

C1, FM 4-20.117/MCRP 4-11.3M/TO 13C7-1-111  
HEADQUARTERS  
DEPARTMENT OF THE ARMY  
UNITED STATES MARINE CORPS  
DEPARTMENT OF THE AIR FORCE  
Washington, DC, (date pending)

CHANGE NO. 1

**AIRDROP OF SUPPLIES AND EQUIPMENT:  
RIGGING HIGH-MOBILITY MULTIPURPOSE WHEELED VEHICLES**

This change incorporates the rigging procedures for the M1151 Armament Carrier and the procedure to mount a driver vision enhancer model number AN/VAS-5 on specific HMMWV series vehicles.

This change also includes a Marine Corps designation. The designation is Marine Corps Reference Publication (MCRP) 4-11.3M. This change reflects the entire manual and not just the rigging procedure in this change.

FM 4-20.117/TO 13C7-1-111, 1 October 2002, is changed as follows:

1. New or changed material is identified by a vertical bar in the margin opposite the changed material.
2. File the transmittal sheet in front of the publication for reference purpose.
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**Remove old pages**

i through vi  
1-1 through 1-4

References-1 and References 2

**Insert new pages**

i through vi  
1-1 through 1-3  
4-53 through 4-72  
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Washington, DC (Pending Date)

## Airdrop of Supplies and Equipment: Rigging High-Mobility Multipurpose Wheeled Vehicles (HMMWV)

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## Preface

### SCOPE

The manual tells and shows how to rig HMMWV-series trucks in the Army inventory at the time of publication for low-velocity parachute airdrop. Some specialized truck configurations and loads are included.

### USER INFORMATION

The proponent of this publication is HQ TRADOC. You are encouraged to report any errors or omissions and to suggest ways of making this a better manual.

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## CHAPTER 1

### INTRODUCTION

#### DESCRIPTION OF ITEMS

1-1. The HMMWV-series trucks that can be rigged using the procedures in this manual are listed below.

**a. M998 Cargo/Troop Carriers.** The M998 truck weighs 5,200 pounds. It is 180 inches long and 85 inches wide. The reduced height of the truck is 54 inches.

The M998A1 truck weighs 5,380 pounds. Its length is 180 inches and its width is 86 inches. The reduced height is 56 inches.

**b. M1038 Cargo/Troop Carriers With Winch.** The M1038 truck weighs 5,327 pounds. It is 186 inches long and 85 inches wide. The reduced height of the truck is 54 inches.

The M1038A1 truck weighs 5,507 pounds. Its length is 186 inches and its width is 86 inches. The reduced height is 56 inches.

**c. M1025 Armament Carriers, Armored.** The M1025 truck weighs 5,960 pounds. It is 180 inches long and 85 inches wide. The reduced height of the truck is 74 inches.

The M1025A1 truck weighs 6,140 pounds. Its length is 180 inches and its width is 86 inches. The reduced height is 74 inches.

The M1025A2 truck weighs 6,780 pounds. Its length is 191 inches and its width is 86 inches. The reduced height is 74 inches.

**d. M1025A2 Armament Carrier (Modified), With Winch.** This is NOT the same carrier as the M1025A2. External and internal modifications have been made to support special operations. The M1025A2 (modified) carrier weighs 7,020 pounds. It is 191 inches long and 86 inches wide.

**e. M1026 Armament Carriers, Armored With Winch.** The M1026 truck weighs 6,087 pounds. It is 186 inches long and 85 inches wide. The reduced height of the truck is 74 inches.

The M1026A1 truck weighs 6,267 pounds. Its length is 186 inches and its width is 86 inches. The reduced height is 74 inches.

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**f. M1026 Armament Carrier (Modified).** This is NOT the same carrier as the M1026. External and internal modifications have been made to support special operations. The M1026 (modified) carrier weighs 6,087 pounds. It is 185 inches long and 85 inches wide. The reduced height of the truck is 69 inches.

**g. M966 TOW Carriers, Armored.** The M966 truck weighs 6,051 pounds. It is 180 inches long and 85 inches wide. The reduced height of the truck is 74 inches.

The M966A1 truck weighs 6,231 pounds. Its length is 180 inches and its width is 86 inches. The reduced height is 74 inches.

**h. M1036 TOW Carrier, Armored With Winch.** The M1036 truck weighs 6,178 pounds. It is 186 inches long and 85 inches wide. The reduced height of the truck is 74 inches.

**i. M1121 TOW Carrier, Armored.** The M1121 truck weighs 7,900 pounds. It is 180 inches long and 85 inches wide. The reduced height of the truck is 74 inches.

**j. M1043 Armament Carriers, With Supplemental Armor.** The M1043 truck weighs 6,411 pounds. It is 180 inches long and 85 inches wide. The reduced height of the truck is 74 inches.

The M1043A1 truck weighs 6,591 pounds. Its length is 180 inches and its width is 86 inches. The reduced height is 74 inches.

The M1043A2 truck weighs 7,230 pounds. Its length is 191 inches and its width is 86 inches. The reduced height is 74 inches.

**k. M1044 Armament Carriers, With Supplemental Armor and Winch.** The M1044 truck weighs 6,411 pounds. It is 186 inches long and 85 inches wide. The reduced height of the truck is 74 inches.

The M1044A1 truck weighs 6,718 pounds. Its length is 186 inches and its width is 86 inches. The reduced height is 74 inches.

**l. M1045 Armament Carriers, With Supplemental Armor.** The M1045 truck weighs 6,438 pounds. It is 180 inches long and 85 inches wide. The reduced height of the truck is 74 inches.

The M1045A1 truck weighs 6,618 pounds. Its length is 180 inches and its width is 86 inches. The reduced height is 74 inches.

The M1045A2 truck weighs 7,258 pounds. Its length is 191 inches and its width is 86 inches. The reduced height is 74 inches.

**m. M1046 TOW Carriers, With Supplemental Armor and Winch.** The M1046 truck weighs 6,565 pounds. It is 186 inches long and 85 inches wide. The reduced height of the truck is 74 inches.

The M1046A1 truck weighs 6,745 pounds. Its length is 186 inches and its width is 86 inches. The reduced height is 74 inches.

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**n. M1037 S250 Shelter Carrier.** The M1037 truck weighs 5,425 pounds. It is 191 inches long and 85 inches wide. The reduced height, without the shelter, is 54 inches.

**o. M1037 Cargo/Troop Carrier (Modified), With Winch.** This is NOT the same carrier as the M1037. External and internal modifications have been made to support artillery operations. The M1037 (modified) is 185 inches long and 85 inches wide. The reduced height of the truck is 70 inches.

**p. M1042 S250 Shelter Carrier, With Winch.** The M1042 truck weighs 5,551 pounds. It is 197 inches long and 85 inches wide. The reduced height, without the shelter, is 54 inches.

**q. M1097 Truck, Utility, Heavy Variant.** The M1097 truck weighs 5,600 pounds. It is 191 inches long and 86 inches wide. The reduced height of the truck is 56 inches.

The M1097A1 truck weighs 5,600 pounds. Its length is 191 inches and its width is 86 inches. The reduced height is 56 inches.

The M1097A2 truck weighs 5,900 pounds. Its length is 191 inches and its width is 86 inches. The reduced height is 56 inches. This truck may have a winch.

**r. M1113 Truck, Utility, Expanded Capacity.** The M1113 truck weighs 6,190 pounds. It is 197 inches long and 86 inches wide. The reduced height of the truck is 56 inches. This truck may have a winch.

**s. M1114 Armament Carrier, Expanded Capacity, Up-Armored, With Winch.** The M1114 truck weighs 9,800 pounds. It is 197 inches long and 86 inches wide. The reduced height of the truck is 74 inches.

**t. M1151 Armament Carrier, Expanded Capacity.** The M1151 truck weighs 7,300 pounds. It is 197 inches long and 86 inches wide. The height of the truck is 77 inches.

## SPECIAL CONSIDERATIONS

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

**a.** The loads covered in this manual may include hazardous materials as defined in AFMAN 24-204(I)/TM 38-250. If included, the hazardous material must be packaged, marked, and labeled as required by AFMAN 24-204(I)/TM 38-250.

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

### CAUTION

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

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## SECTION III - RIGGING M1151 ARMAMENT CARRIER WITH ACCOMPANYING LOAD ON A 16-FOOT PLATFORM

### DESCRIPTION OF LOAD

4-30. The M1151 HMMWV shown in Figure 4-36 is rigged with an accompanying load on a 16-foot, type V platform. The load uses three G-11 cargo parachutes and the accompanying load has a minimum weight of 1,300 pounds and a maximum weight of 2,000 pounds. This load is 93 inches high, 108 inches wide, and 215 inches long.

### PREPARING PLATFORM

4-31. Prepare a 16-foot, type V airdrop platform according to TM 10-1670-268-20&P/TO 13C7-52-22. Install four tandem links and platform clevises according to FM 4-20.102/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 4-37.

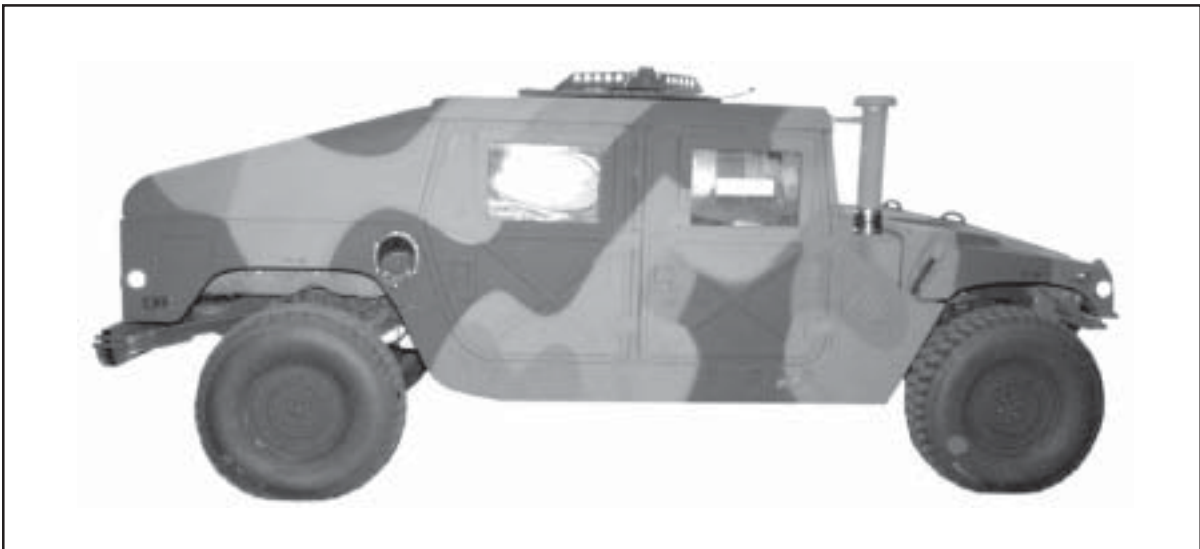
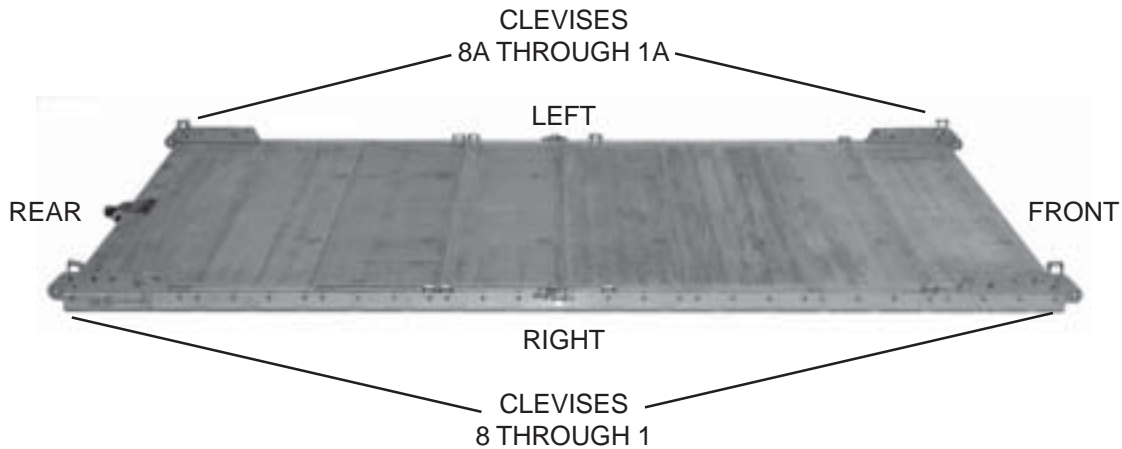


Figure 4-36. M1151 Armament Carrier

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- NOTES:**
1. The nose bumper may or may not be installed.
  2. Measurements given in the chapter are from the front edge of the platform, NOT from the front edge of the nose bumper.



**Steps:**

1. Install a tandem link on the front of each platform side rail using holes 1, 2, and 3.
2. Install a tandem link on the rear of each platform side rail using holes 30, 31, and 32.
3. Install a clevis on bushing 1 on each front tandem link.
4. Install a clevis on bushing 4 on each rear tandem link.
5. Starting at the front of each platform side rail, install clevises on each platform side rail using the bushings bolted on holes 5, 15, 17 (tripled), 20, and 21.
6. Starting at the front of the platform, number the clevises bolted to the right side from 1 through 8 and those bolted to the left side from 1A through 8A.
7. Label the tie-down rings according to FM 4-20.102/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5.

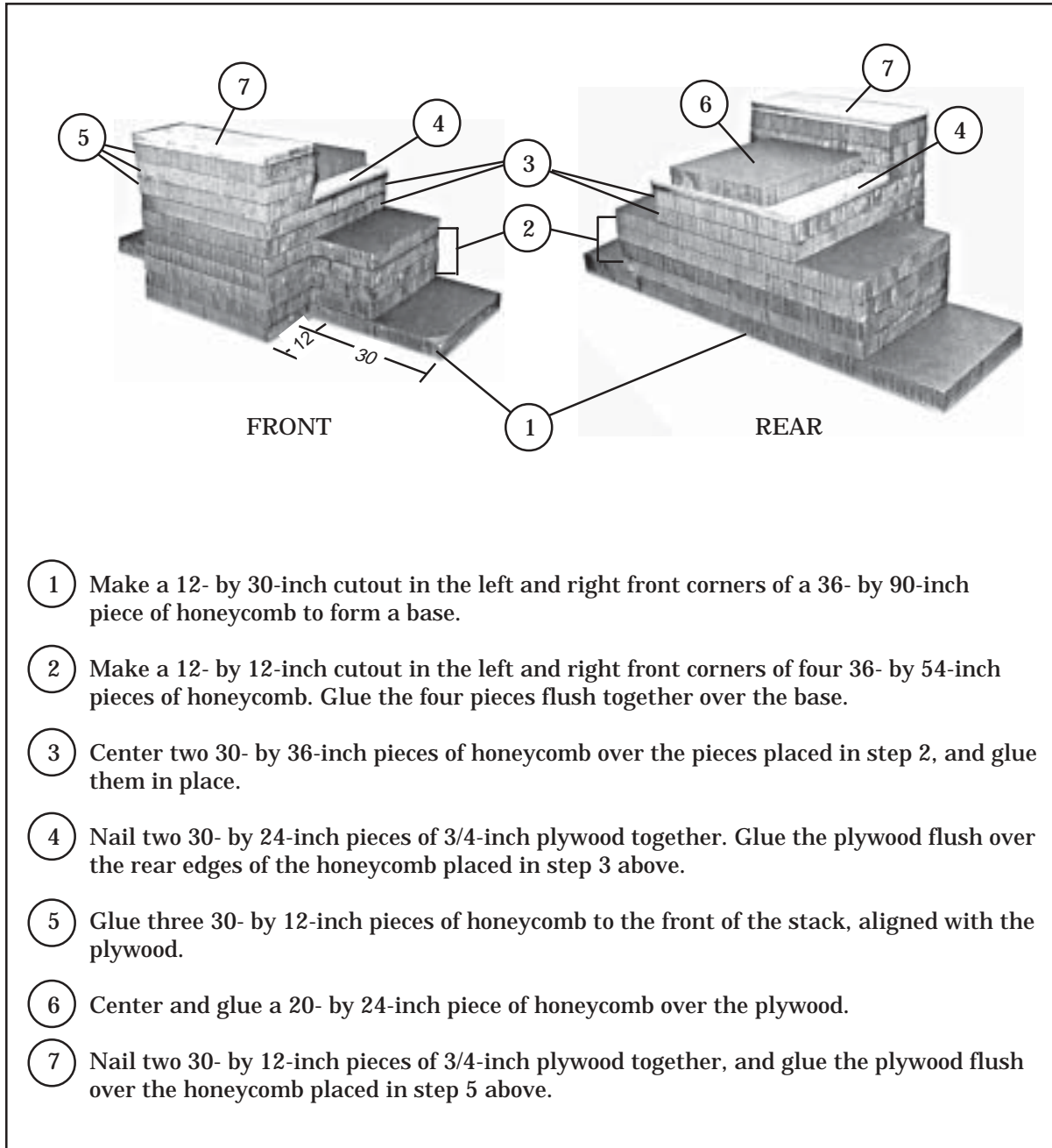
**Figure 4-37. Platform Prepared**

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## PREPARING AND POSITIONING HONEYCOMB STACKS

4-32. Build the honeycomb stacks as shown in Figures 4-38 through 4-40. Position the stacks on the platform as shown in Figure 4-41.



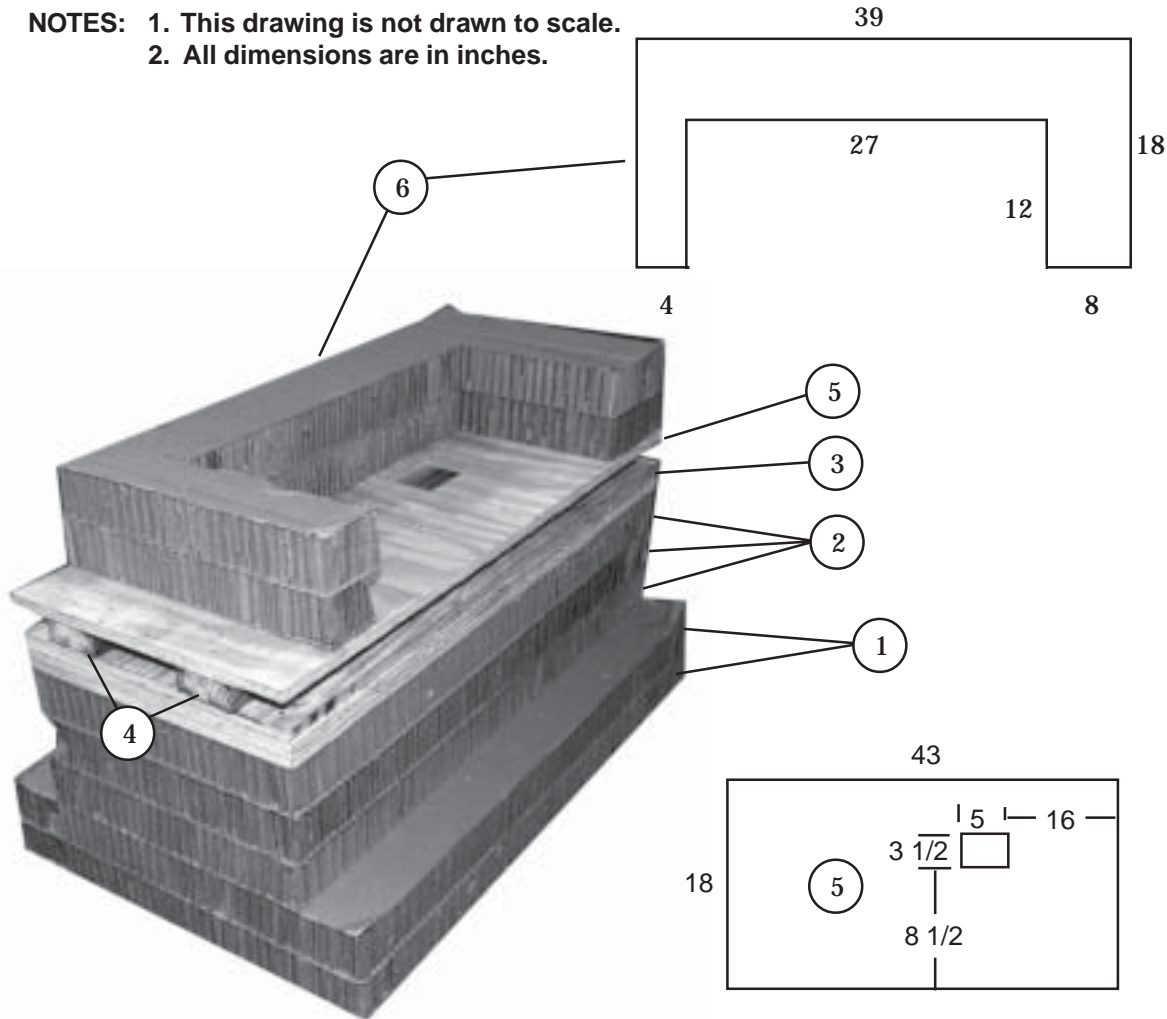
- 1 Make a 12- by 30-inch cutout in the left and right front corners of a 36- by 90-inch piece of honeycomb to form a base.
- 2 Make a 12- by 12-inch cutout in the left and right front corners of four 36- by 54-inch pieces of honeycomb. Glue the four pieces flush together over the base.
- 3 Center two 30- by 36-inch pieces of honeycomb over the pieces placed in step 2, and glue them in place.
- 4 Nail two 30- by 24-inch pieces of 3/4-inch plywood together. Glue the plywood flush over the rear edges of the honeycomb placed in step 3 above.
- 5 Glue three 30- by 12-inch pieces of honeycomb to the front of the stack, aligned with the plywood.
- 6 Center and glue a 20- by 24-inch piece of honeycomb over the plywood.
- 7 Nail two 30- by 12-inch pieces of 3/4-inch plywood together, and glue the plywood flush over the honeycomb placed in step 5 above.

Figure 4-38. Stack 1 Constructed

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NOTES: 1. This drawing is not drawn to scale.  
2. All dimensions are in inches.



- 1 Glue two 43- by 26-inch pieces of honeycomb together to form a base.
- 2 Center and glue three 43- by 18-inch pieces of honeycomb over the base.
- 3 Nail three pieces of 3/4- by 43- by 18-inch plywood together.
- 4 Nail a 43-inch piece of 2- by 4-inch lumber parallel to each long side and 1 1/2 inches from each long edge of plywood formed in step 3.
- 5 Make a 3 1/2- by 5-inch cutout on a 3/4- by 43- by 18-inch piece of plywood. Nail to the lumber in step 4 and flush with the bottom pieces of plywood. Glue the wooden section of the stack flush on the honeycomb placed in step 2 above.
- 6 Make the cutout as shown in two 39- by 18-inch pieces of honeycomb. Glue the honeycomb flush over the plywood, with the cutout facing the rear of the stack.

Figure 4-39. Stack 2 Constructed



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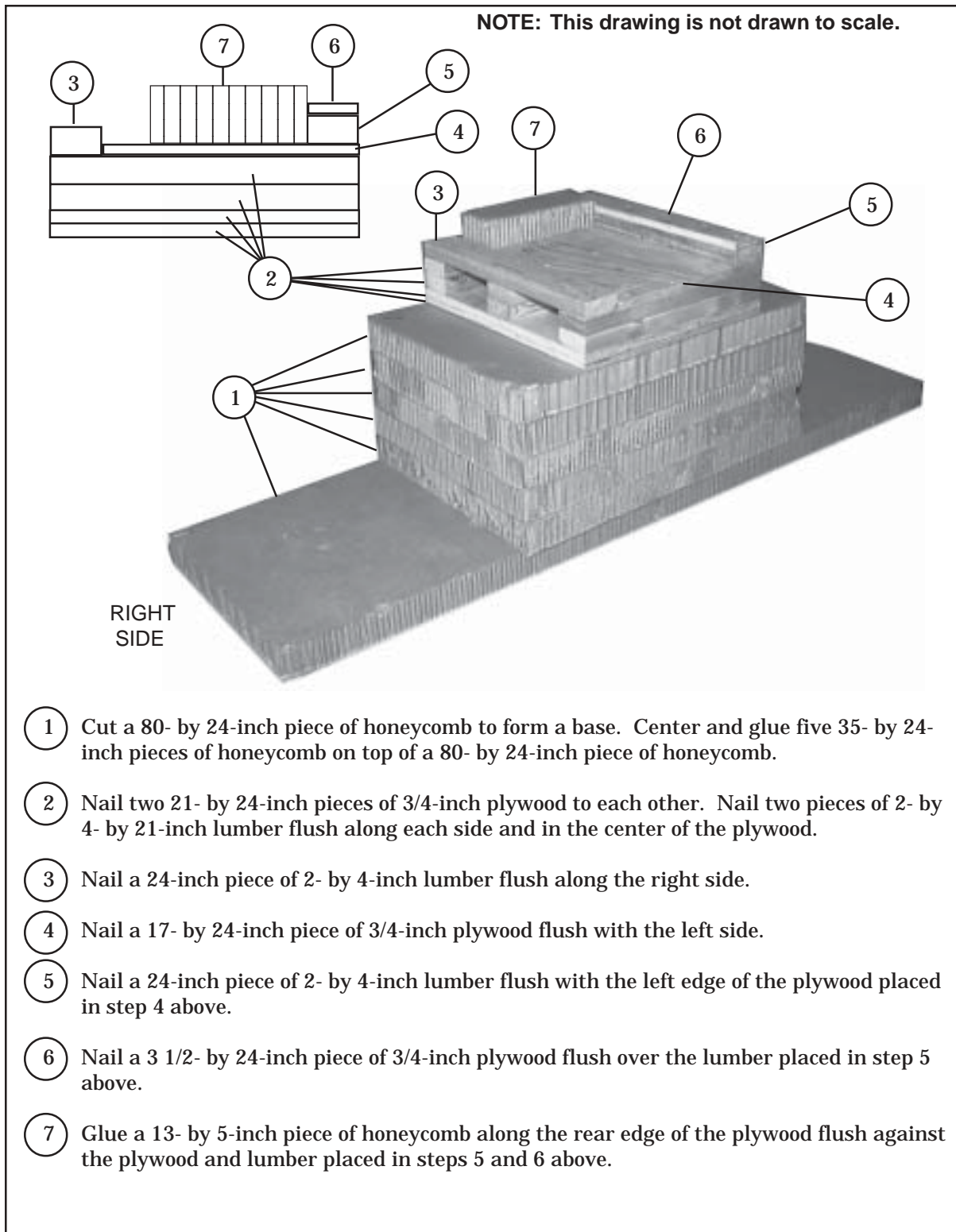


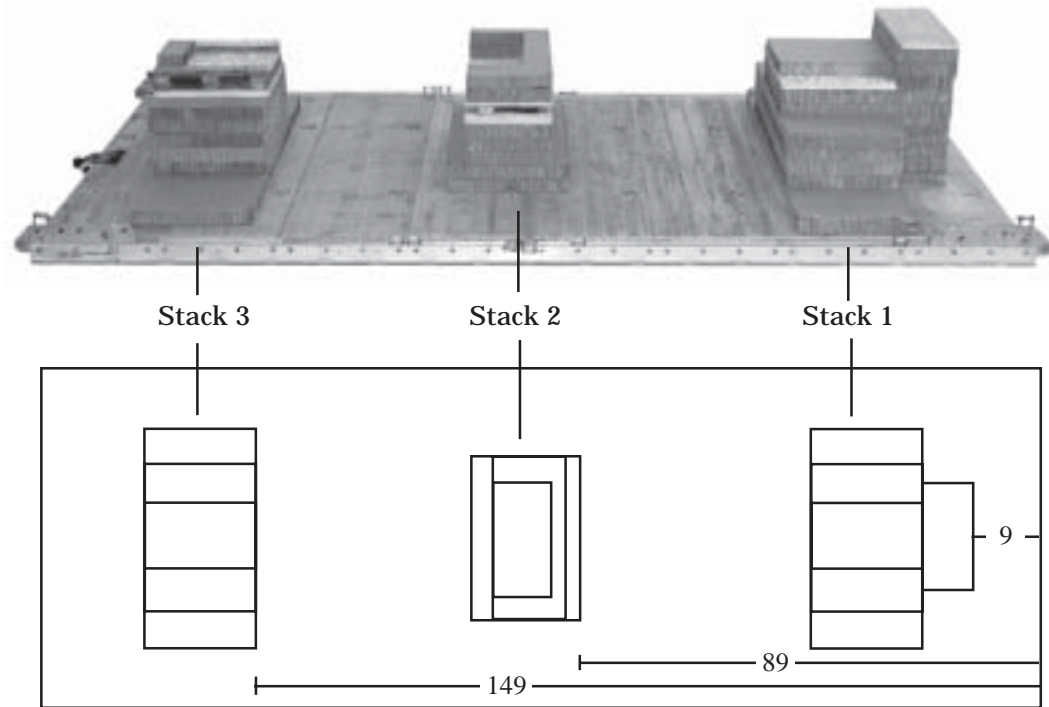
Figure 4-40. Stack 3 Constructed



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- NOTES:** 1. This drawing is not drawn to scale.  
2. All dimensions are in inches.



Stack Number	Position of Stack on Platform
1	Place stack: Centered 9 inches from front edge of platform.
2	Centered 89 inches from front edge of platform.
3	Centered 149 inches from front edge of platform.

**Figure 4-41. Honeycomb Stacks Positioned on Platform**

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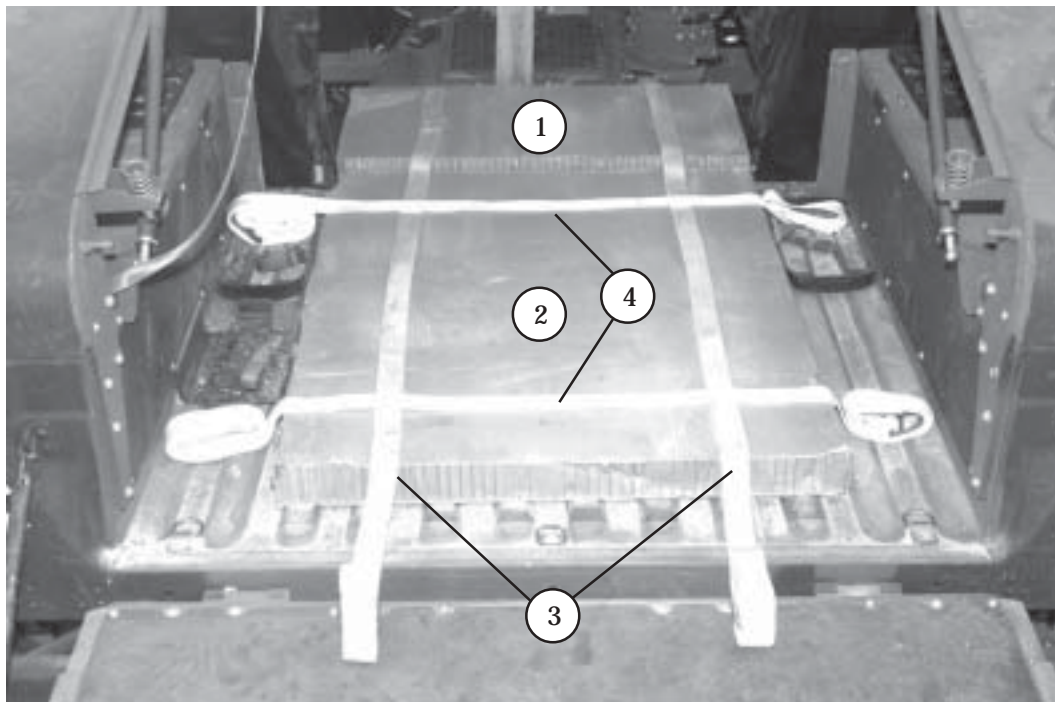
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## PREPARING THE TRUCK

4-33. Prepare the truck as described in Paragraph 3-4.

## STOWING ACCOMPANYING LOAD

4-34. Stow an accompanying load of 1,300 to 2,000 pounds in the cargo area of the truck. Use or adapt the procedures shown in Figure 4-42. Make sure the accompanying load complies with the restrictions outlined in FM 4-20.102/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5.

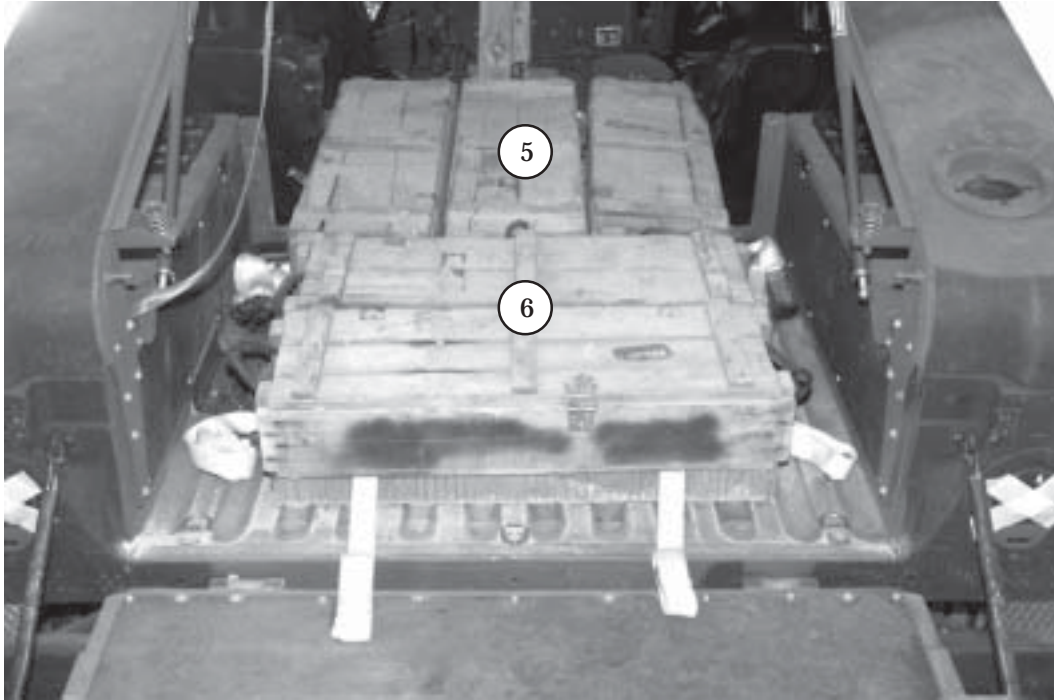


- ① Cut a 36- by 16-inch piece of honeycomb and position it against the rear turret support.
- ② Cut a 36- by 43-inch piece of honeycomb and position it against the honeycomb in step 1.
- ③ Position two 15-foot lashings lengthwise 6 inches from each outside edge of honeycomb.
- ④ Position two 15-foot lashings widthwise 6 inches from the front and rear edge of the honeycomb positioned in step 2.

Figure 4-42. Accompanying Load Stowed in Truck

# DRAFT

C1, FM 4-20.117/MCRP 4-11.3M/TO 13C7-1-111

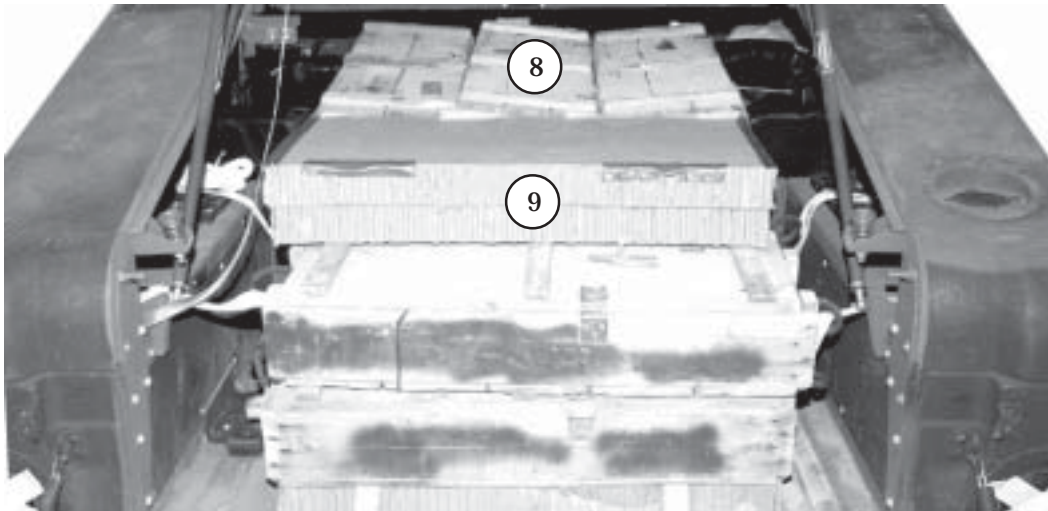
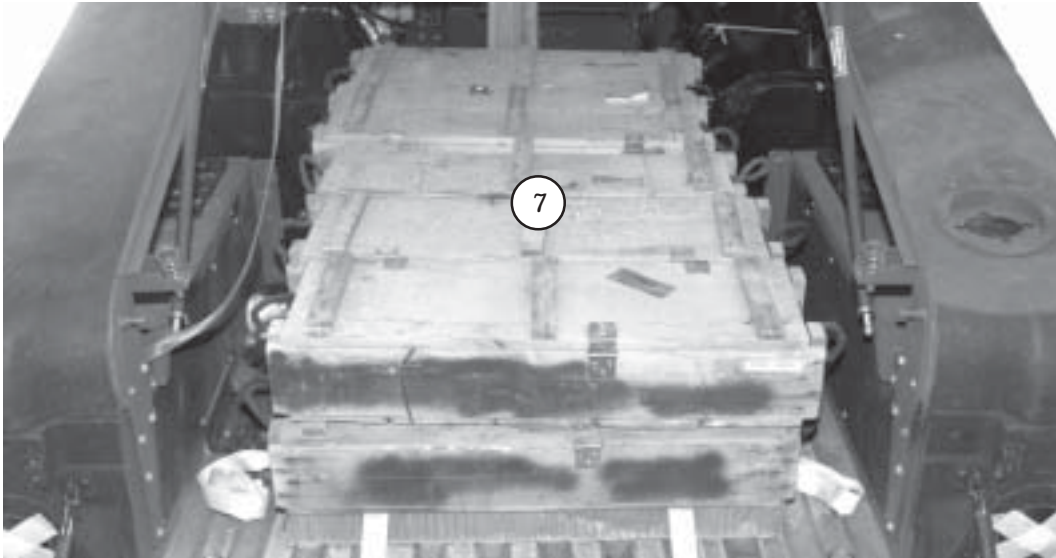


- 5 Position three 105-mm ammunition boxes lengthwise on top of the honeycomb. The boxes should be flush with the front edge of the 36- by 16-inch piece of honeycomb. Ensure the 15-foot lashing is running widthwise under the rear end of the ammunition boxes.
- 6 Position two 105-mm ammunition boxes widthwise flush against the ammunition boxes in step 5. Ensure the 15-foot lashing is running widthwise and is centered under the rear ammunition box.

Figure 4-42. Accompanying Load Stowed in Truck (Continued)

# DRAFT

C1, FM 4-20.117/MCRP 4-11.3M/TO 13C7-1-111



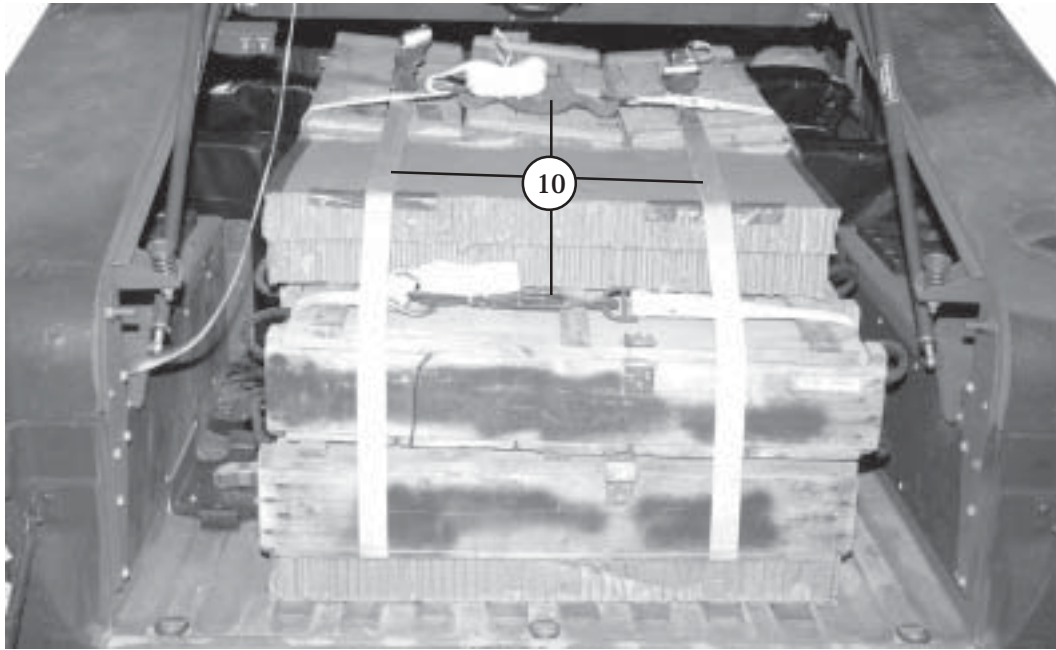
- 7 Position five ammunition boxes widthwise on top of the first layer of ammunition. The boxes should be flush with the bottom edges against the turret support.
- 8 Position three ammunition boxes lengthwise flush against the turret support on top of the previously placed ammunition boxes.
- 9 Cut two 17- by 36-inch pieces of honeycomb and position them to the rear of the boxes in step 8. Tape the edge of the honeycomb where the lashing makes contact.

Figure 4-42. Accompanying Load Stowed in Truck (Continued)

# DRAFT

C1, FM 4-20.117/MCRP 4-11.3M/TO 13C7-1-111

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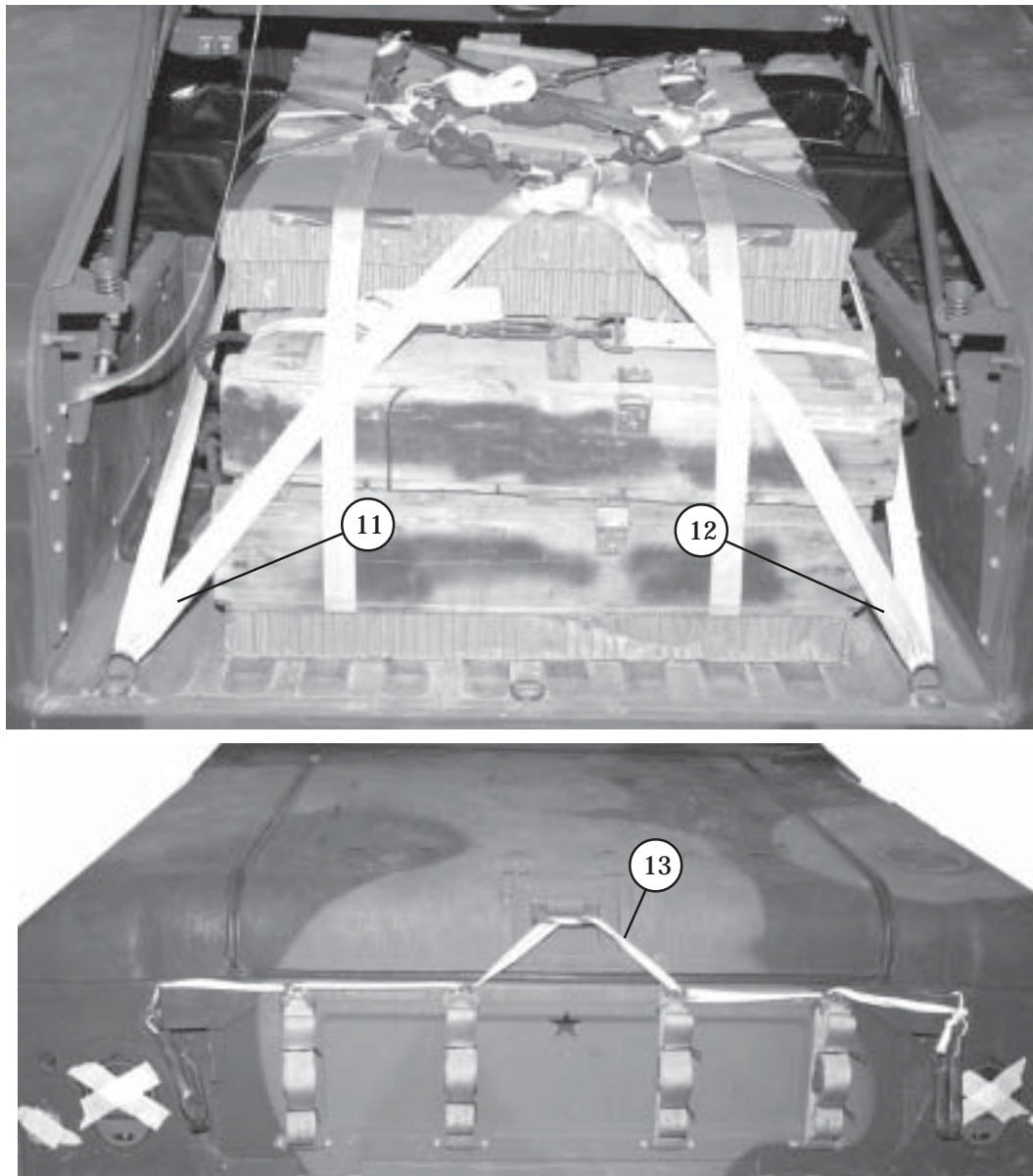
⑩ Secure the four pre-positioned lashings and secure with a D-ring and load binder.

Figure 4-42. Accompanying Load Stowed in Truck (Continued)



# DRAFT

C1, FM 4-20.117/MCRP 4-11.3M/TO 13C7-1-111



- ⑪ Route a 30-foot lashing through the left rear tie-down ring. Bring both ends over the boxes diagonally. Route the lashing through the right front tie-down ring. Secure the lashing over the load making sure to split the lashing on the corners.
- ⑫ Repeat step 11 using the right rear and left front tie-down rings.
- ⑬ Close and latch the tailgate and hatch. Fold and tape the cargo straps. Run a length of 1/2-inch tubular nylon webbing under the cargo straps and through the hatch cover handle. Tie the running ends to the tailgate hook brackets.

Figure 4-42. Accompanying Load Stowed in Truck (Continued)

# DRAFT

C1, FM 4-20.117/MCRP 4-11.3M/TO 13C7-1-111

## LIFTING AND POSITIONING TRUCK AND INSTALLING OPTIONAL DRIVE-OFF AIDS

4-35. Install the optional drive-off aids on the platform as shown in Figure 2-15. Install lifting slings on the truck as shown in Figure 2-16 and position the truck as shown in Figure 4-43.

## LASHING TRUCK

4-36. Lash the truck to the platform with fifteen 15-foot tie-down assemblies as shown in Figures 4-44 and 4-45, and according to FM 4-20.102/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5.

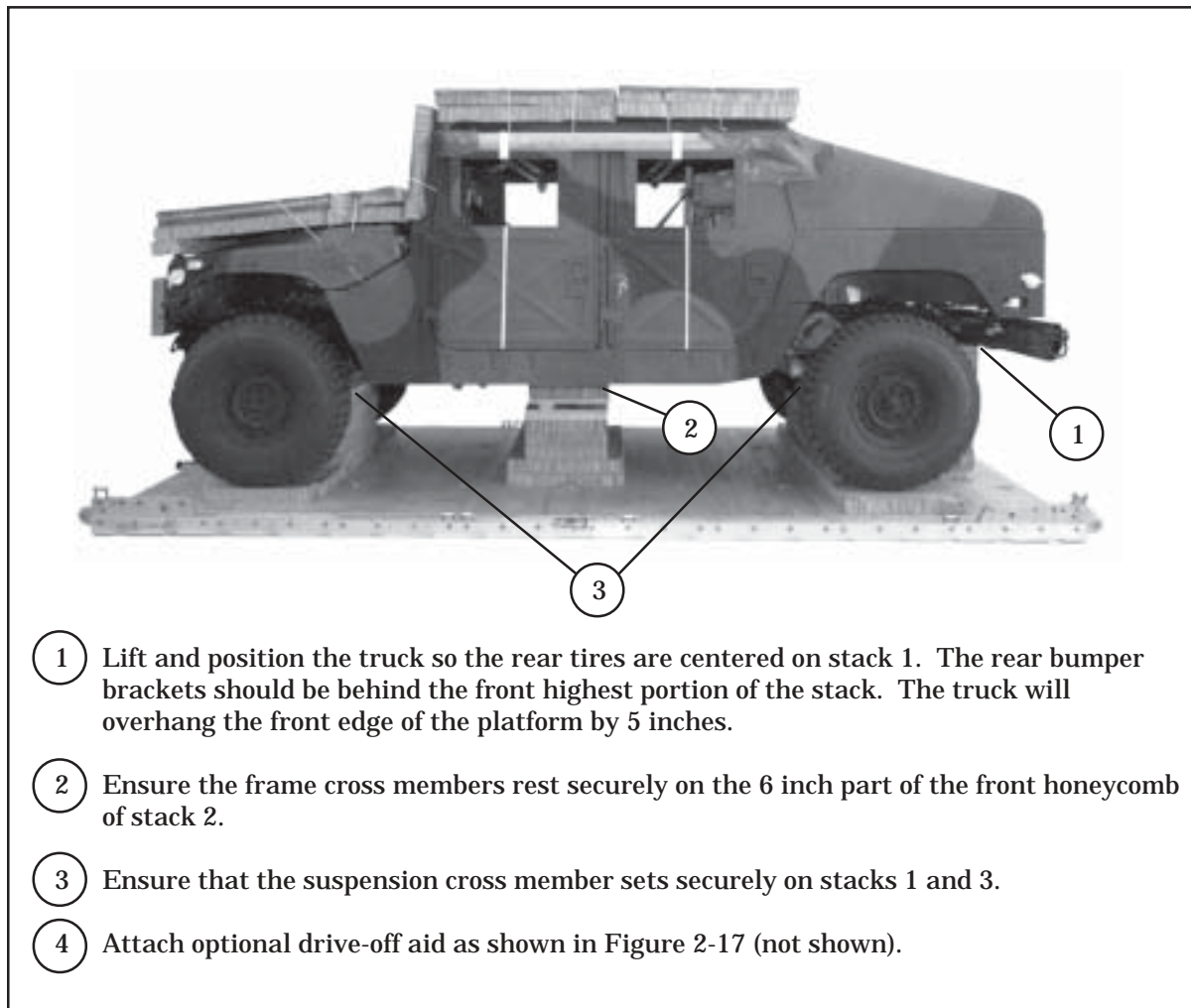
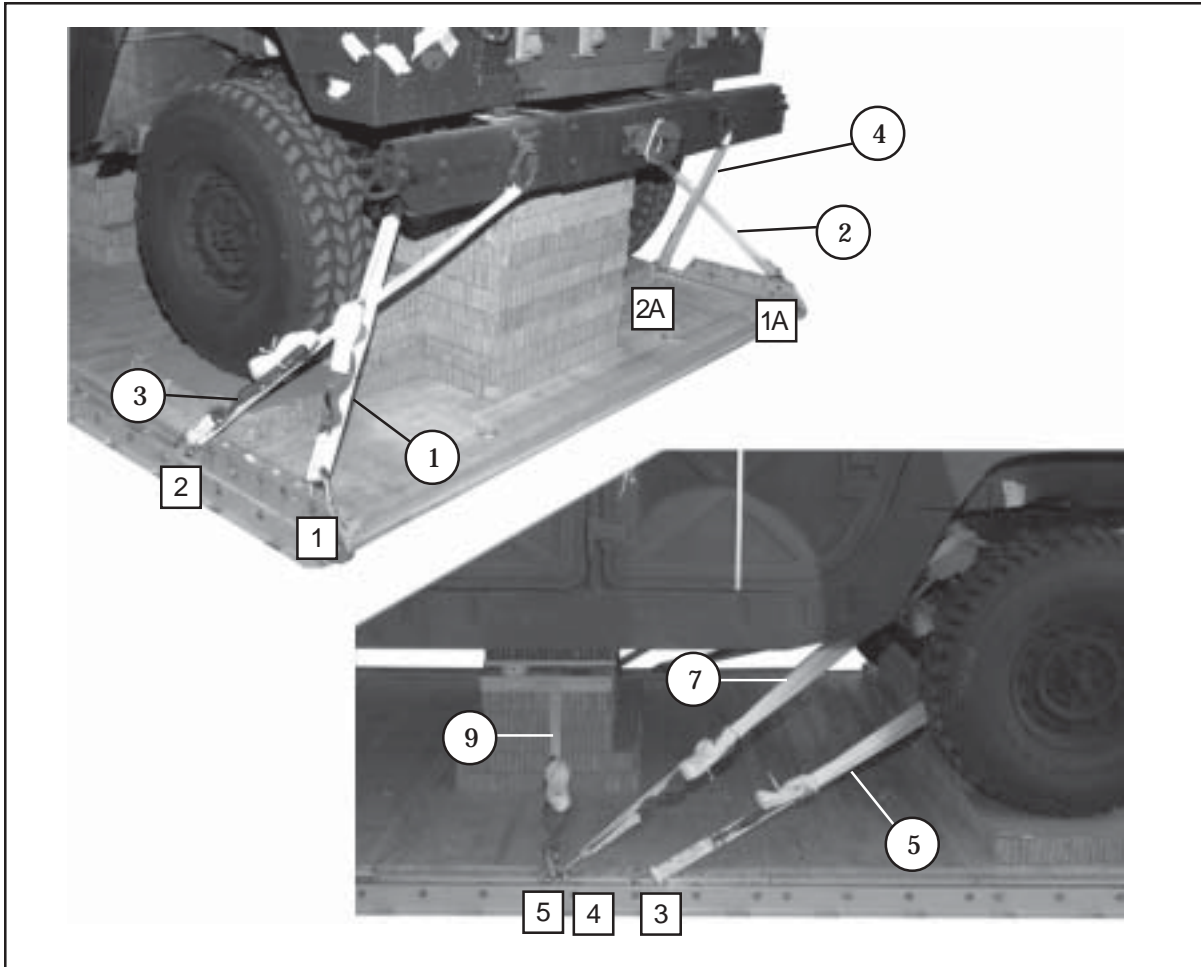


Figure 4-43. Truck Positioned

# DRAFT

C1, FM 4-20.117/MCRP 4-11.3M/TO 13C7-1-111



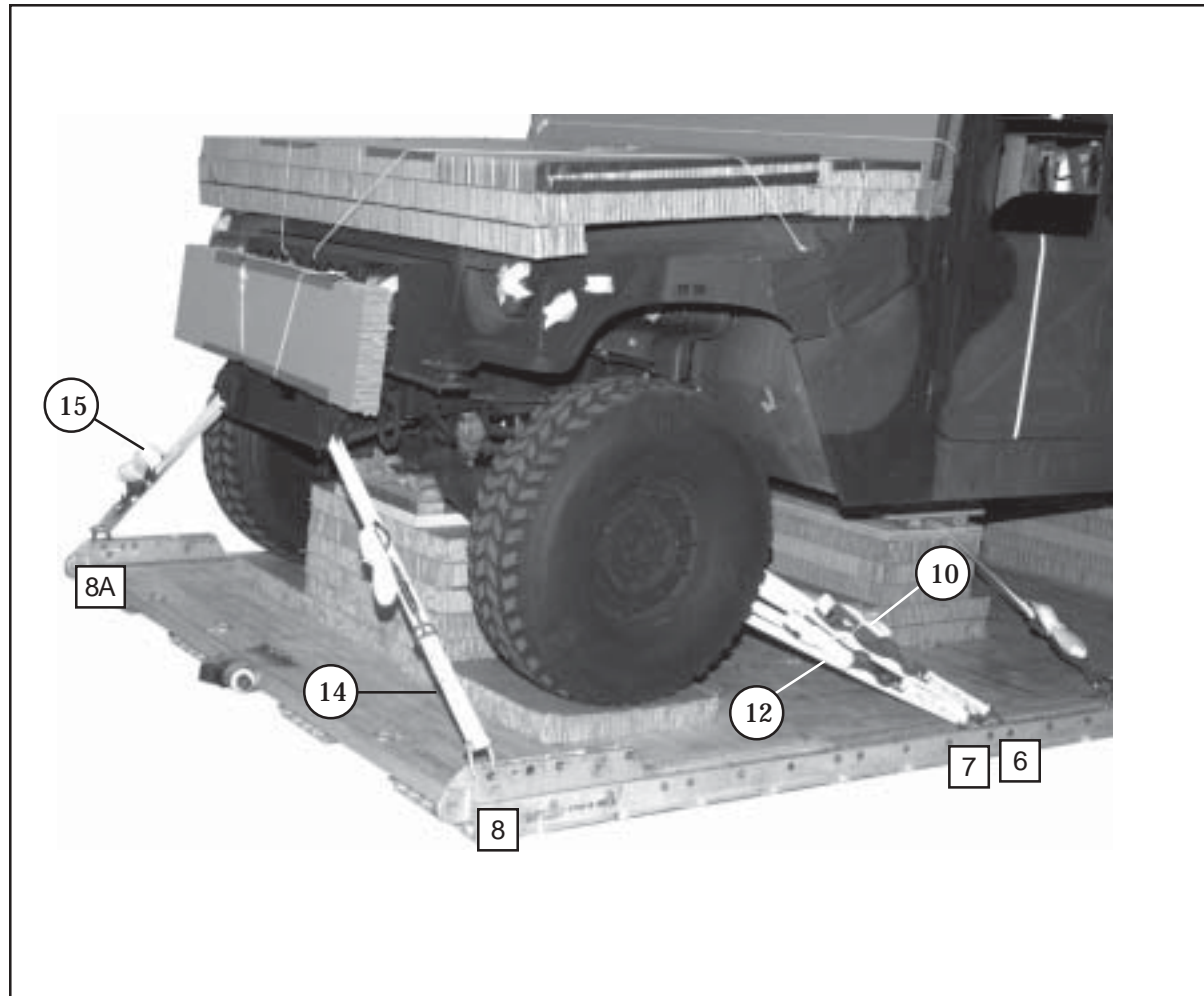
Lashing Number	Tie-down Clevis Number	Instructions
1	1	Pass lashing:
2	1A	Through tie-down bracket behind left rear coil spring.
3	2	Through tie-down bracket behind right rear coil spring.
4	2A	Through left rear lifting shackle.
5	3	Through right rear lifting shackle.
6	3A	Around left rear lower control arm.
7	4	Around right rear lower control arm.
8	4A	Through tie-down bracket in front of left rear coil spring.
9	5 and 5A	Through tie-down bracket in front of right rear coil spring.
		Pass a 15-foot lashing through clevis 5A and through its own D-ring. Pass the lashing through the hole in stack 2. Attach the lashing to clevis 5 with a load binder.

Figure 4-44. Lashings 1 Through 9 Installed



# DRAFT

C1, FM 4-20.117/MCRP 4-11.3M/TO 13C7-1-111



Lashing Number	Tie-down Clevis Number	Instructions
10	6	Pass lashing: Through tie-down bracket behind left front coil spring. Through tie-down bracket behind right front coil spring. Around left lower control arm. Around right lower control arm. Through tie-down bracket on end of left frame rail. Through tie-down bracket on end of right frame rail.
11	6A	
12	7	
13	7A	
14	8	
15	8A	

Figure 4-45. Lashings 10 Through 15 Installed

# DRAFT

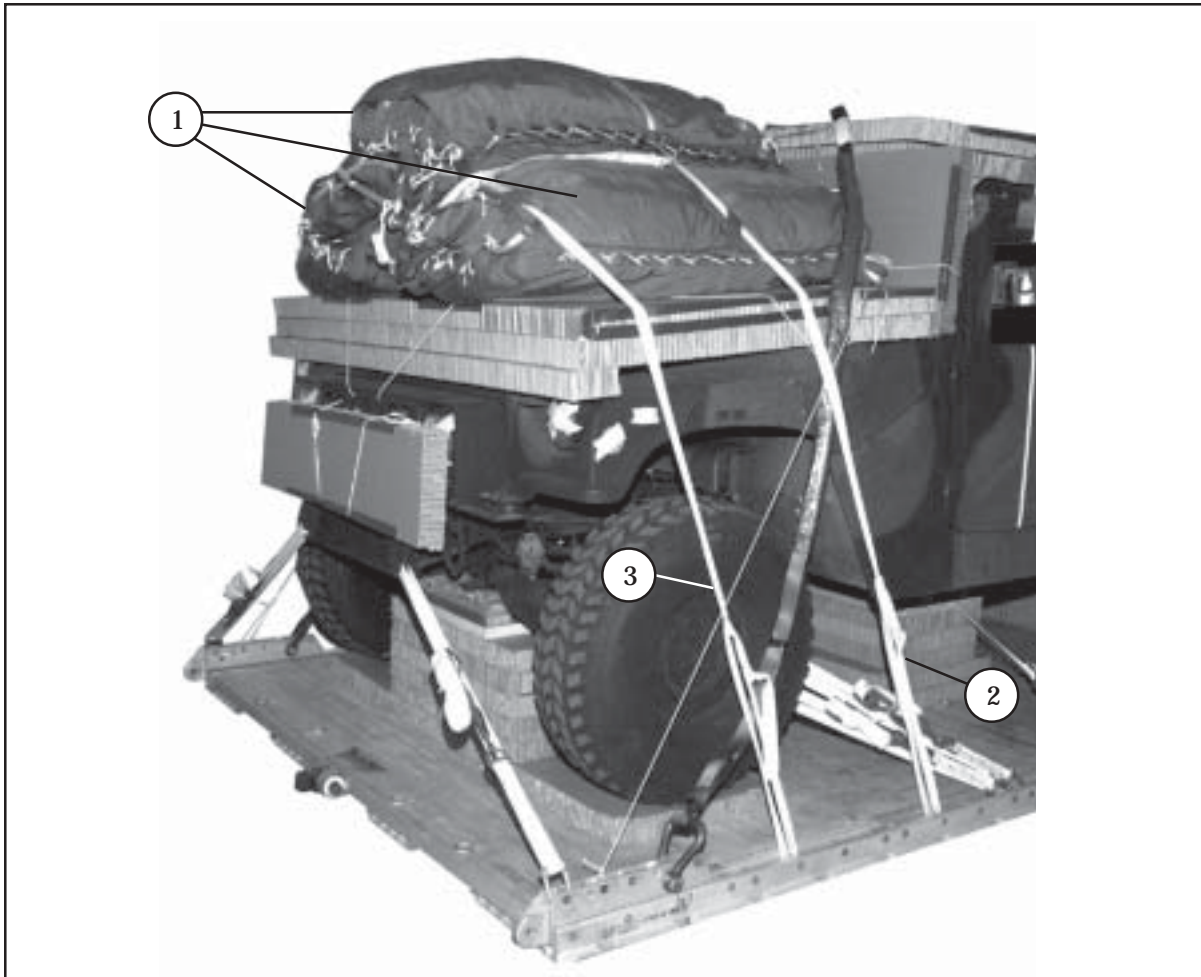
C1, FM 4-20.117/MCRP 4-11.3M/TO 13C7-1-111

## INSTALLING AND SAFETY TYING SUSPENSION SLINGS

4-37. Install, pad and safety tie four 16-foot 2-loop type XXVI nylon suspension slings as shown in Figure 2-20.

## STOWING CARGO PARACHUTES

4-38. Stow and restrain three G-11 cargo parachutes on the load according to FM 4-20.102/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5, and as shown in Figure 4-46.



- ① Place and cluster three G-11 cargo parachutes on the honeycomb over the truck hood according to FM 4-20.102/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5.
- ② Tie the front restraint straps to bushings 23 and 23A.
- ③ Tie the rear restraint straps to bushings 27 and 27A.

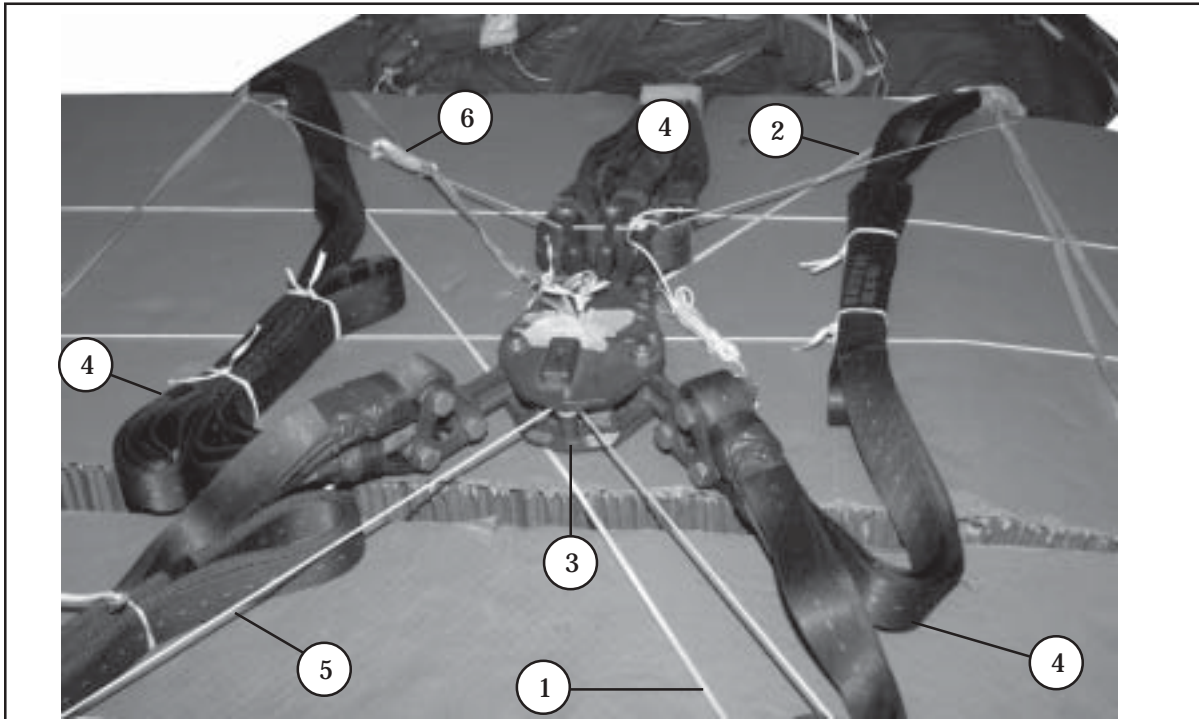
Figure 4-46. Cargo Parachutes Installed

# DRAFT

C1, FM 4-20.117/MCRP 4-11.3M/TO 13C7-1-111

## INSTALLING PARACHUTE RELEASE

4-39. Prepare and install an M-1 cargo parachute release according to FM 4-20.102/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5, and as shown in Figure 4-47.



- ① Tie a length of type I 1/4-inch cotton webbing to the right rear suspension sling below the deadman's tie. Bring the webbing diagonally over the load to the left front. Pull it taut, and tie it to the left front sling below the deadman's tie.
- ② Tie the left rear and right front suspension slings together in the same way as in step 1 above.
- ③ Place the M-1 release on the roof honeycomb in front of the parachutes.
- ④ Attach the suspension slings and riser extensions according to FM 4-20.102/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5. Fold the excess suspension slings and secure with type I 1/4-inch cotton webbing.
- ⑤ Restrain the release to a convenient point on the load with type III nylon cord.
- ⑥ Secure the arming wire lanyard to the parachute carrying handle and S-fold and tape the excess.

Figure 4-47. M-1 Release Installed

# DRAFT

C1, FM 4-20.117/MCRP 4-11.3M/TO 13C7-1-111

## **INSTALLING EXTRACTION SYSTEM**

4-40. Install the EFTC extraction system according to FM 4-20.102/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and as shown in Figure 4-34.

## **INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS**

4-41. Install provisions for emergency restraints according to FM 4-20.102/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5.

## **PLACING EXTRACTION PARACHUTE**

4-42. Select the extraction parachute and extraction line needed, using the extraction line requirements table in FM 4-20.102/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5. Rig the extraction line in a line bag according to TM 10-1670-286-20/TO 13C5-2-41. Place the extraction parachute and extraction line on the load for installation on the aircraft.

## **MARKING RIGGED LOAD**

4-43. Mark the rigged load according to FM 4-20.102/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5, and as shown in Figure 4-48. Complete Shipper's Declaration for Dangerous Goods according to AFMAN 24-204(I)/TM 38-250. If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

## **EQUIPMENT REQUIRED**

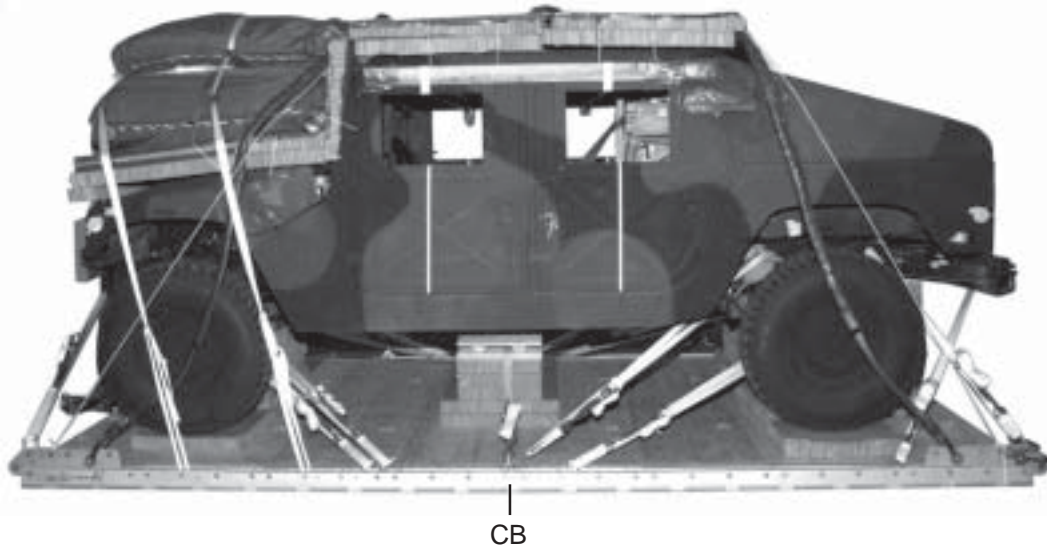
4-44. Use the equipment listed in Table 4-3 to rig this load.

# DRAFT

C1, FM 4-20.117/MCRP 4-11.3M/TO 13C7-1-111

## CAUTION

Make the final rigger inspection required by FM 4-20.102/NAVSEA SS400-AB-MMO-010/TO 13C7-1-5 and AR 59-4/OPNAVINST 4463.24C/AFJ 13-210(I)/MCO 13480.1B before the load leaves the rigging site.



## RIGGED LOAD DATA

Weight: Load shown .....	11,340 pounds
Maximum load allowed .....	12,100 pounds
Height (with three G-11B parachutes) .....	93 inches
Width .....	108 inches
Length (overall) .....	215 inches
Overhang: Front .....	5 inches
Rear (EFTC) .....	18 inches
Rear (EPJS) .....	30 inches
CB (from front edge of platform) .....	96 inches

Figure 4-48. M1151 Expanded Capacity Armament Carrier

# DRAFT

C1, FM 4-20.117/MCRP 4-11.3M/TO 13C7-1-111

**Table 4-3. Equipment Required for Rigging the M1151 Expanded Capacity Armament Carrier for Low-Velocity Airdrop**

<b>National Stock Number</b>	<b>Item</b>	<b>Quantity</b>
8040-00-273-8713	Adhesive, paste, 1-gal	As required
4030-00-090-5354	Clevis, suspension, 1-in (large)	5
4020-00-240-2146	Cord, nylon, type III, 550-lb	As required
1670-00-434-5785	Coupling, airdrop, extraction force transfer with cable, 16-ft	1
1670-00-360-0328	Cover: Clevis, large	1
8135-00-664-6958	Cushioning material, packaging, cellulose wadding	As required
8305-00-958-3685	Felt, 1/2-in thick	As required
1670-01-183-2678	Leaf, extraction line (line bag)	2
1670-01-064-4452	Line, drogue (for C-17) 60-ft (1-loop), type XXVI	1
1670-01-062-6313	Line, extraction: For C-130: 60-ft (3-loop), type XXVI	1
1670-01-107-7651	For C-17: 140-ft (3-loop), type XXVI	1
	Link Assembly:	
	Two-point:	1
5306-00-435-8994	Bolt, 1-in diam, 4-in long	(2)
5310-00-232-5165	Nut, 1-in, hexagonal	(2)
1670-00-003-1953	Plate, side, 3 3/4-in	(2)
5365-00-007-3414	Spacer, large	(2)
	Lumber:	
5510-00-220-6448	2- by 6-in	As required
5510-00-220-6274	4- by 4-in	As required
5315-00-010-4659	Nail, steel wire, 8d	As required



# DRAFT

C1, FM 4-20.117/MCRP 4-11.3M/TO 13C7-1-111

**Table 4-3. Equipment Required for Rigging the M1151 Expanded Capacity Armament Carrier for Low-Velocity Airdrop (Continued)**

National Stock Number	Item	Quantity
1670-00-753-3928	Pad, energy-dissipating (honeycomb) 3- by 36- by 96-in	10 sheets
	Parachute:	
	Cargo:	
1670-01-016-7841	G-11B	3
	Cargo extraction:	
1670-01-063-3716	22-ft	1
	Drogue (for C-17)	
1670-01-063-3715	15-ft	1
	Platform, airdrop, type V, 16-ft	
1670-01-353-8425	Bracket assembly, coupling	(1)
1670-01-162-2372	Clevis assembly, type V	(18)
1670-01-162-2376	Extraction bracket assembly	(1)
1670-01-162-2381	Tandem link assembly (Multipurpose link)	(4)
5530-00-128-4981	Plywood, 3/4-in	3 sheets
1670-01-097-8816	Release, cargo parachute, M-1	1
	Sling, cargo, airdrop	
	For suspension:	
1670-01-063-7761	16-ft (2-loop), type XXVI nylon webbing	4
	For lifting:	
1670-01-062-6304	9-ft (2-loop), type XXVI nylon webbing	2
1670-01-062-6303	12-ft (2-loop), type XXVI nylon webbing	2
	For deployment:	
1670-01-062-6304	9-ft (2-loop), type XXVI nylon webbing	1
	For riser extension:	
1670-01-062-6302	20-ft (2-loop), type XXVI nylon webbing	2
5340-00-040-8219	Strap, parachute release, multi-cut, comes w/ 3 knives	2
7510-00-266-5016	Tape, adhesive, 2-in	As required
1670-00-937-0271	Tie-down assembly, 15-foot	23
1670-00-431-8486	Vehicle drive-off aid	1
	Webbing:	
8305-00-268-2411	Cotton, 1/4-in, type I	As required
8305-00-082-5752	Nylon, tubular, 1/2-in	As required
8305-00-263-3591	Type VIII	As required

# DRAFT

C1, FM 4-20.117/MCRP 4-11.3M/TO 13C7-1-111

## RIGGING THE AN/VAS-5 DVE MOUNTED ON HMMWV-SERIES TRUCK

5-18. The AN/VAS-5 DVE can be rigged on the following model HMMWV's: M966, M966A1, M1025, M1025A1, M1025A2, M1026, M1026 modified, M1026A1 and M1121. Use the procedures shown in Figure 5-18 to rig the AN/VAS-5 DVE mounted on HMMWV-series trucks.

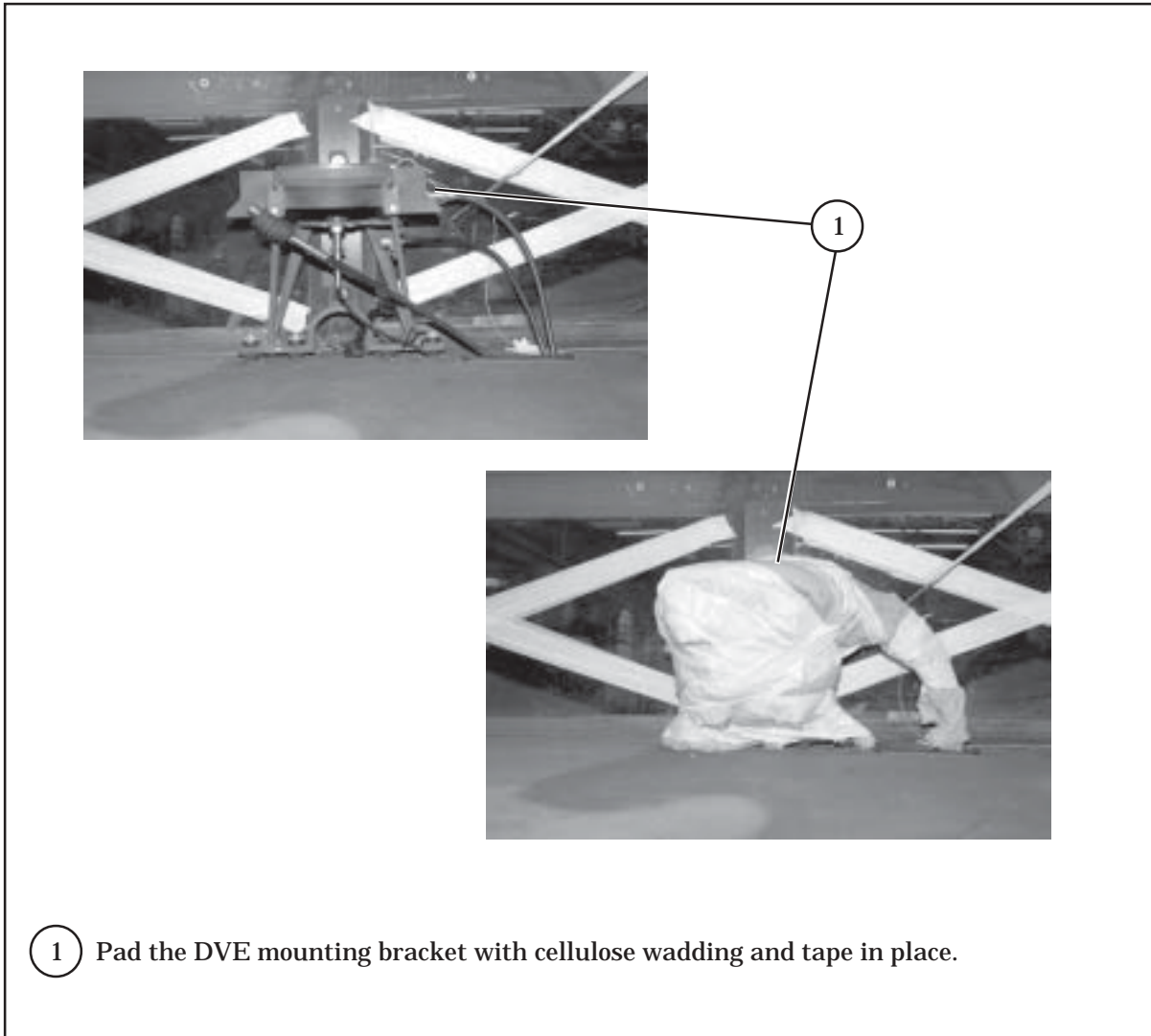
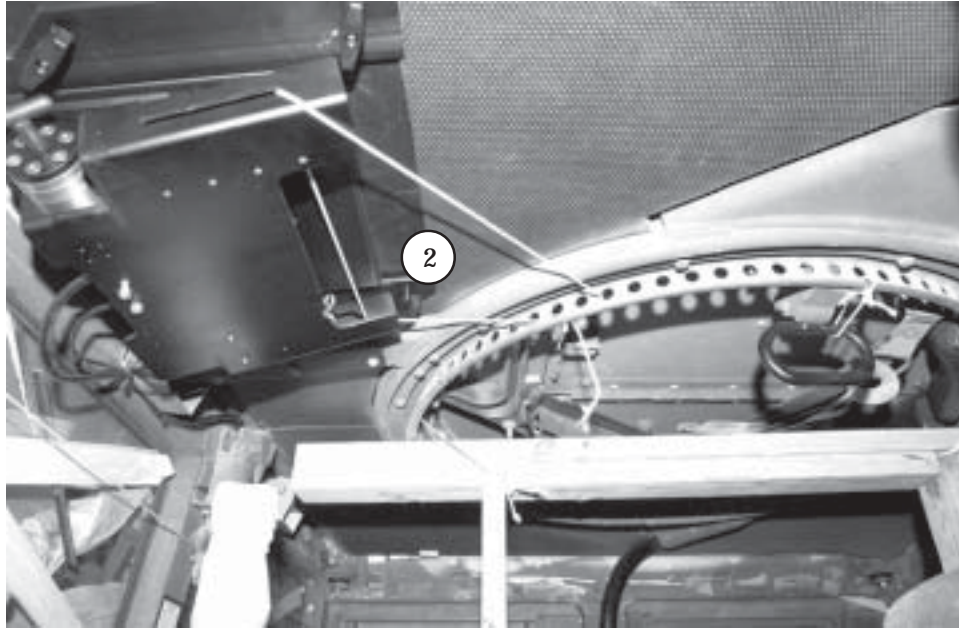


Figure 5-18. DVE Rigged on Hard Top HMMWV



# DRAFT

C1, FM 4-20.117/MCRP 4-11.3M/TO 13C7-1-111



- ② Secure the display control module bracket to the turret ring with type III nylon cord.

Figure 5-18. DVE Rigged on Hard Top HMMWV (Continued)

# DRAFT

C1, FM 4-20.117/MCRP 4-11.3M/TO 13C7-1-111



- 3 Pad the pan and tilt module with cellulose wadding and tape in place.

Figure 5-18. DVE Rigged on Hard Top HMMWV (Continued)

# DRAFT

C1, FM 4-20.117/MCRP 4-11.3M/TO 13C7-1-111

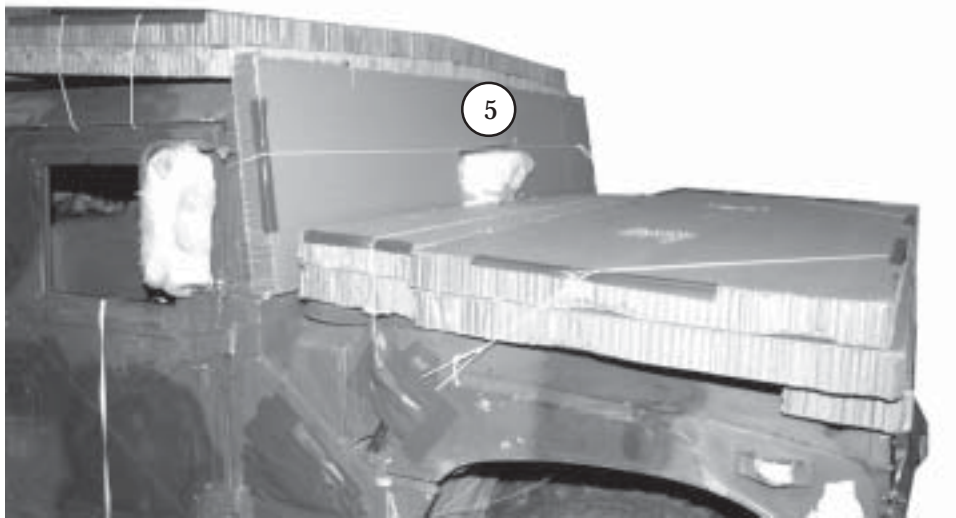


- 4 Place the transit case in the passenger seat and secure to the seat with 1/2-inch tubular nylon webbing.

Figure 5-18. DVE Rigged on Hard Top HMMWV (Continued)

# DRAFT

C1, FM 4-20.117/MCRP 4-11.3M/TO 13C7-1-111



- 5 Make a cut out for the DVE mounting bracket on the honeycomb placed on the windshield.

**Figure 5-18. DVE Rigged on Hard Top HMMWV (Continued)**

# DRAFT

C1, FM 4-20.117/MCRP 4-11.C/TO 13C7-1-111

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AFTO Form 22	Technical Order Publication Improvement Report
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DD Form 1748 Series	Joint Airdrop Inspection Record
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