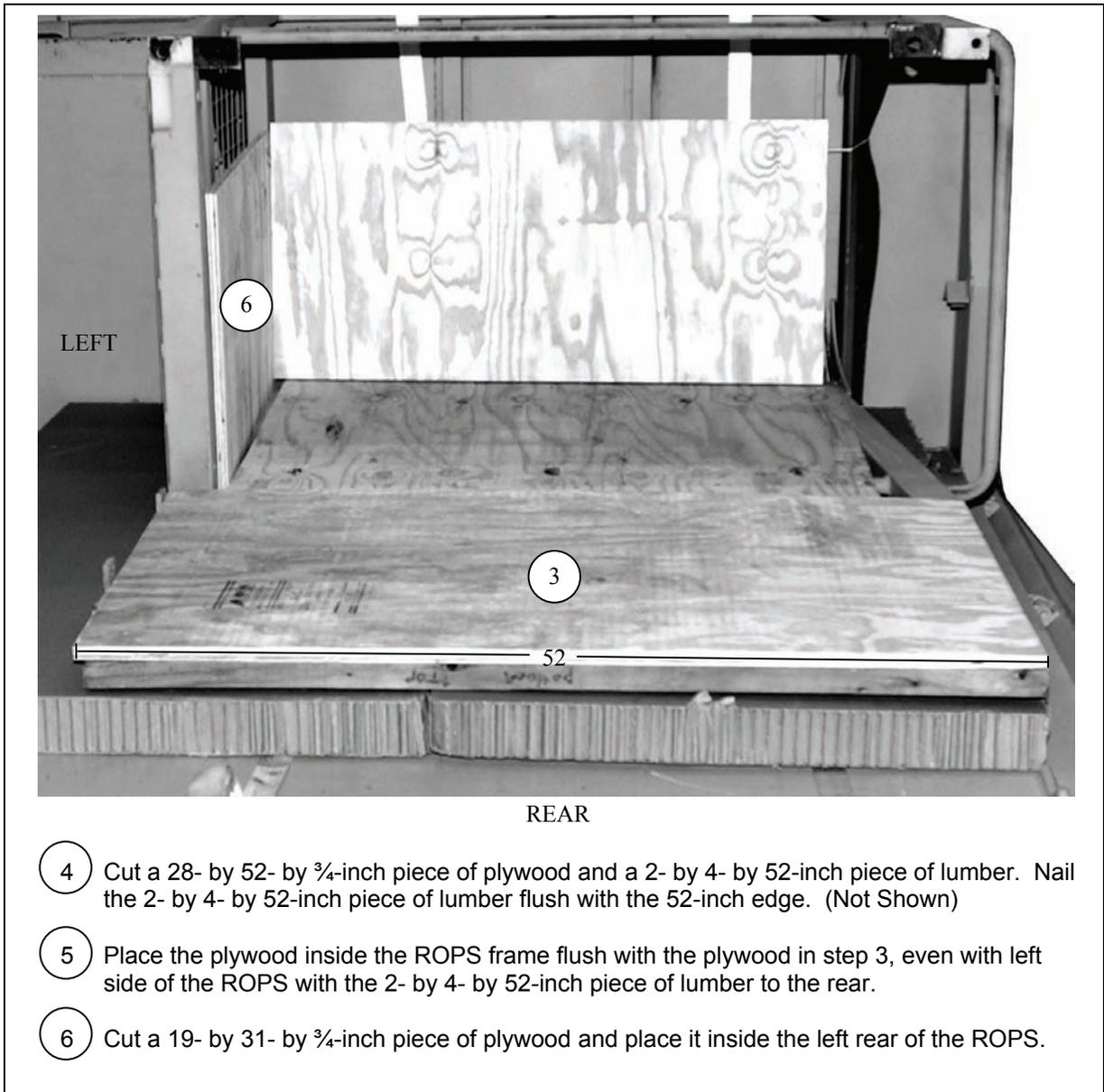


Figure 2-15. ROPS and Cargo Bed Prepared for Accompanying Load (Continued)

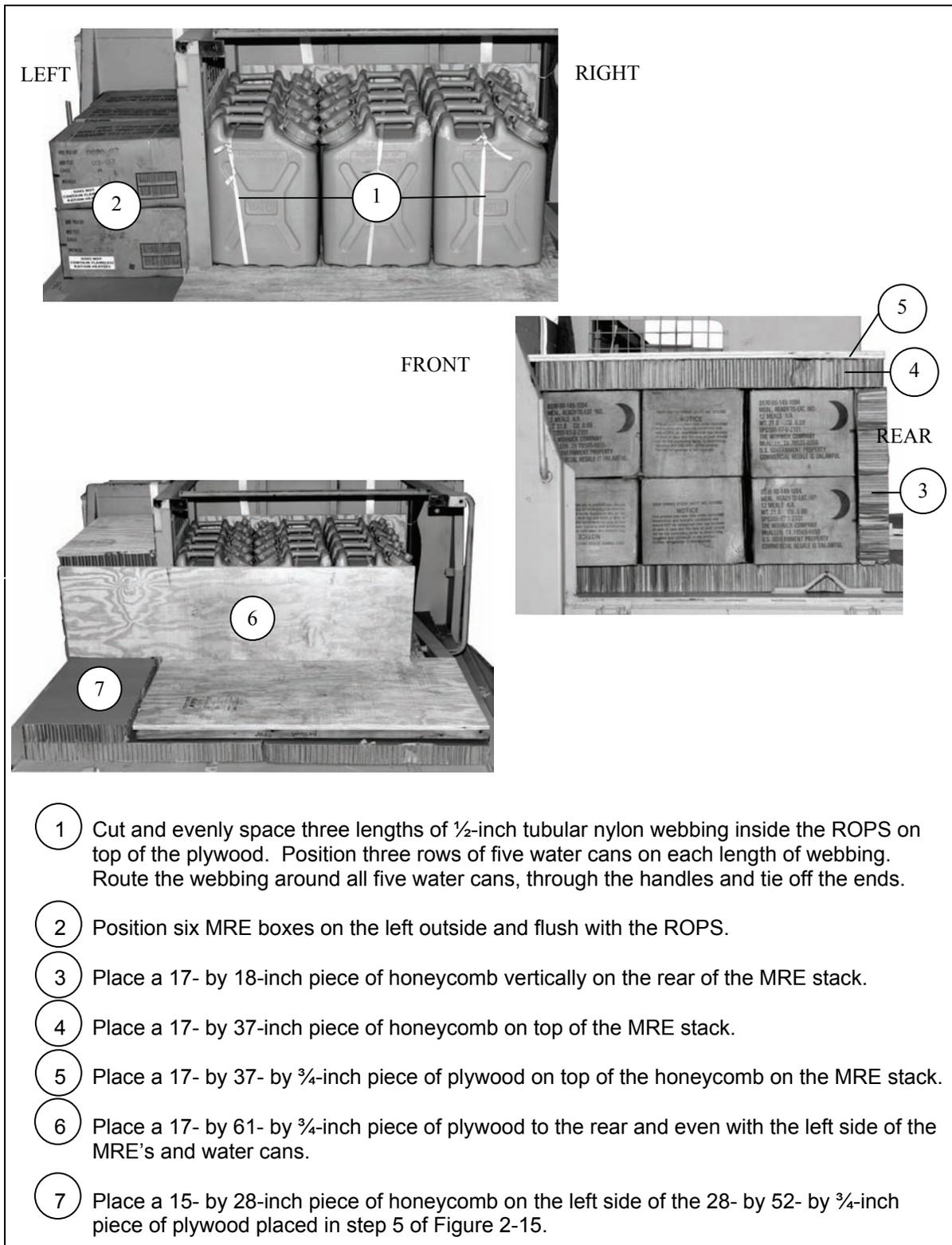


Figure 2-16. Water Cans and MRE's Positioned

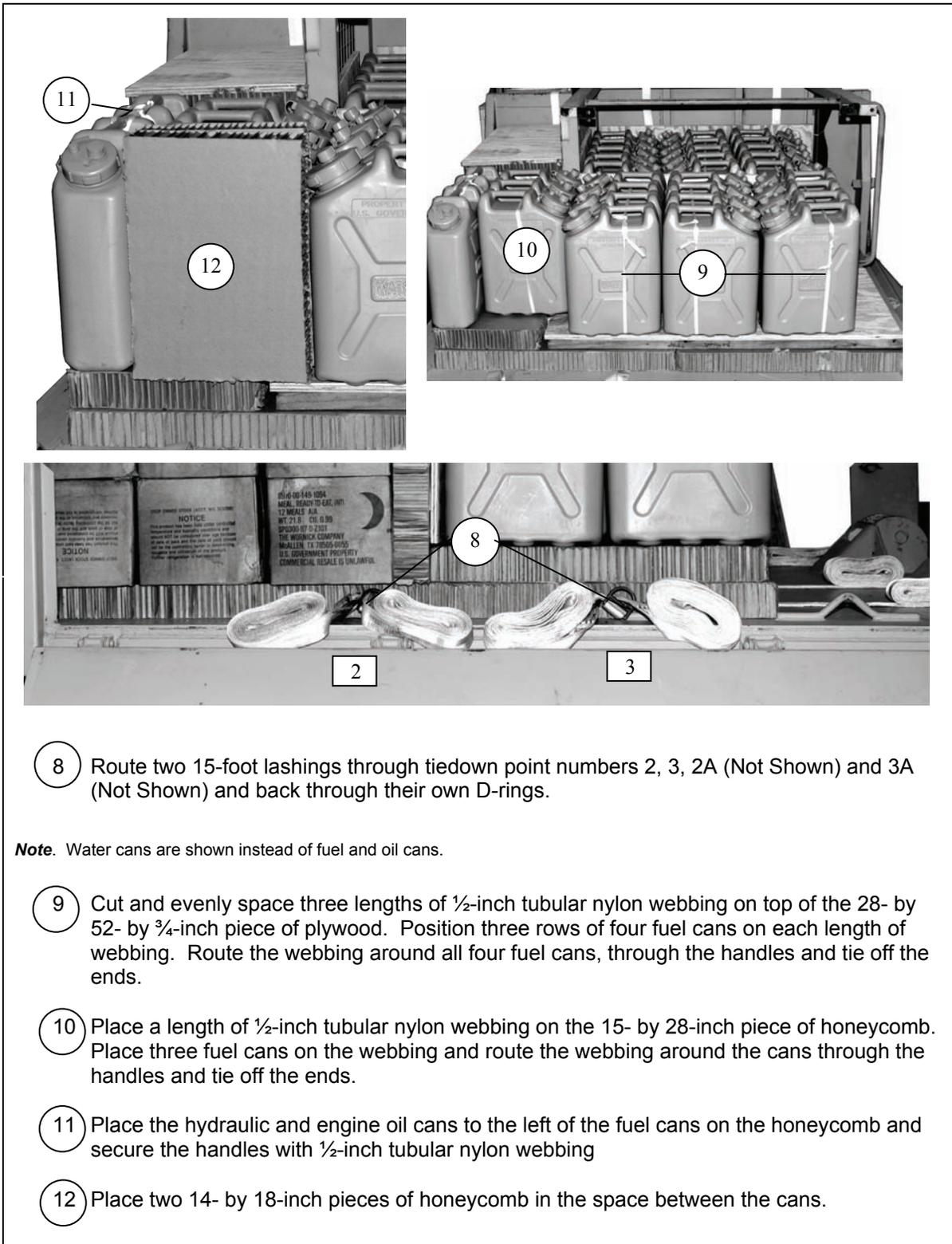
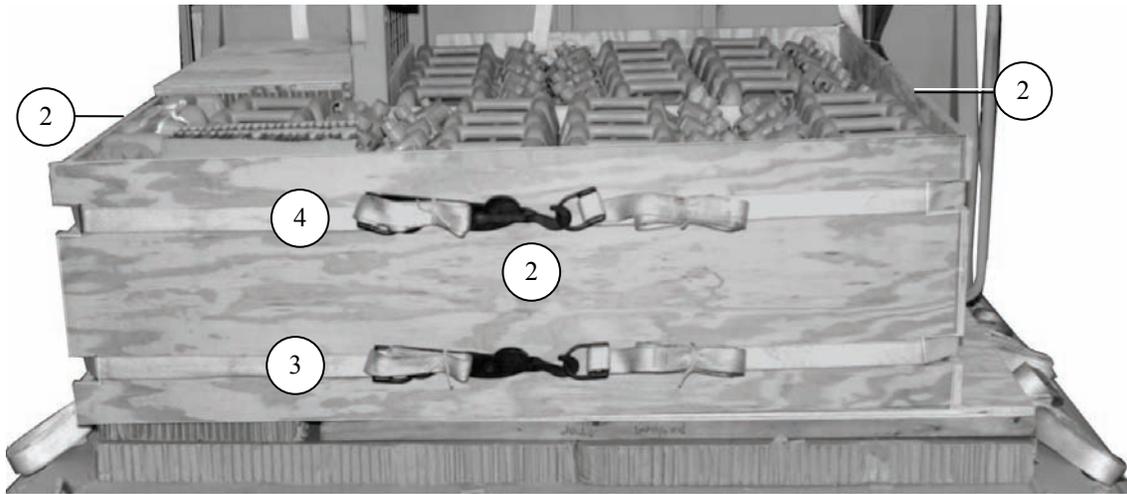
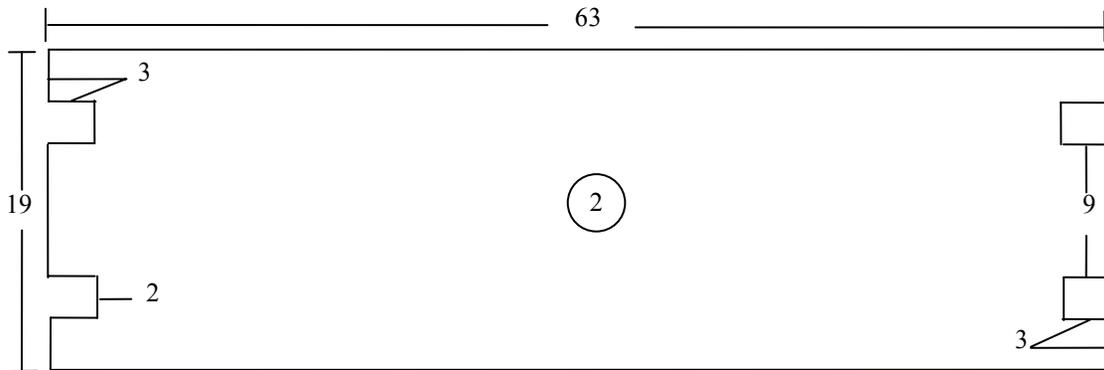


Figure 2-16. Water Cans and MRE's Positioned (Continued)

- Notes.**
1. Not drawn to scale.
 2. All dimensions are given in inches.
 3. Pad and tape all cut outs prior to routing lashings.



- 1 Cut three 19- by 63- by $\frac{3}{4}$ -inch pieces of plywood for the endboards.
- 2 Position the endboards to the right, left and rear of the accompanying load.
- 3 Form two 30-foot lashings. Route one 30-foot lashing horizontally through the bottom cutouts of the left end board around the front of the ROPS through the bottom cutouts of the right end board. Secure the lashings with two D-rings and load binder centered on the rear endboard.
- 4 Route one 30-foot lashing horizontally through the top cutouts around the front of the ROPS through the top cutouts of the right endboard. Secure the lashings with two D-rings and load binder centered on the rear endboard.

Figure 2-17. Endboards Placed and Secured

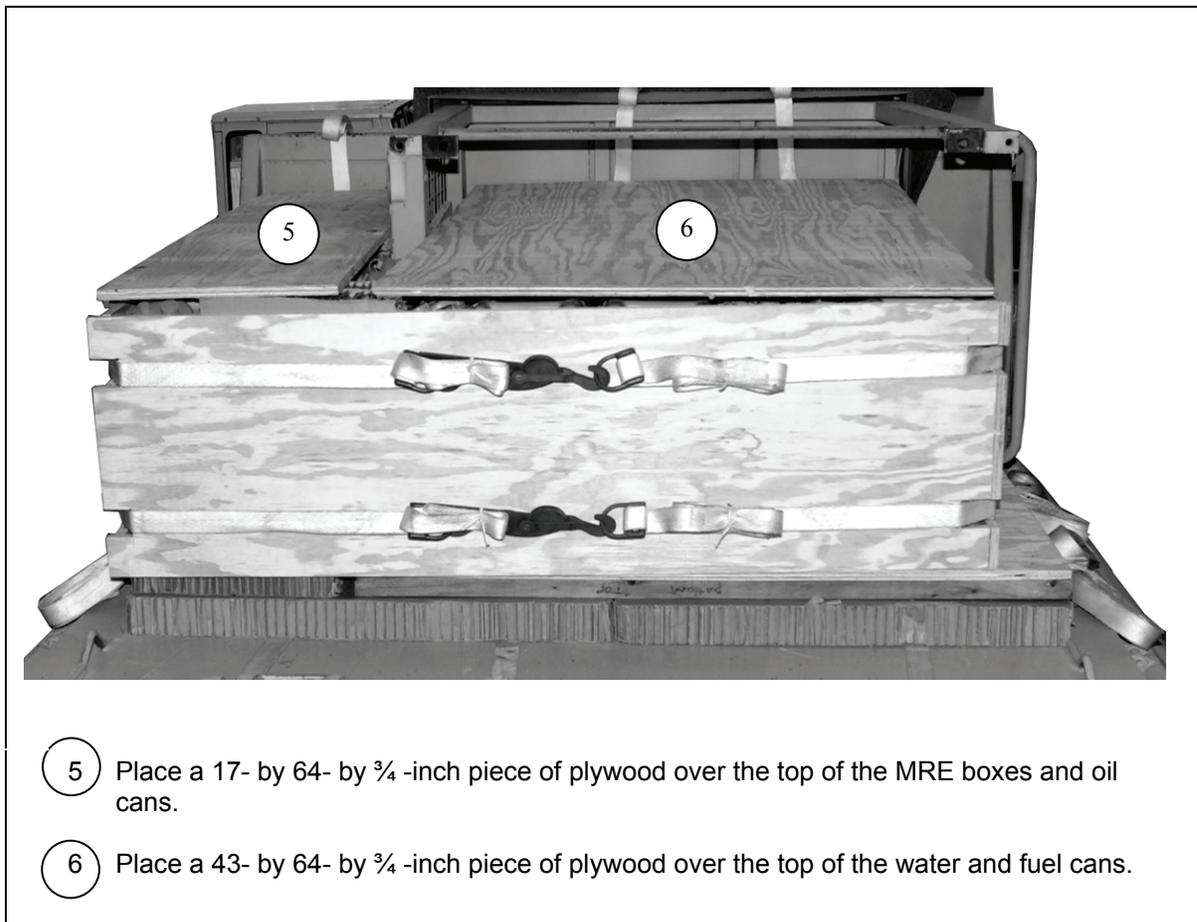
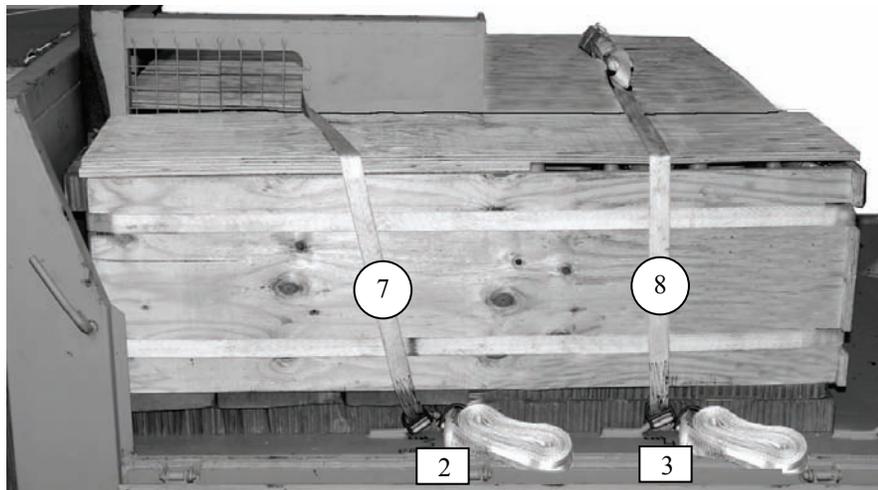
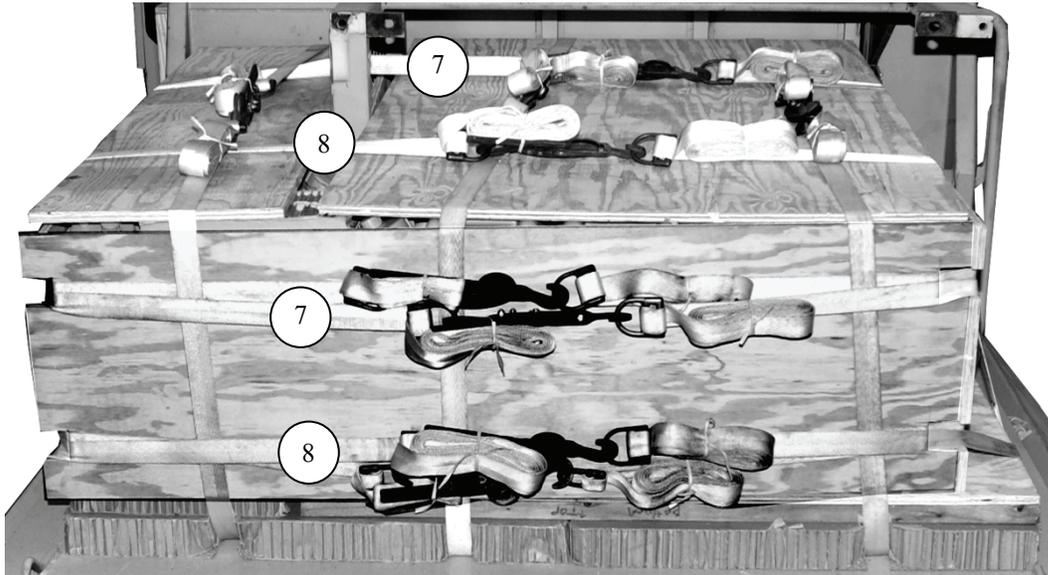


Figure 2-17. Endboards Placed and Secured (Continued)



- 7 Route the forward lashing from dump bed tiedowns 2 and 2A up over the top and through rear cage part of the ROPs as close to the plywood as possible. Secure the lashing with two D-rings and load binder on top of the 43- by 64- by 3/4 -inch piece of plywood.
- 8 Route the forward pre-positioned lashing on dump bed tiedown points 3 and 3A over the top pieces of plywood covering the accompanying load. Secure the lashing with two D-rings and load binder on top of the 43- by 64- by 3/4 -inch piece of plywood.

Figure 2-17. Endboards Placed and Secured (Continued)

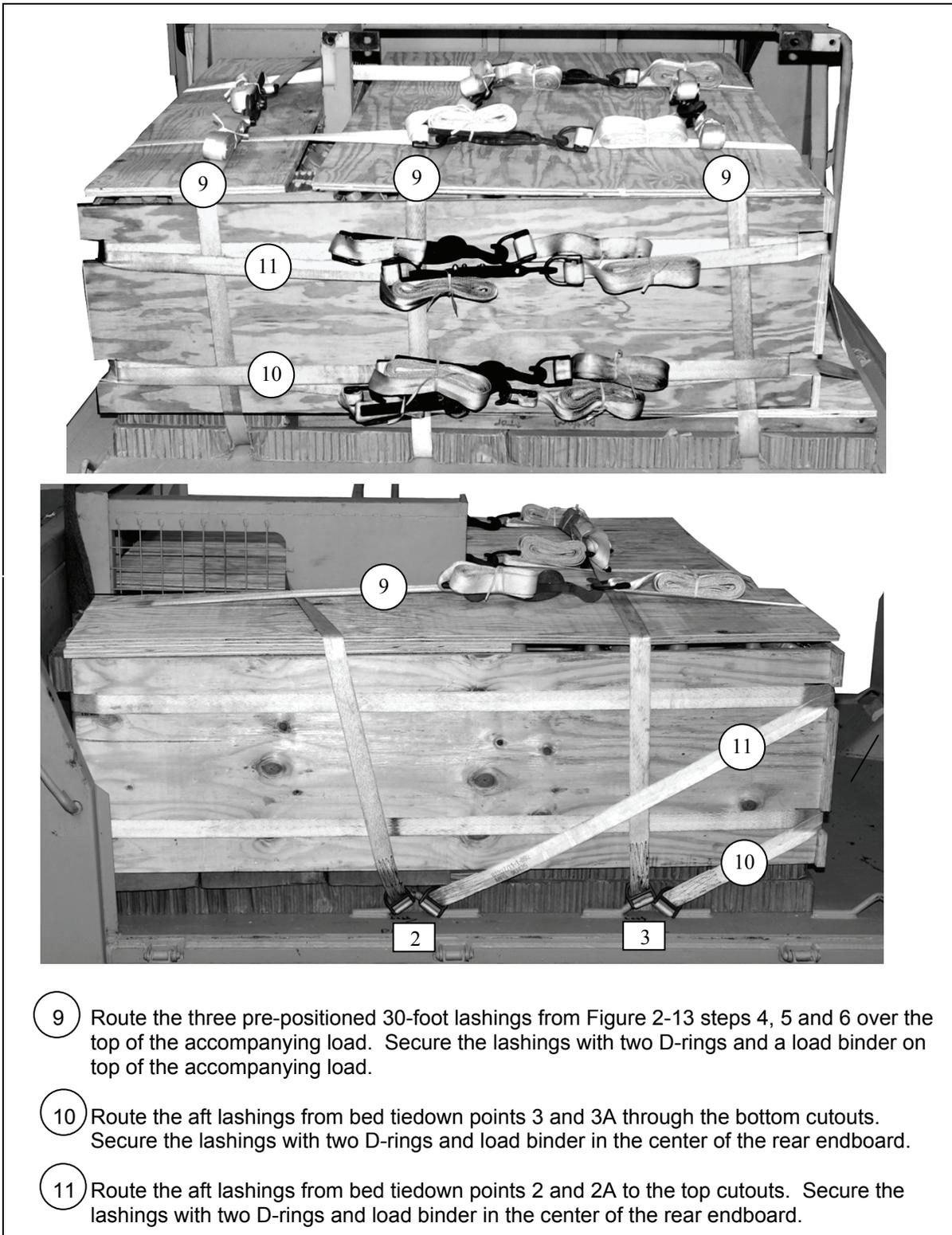
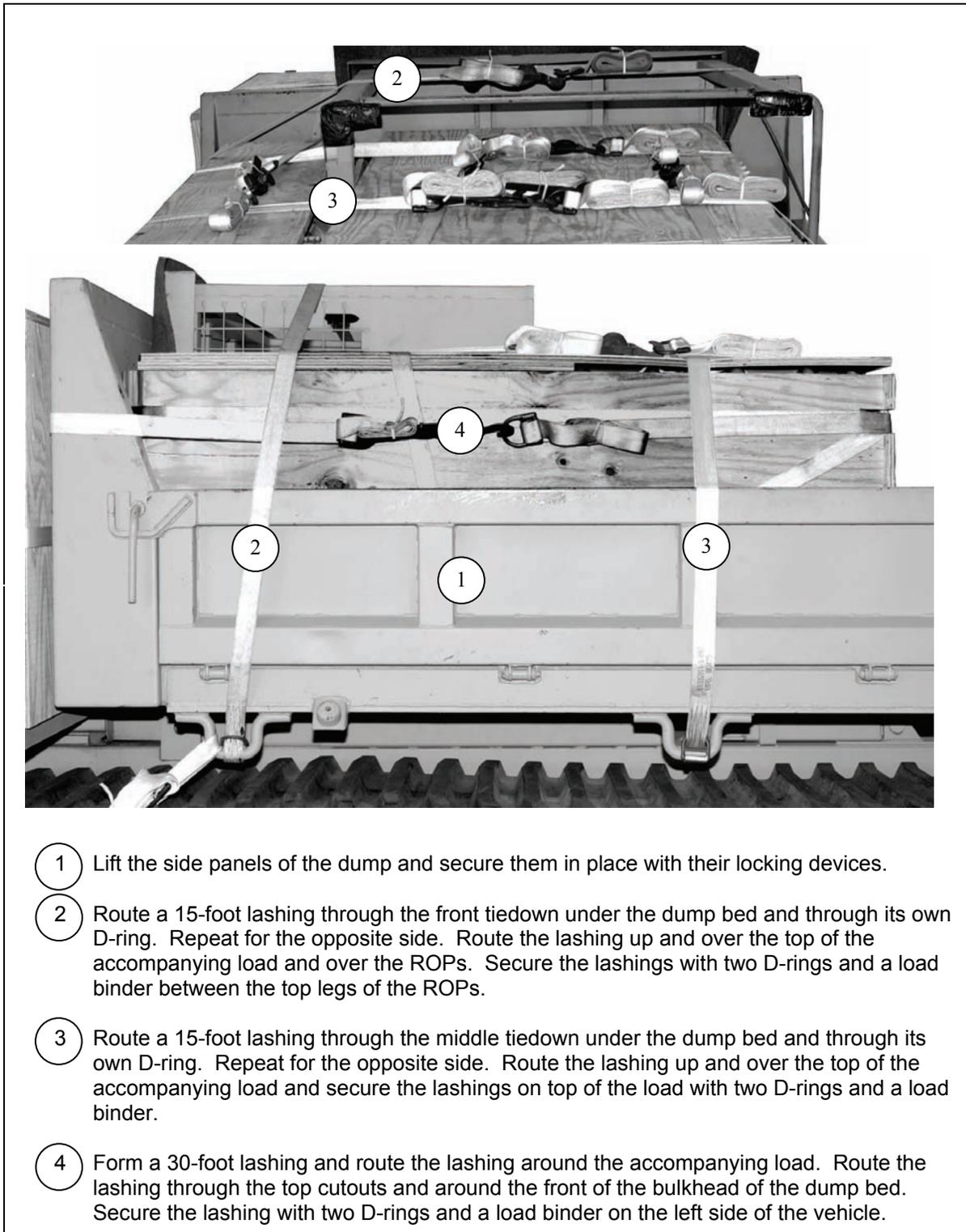


Figure 2-17. Endboards Placed and Secured (Continued)



- 1 Lift the side panels of the dump and secure them in place with their locking devices.
- 2 Route a 15-foot lashing through the front tiedown under the dump bed and through its own D-ring. Repeat for the opposite side. Route the lashing up and over the top of the accompanying load and over the ROPs. Secure the lashings with two D-rings and a load binder between the top legs of the ROPs.
- 3 Route a 15-foot lashing through the middle tiedown under the dump bed and through its own D-ring. Repeat for the opposite side. Route the lashing up and over the top of the accompanying load and secure the lashings on top of the load with two D-rings and a load binder.
- 4 Form a 30-foot lashing and route the lashing around the accompanying load. Route the lashing through the top cutouts and around the front of the bulkhead of the dump bed. Secure the lashing with two D-rings and a load binder on the left side of the vehicle.

Figure 2-18. Side Panels Positioned and Accompanying Load Lashed

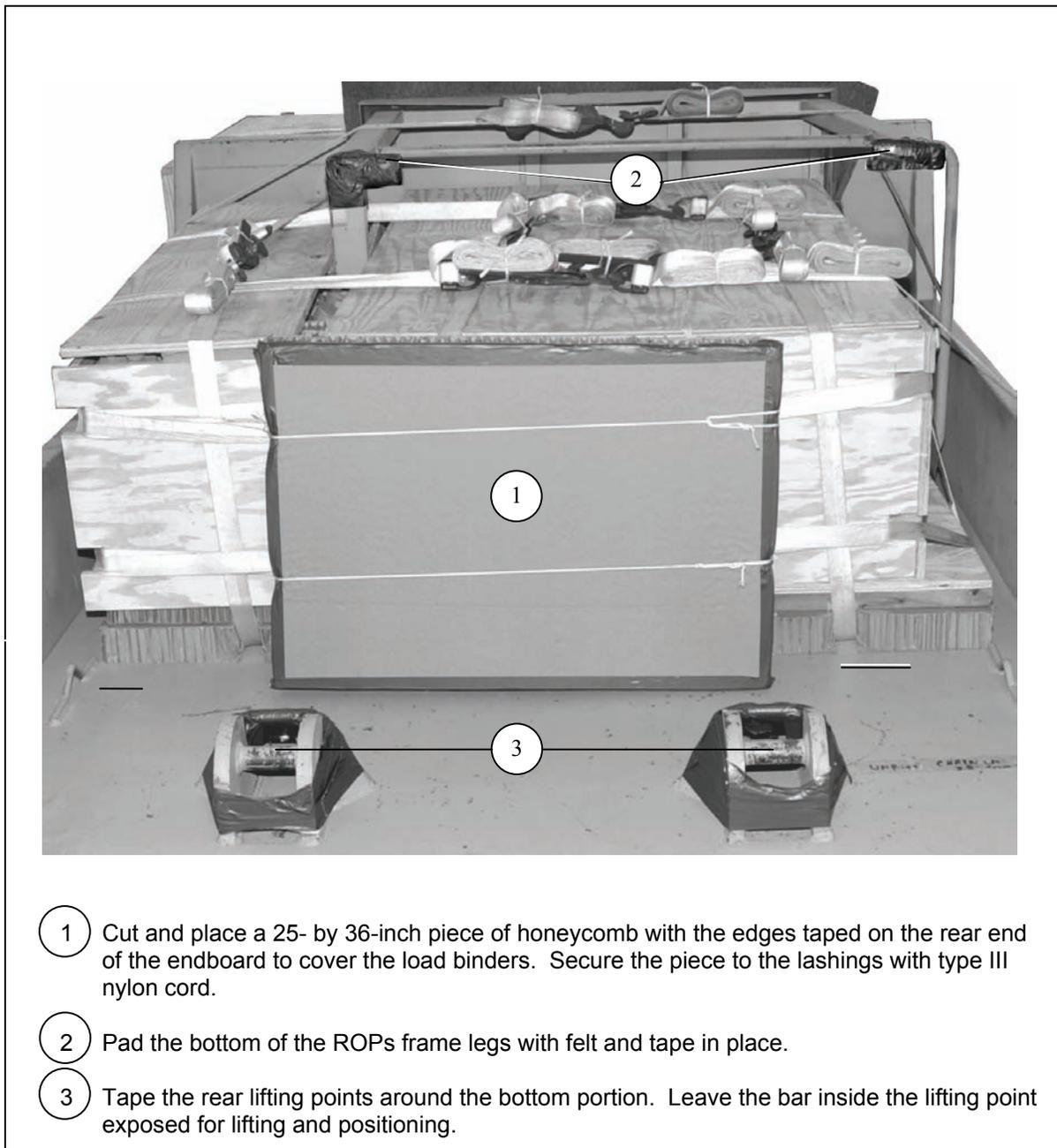
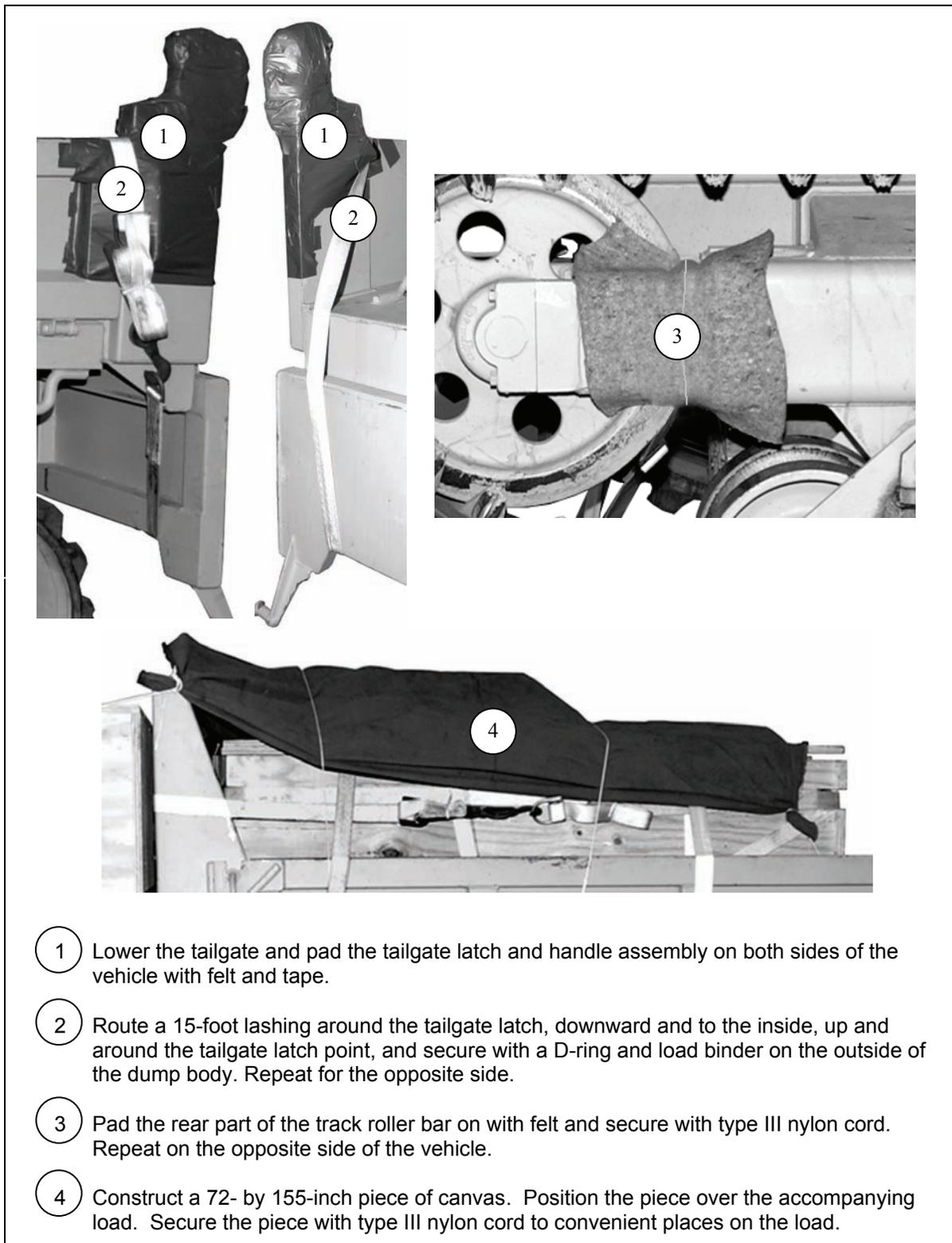


Figure 2-19. Lifting Points Taped and ROPS Padded



- 1 Lower the tailgate and pad the tailgate latch and handle assembly on both sides of the vehicle with felt and tape.
- 2 Route a 15-foot lashing around the tailgate latch, downward and to the inside, up and around the tailgate latch point, and secure with a D-ring and load binder on the outside of the dump body. Repeat for the opposite side.
- 3 Pad the rear part of the track roller bar on with felt and secure with type III nylon cord. Repeat on the opposite side of the vehicle.
- 4 Construct a 72- by 155-inch piece of canvas. Position the piece over the accompanying load. Secure the piece with type III nylon cord to convenient places on the load.

Figure 2-20. Tailgate Lashed, Track Roller Bar Padded and Cover Placed

INSTALLING LIFTING AND SUSPENSION SLINGS

2-5. Install the lifting and suspension slings and position as shown in Figure 2-21.

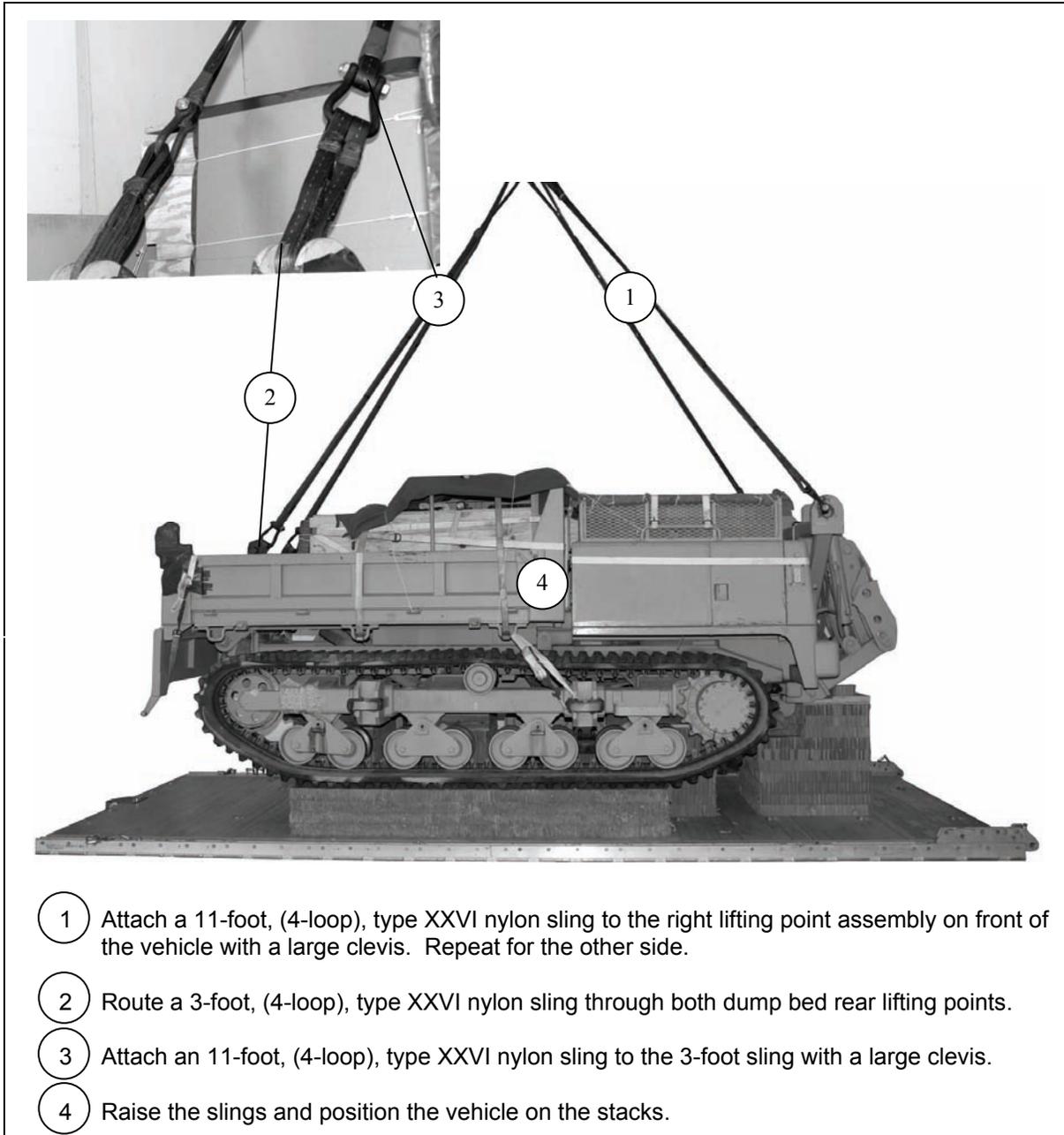
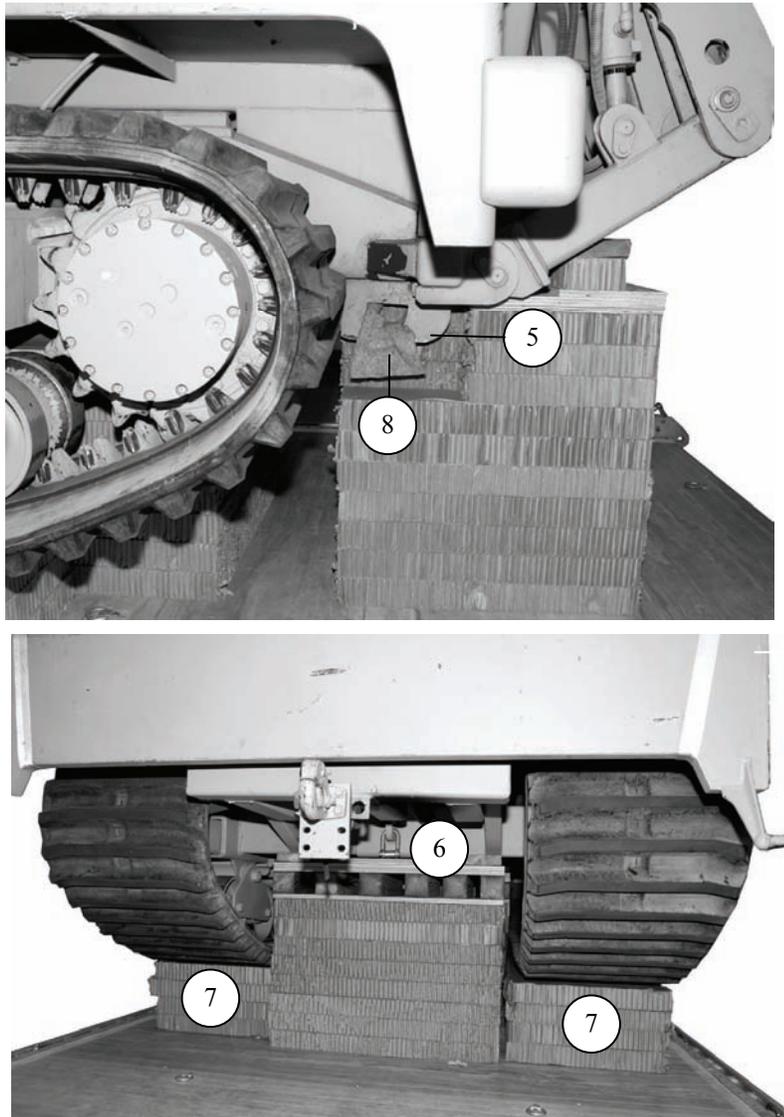


Figure 2-21. Lifting and Suspension Slings Installed and Vehicle Positioned

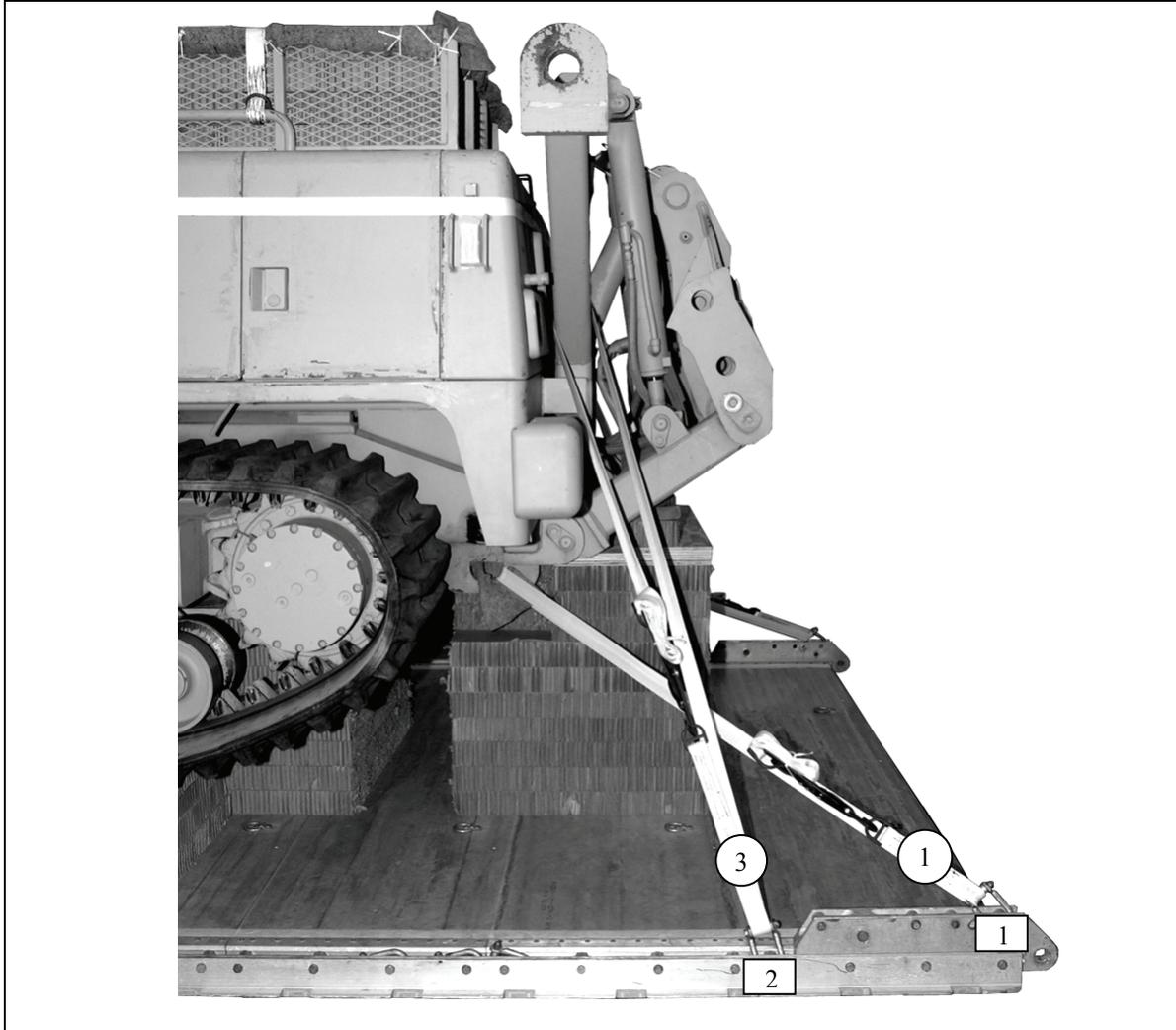


- 5 The tiedown points under the attachment assembly fit into the cutouts of stack number 1.
- 6 The rear frame will set flush with the rear edge of stack number 4.
- 7 You may have to adjust the stacks slightly for the tracks to set squarely on stacks 5 and 6.
- 8 Pad the tiedown point holes under the attachment assembly with felt.

Figure 2-21. Lifting and Suspension Slings Installed and Vehicle Positioned (Continued)

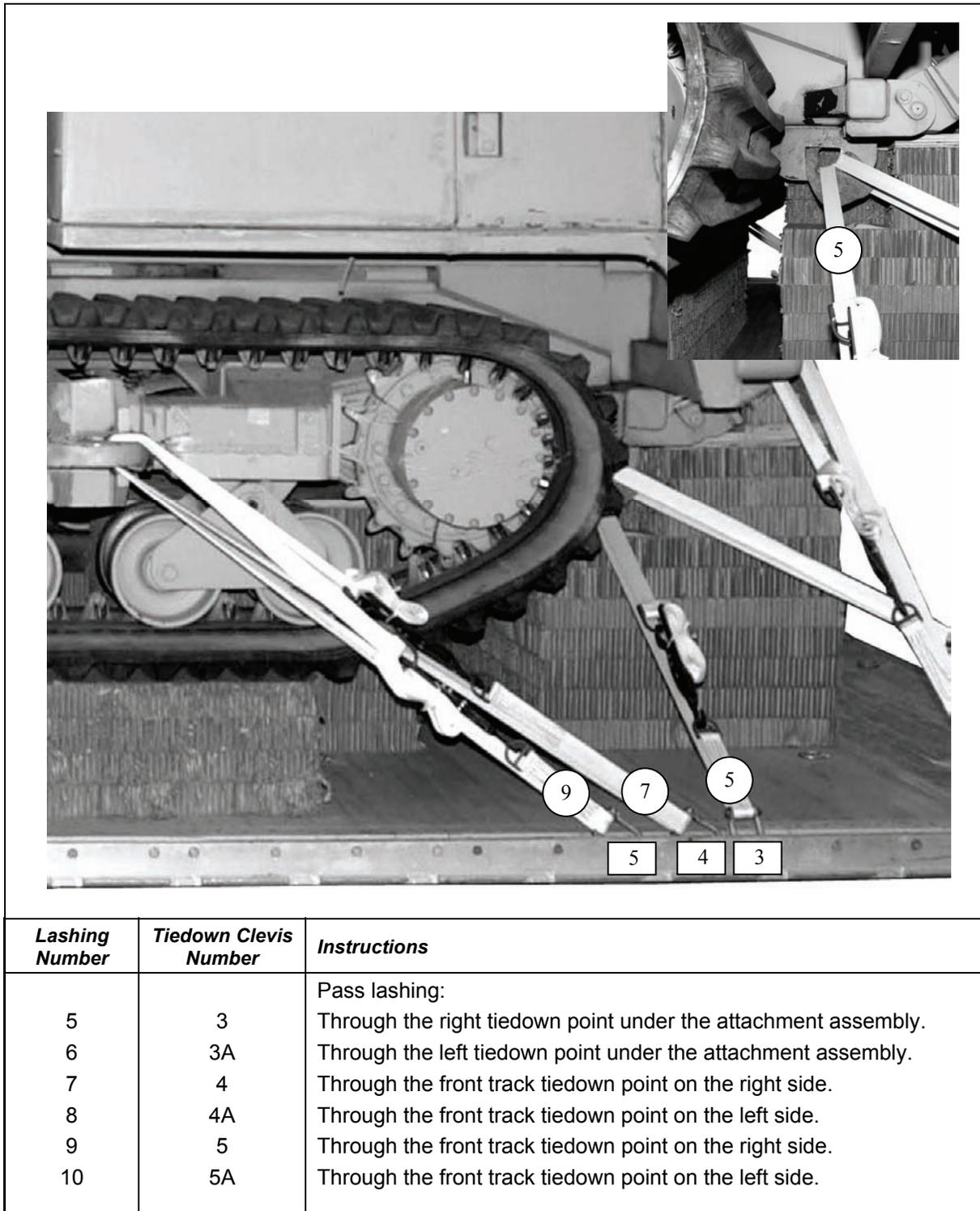
LASHING IC45-2 IHI CRAWLER CARRIER

2-6. Lash the IC45-2 IHI crawler carrier with twenty-eight 15-foot tiedown assemblies as shown in Figures 2-22 through 2-26.



<i>Lashing Number</i>	<i>Tiedown Clevis Number</i>	<i>Instructions</i>
1	1	Pass lashing: Through the right front tiedown point under the attachment assembly.
2	1A	Through the left front tiedown point under the attachment assembly.
3	2	Around the attachment assembly adapter linkage in the Y shaped part on the right side.
4	2A	Around the attachment assembly adapter linkage in the Y shaped part on the left side.

Figure 2-22. Lashings 1 Through 4 Installed



<i>Lashing Number</i>	<i>Tiedown Clevis Number</i>	<i>Instructions</i>
5	3	Pass lashing: Through the right tiedown point under the attachment assembly.
6	3A	Through the left tiedown point under the attachment assembly.
7	4	Through the front track tiedown point on the right side.
8	4A	Through the front track tiedown point on the left side.
9	5	Through the front track tiedown point on the right side.
10	5A	Through the front track tiedown point on the left side.

Figure 2-23. Lashings 5 Through 10 Installed

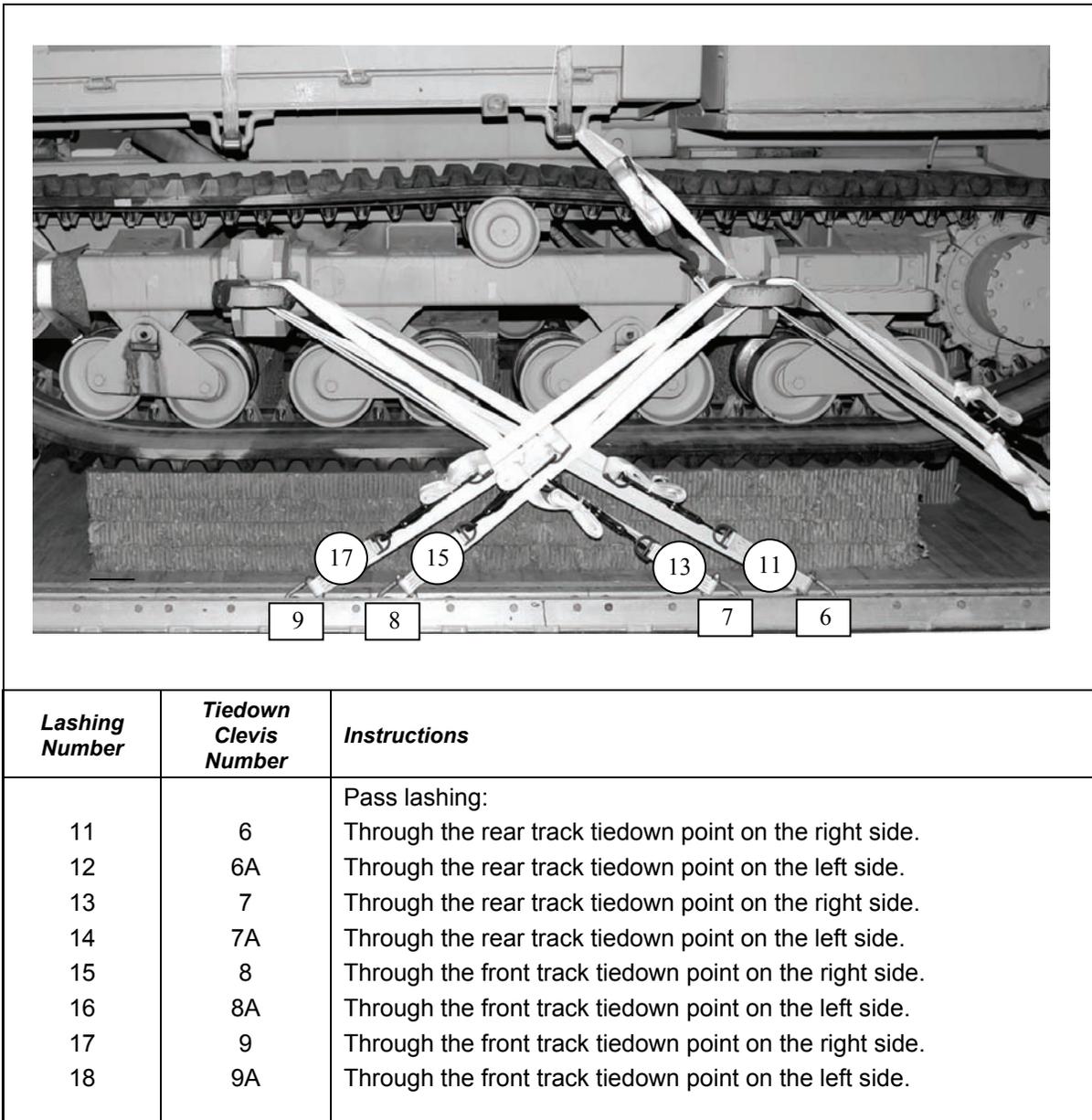
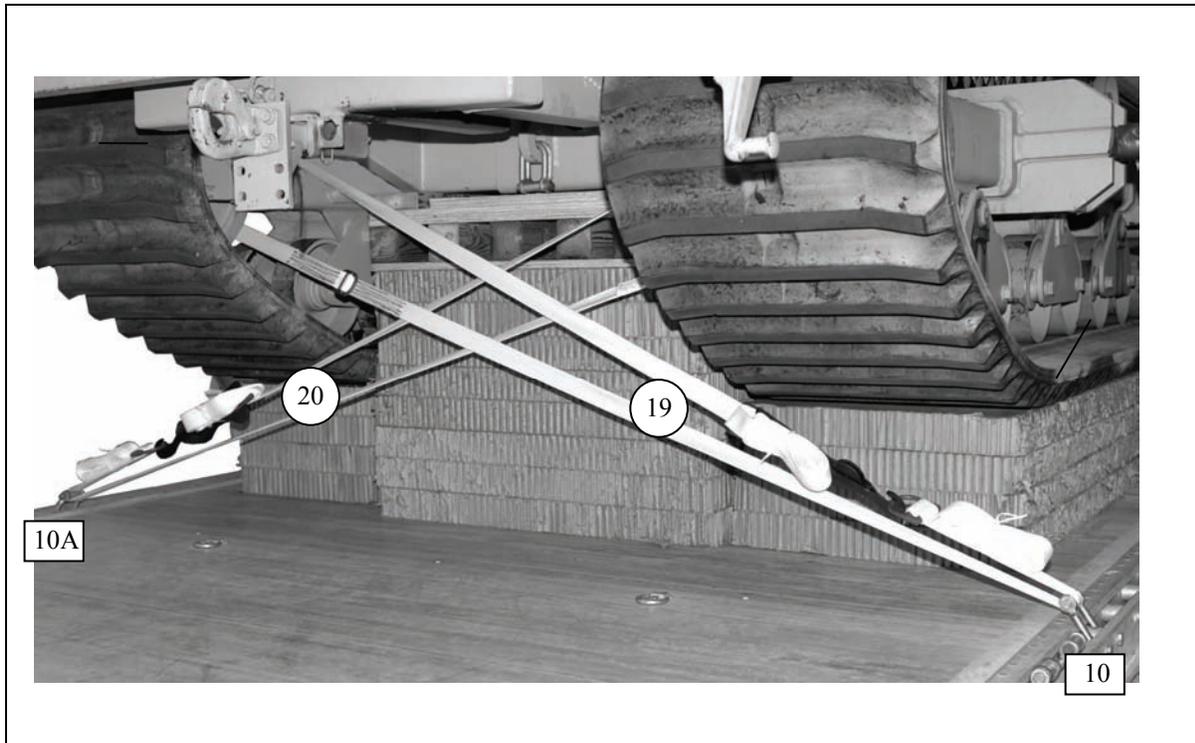
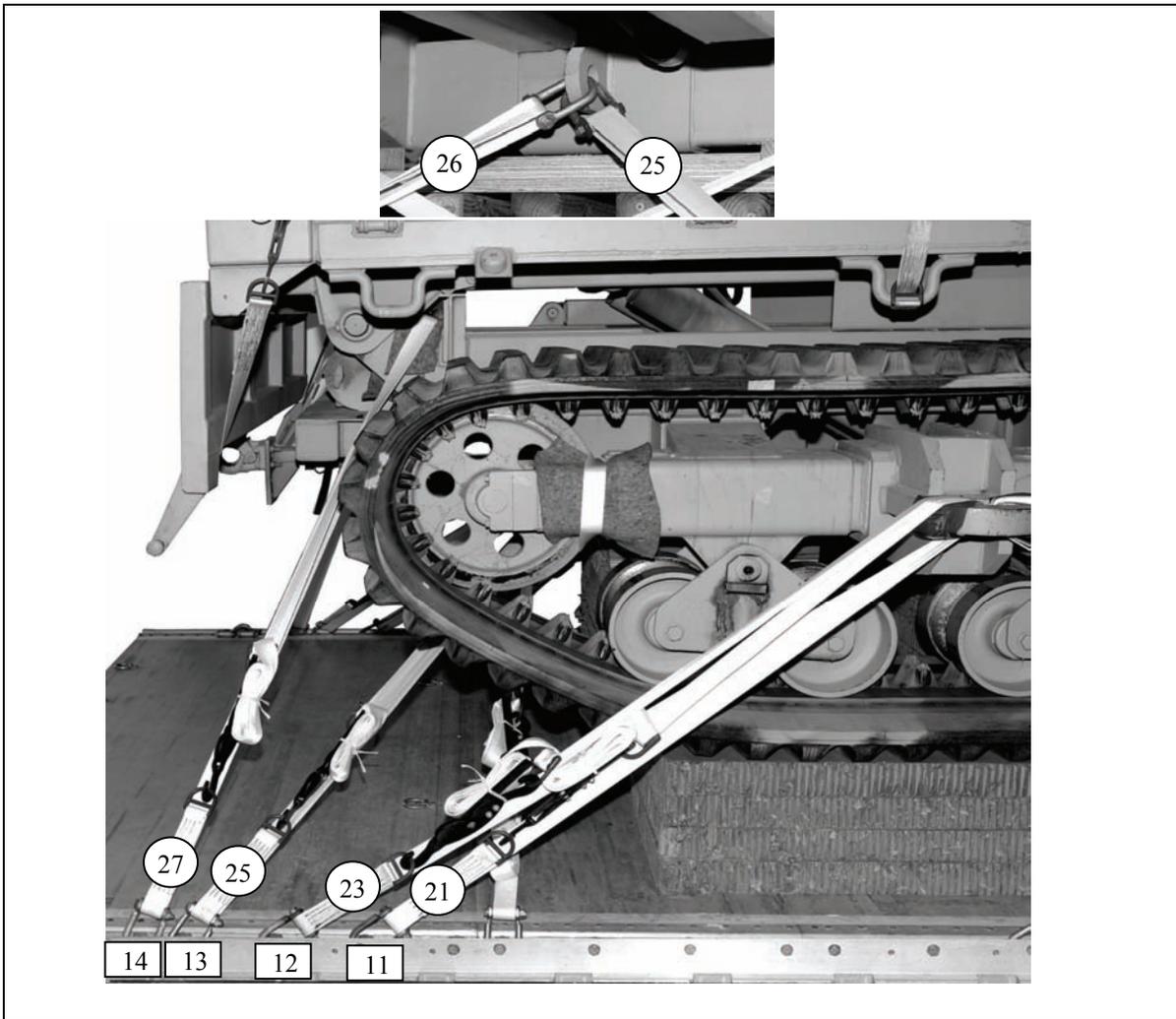


Figure 2-24. Lashings 11 Through 18 Installed



<i>Lashing Number</i>	<i>Tiedown Clevis Number</i>	<i>Instructions</i>
19	10	Pass a 30-foot lashing: Through clevis 10 and around the padded part of the track roller bar on the left side.
20	10A	Through clevis 10A and around the padded part of the track roller bar on the right side.

Figure 2-25. Lashings 19 and 20 Installed



Lashing Number	Tiedown Clevis Number	Instructions
21	11	Pass lashing:
22	11A	Through the rear track tiedown point on the right side.
23	12	Through the rear track tiedown point on the left side.
24	12A	Through the rear track tiedown point on the right side.
25	13	Through the rear track tiedown point on the left side.
26	13A	To one of the double clevises on the rear frame tiedown point.
27	14	To the remaining double clevis on the rear frame tiedown point.
28	14A	To the tailgate hinge support previously padded on the right side.

Figure 2-26. Lashings 21 Through 28 Installed

BUILDING THE PARACHUTE STOWAGE PLATFORM

2-7. Build a parachute stowage platform as shown in Figure 2-27.

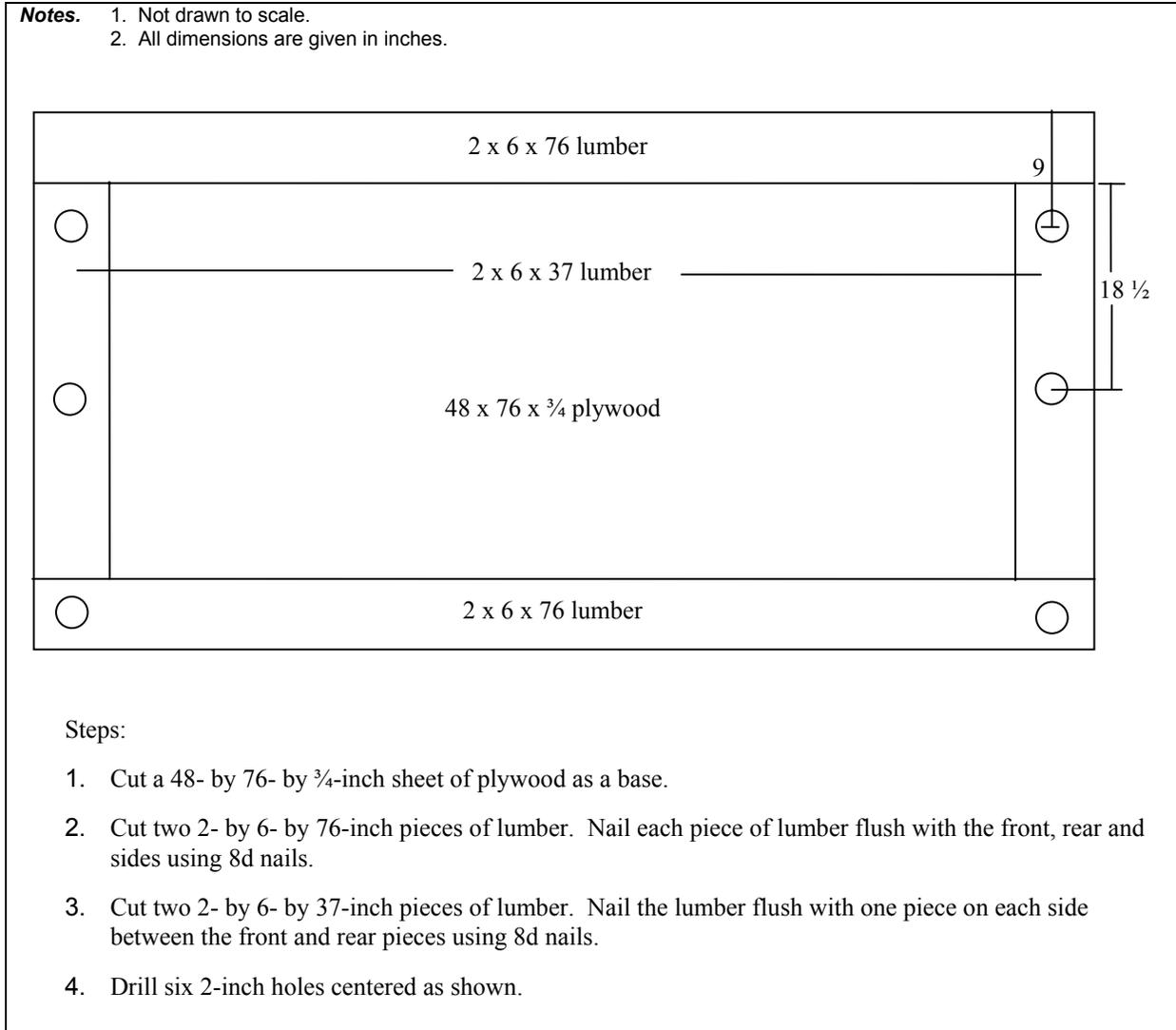


Figure 2-27. Parachute Stowage Platform Built

INSTALLING AND RESTRAINING THE PARACHUTE STOWAGE PLATFORM

2-8. Install and restrain the parachute stowage platform as shown in Figure 2-28.

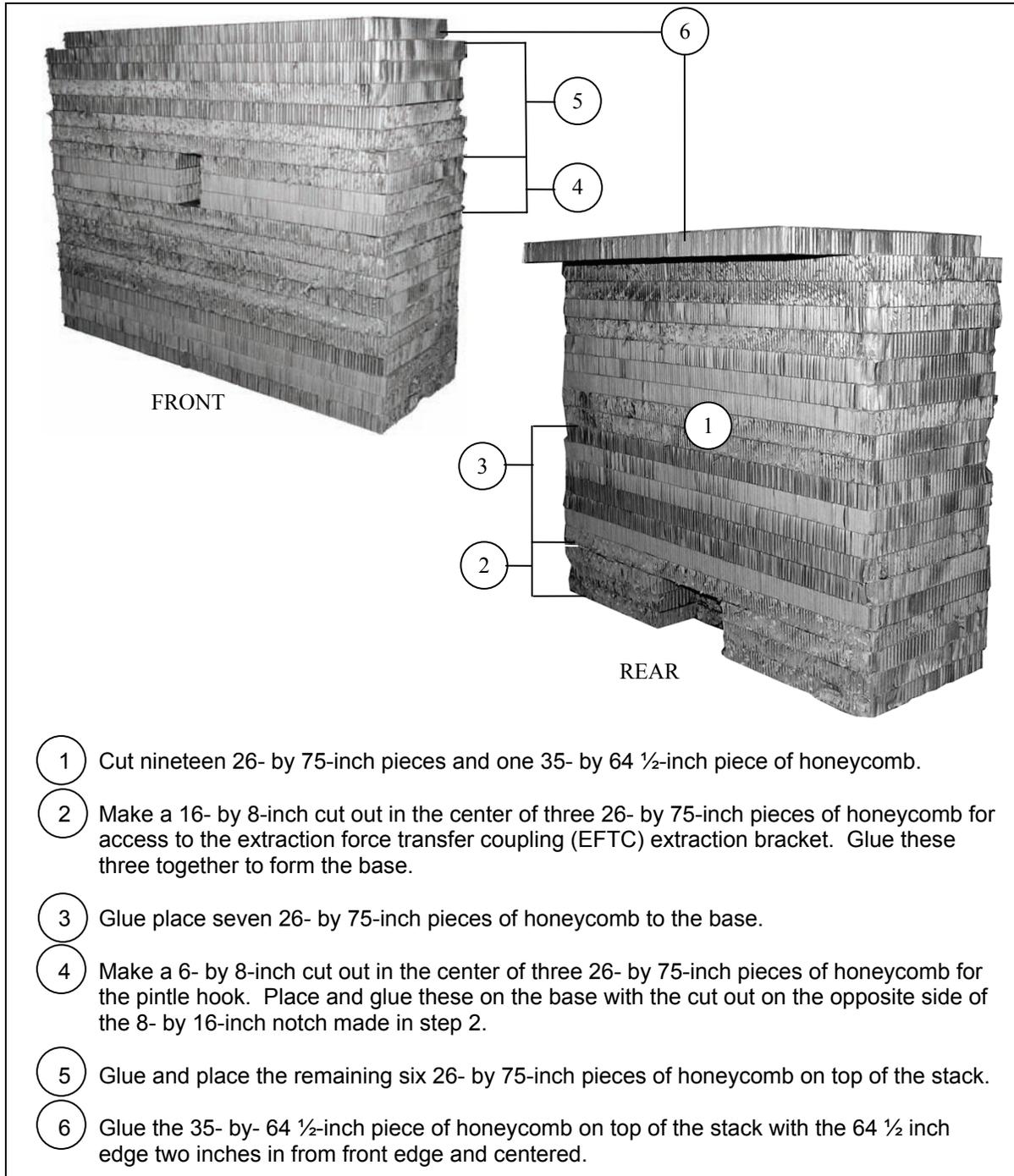


Figure 2-28. Parachute Stowage Platform Installed and Restrained

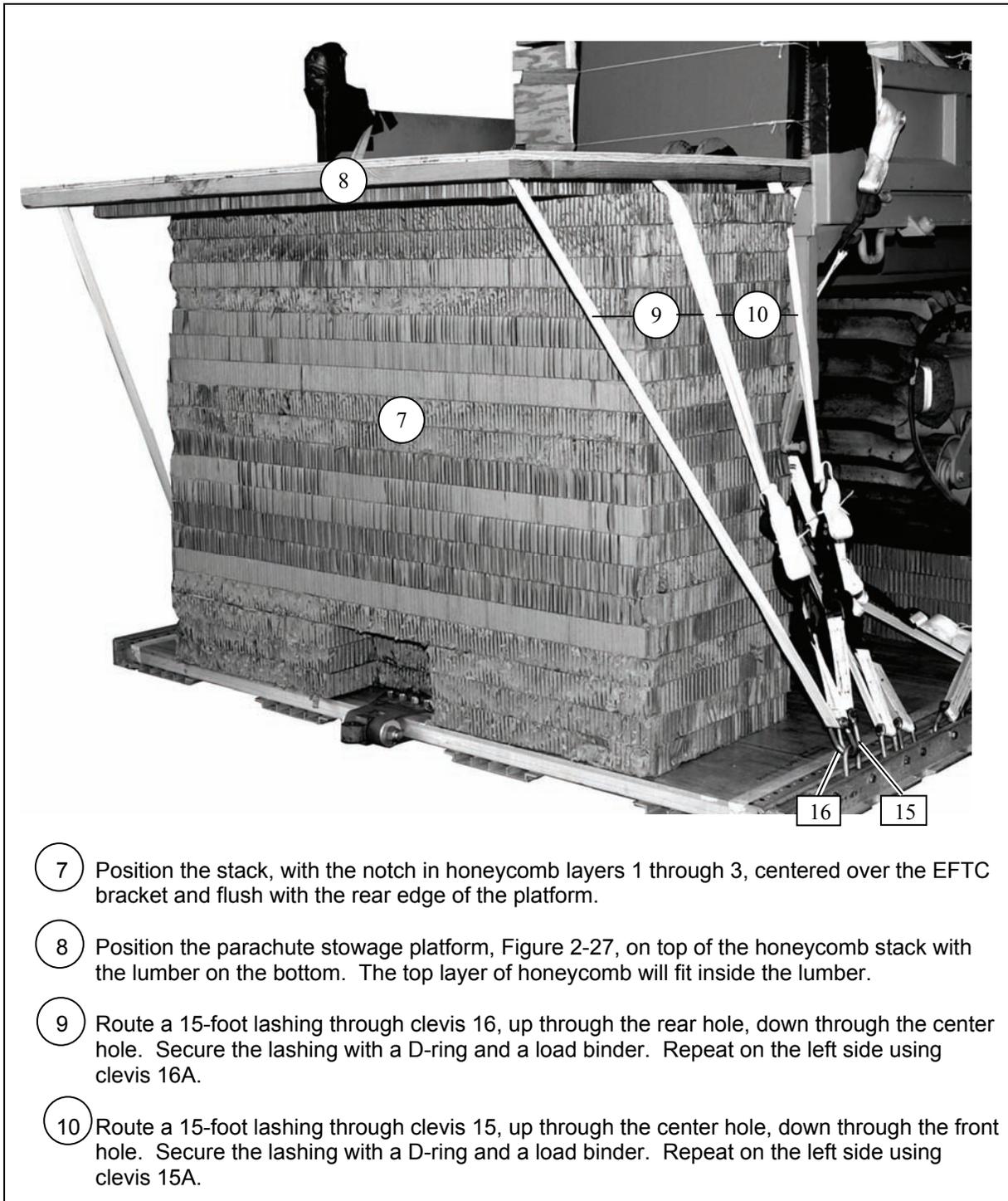


Figure 2-28. Parachute Stowage Platform Installed and Restrained (Continued)

PADDING, SECURING AND SAFETY TIEING SUSPENSION SLINGS

2-9. Pad, secure and safety tie the suspension slings according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 2-29.

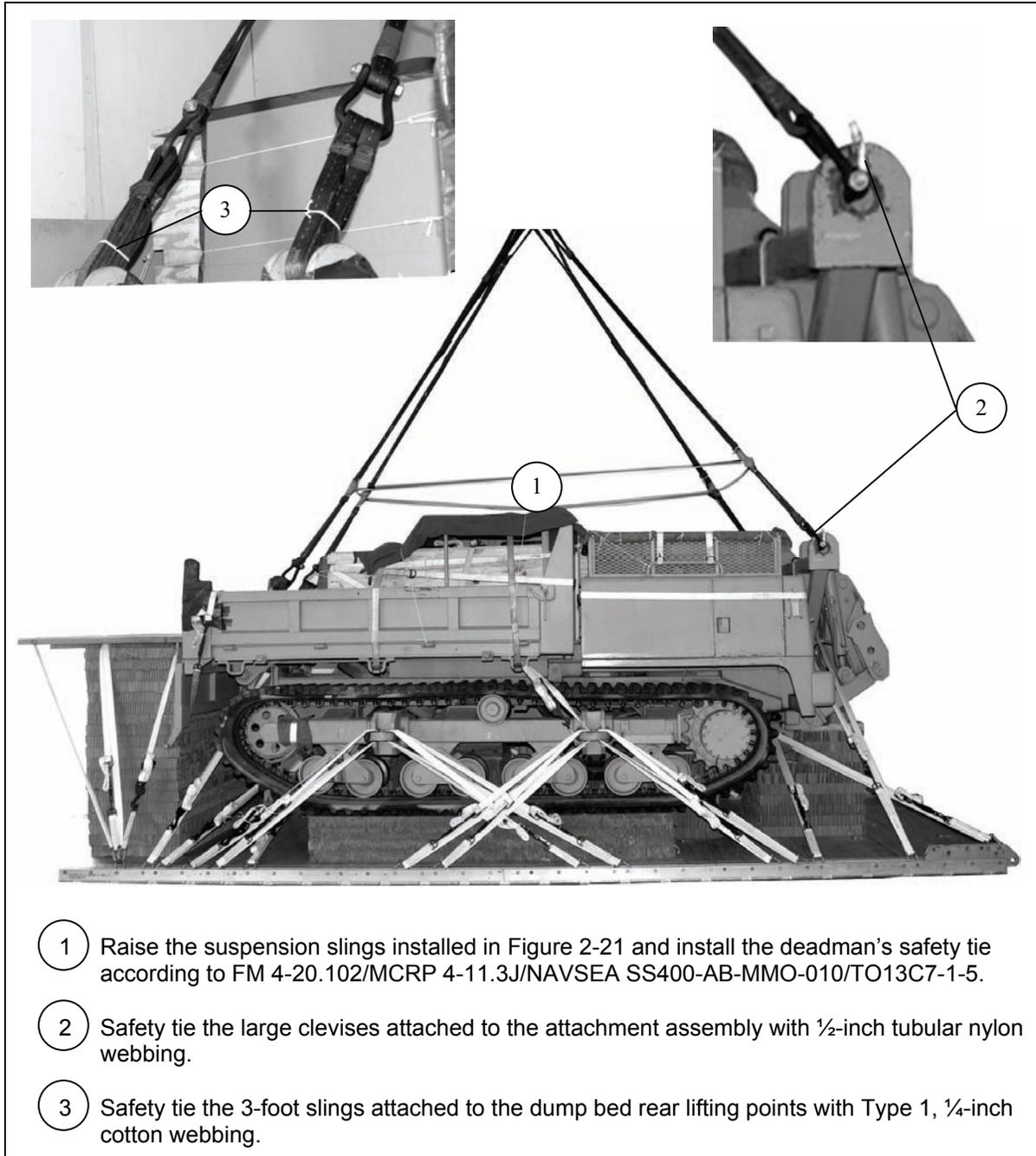


Figure 2-29. Suspension Slings Padded, Secured and Safety tied

STOWING CARGO PARACHUTES

2-10. Prepare, stow, cluster, and restrain five G-11 cargo parachutes according to FM 4-20.102/ MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 2-30.

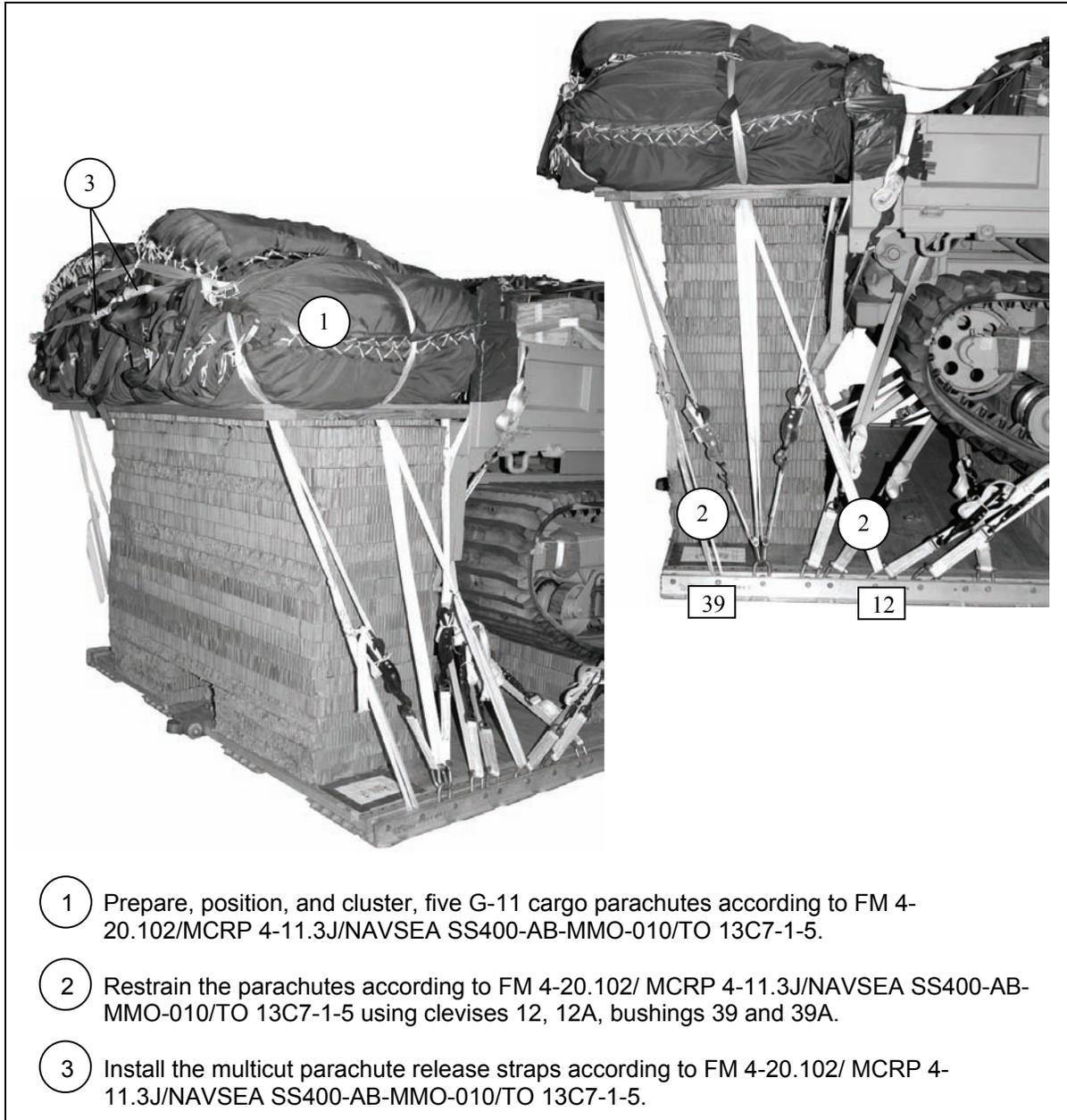


Figure 2-30. Cargo Parachutes Stowed and Restrained

INSTALLING EXTRACTION SYSTEM

2-11. Install the EFTC system according to FM 4-20.102/ MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 2-31. Install the EPJS according to FM 4-20.102/MCRP 4-11.3J/ NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 if applicable.

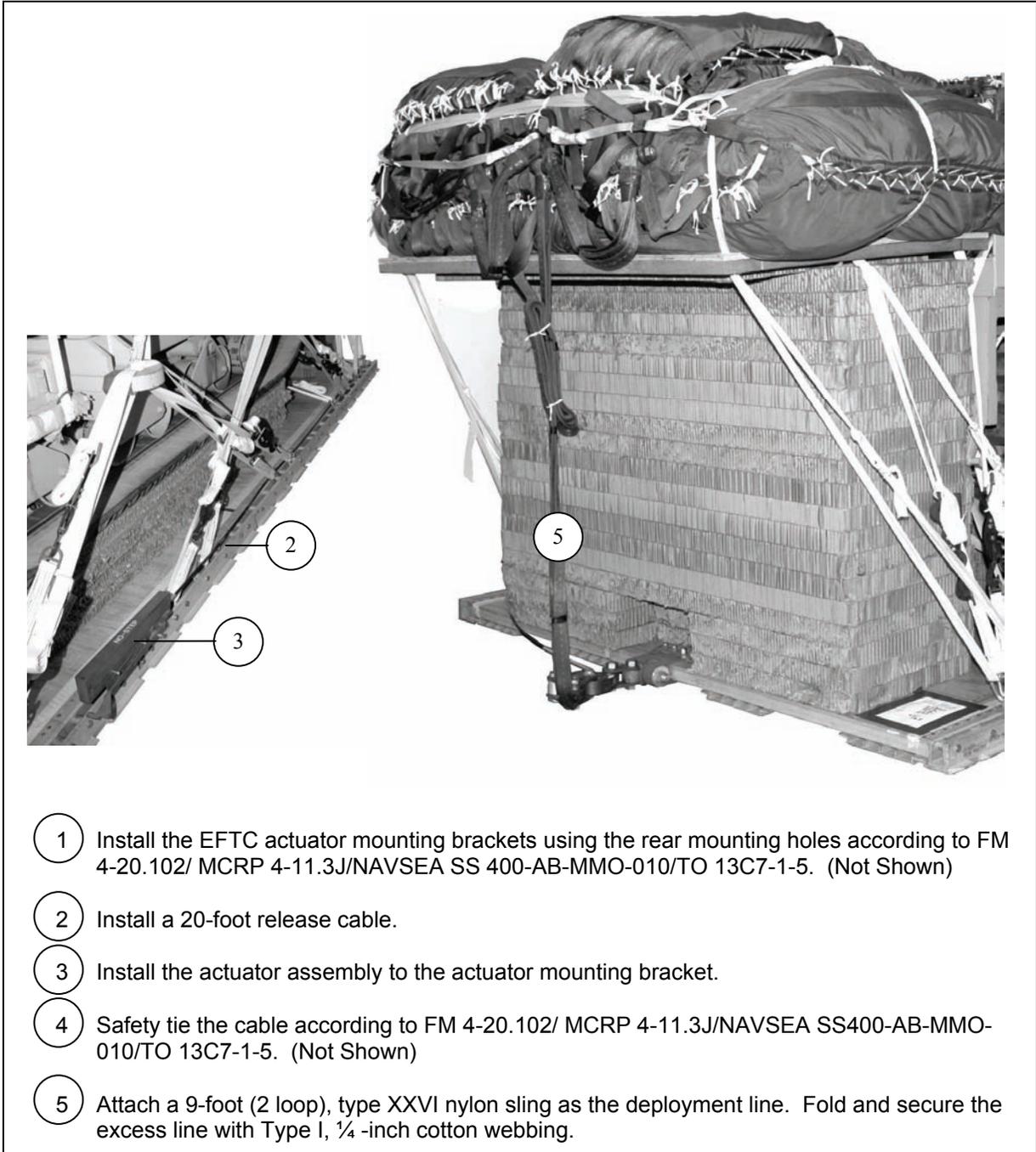
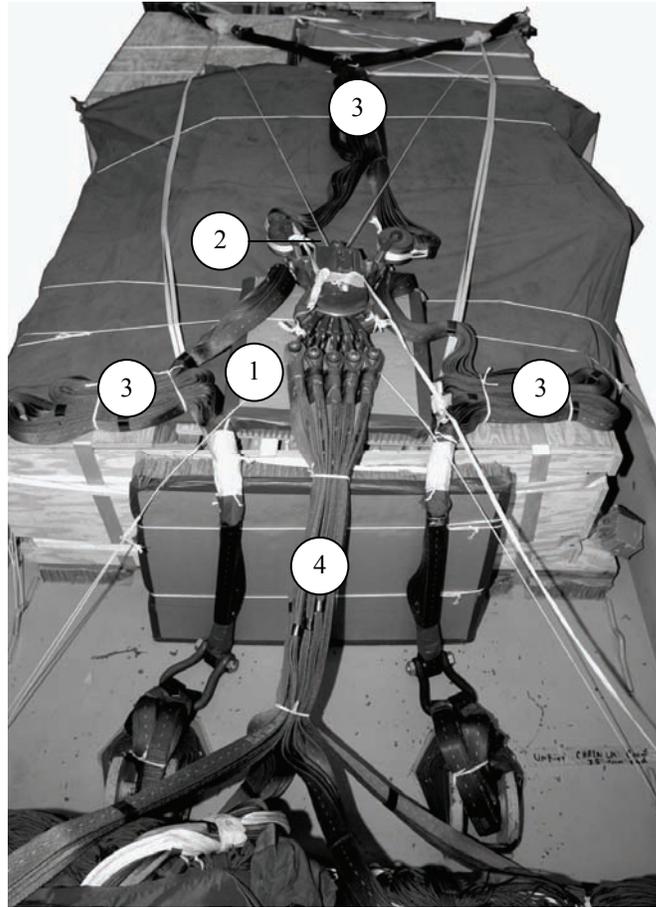


Figure 2-31. Extraction System Installed

INSTALLING M-2 RELEASE ASSEMBLY

2-12. Install the M-2 parachute release assembly according to FM 4-20.102/ MCRP 4-11.3J/NAVSEA SS 400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 2-32.



- 1 Cut a 20- by 24-inch piece of honeycomb to use as a base. Tape the edges and place the honeycomb on the rear of the accompanying load. Secure the honeycomb with type III nylon cord routed under the suspension sling and safety tie to a convenient point on the load.
- 2 Install an M-2 parachute release. Attach the suspension slings and riser extensions according to FM 4-20.102/ MCRP 4-11.3J/NAVSEA SS 400-AB-MMO-010/TO 13C7-1-5. Restrain the release with type III nylon cord to convenient points on the load.
- 3 Fold the suspension slings and secure with a length of Type I, ¼-inch cotton webbing.
- 4 Tie the exposed riser extensions with lengths of Type I, ¼-inch cotton webbing.

Figure 2-32. M-2 Parachute Release Assembly Installed

INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

2-13. Install the provisions for the emergency restraints on the platform according to FM 4-20.102/ MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5.

PLACING EXTRACTION PARACHUTE

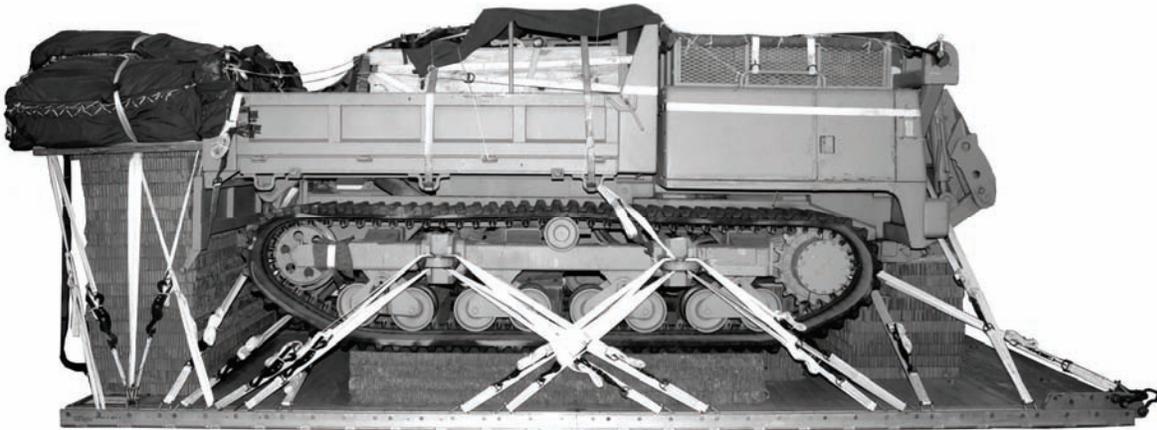
2-14. Select the extraction parachute and extraction line according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO13C7-1-5. Place the extraction parachute and extraction line on the load for installation in the aircraft. If a drogue parachute and drogue line are required, place them on the load for installation in the aircraft.

MARKING RIGGED LOAD

2-15. Mark the rigged load according to FM 4-20.102/ MCRP 4-11.3J/NAVSEA SS 400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 2-33. Complete the 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.

CAUTION

Make the final rigger inspection required by FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MM0-010/TO 13C7-1-5 and AR 59-4/OPNAVINST 4630.24C/AFJ 13-210(I)/MCO 13480.1B before the load leaves the rigging site.



RIGGED LOAD DATA

Weight.....	21,480 pounds
Maximum Weight	22,900 pounds
Height.....	97 ½ inches
Width.....	108 inches
Length	262 inches
Overhang: Front.....	0 inches
Rear (Parachute platform)	22 inches
Rear (EPJS).....	30 inches
Center of Balance (from front edge of platform)	125 inches

Figure 2-33. IC45-2 IHI Crawler Carrier Rigged on a Type V Platform for Low-Velocity Airdrop

EQUIPMENT REQUIRED

2-16. Use the equipment listed in Table 2-3 to rig this load.

Table 2-3. Equipment Required for Rigging the IC 45-2 IHI Crawler Carrier on a 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 lead, (line bag for DES)	1
	Clevis:	
4030-00-090-5354	large	7
4030-00-678-8562	medium	6
8305-00-184-2034	Cloth, Cotton Duck, 12.29oz, OD 60"	As required
8135-00-664-6958	Cushioning material, packaging, cellulose wadding	As required
1670-00-360-0328	Cover, clevis, large	5
	Extraction Force Transfer Coupling System	
1670-00-434-5787	Coupling assembly, airdrop, EFTC, w / 20-ft cable	1
1670-01-475-1990	Extraction Parachute Jettison System (EPJS)	1
	Felt:	
8305-00-191-1101	½ inch	As required
8305-00-290-5584	³ / ₁₆ inch	As required
1670-00-003-4391	Knife, parachute bag (For DES)	2
5340-00-040-8219	Knife, multi-parachute release strap, webbing	2
1670-01-183-2678	Leaf, extraction line (line bag)(add 2 for DES)	2
	Line Multi-Loop:	
	For deployment line:	
1670-01-062-6304	9-ft (2-loop), type XXVI nylon webbing	1
	For drogue:	
1670-01-064-4452	60-ft 1-loop, type XXVI nylon webbing (DES)	1
	For extraction:	
1670-01-062-6313	60-ft (3-loop), type XXVI nylon (C-130 aircraft)	1
1670-01-107-7651	140-ft (6-loop), type XXVI nylon (C-17 aircraft)	1
	For riser extension:	
1670-01-062-6313	60-ft (3-loop), type XXVI nylon webbing	5
	For suspension:	
1670-01-062-6306	3-ft (4-loop), type XXVI nylon webbing	2
1670-01-062-6310	11-ft (4-loop), type XXVI nylon webbing	4
	Link:	
1670-01-493-6418	Assembly small, two-point, 3 ¾-inch (drogue)	1
1670-01-493-6420	Assembly large, two-point 5 ½-inch	1
1670-01-072-5637	Jettison, C-130 (DES)	1
1670-01-483-8259	Link, Parachute connector (TRM H-block) (C-17)	1
	Lumber:	
5510-00-220-6146	2-by 4-inch	3
5510-00-220-6148	2-by 6-inch	1
5510-00-220-6274	4-by 4-inch	5

Table 2-3. Equipment Required for Rigging the IC 45 -2 IHI Crawler Carrier on a Type V Platform for Low-Velocity Airdrop (Continued)

<i>National Stock Number</i>	<i>Item</i>	<i>Quantity</i>
5530-00-128-4981	Plywood, ¾-inch sheet	9
5530-00-914-5118	Plywood, 1-inch sheet	1
	Nail, steel wire, common:	
5315-00-010-4659	8d	As required
1670-00-753-3928	Pad, energy-dissipating, honeycomb, Parachute:	29 sheets
1670-01-016-7841	G-11	5
1670-00-040-8135	28-ft, extraction, heavy-duty	1
1670-01-063-3717	15-ft, Extraction Drogue (DES)	1
	Platform, airdrop, type V, 20-ft:	1
1670-01-353-8425	Bracket assembly, component (EFTC)	1
1670-01-353-8424	Bracket, assembly, extraction	1
1670-01-162-2372	Clevis, load tiedown	34
1670-01-162-2381	Link, Tandem, link sups. assembly	2
1670-01-097-8817	Release, cargo parachute, M-2,	1
7510-00-266-5016	Tape, adhesive, 2-in	As required
1670-00-937-0271	Tiedown assembly, 15-ft webbing	69
5365-00-937-0147	D-ring, heavy duty, 10,000-lb	69
1670-00-937-0272	Binder, load, 10,000-lb	52
	Webbing:	
4020-00-240-2146	Cord, nylon, type III, 550-lb	As required
8305-00-268-2411	Cotton, type I, ¼- inch	As required
8305-00-082-5752	Nylon, tubular, ½- in, natural	As required
8305-00-263-3591	Nylon, type VIII	As required

Chapter 3

Rigging M973A, 1 ½ -Ton Cargo Carrier Small Unit Support Vehicle (SUSV) on a Type V Platform for Low-Velocity Airdrop

DESCRIPTION OF LOAD

3-1. The small unit support vehicle (SUSV), Figure 3-1, is a tracked vehicle with a driver's compartment and a cargo-troop carrier compartment attached to the rear. The vehicle is 271 inches long, 74 inches wide, 90 ½ inches high, and weighs 10,000 pounds. The SUSV is rigged on a 28-foot, type V airdrop platform using four G-11 cargo parachutes for low-velocity airdrop from C-130 and C-17 aircraft. The vehicle must be rigged with an accompanying load that weighs 2,000 pounds but not more than 2,100 pounds. The accompanying load is 105-millimeter ammunition rigged on the front end of the platform; however other equipment may be used.

CAUTION

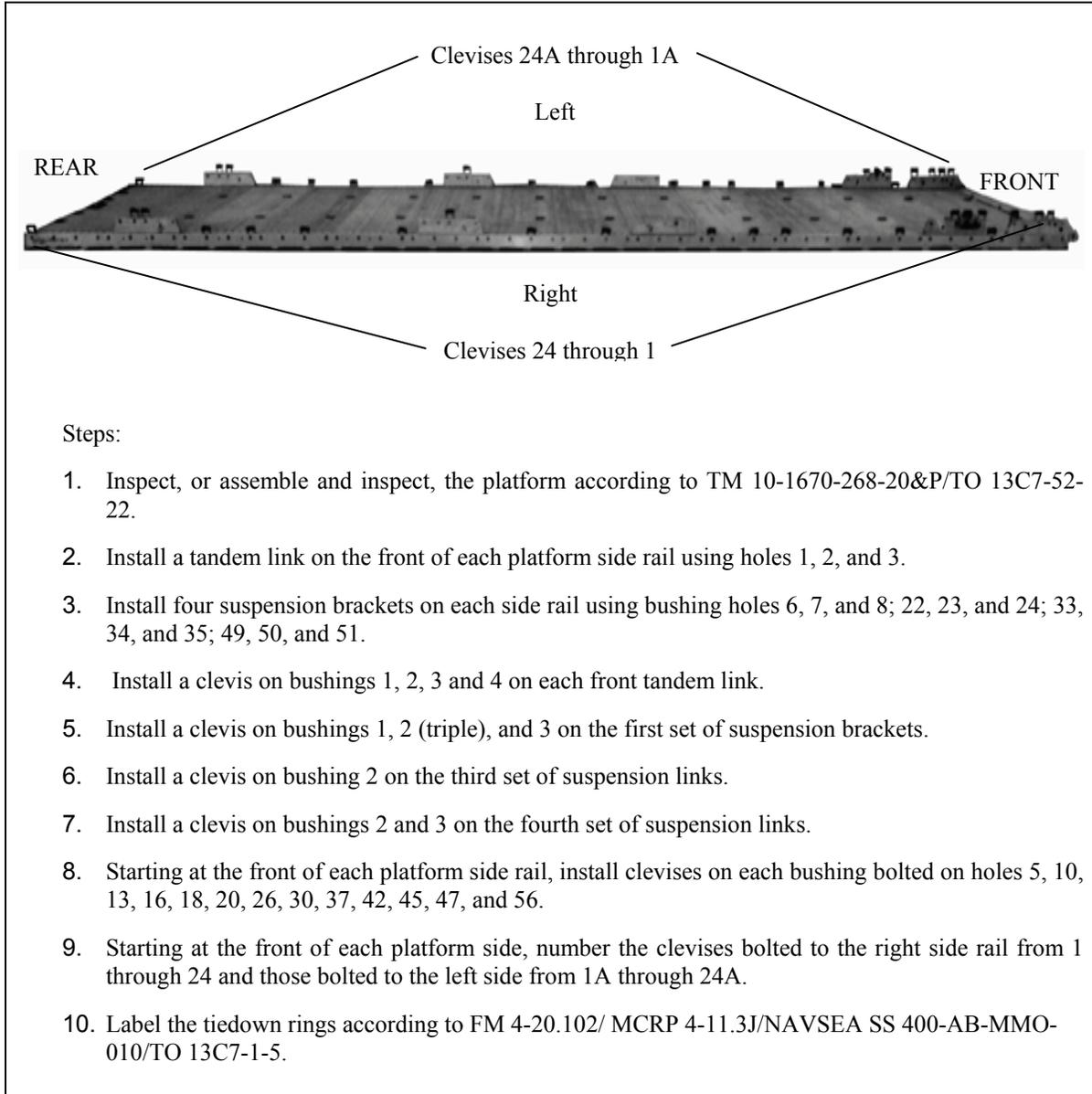
Only ammunition listed in FM 4-20.153/MCRP 4-11.3B/TO 13C7-18-41 may be airdropped.



Figure 3-1. SUSV

PREPARING PLATFORM

3-2. Prepare a 28-foot, type V airdrop platform according to TM 10-1670-268-20&P/TO 13C7-52-22. Install two tandem links, eight suspension brackets and 50 tiedown clevis assemblies as shown in Figure 3-2.



Steps:

1. Inspect, or assemble and inspect, the platform according to TM 10-1670-268-20&P/TO 13C7-52-22.
2. Install a tandem link on the front of each platform side rail using holes 1, 2, and 3.
3. Install four suspension brackets on each side rail using bushing holes 6, 7, and 8; 22, 23, and 24; 33, 34, and 35; 49, 50, and 51.
4. Install a clevis on bushings 1, 2, 3 and 4 on each front tandem link.
5. Install a clevis on bushings 1, 2 (triple), and 3 on the first set of suspension brackets.
6. Install a clevis on bushing 2 on the third set of suspension links.
7. Install a clevis on bushings 2 and 3 on the fourth set of suspension links.
8. Starting at the front of each platform side rail, install clevises on each bushing bolted on holes 5, 10, 13, 16, 18, 20, 26, 30, 37, 42, 45, 47, and 56.
9. Starting at the front of each platform side, number the clevises bolted to the right side rail from 1 through 24 and those bolted to the left side from 1A through 24A.
10. Label the tiedown rings according to FM 4-20.102/ MCRP 4-11.3J/NAVSEA SS 400-AB-MMO-010/TO 13C7-1-5.

Figure 3-2. Platform Prepared

BUILDING AND POSITIONING HONEYCOMB STACKS

3-3. Build six honeycomb stacks and place them on the platform as shown in Figures 3-3 and 3-4.

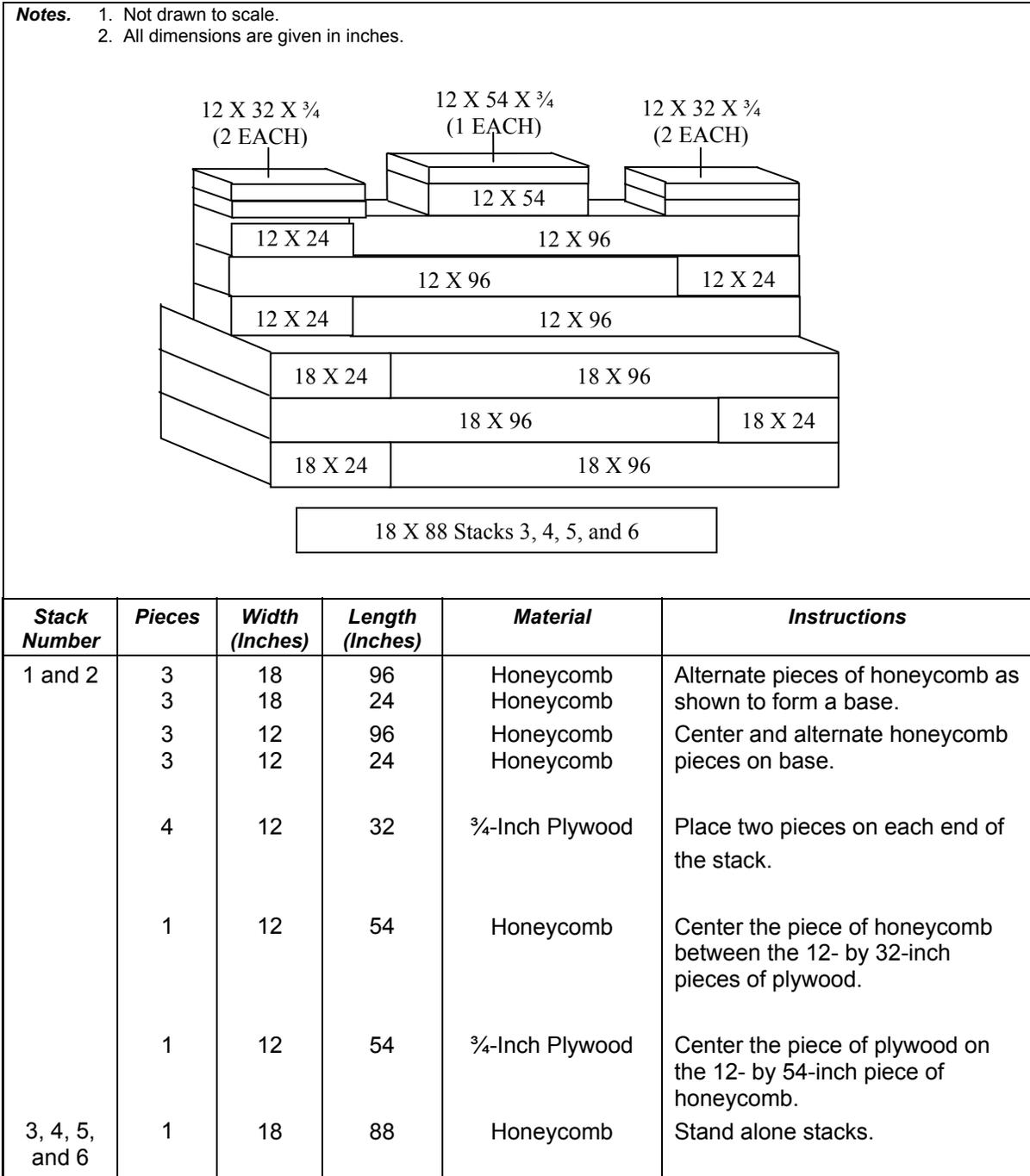


Figure 3-3. Honeycomb Stacks 1 through 6 Prepared

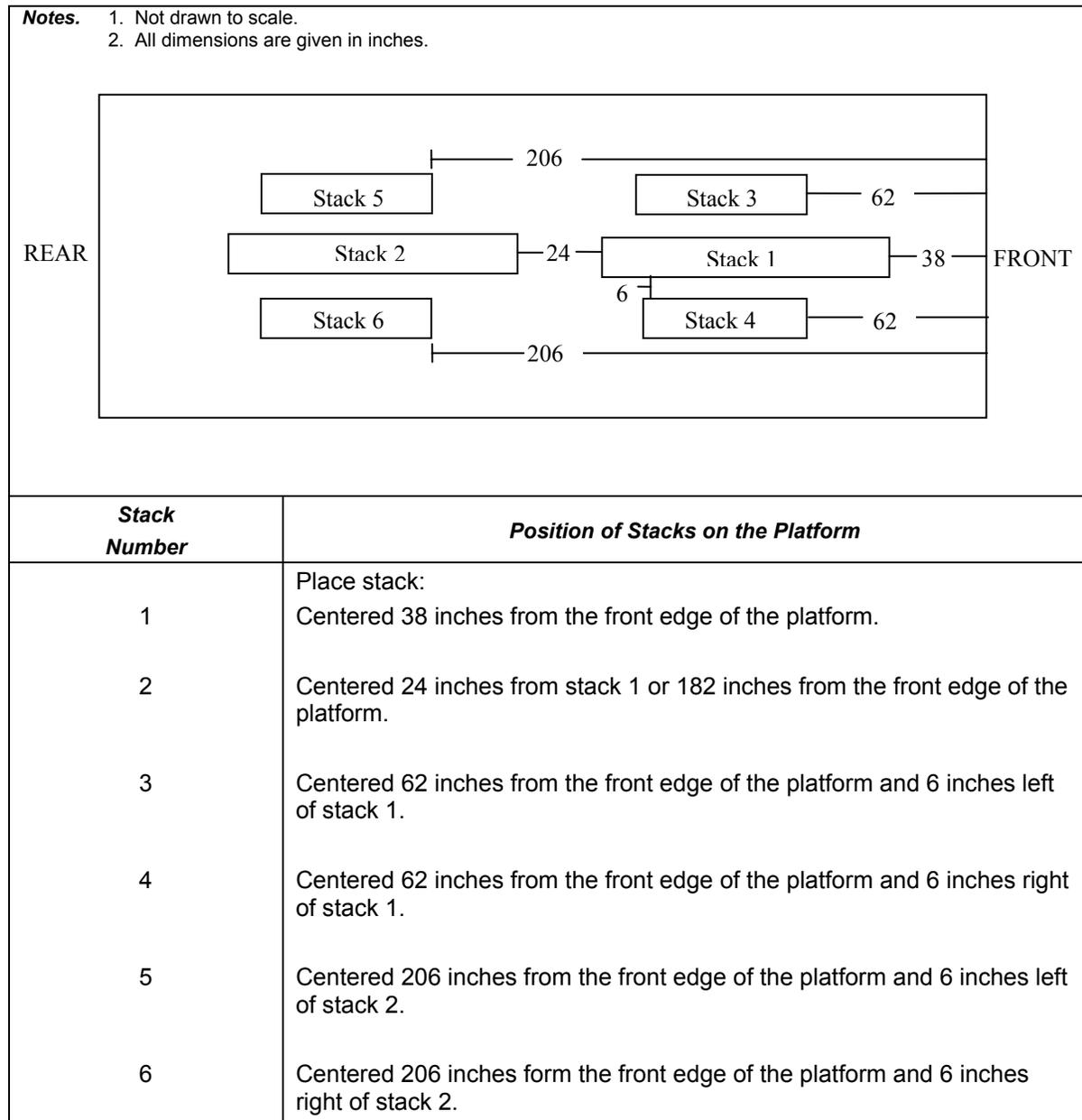


Figure 3-4. Honeycomb Stacks Positioned on Platform

POSITIONING ACCOMPANYING LOAD ON THE PLATFORM

3-4. Position and secure 18 boxes of 105-MM ammunition on the platform as shown in Figure 3-5.

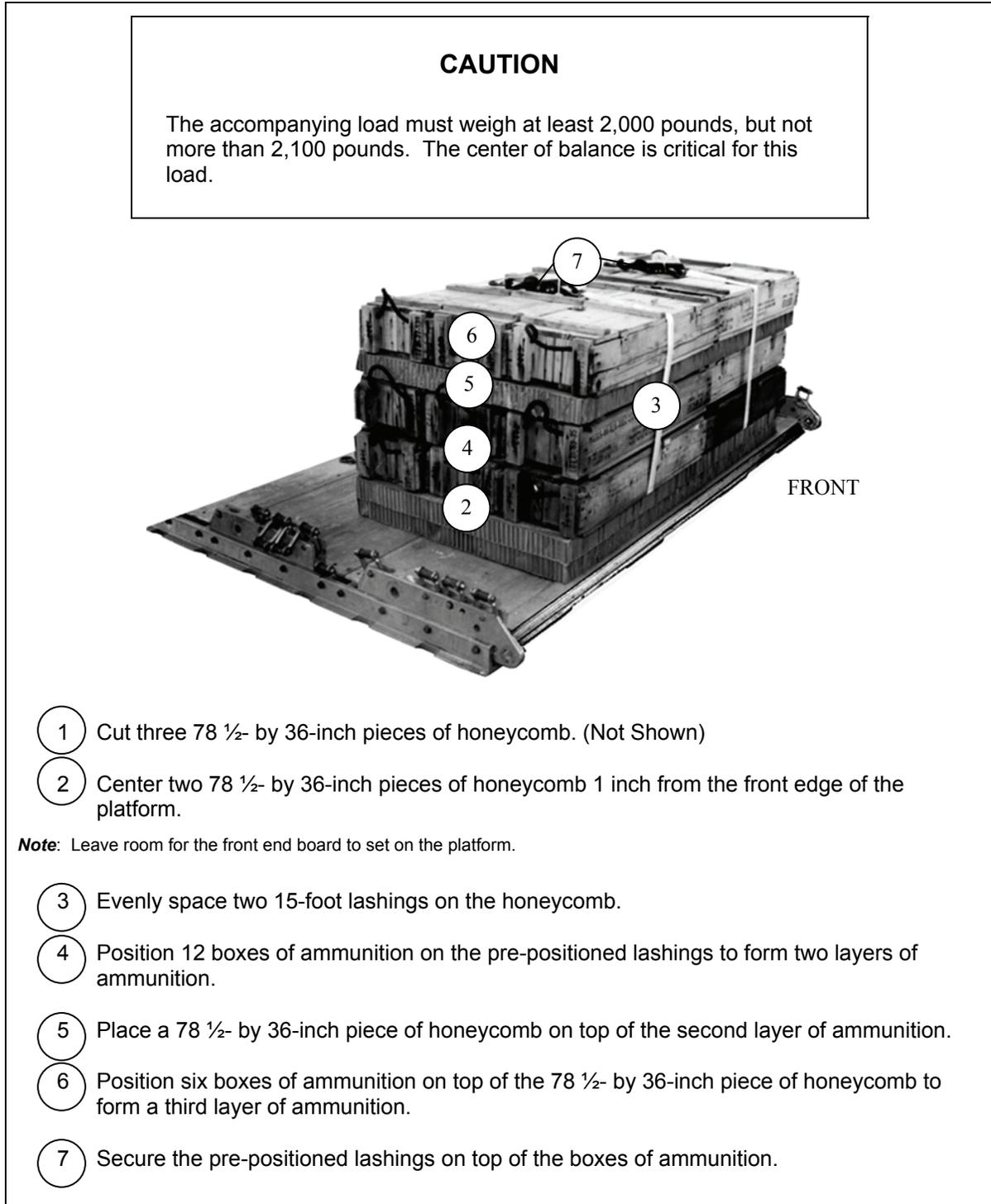
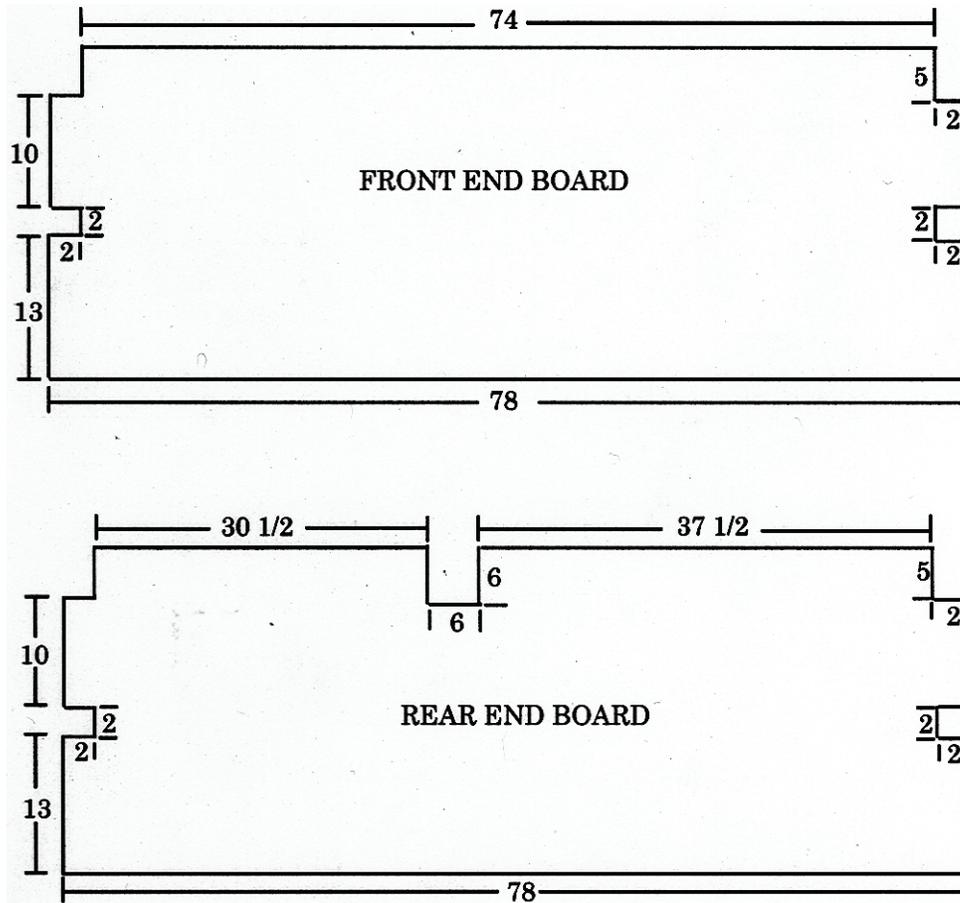


Figure 3-5. Accompanying Load Positioned on the Platform

BUILDING ENDBOARDS AND LASHING THE ACCOMPANYING LOAD

3-5. Build the endboards for accompanying load as shown in Figure 3-6.

- Notes.**
1. Not drawn to scale.
 2. All dimensions are given in inches.



Step:

1. Construct two end boards using 30- by 78- by 3/4 inch plywood.

Figure 3-6. Endboards for Accompanying Load Built

LASHING THE ACCOMPANYING LOAD

3-6. Lash the accompanying load as shown in Figure 3-7.

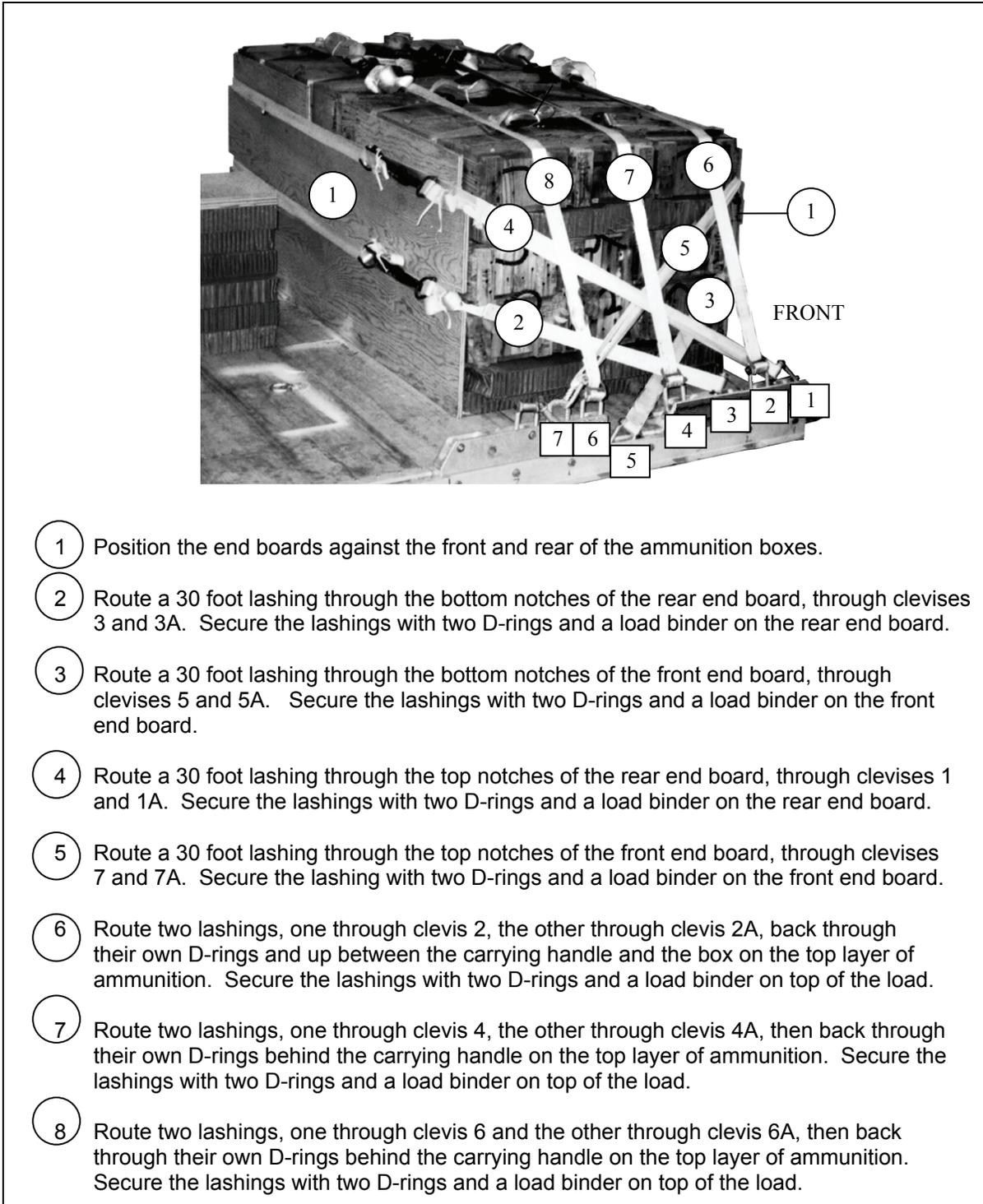


Figure 3-7. Accompanying Load Lashed

PREPARING THE SUSV

3-7. Prepare the SUSV as follows: Prepare the front car as shown in Figures 3-8 and 3-9. Prepare the rear car as shown in Figures 3-10 through 3-12. Prepare the inside of the rear car as shown in Figure 3-13.

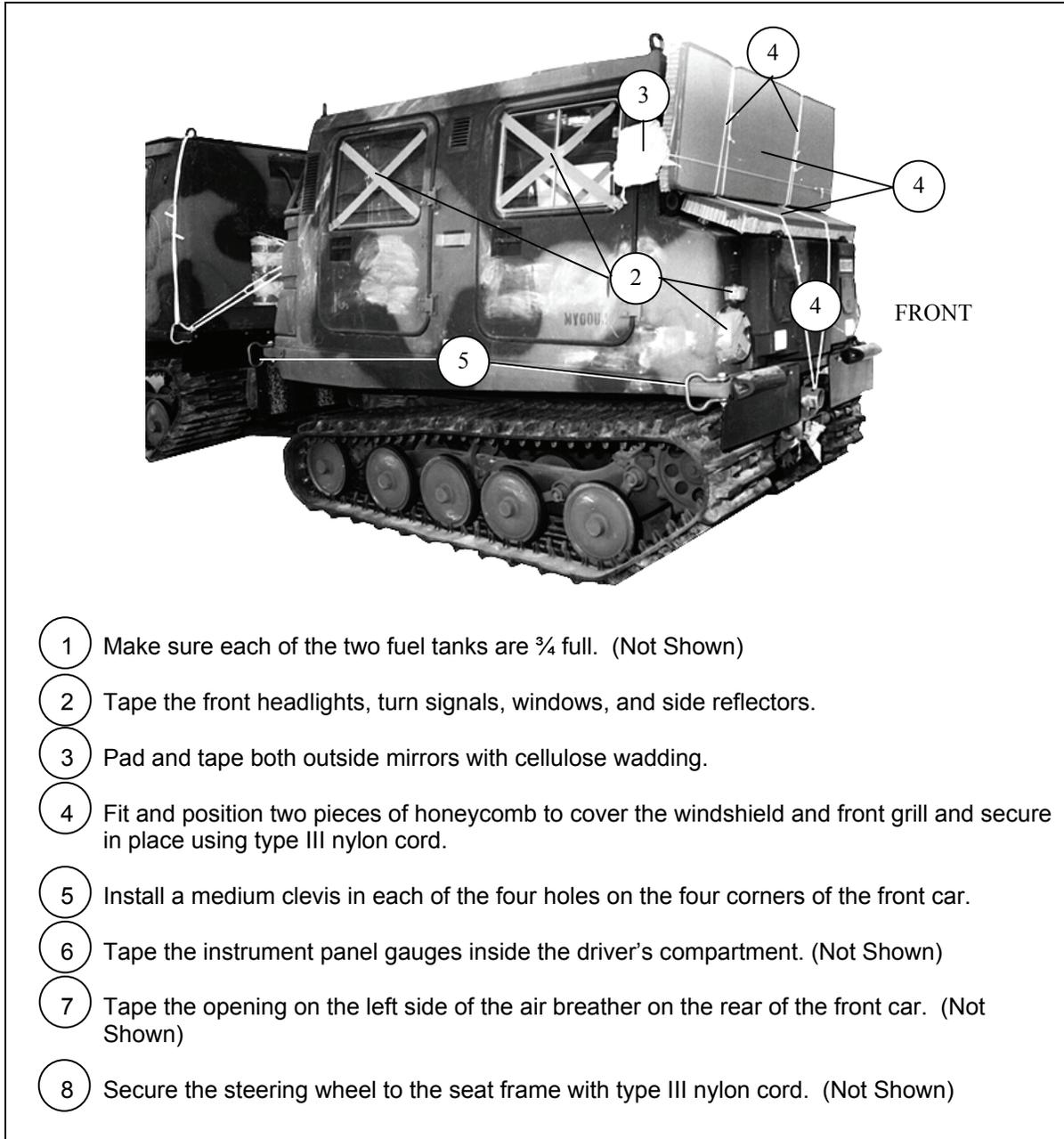


Figure 3-8. Front Car Prepared

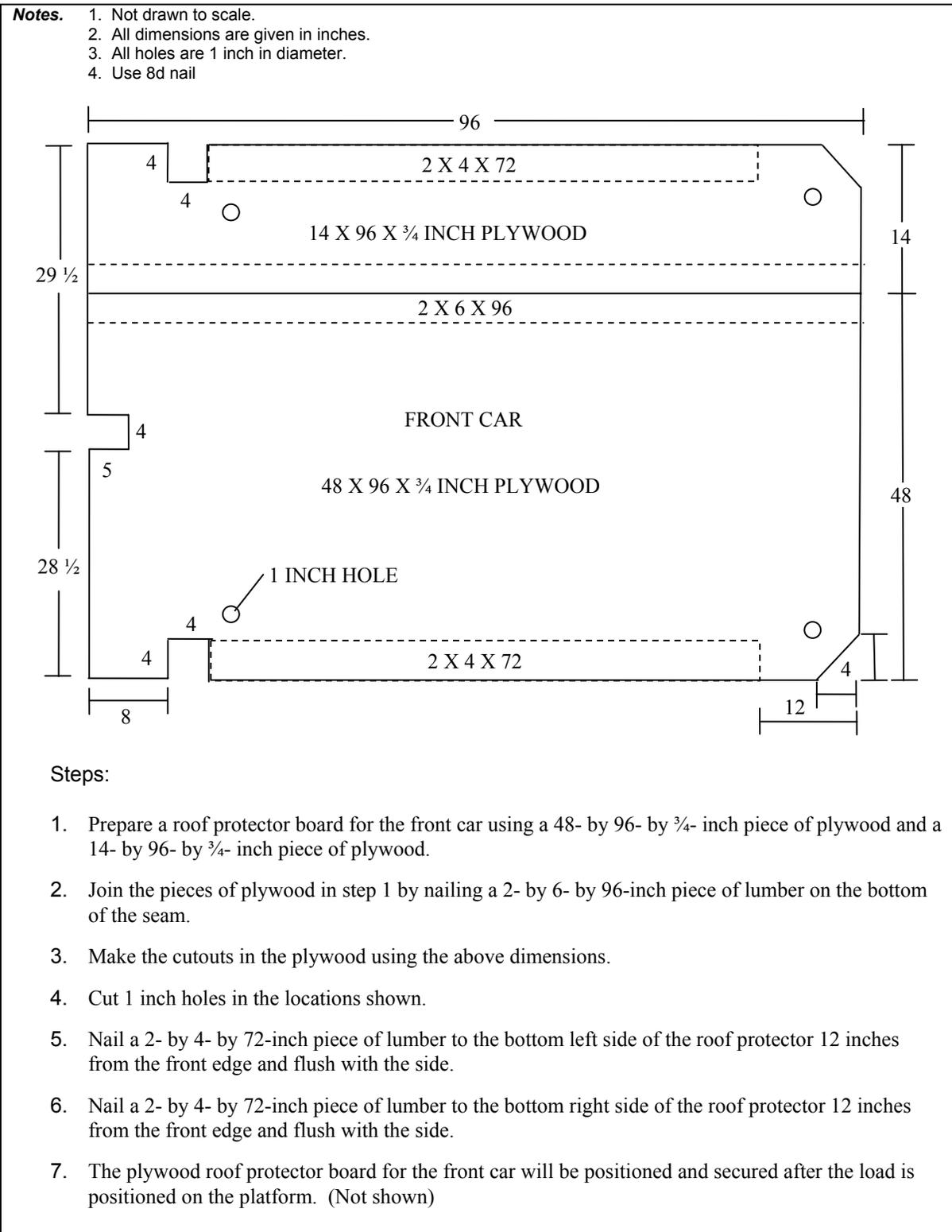
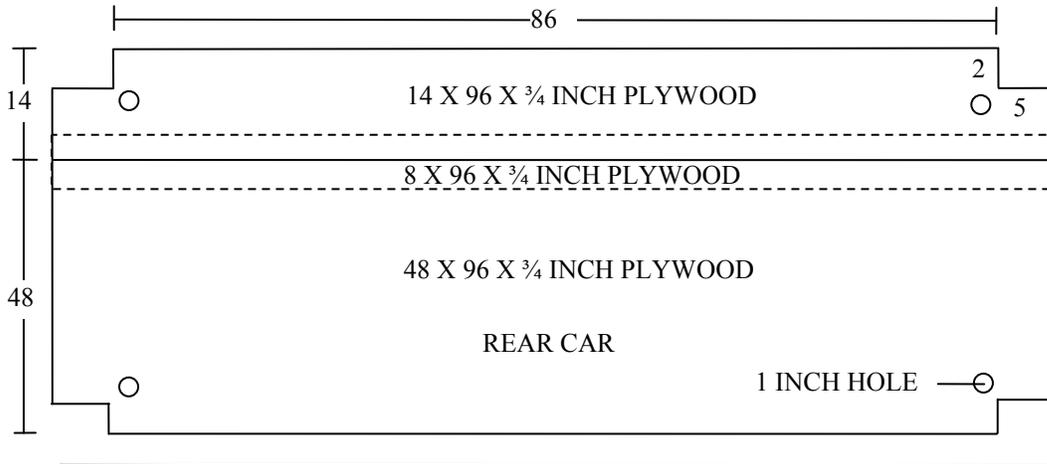


Figure 3-9. Front Car Roof Protector Board Built

- Notes.**
1. Not drawn to scale.
 2. All dimensions are given in inches.
 3. All holes are 1 inch in diameter.



Steps:

1. Build a roof protector board for the rear car using a 48- by 96- by $\frac{3}{4}$ -inch piece and a 14- by 96- by $\frac{3}{4}$ -inch piece of plywood.
2. Join the pieces of plywood in step 1 by nailing a 8- by 96- by $\frac{3}{4}$ -inch piece of plywood on top of the seam.
3. Make cutouts on the corners of the plywood using dimensions given above.
4. Cut 1 inch holes in the locations shown.

Figure 3-10. Rear Car Roof Protector Board Built

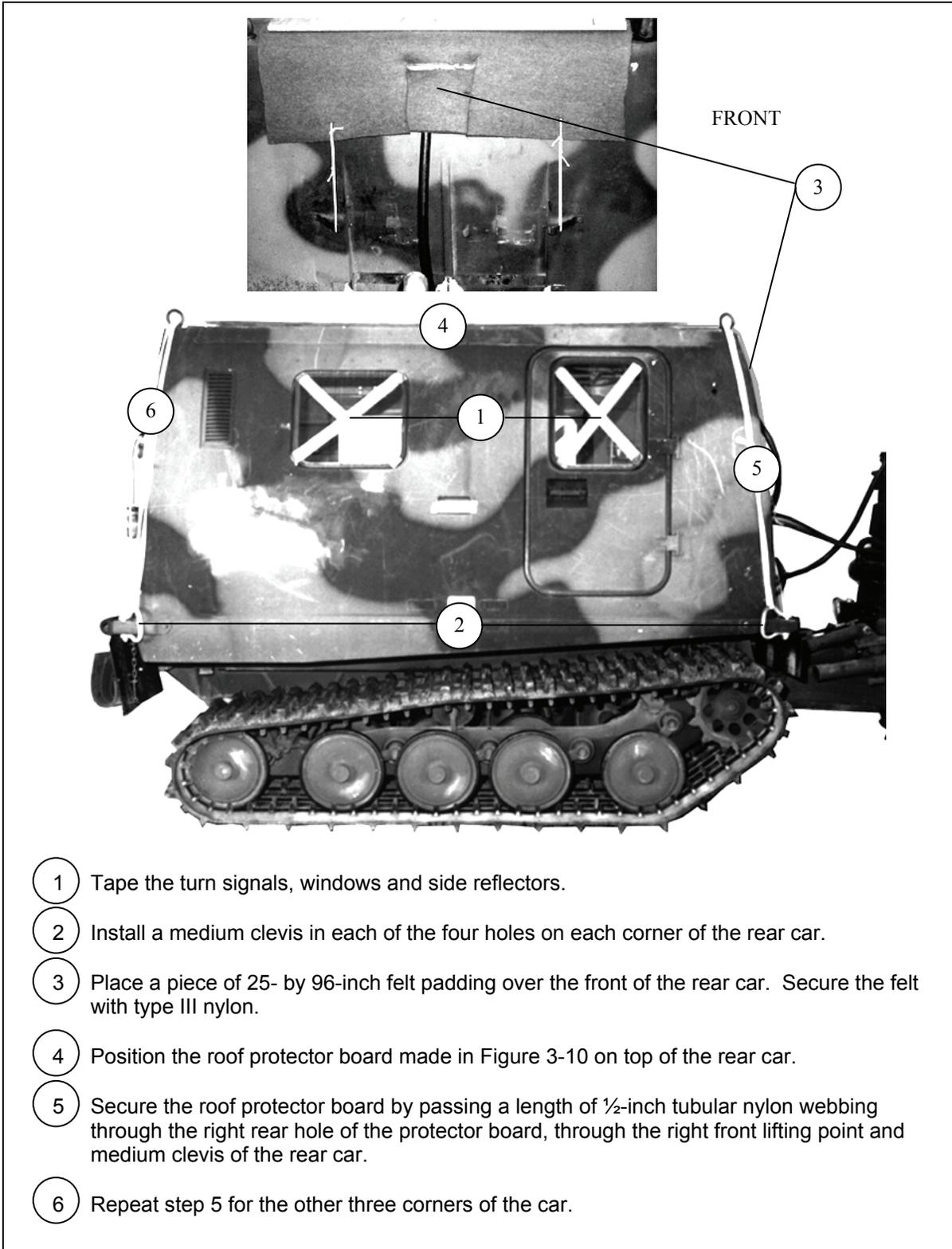


Figure 3-11. Rear Car Roof Protector Board Secured

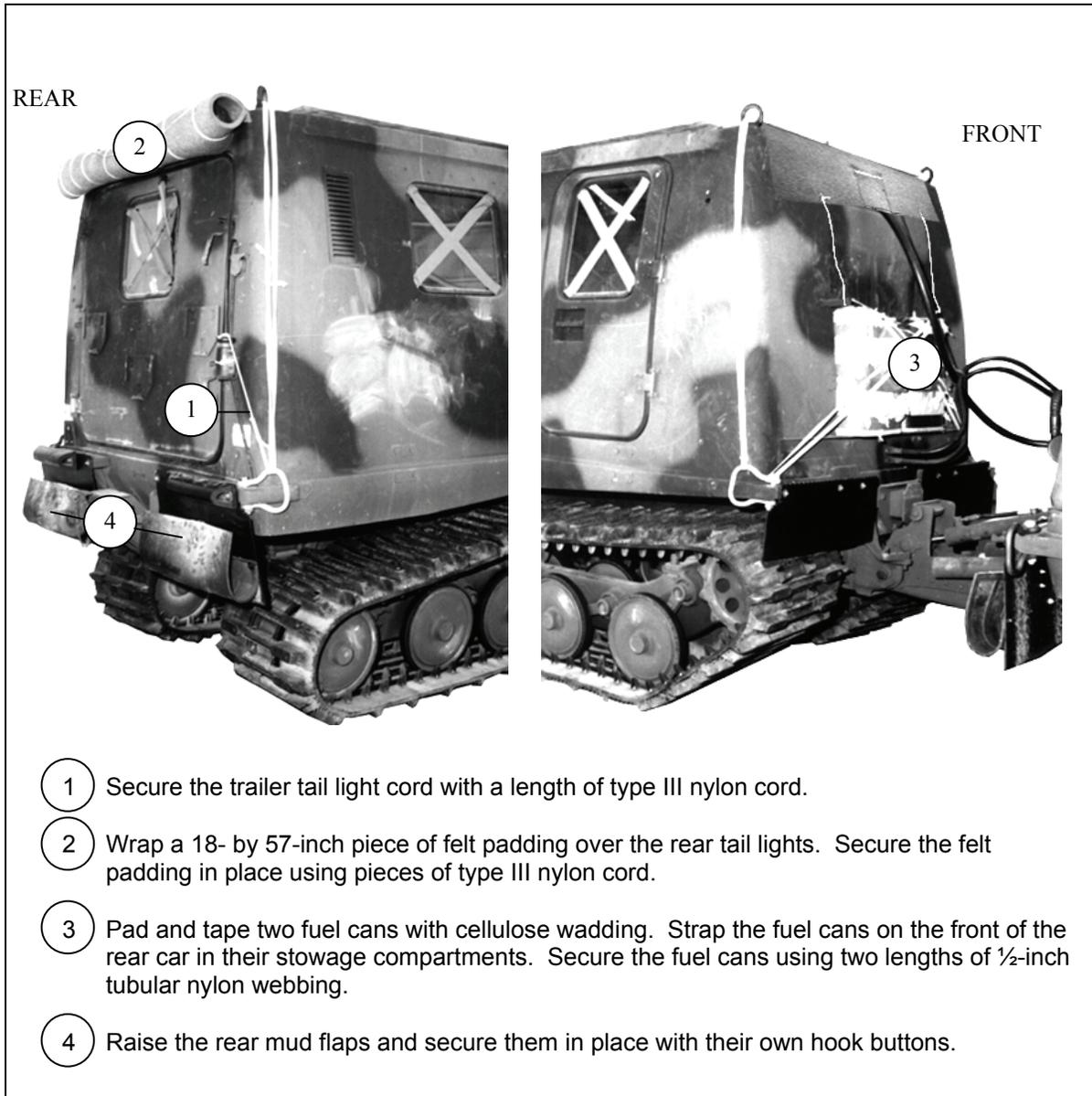


Figure 3-12. Rear Car Prepared

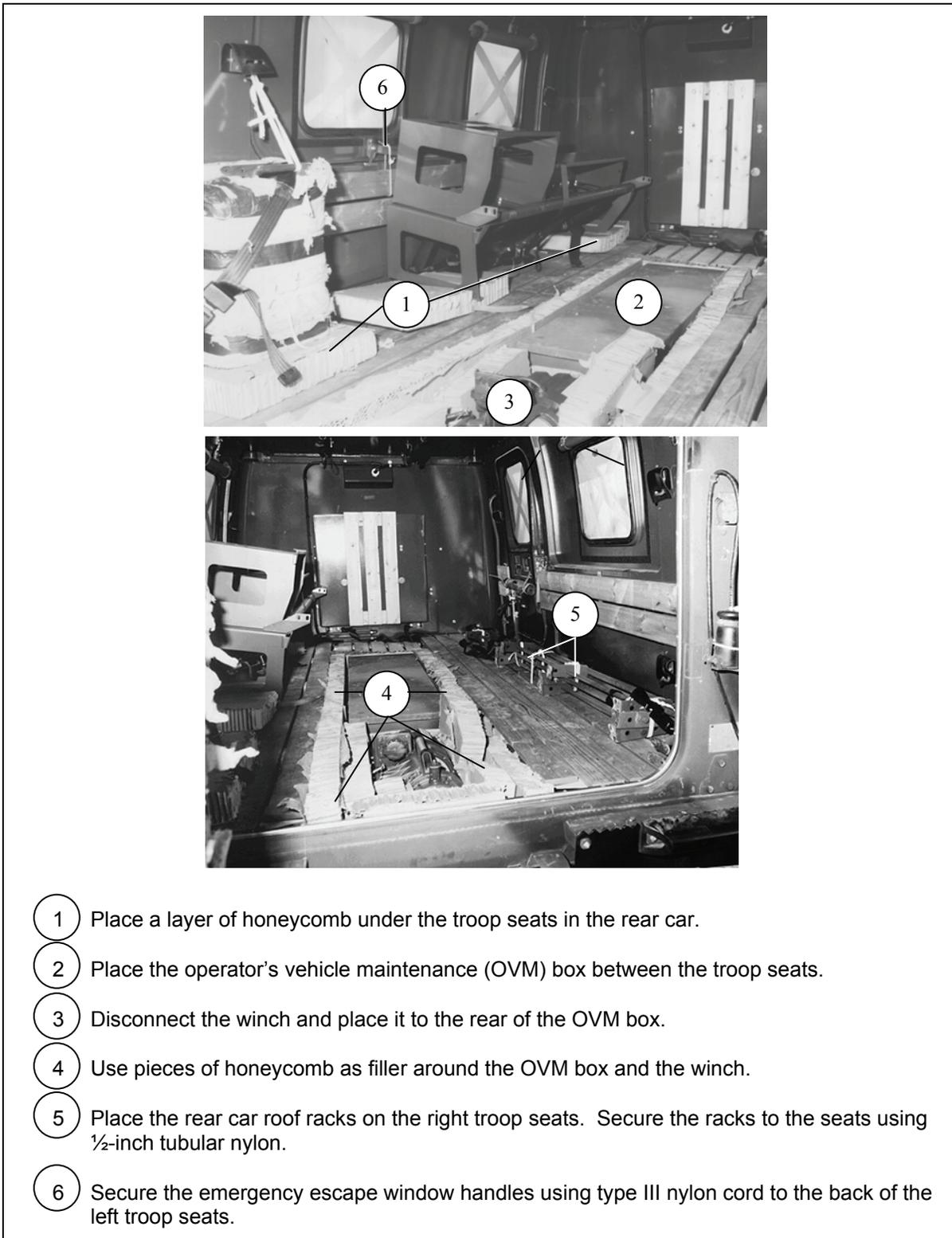
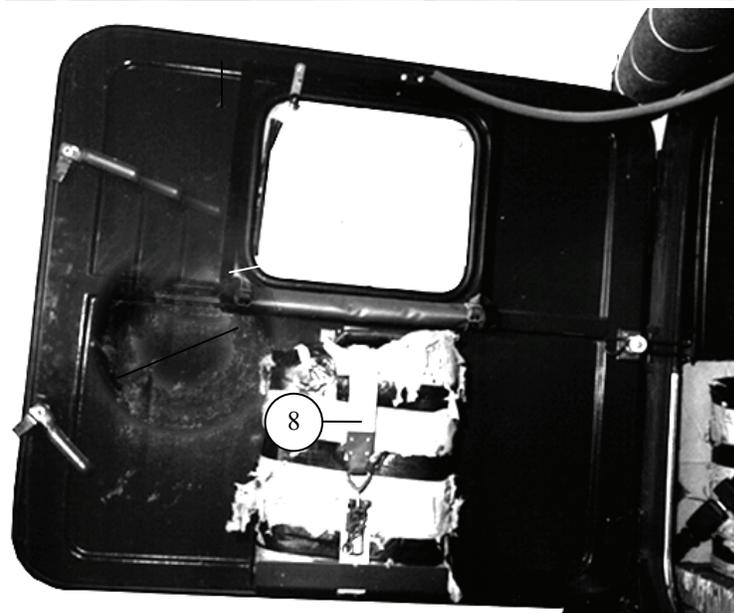


Figure 3-13. Inside of Rear Car Prepared



- 7 Place a layer of honeycomb on top of the OVM box and winch. Secure the honeycomb in place using four pieces of ½-inch tubular nylon webbing.
- 8 Pad and tape an additional fuel can with cellulose wadding. Place the fuel can on the inside of the rear door and secure it with the securing straps provided.

Figure 3-13. Inside of Rear Car Prepared (Continued)

POSITIONING THE SUSV ON THE PLATFORM

3-8. Position the SUSV on the platform as shown in Figure 3-14.

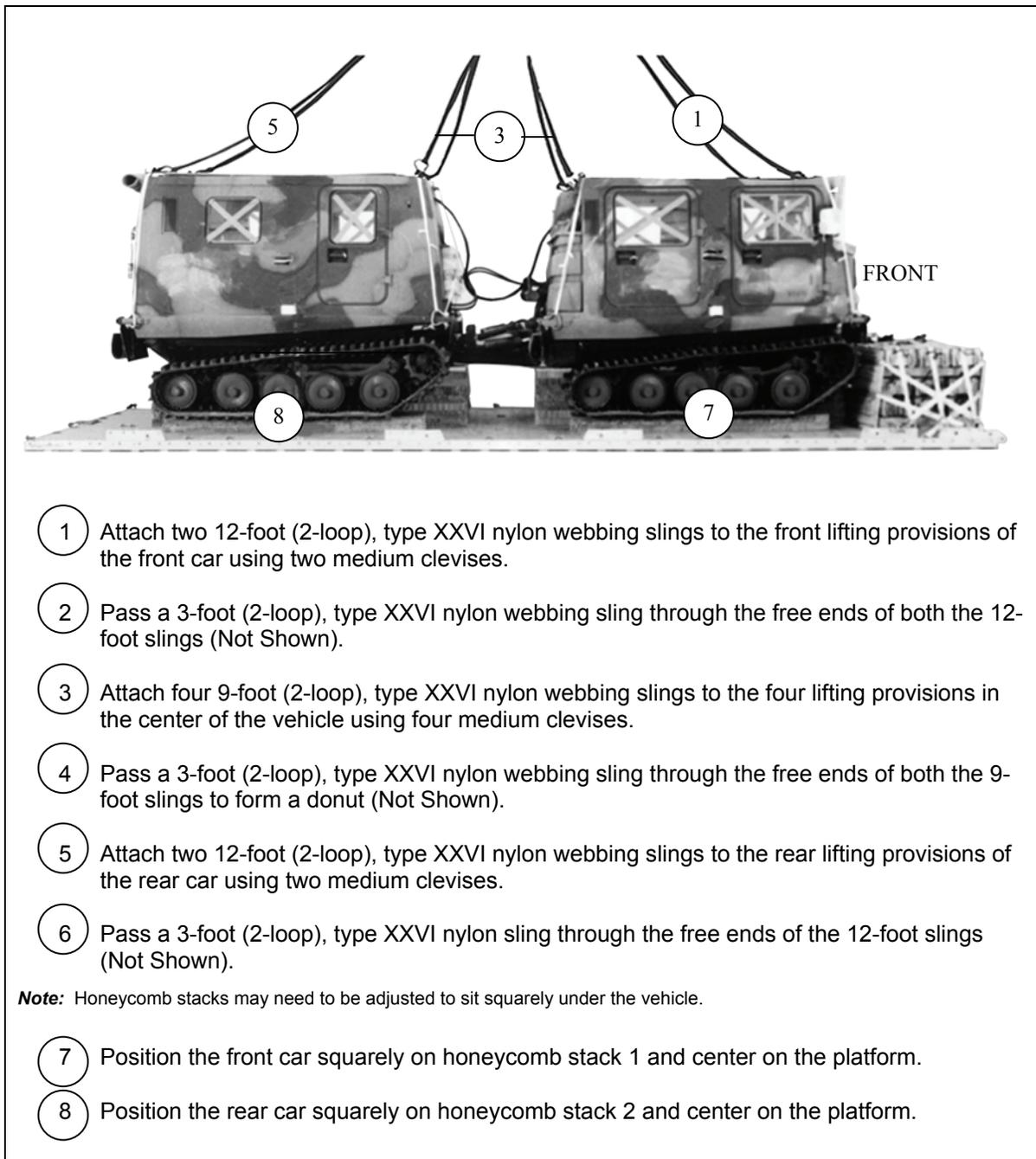
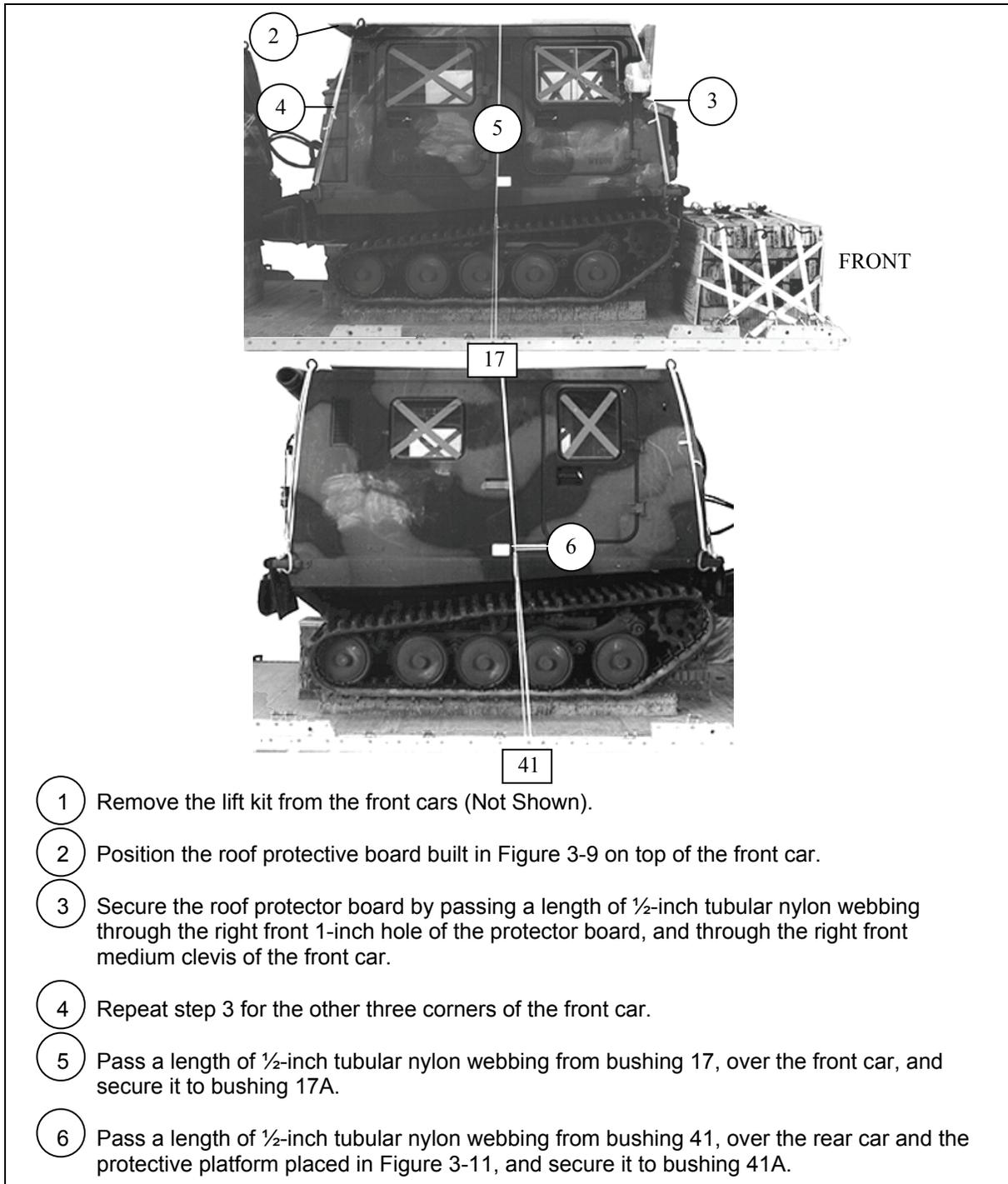


Figure 3-14. SUSV Positioned on Platform

PREPARING THE SUSV AFTER POSITIONING

3-9. Prepare the SUSV after positioning on the platform as shown in Figure 3-15.



- 1 Remove the lift kit from the front cars (Not Shown).
- 2 Position the roof protective board built in Figure 3-9 on top of the front car.
- 3 Secure the roof protector board by passing a length of ½-inch tubular nylon webbing through the right front 1-inch hole of the protector board, and through the right front medium clevis of the front car.
- 4 Repeat step 3 for the other three corners of the front car.
- 5 Pass a length of ½-inch tubular nylon webbing from bushing 17, over the front car, and secure it to bushing 17A.
- 6 Pass a length of ½-inch tubular nylon webbing from bushing 41, over the rear car and the protective platform placed in Figure 3-11, and secure it to bushing 41A.

Figure 3-15. SUSV Prepared after Positioning

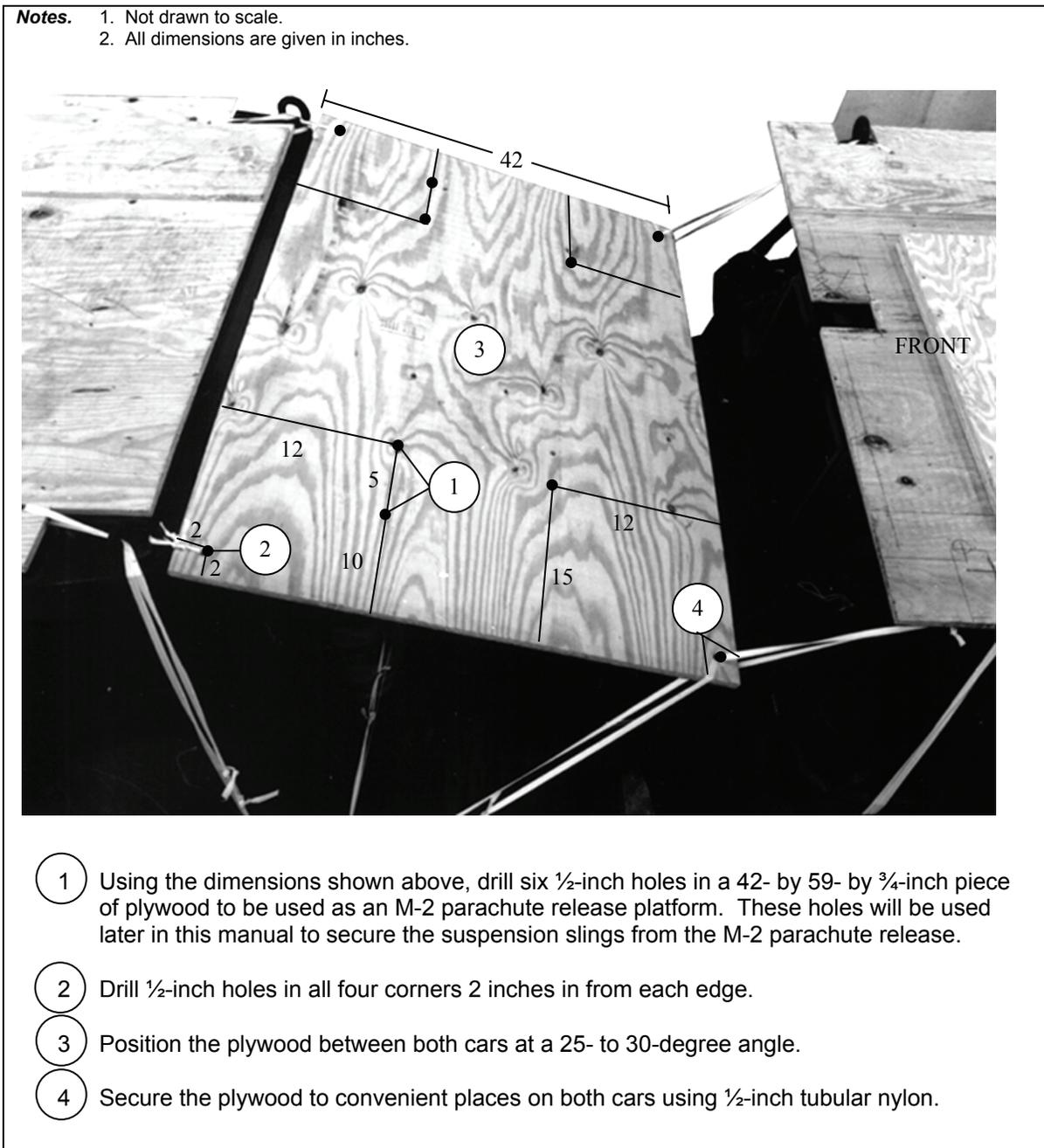
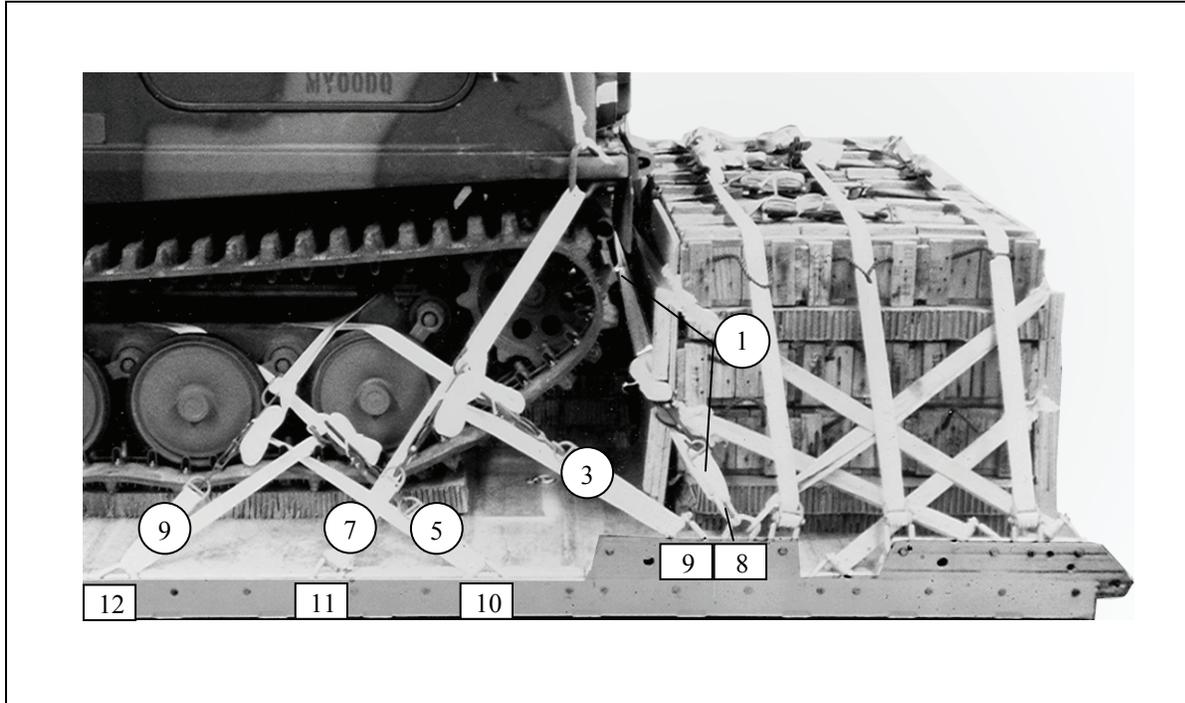


Figure 3-16. SUSV M-2 Parachute Release Platform Positioned

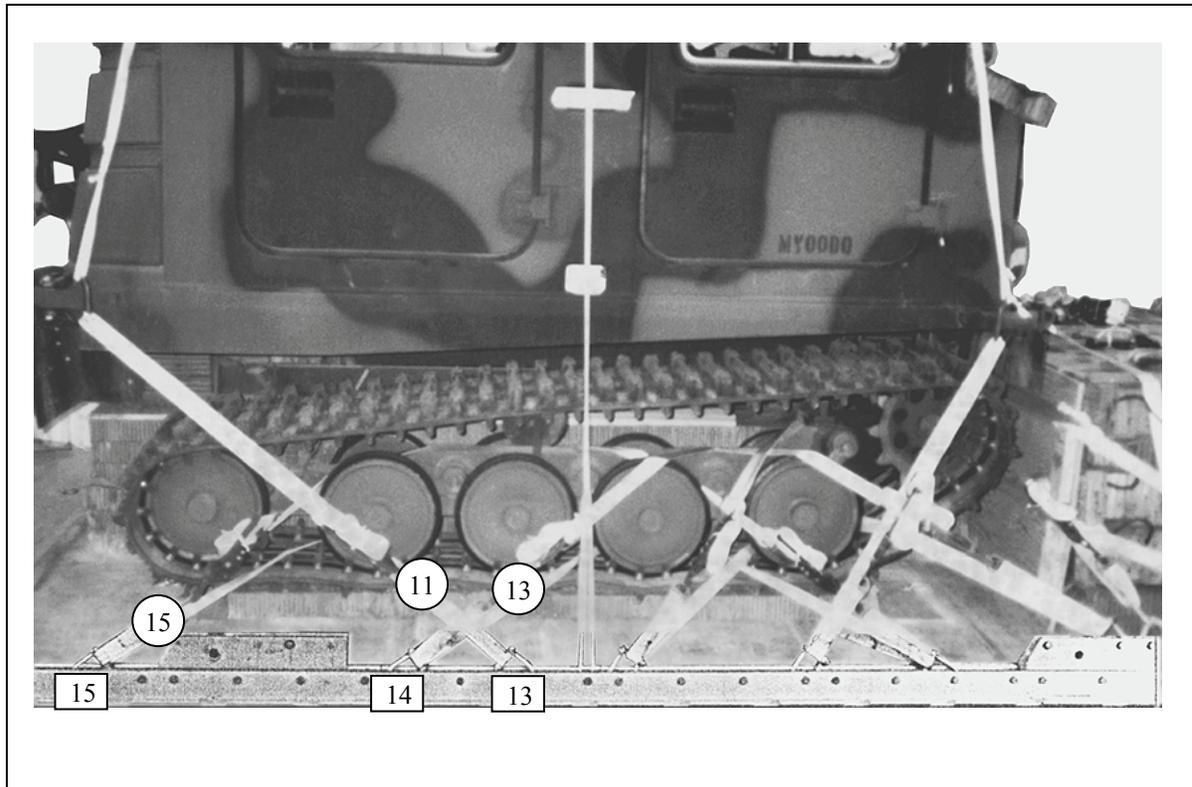
LASHING THE SUSV

3-10. Lash the SUSV to the platform using 15-foot tiedown assemblies. Install the lashings according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figures 3-17 through 3-20.



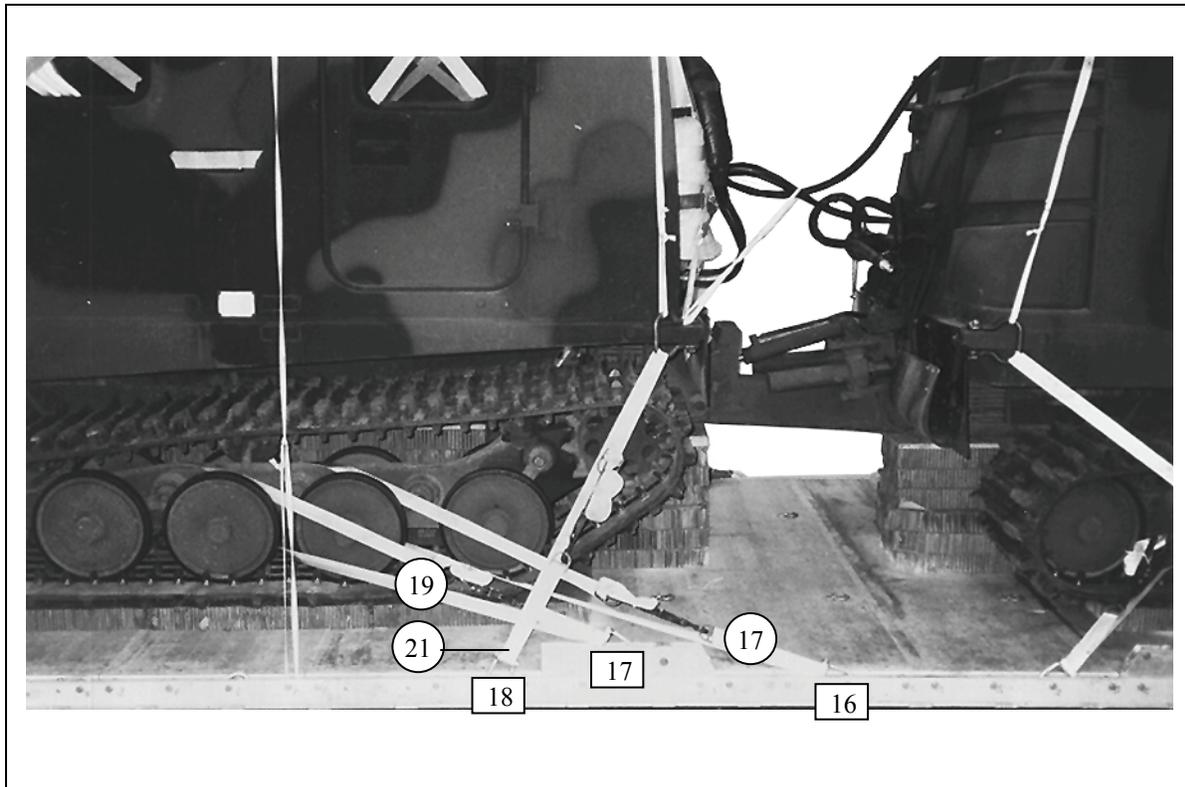
Lashing Number	Tiedown Clevis Number	Instructions
1	8	Pass lashing: Around towing pin.
2	8A	Around towing pin.
3	9	Over track frame and to the rear of inside pivot arm shoulder of the third road wheel on the right side.
4	9A	Over track frame and to the rear of inside pivot arm shoulder of the third road wheel on the left side.
5	10	Over track frame and to the rear of inside pivot arm shoulder of the fourth road wheel on the right side.
6	10A	Over track frame and to the rear of inside pivot arm shoulder of the fourth road wheel on the left side.
7	11	Through right front medium clevis.
8	11A	Through left front medium clevis.
9	12	Around track frame support and to the rear of the inside pivot arm shoulder of the first road wheel on the right side.
10	12A	Around track frame support and to the rear of inside pivot arm shoulder of first road wheel on the left side.

Figure 3-17. Lashings 1 Through 10 Installed



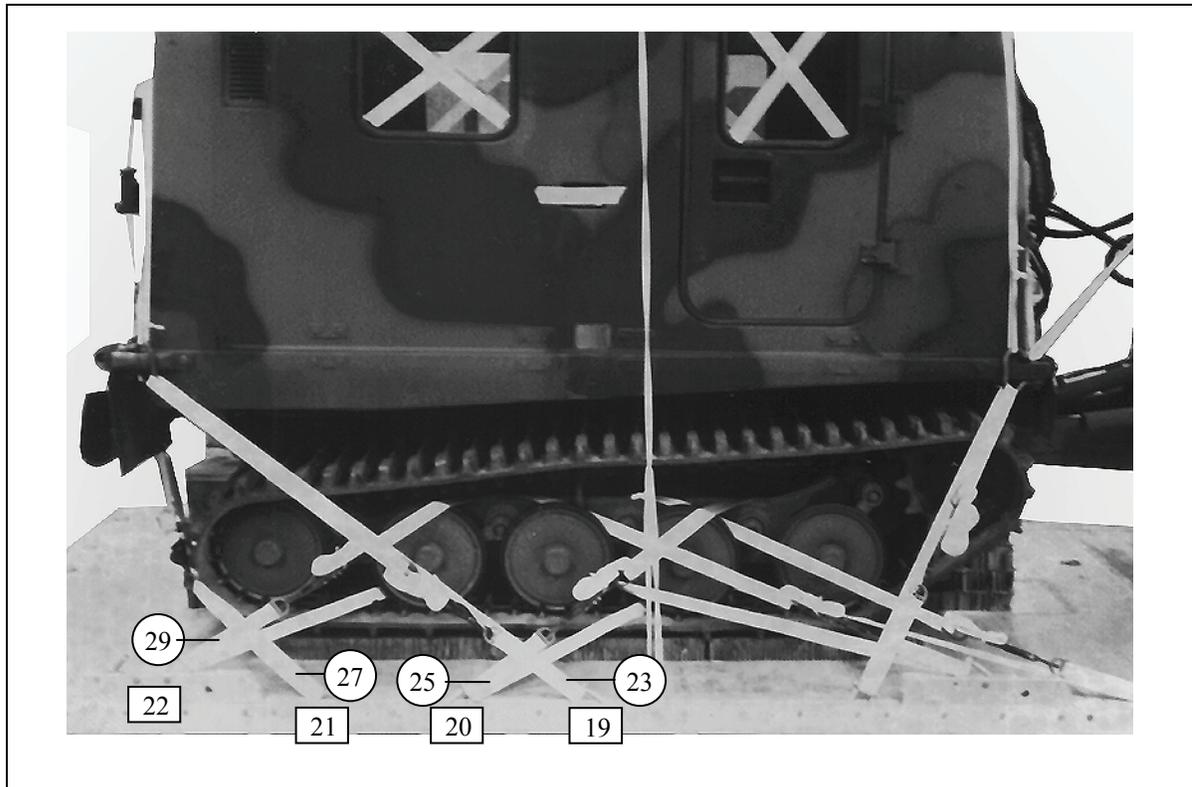
<i>Lashing Number</i>	<i>Tiedown Clevis Number</i>	<i>Instructions</i>
11	13	Pass lashing: Through right rear medium clevis on front car.
12	13A	Through left rear medium clevis on front car.
13	14	Around track frame support and to the rear of the inside pivot arm shoulder of second road wheel on the right side.
14	14A	Around track frame support and to the rear of inside pivot arm shoulder of second road wheel on the left side.
15	15	Around track frame support and to rear of the inside pivot arm shoulder of the fourth road wheel on the right side.
16	15A	Around track frame support and to the rear of the inside pivot arm shoulder of the fourth road wheel on the left side.

Figure 3-18. Lashings 11 Through 16 Installed



Lashing Number	Tiedown Clevis Number	Instructions
17	16	Pass lashing: Around track frame support and to the rear inside pivot arm shoulder of the third road wheel of rear car, right side.
18	16A	Around track frame support and to the rear of inside pivot arm shoulder of the third road wheel of rear car, left side.
19	17	Around track frame support and to rear of the inside pivot arm shoulder of the fourth road wheel on the right side.
20	17A	Around track frame support and to the rear of the inside pivot arm shoulder of the fourth road wheel on the left side.
21	18	Through right front medium clevis on the rear car.
22	18A	Through left front medium clevis on the rear car.

Figure 3-19. Lashings 17 Through 22 Installed



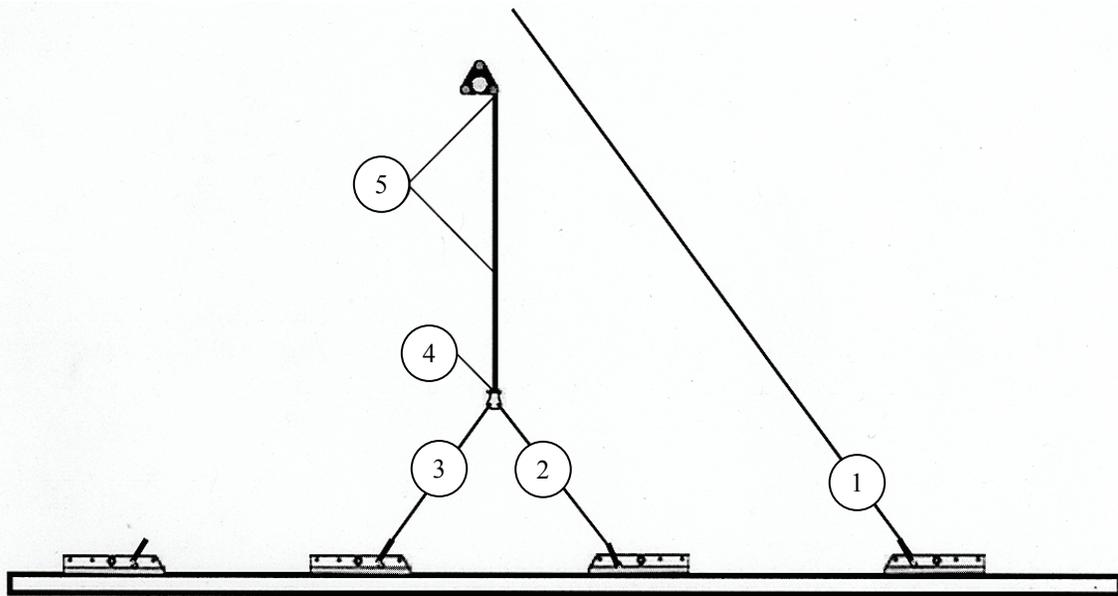
Lashing Number	Tiedown Clevis Number	Instructions
23	19	Pass lashing: Through right rear medium clevis on rear car.
24	19A	Through left rear medium clevis on rear car.
25	20	Around track frame support and to the rear of inside pivot arm shoulder of the second road wheel of rear car, right side.
26	20A	Around track frame support and to the rear of inside pivot arm shoulder of second road wheel of rear car, left side.
27	21	Through tow pintle, right side.
28	21A	Through tow pintle, left side.
29	22	Around track frame support and to the rear of inside pivot arm shoulder of fourth road wheel of rear car, right side.
30	22A	Around track frame support and to the rear of inside pivot arm shoulder of fourth road wheel of rear car, left side.

Figure 3-20. Lashings 23 Through 30 Installed

INSTALLING SUSPENSION SLINGS

3-11. Install the suspension slings according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 3-21.

- Notes.**
1. Not drawn to scale.
 2. Pad and tape any sharp areas the suspension slings may contact.



- 1 Attach a 20-foot (4-loop), type XXVI nylon webbing sling to the bell portion of a large suspension clevis. Bolt the large suspension clevis to the first suspension link on the right side of the platform.
- 2 Attach a 3-foot (4-loop), type XXVI nylon webbing sling to the bell portion of a large suspension clevis. Bolt the large suspension clevis to the second suspension link on the right side of the platform.
- 3 Attach a 3-foot (4-loop), type XXVI nylon webbing sling to the bell portion of a large suspension clevis. Bolt the large suspension clevis to the third suspension link on the right side of the platform.
- 4 Attach the free ends of both 3-foot slings to the bell portion of a large suspension clevis on the right side of the platform.
- 5 Attach a 12-foot (4-loop), type XXVI nylon webbing sling to the bolt of the large suspension clevis (used in step 4). Attach the free end of the sling to one end of a three-point link.

Figure 3-21. Suspension Slings Installed

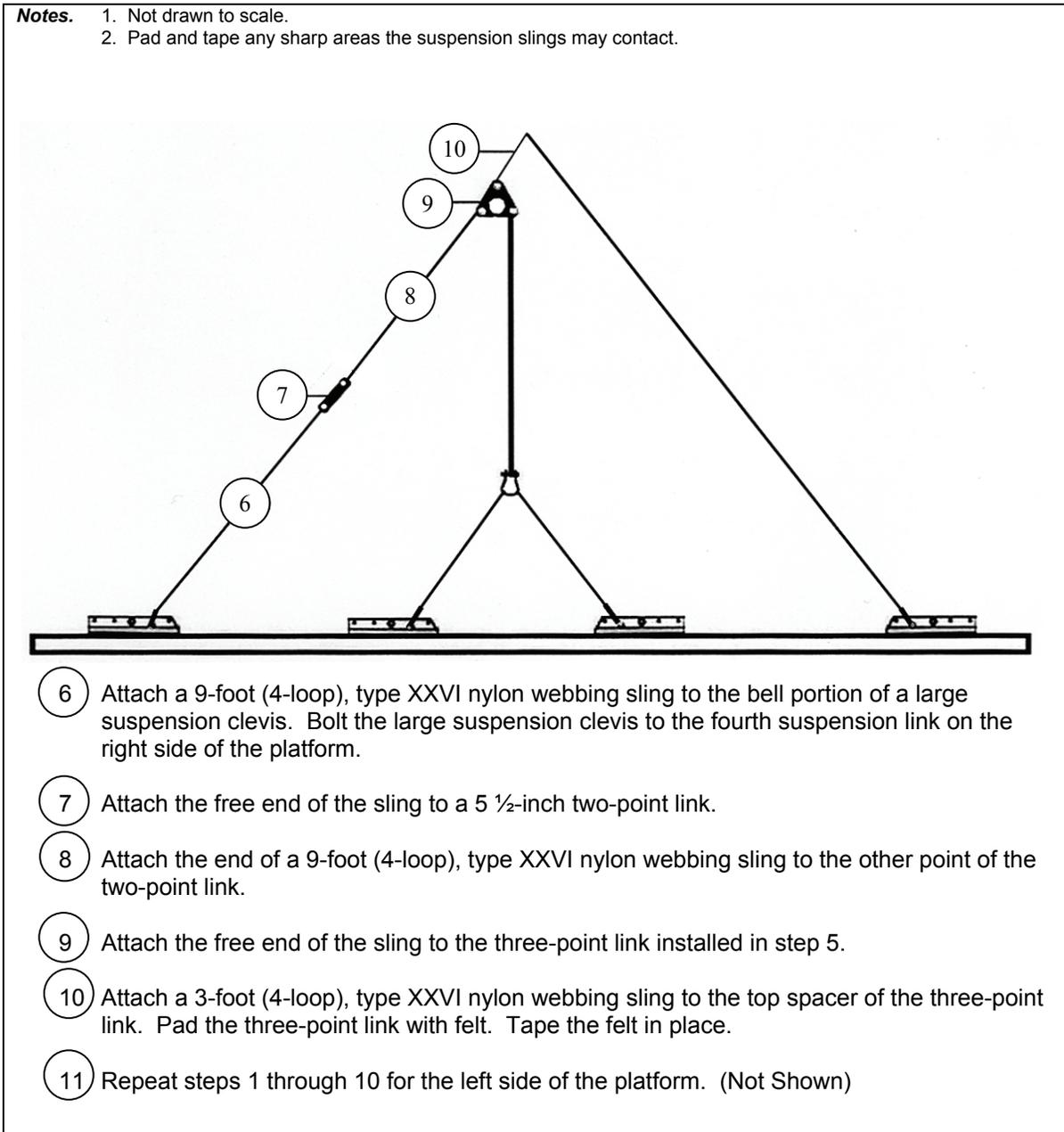


Figure 3-21. Suspension Slings Installed (Continued)

PADDING AND SECURING SUSPENSION SLINGS

3-12. Pad, secure and safety the suspension slings according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 3-21.

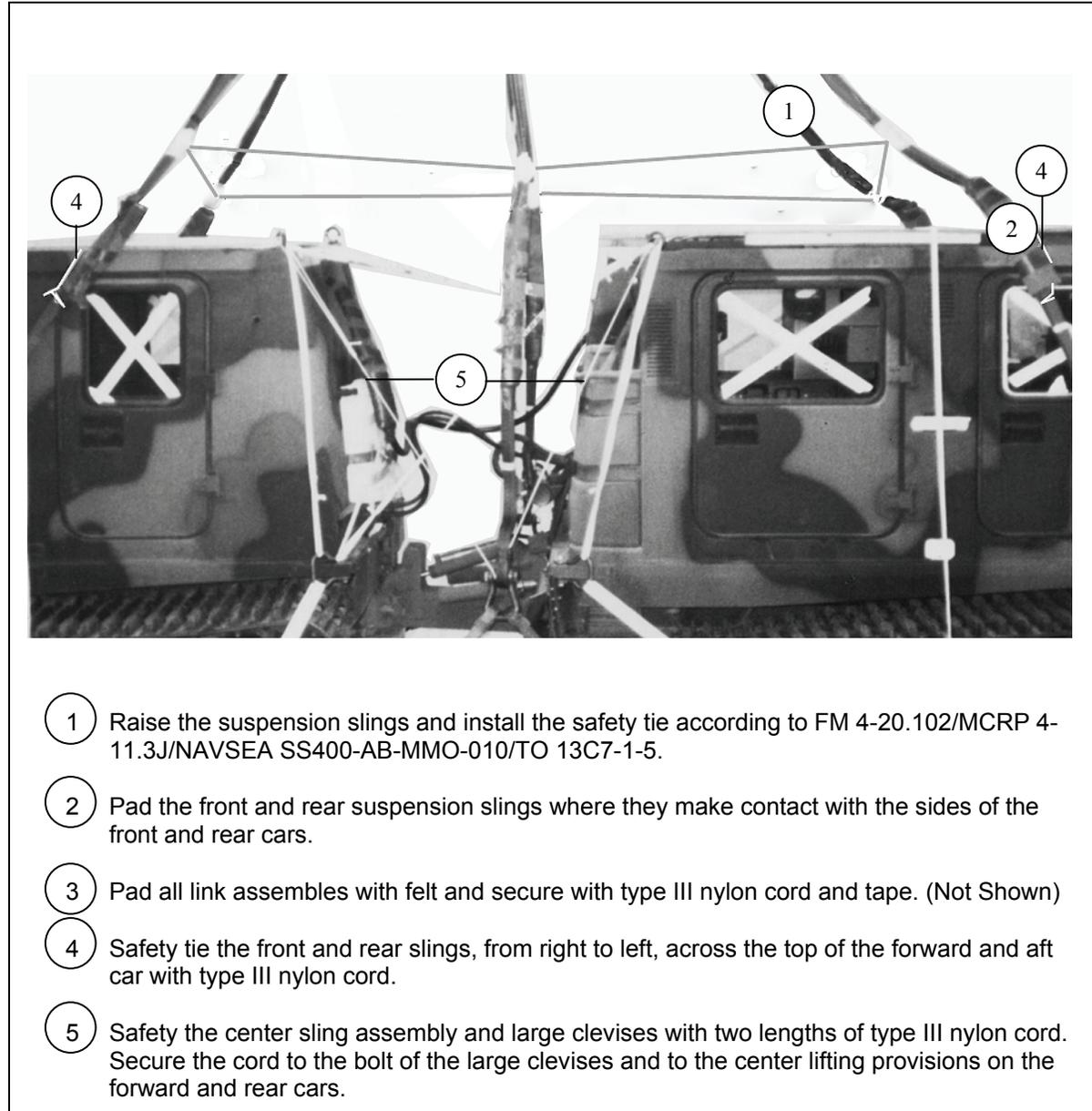


Figure 3-22. Suspension Slings Safetied, Padded and Secured

BUILDING THE PARACHUTE STOWAGE PLATFORM

3-13. Build the parachute stowage platform as shown in Figure 3-23.

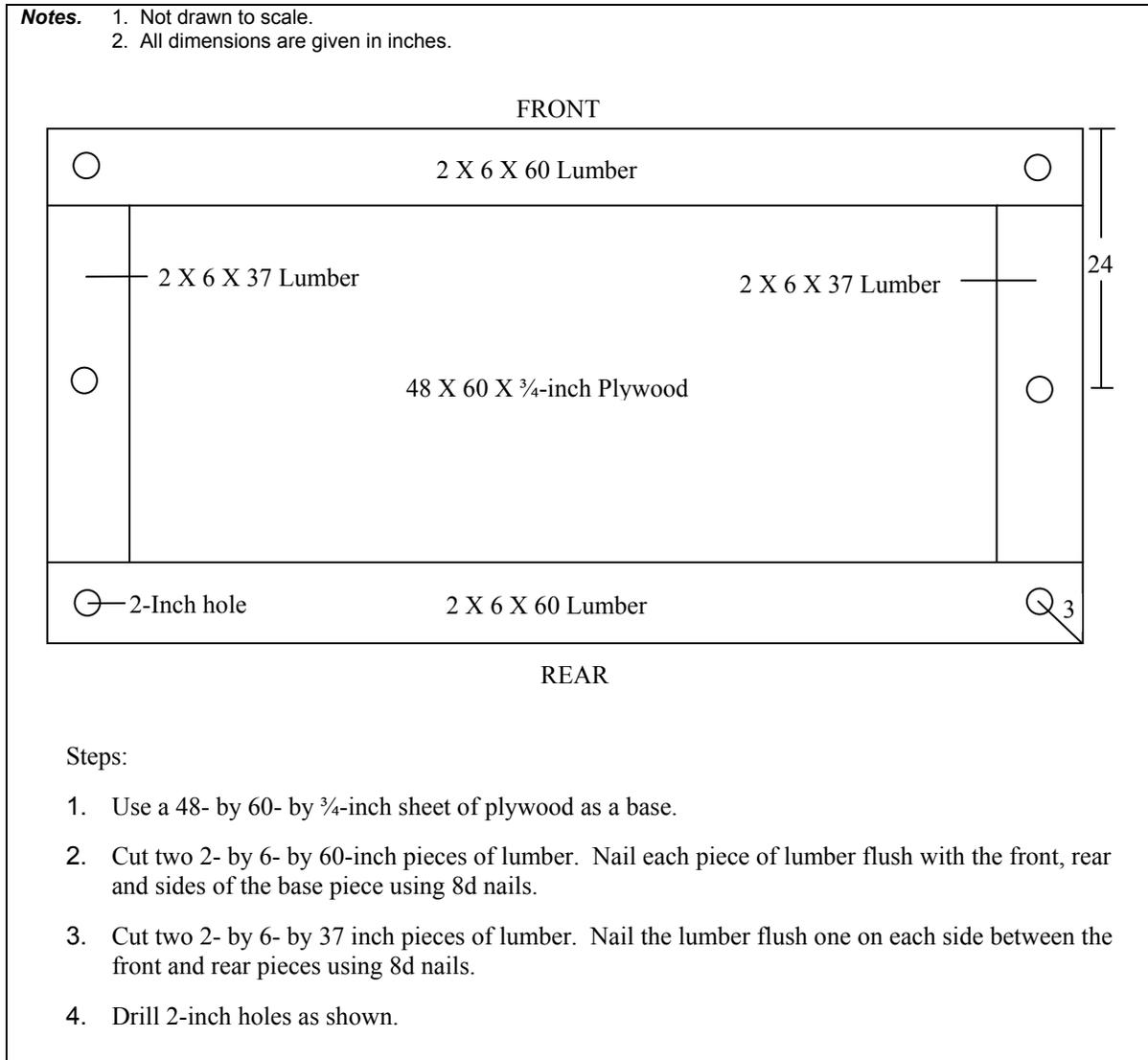
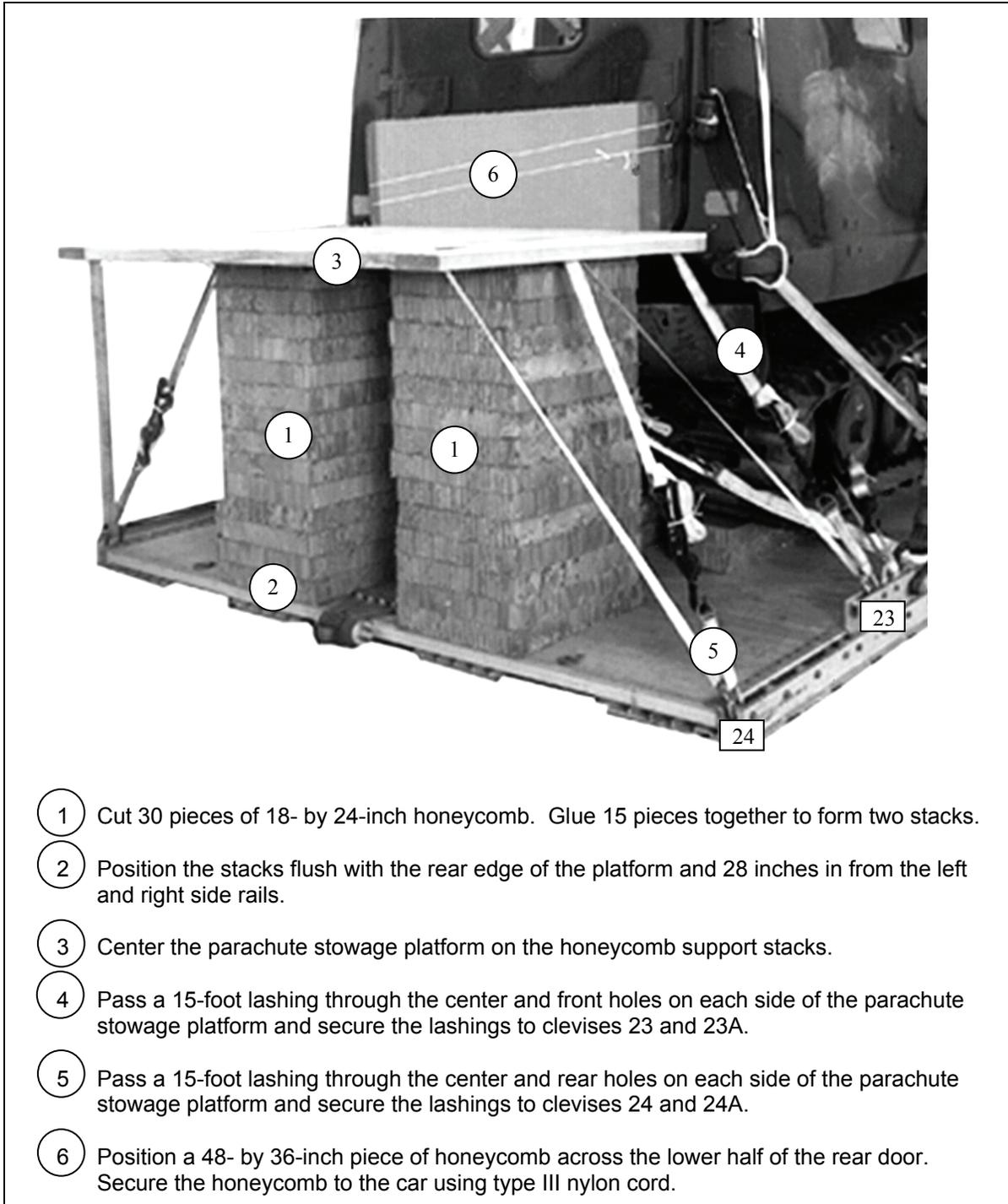


Figure 3-23. Parachute Stowage Platform Built

INSTALLING PARACHUTE STOWAGE PLATFORM

3-14. Install and secure the parachute stowage platform as shown in Figure 3-24.



- 1 Cut 30 pieces of 18- by 24-inch honeycomb. Glue 15 pieces together to form two stacks.
- 2 Position the stacks flush with the rear edge of the platform and 28 inches in from the left and right side rails.
- 3 Center the parachute stowage platform on the honeycomb support stacks.
- 4 Pass a 15-foot lashing through the center and front holes on each side of the parachute stowage platform and secure the lashings to clevises 23 and 23A.
- 5 Pass a 15-foot lashing through the center and rear holes on each side of the parachute stowage platform and secure the lashings to clevises 24 and 24A.
- 6 Position a 48- by 36-inch piece of honeycomb across the lower half of the rear door. Secure the honeycomb to the car using type III nylon cord.

Figure 3-24. Parachute Platform Installed

STOWING CARGO PARACHUTES

3-15. Prepare, stow and restrain four G-11 cargo parachutes according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 3-25.

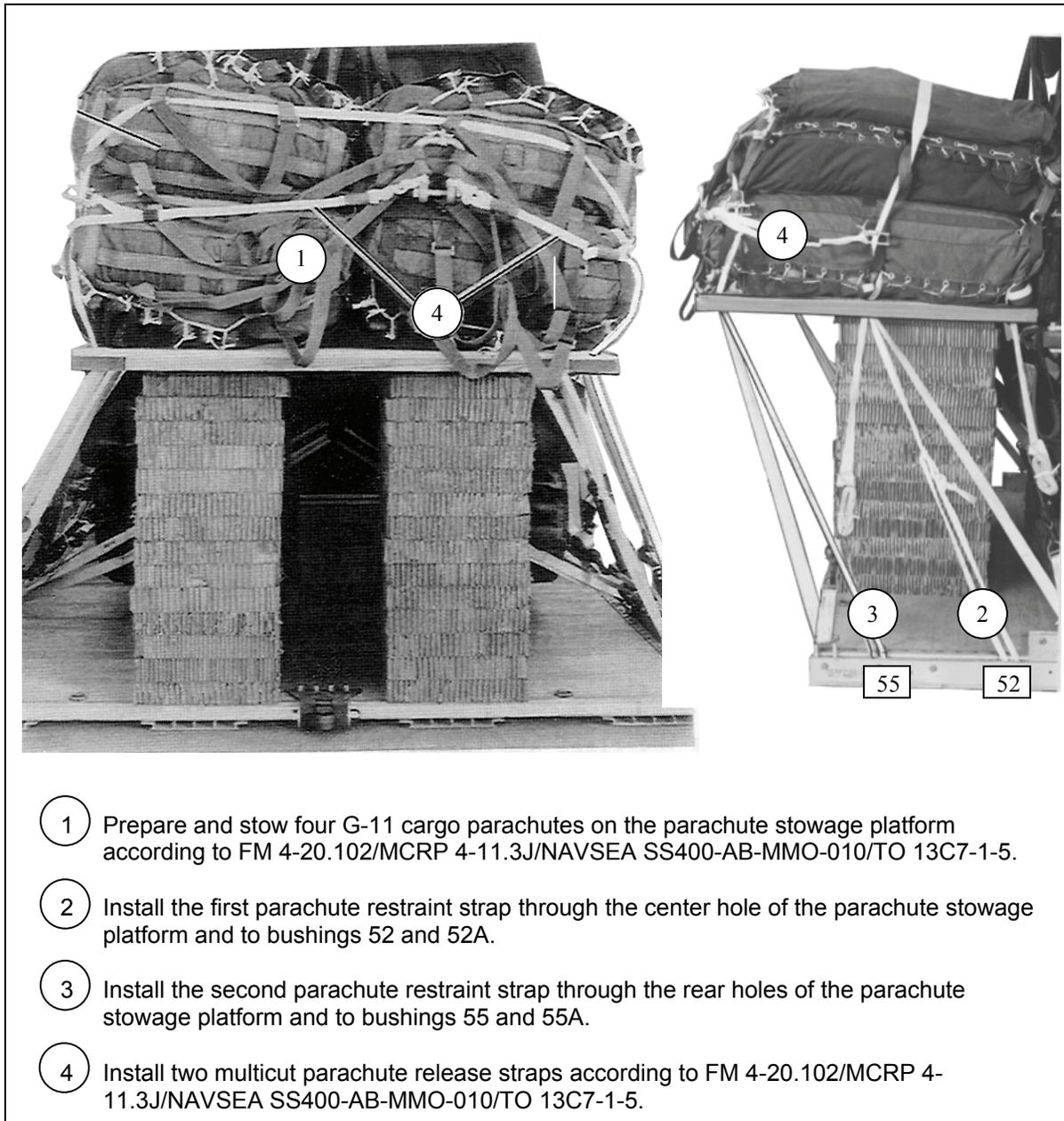
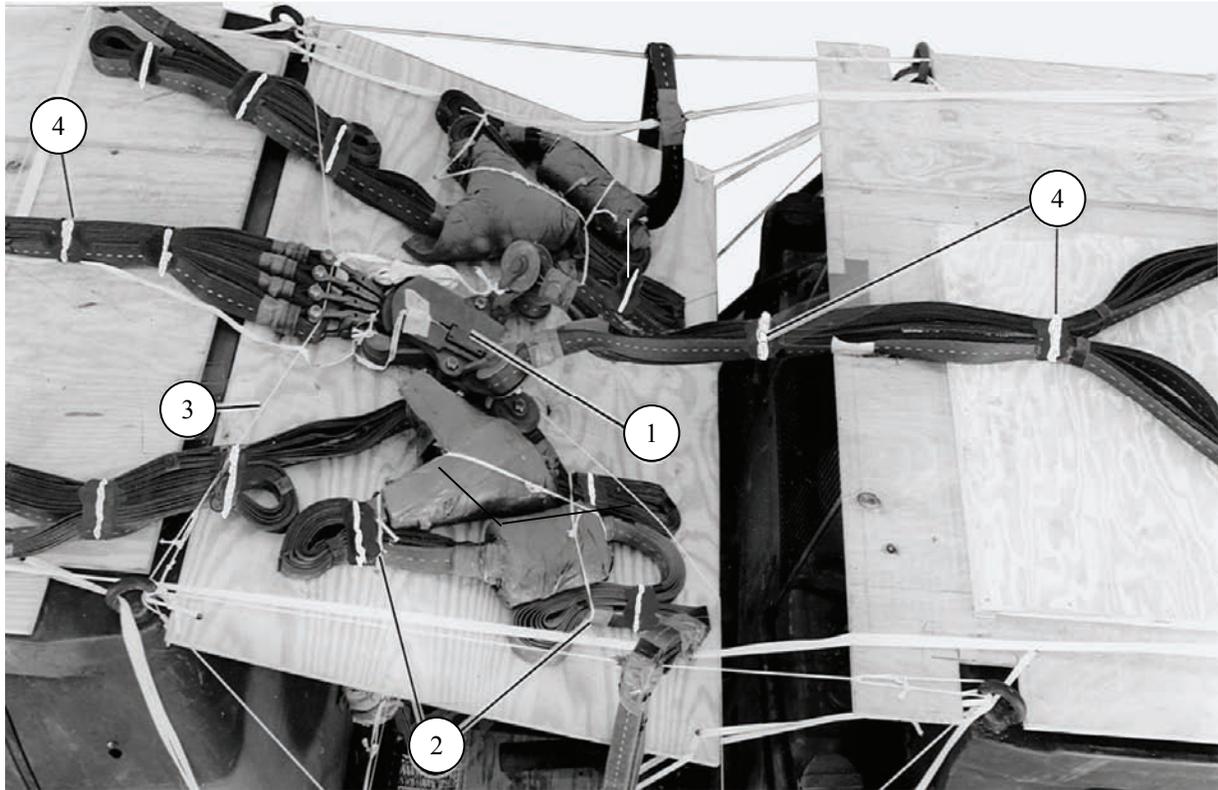


Figure 3-25. Cargo Parachutes Stowed and Restraint Installed

INSTALLING THE M-2 PARACHUTE RELEASE ASSEMBLY

3-16. Install a M-2 parachute release system according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 3-26.

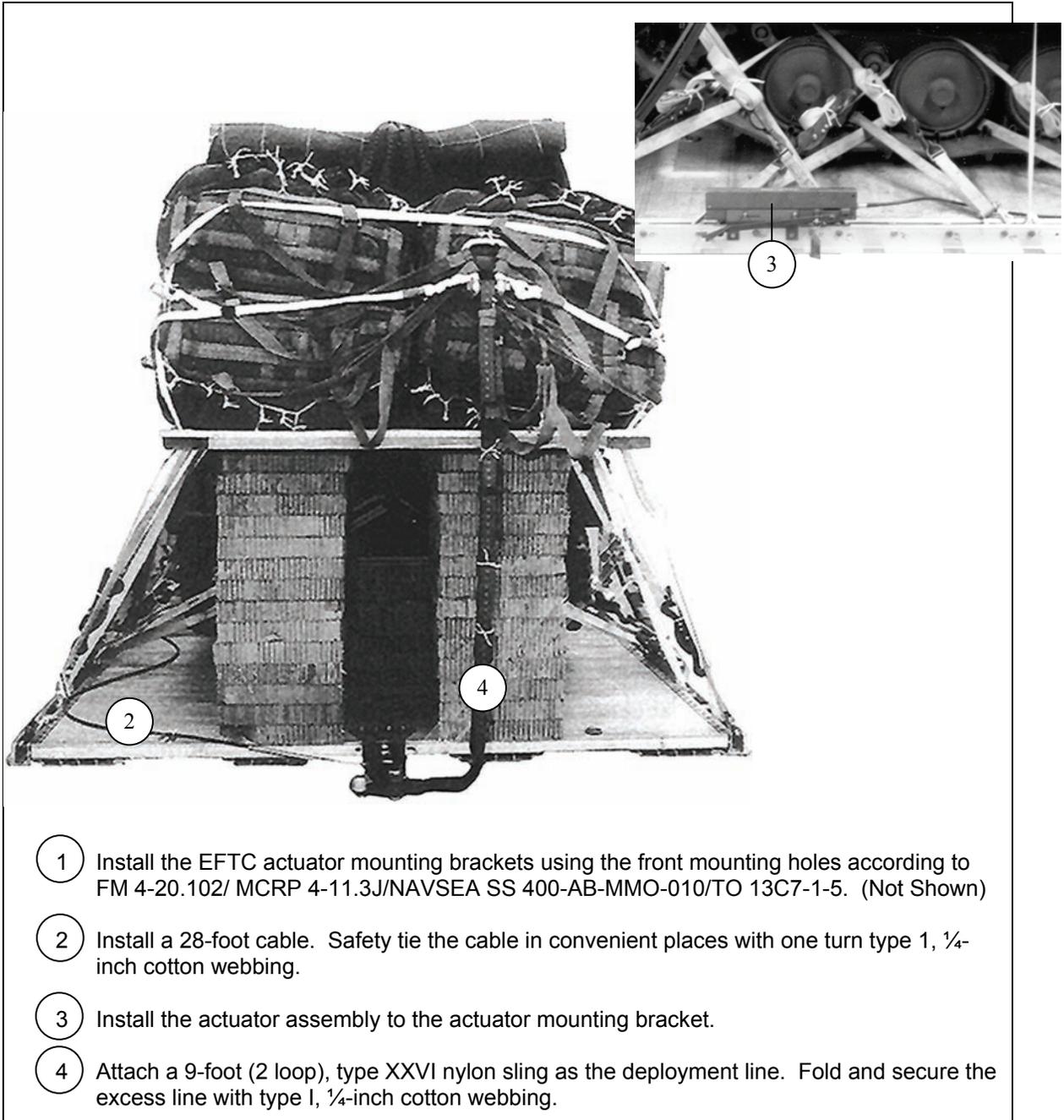


- 1 Prepare an M-2 cargo release assembly according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5. Place the M-2 release on the 42- by 59- by $\frac{3}{4}$ -inch piece of plywood positioned in Figure 3-16. Attach the release to the suspension slings and the cargo parachutes according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5.
- 2 Restrain the M-2 parachute release according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown.
- 3 Fold the suspension slings. Secure the folds to the plywood platform with lengths of type I, $\frac{1}{4}$ -inch cotton webbing. Pass the webbing through the holes in the plywood and over the tapered links.
- 4 Tie the exposed riser extensions and suspension slings along the roof protective board with lengths of type I, $\frac{1}{4}$ -inch cotton webbing.

Figure 3-26. M-2 Parachute Release Installed

INSTALLING EXTRACTION SYSTEM

3-17. Install the EFTC system according to FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 3-27.



- 1 Install the EFTC actuator mounting brackets using the front mounting holes according to FM 4-20.102/ MCRP 4-11.3J/NAVSEA SS 400-AB-MMO-010/TO 13C7-1-5. (Not Shown)
- 2 Install a 28-foot cable. Safety tie the cable in convenient places with one turn type 1, ¼-inch cotton webbing.
- 3 Install the actuator assembly to the actuator mounting bracket.
- 4 Attach a 9-foot (2 loop), type XXVI nylon sling as the deployment line. Fold and secure the excess line with type 1, ¼-inch cotton webbing.

Figure 3-27. Extraction System Installed

INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS

3-18. Install the provisions for the emergency restraints on the platform according to FM 4-20.102/ MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5.

PLACING EXTRACTION PARACHUTE

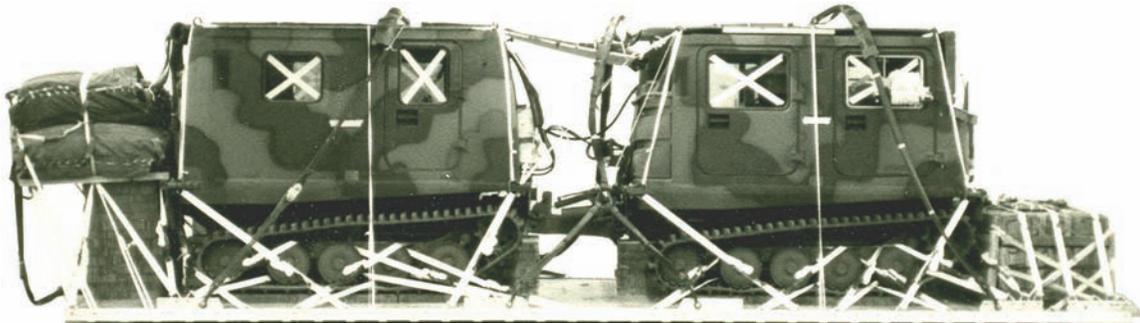
3-19. Select the extraction parachute and extraction line according to FM 4-20.102/ MCRP 4-11.3J/ NAVSEA SS 400-AB-MMO-010/TO 13C7-1-5. Place the extraction parachute and extraction line on the load for installation in the aircraft. If a drogue parachute and drogue line are required, place them on the load for installation in the aircraft as well.

MARKING RIGGED LOAD

3-20. Mark the rigged load according to FM 4-20.102/ MCRP 4-11.3J/NAVSEA SS 400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 3-28. Complete the 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.

CAUTION

Make the final rigger inspection required by FM 4-20.102/MCRP 4-11.3J/NAVSEA SS400-AB-MM0-010/TO 13C7-1-5 and AR 59-4/OPNAVINST 4630.24C/AFJ 13-210(I)/MCO 13480.1B before the load leaves the rigging site.



RIGGED LOAD DATA

Weight	16,800 pounds
Maximum Weight	17,000 pounds
Height	97 inches
Width	108 inches
Length	353 inches
Overhang: Front	0 inches
Rear (Parachute platform)	18 inches
Rear (EPJS)	30 inches
Center of Balance (from front edge of platform)	155 inches

Figure 3-28. SUSV Rigged on a Type V Platform for Low-Velocity Airdrop

EQUIPMENT REQUIRED

3-21. Use the equipment listed in Table 3-3 to rig this load.

Table 3-3. Equipment Required for Rigging the SUSV on a 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 lead, (line bag for DES)	1
	Clevis:	
4030-00-090-5354	Large	11
4030-00-678-8562	Medium	20
4020-00-240-2146	Cord, nylon, type III, 550-lb	As required
1670-00-360-0328	Cover, clevis, large	4
8135-00-664-6958	Cushioning material, packaging, cellulose wadding	As required
	Extraction Force Transfer Coupling System	
1670-00-326-7309	Coupling assembly, airdrop, EFTC, 28-ft cable	1
1670-01-475-1990	Extraction Parachute Jettison System (EPJS)	1
	Felt:	
8305-00-191-1101	½-inch	As required
8305-00-290-5584	³ / ₁₆ -inch	As required
1670-00-003-4391	Knife, parachute bag (for DES)	1
1670-01-183-2678	Leaf, extraction line, (line bag) (add 2 for DES)	2
	Line Multi-loop	
	For lifting	
1670-01-062-6301	3-ft (2-loop), type XXVI nylon webbing	3
1670-01-062-6304	9-ft (2-loop), type XXVI nylon webbing	4
1670-01-062-6303	12-ft (2-loop), type XXVI nylon webbing	4
	For drogue (DES)	
1670-01-064-4452	60-ft 1-loop, type XXVI	1
	For extraction,	
1670-01-062-6313	60-ft (3-loop, type XXVI nylon webbing (C-130)	1
1670-01-107-7651	140-ft (3-loop, type XXVI nylon webbing (C-17)	1
	For deployment:	
1670-01-062-6304	9-ft (2-loop), type XXVI nylon webbing	1
	For suspension:	
1670-01-062-6306	3-ft (4-loop), type XXVI nylon webbing	4
1670-01-062-6305	9-ft (4-loop), type XXVI nylon webbing	4
1670-01-062-6307	12-ft (4-loop), type XXVI nylon webbing	2
1670-01-064-4453	20-ft (4-loop), type XXVI nylon webbing	2
	For riser extension:	
1670-01-062-6313	60-ft (3-loop), type XXVI nylon webbing	4
	Link	
1670-01-493-6418	Assembly small, two-point, 3 ¾-in	2
1670-01-493-6420	Assembly large, two-point, 5 ½-in	2

Table 3-3. Equipment Required for Rigging the SUSV on a Type V Platform for Low-Velocity Airdrop (Continued)

<i>National Stock Number</i>	<i>Item</i>	<i>Quantity</i>
1670-01-307-0155	Assembly, coupling, 3 point	2
1670-01-483-8259	Link, Parachute connector (TRM H-block) (C-17)	1
	Lumber	
5510-00-220-6146	2- by 4-inch	1
5510-00-220-6148	2- by 6-inch	3
	Plywood:	
5530-00-128-4981	¾-in by 48- by 96- inch sheet	5 sheets
5530-00-262-8195	½-in by 48- by 96- inch sheet	1 sheet
	Nail, steel wire, common:	
5315-00-010-4657	6d	As required
5315-00-010-4659	8d	As required
1670-00-753-3928	Pad, energy-dissipating, honeycomb,	16 sheets
	Parachute:	
1670-01-016-7841	G-11	4
1670-00-040-8135	28-ft, extraction, heavy-duty	1
1670-01-063-3717	15-ft, Extraction Drogue (DES)	1
	Platform, airdrop Type V, 28-ft	
1670-01-353-8425	Bracket assembly, component (EFTC)	1
1670-01-353-8424	Bracket, assembly, extraction	1
1670-01-162-2372	Clevis assembly, Type V, tiedown clevis	50
1670-01-247-2389	Link, Suspension bracket, type V	8
1670-01-162-2381	Link, Tandem, link sups. assembly	2
1670-01-097-8817	Release, cargo parachute, M-2	1
5340-00-040-8219	Strap, parachute release, multicut	2
7510-00-266-5016	Tape, adhesive, 2-inch, OD	As required
7510-00-266-6710	Tape, masking, 2-inch	As required
1670-00-937-0271	Tiedown assembly, 15-ft webbing	50
5365-00-937-0147	D-ring, heavy duty, 10,000-lb	50
1670-00-937-0272	Binder, load, 10,000-lb	43
	Webbing:	
4020-00-240-2146	Cord, nylon, type III, 550-lb	As required
8305-00-268-2411	Cotton, type I, ¼-inch	As required
8305-00-082-5752	.Nylon, tubular, ½-inch, natural	As required
8305-00-263-3591	Nylon, type VIII	As required

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Glossary

ACB	Attitude Control Bar
AD	Airdrop
AFB	Air Force Base
AFMAN	Air Force Manual
AFTO	Air Force Technical Order
AMC	Air Mobility Command
attn	Attention
CB	center of balance
Chap	chapter
CST	component storage tray
d	penny
DA	Department of the Army
DoD	Department of Defense
EFTC	extraction force transfer coupling
EPJS	extraction parachute jettison system
FM	Field Manual
ft	feet/foot
gal	gallon
HQ	Headquarters
in	inch
JAI	joint airdrop inspection
lb	pound
LV	low-velocity
MAJCOM	major command
MCRP	Marine Corps reference manual
mm	milli meter
MRE	meal ready to eat
NAVSEA	Navel Sea Command
OVM	operator's vehicle maintenance
qty	quantity
ROPS	roll over protection system
SUSV	small unit support vehicle
TM	Technical Manual
TO	Technical Order
TRADOC	US Army Training and Doctrine Command
TRM	tow release mechanism
US	United States

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By Order of the Secretary of the Army:

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