

**CHAPTER 4****RIGGING EXPANDED CAPACITY HMMWV-SERIES TRUCKS  
FOR LOW-VELOCITY AIRDROP****SECTION I - RIGGING M1113 TRUCK WITH M56 SMOKE GENERATOR  
ON A 16-FOOT PLATFORM****DESCRIPTION OF LOAD**

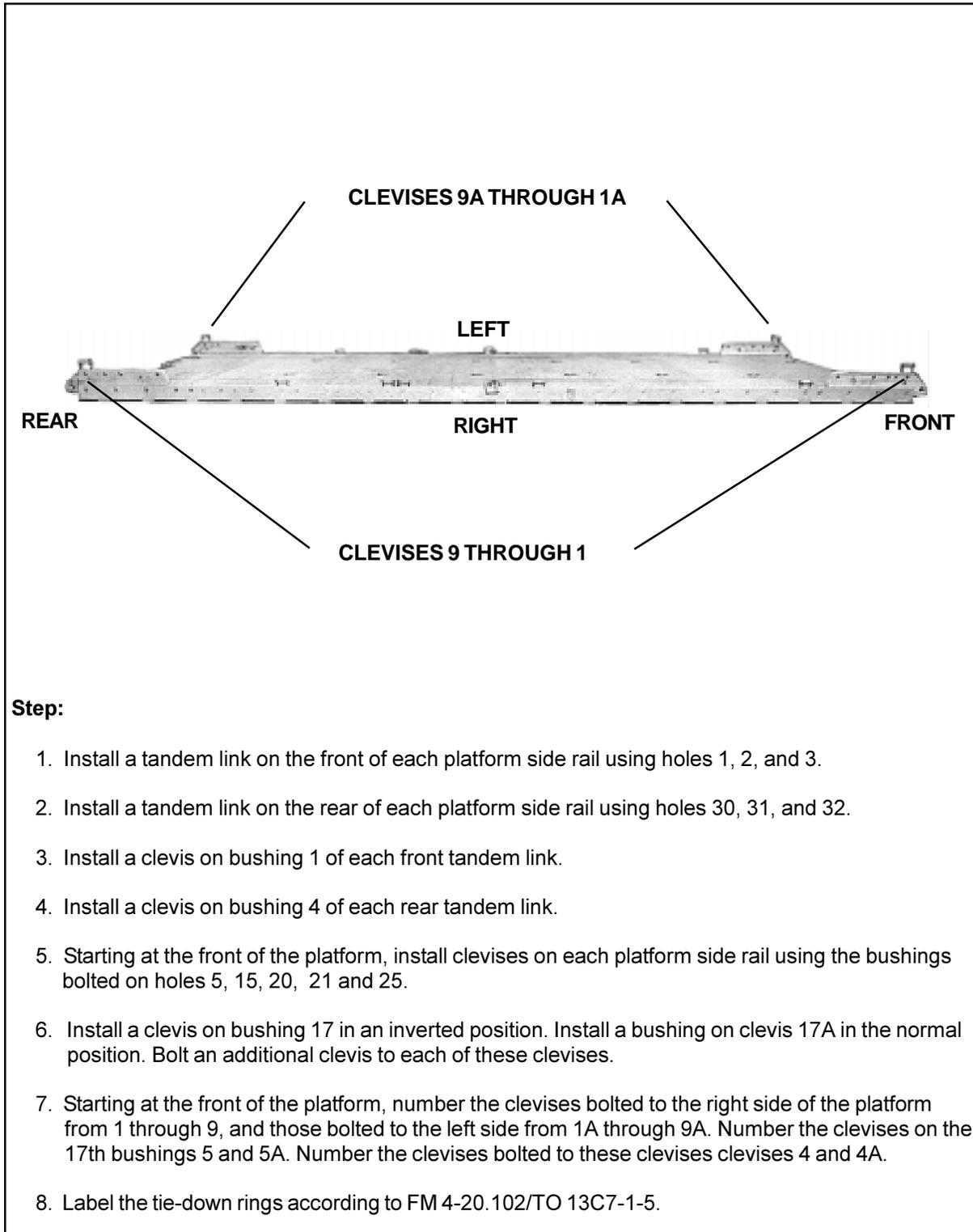
4-1. The M1113 HMMWV-series truck has a heavy-duty suspension and is rigged the same as the M998 truck except as noted. The truck is rigged on a 16-foot, type V airdrop platform for low-velocity airdrop. The M56 Smoke Generator is shown as the accompanying load. The procedure for rigging the M56 smoke generator in the truck is given in this chapter. An accompanying load weighing a minimum of 800 pounds and a maximum of 2,500 pounds must be rigged in the truck. The load requires three G-11 cargo parachutes.

**PREPARING PLATFORM**

4-2. 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 18 load tie-down clevises according to FM 4-20.102/TO 13C7-1-5, and as shown in Figure 4-1.

**NOTES:**

1. The nose bumper may or may not be installed.
2. Measurements given in the instructions for this load are from the front edge of the platform, NOT from the front edge of the nose bumper.



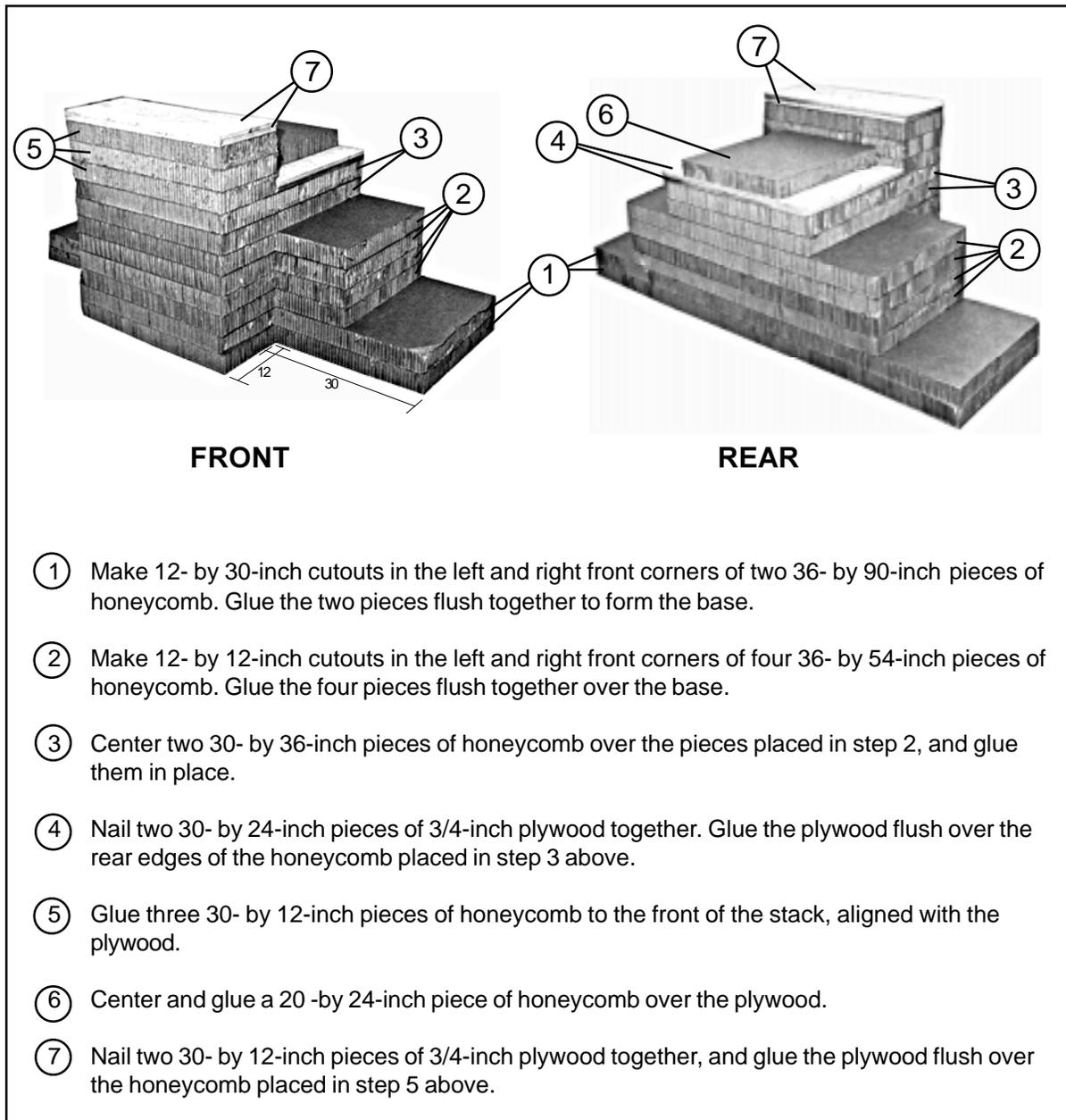
**Step:**

1. Install a tandem link on the front of each platform side rail using holes 1, 2, and 3.
2. Install a tandem link on the rear of each platform side rail using holes 30, 31, and 32.
3. Install a clevis on bushing 1 of each front tandem link.
4. Install a clevis on bushing 4 of each rear tandem link.
5. Starting at the front of the platform, install clevises on each platform side rail using the bushings bolted on holes 5, 15, 20, 21 and 25.
6. Install a clevis on bushing 17 in an inverted position. Install a bushing on clevis 17A in the normal position. Bolt an additional clevis to each of these clevises.
7. Starting at the front of the platform, number the clevises bolted to the right side of the platform from 1 through 9, and those bolted to the left side from 1A through 9A. Number the clevises on the 17th bushings 5 and 5A. Number the clevises bolted to these clevises clevises 4 and 4A.
8. Label the tie-down rings according to FM 4-20.102/TO 13C7-1-5.

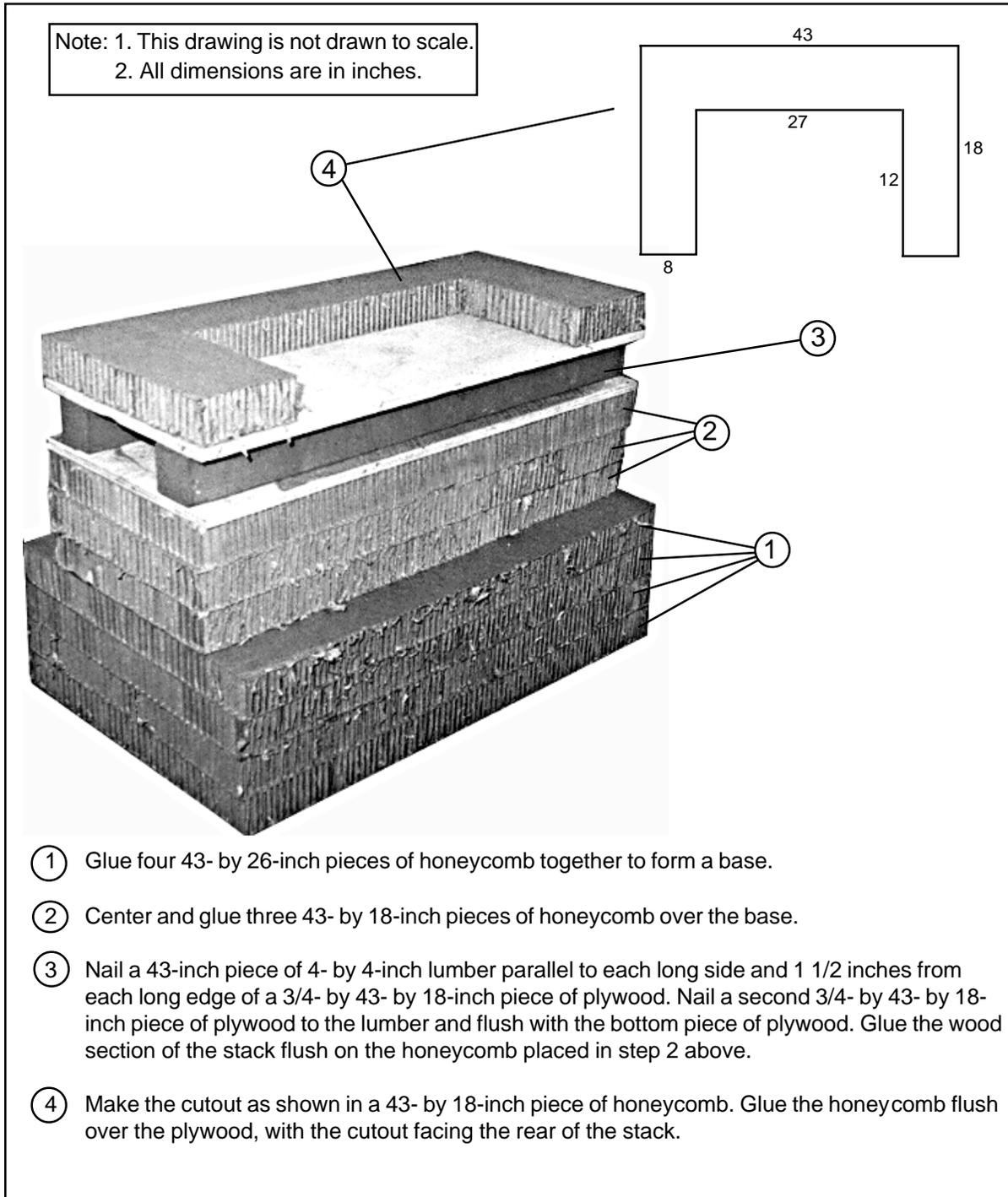
**Figure 4-1. Platform Prepared**

## PREPARING AND POSITIONING HONEYCOMB STACKS

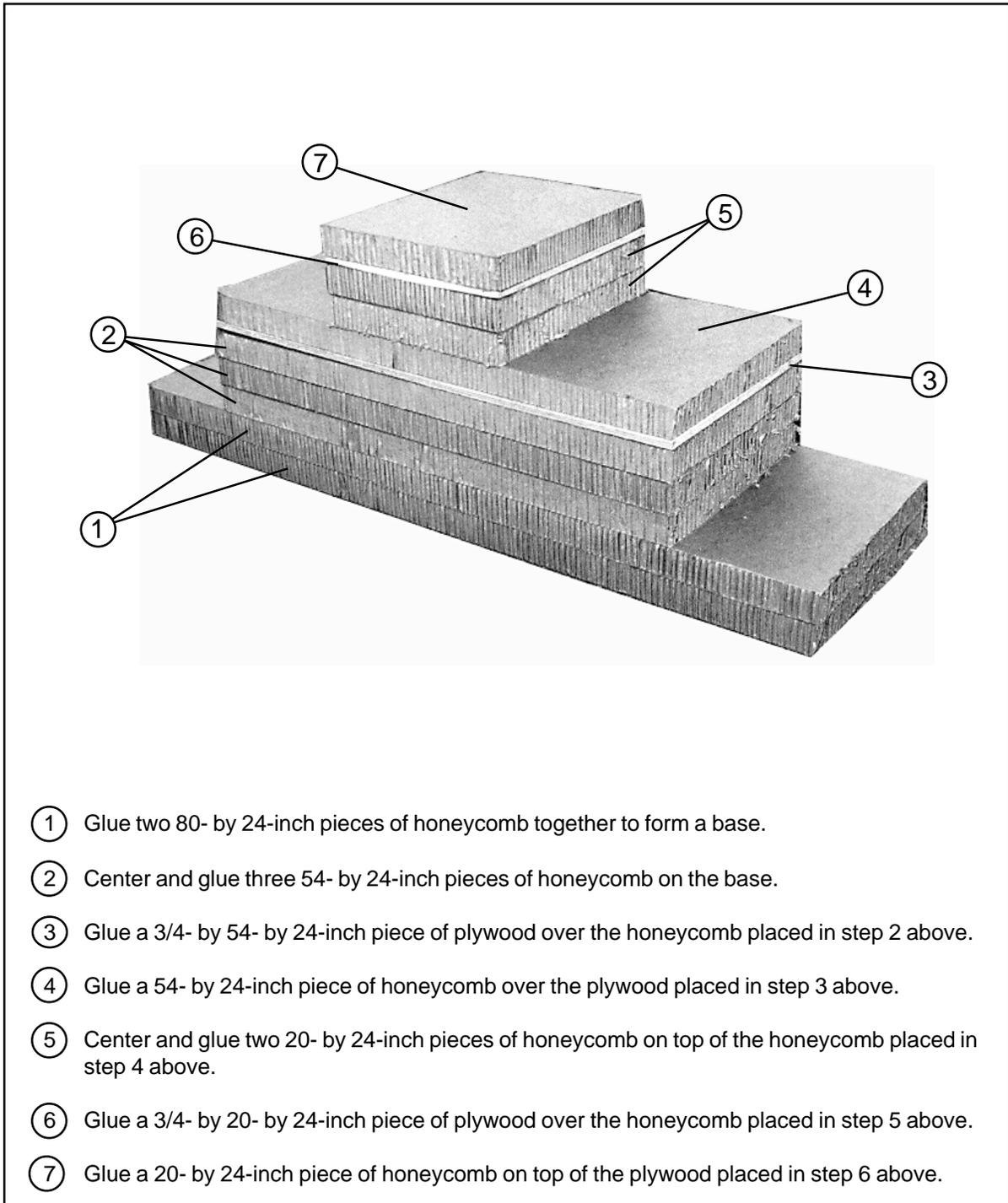
4-3. Build the honeycomb stacks as shown in Figures 4-2 through 4-4. Position the stacks on the platform as shown in Figure 4-5.



**Figure 4-2. Stack 1 Constructed**

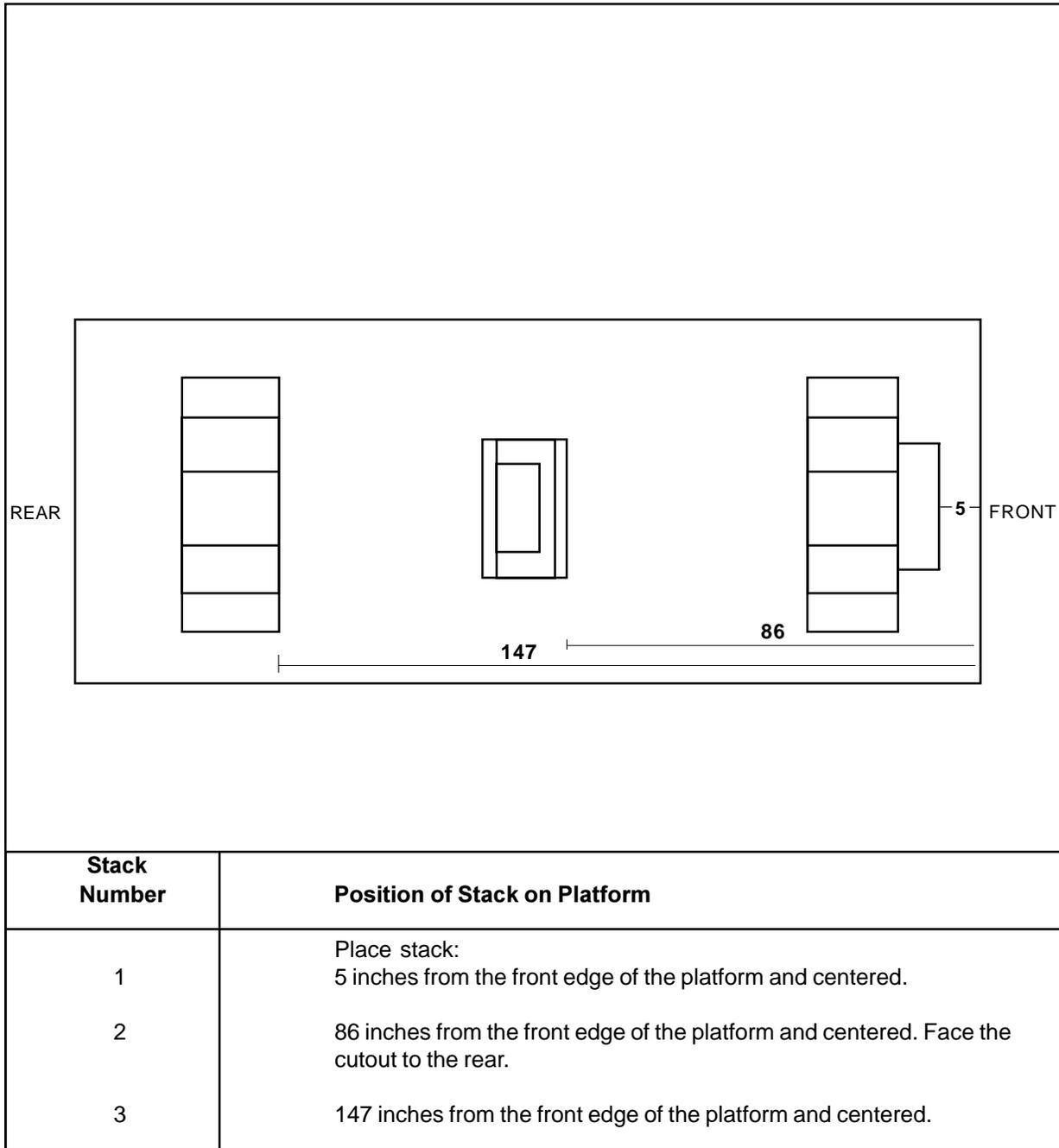


**Figure 4-3. Stack 2 Constructed**



- ① Glue two 80- by 24-inch pieces of honeycomb together to form a base.
- ② Center and glue three 54- by 24-inch pieces of honeycomb on the base.
- ③ Glue a 3/4- by 54- by 24-inch piece of plywood over the honeycomb placed in step 2 above.
- ④ Glue a 54- by 24-inch piece of honeycomb over the plywood placed in step 3 above.
- ⑤ Center and glue two 20- by 24-inch pieces of honeycomb on top of the honeycomb placed in step 4 above.
- ⑥ Glue a 3/4- by 20- by 24-inch piece of plywood over the honeycomb placed in step 5 above.
- ⑦ Glue a 20- by 24-inch piece of honeycomb on top of the plywood placed in step 6 above.

**Figure 4-4. Stack 3 Constructed**



**Figure 4-5. Honeycomb Stacks Positioned on Platform**

## PREPARING TRUCK AND SMOKE GENERATOR

4-4. Prepare the truck and the smoke generator as described below.

*a.* Prepare the truck as described in Paragraphs 2-4a through e, and h, and as shown in Figures 2-6 and 2-7.

*b.* Remove the pioneer tool kit from the rear underside of the truck and stow it in the cargo bed.

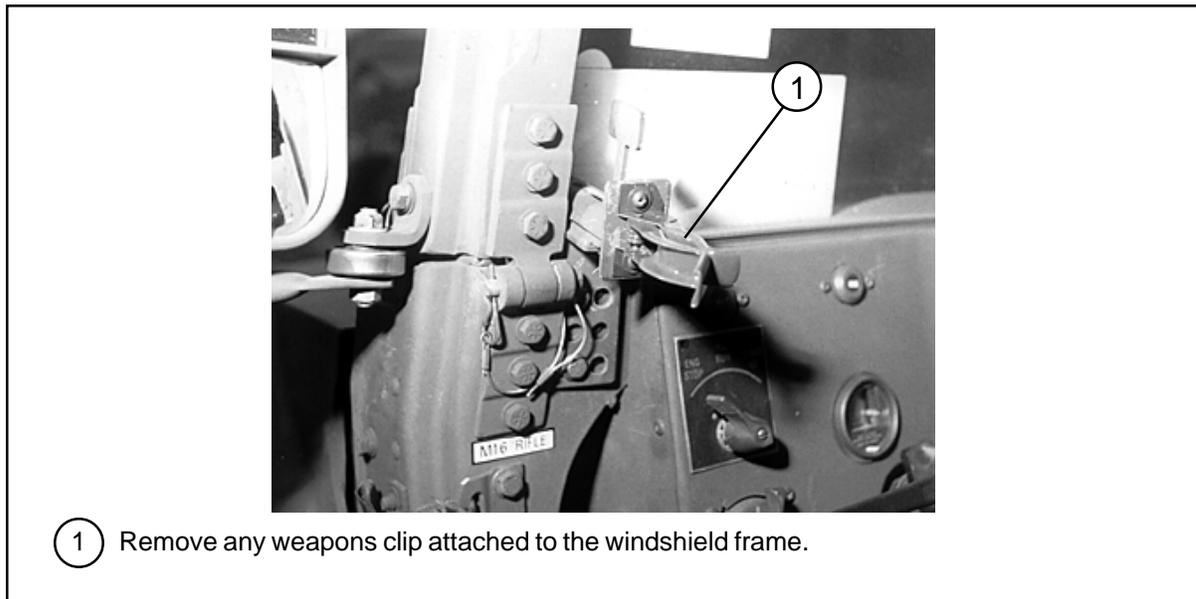
*c.* Prepare the cab of the truck as shown in Figure 2-8, and remove the rifle clips as shown in Figure 4-6.

*d.* Secure and pad radio equipment in the cab as shown in Figure 2-9.

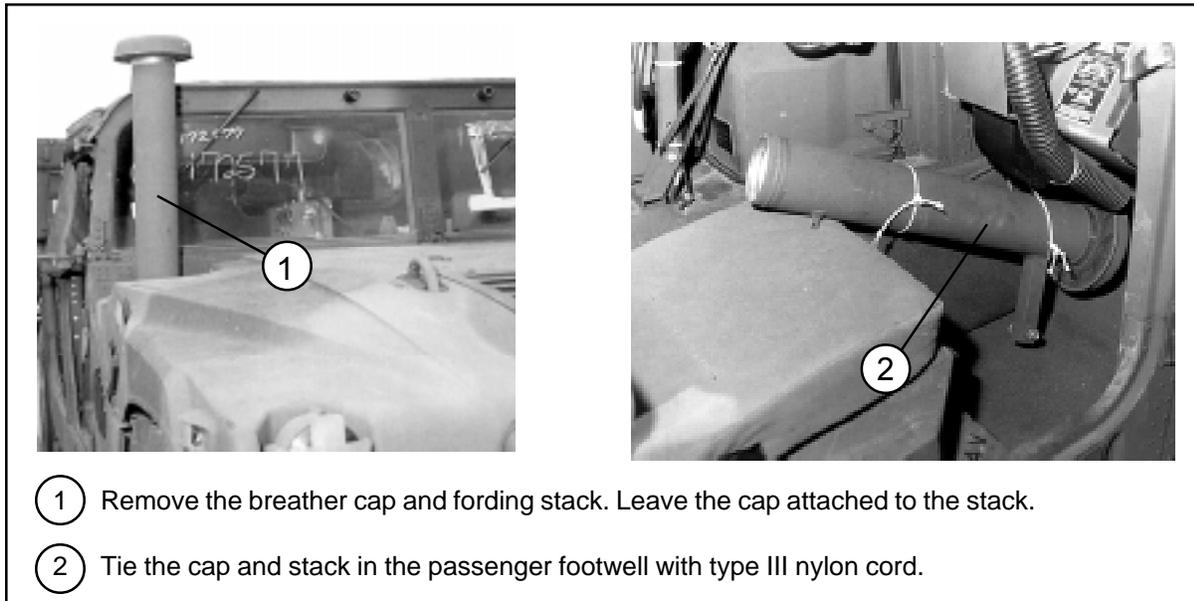
*e.* Remove the breather cap and fording stack and stow them in the truck as shown in Figure 4-7.

*f.* Prepare the front of the truck as shown in Figure 2-10. Use the modification shown in Figure 4-8. Place a 4- by 78-inch piece of honeycomb along the front edge of the hood. Also, cover the hood with one piece of honeycomb cut as shown in Figure 2-10, step 6, instead of with two pieces.

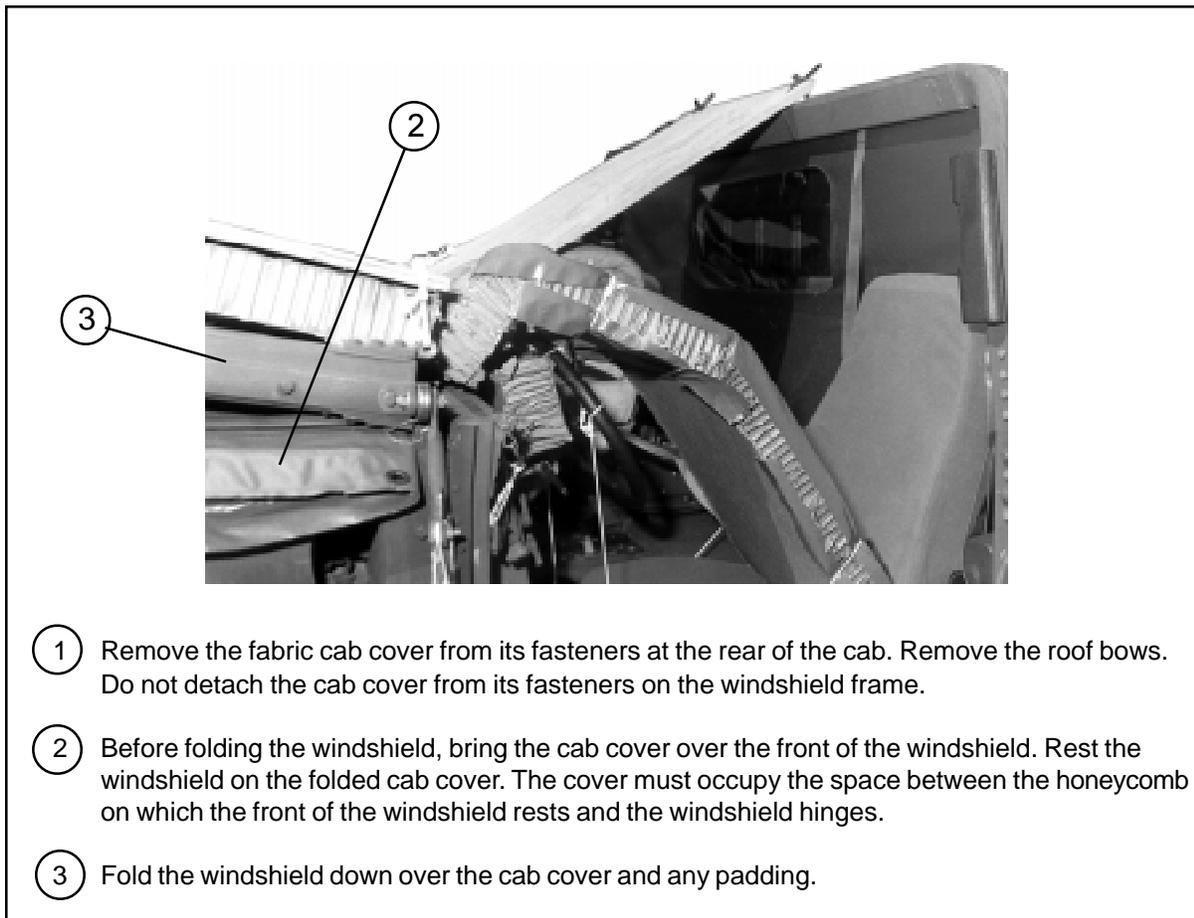
*g.* Prepare the truck body as shown in Figure 2-13.



**Figure 4-6. Weapons Clip**

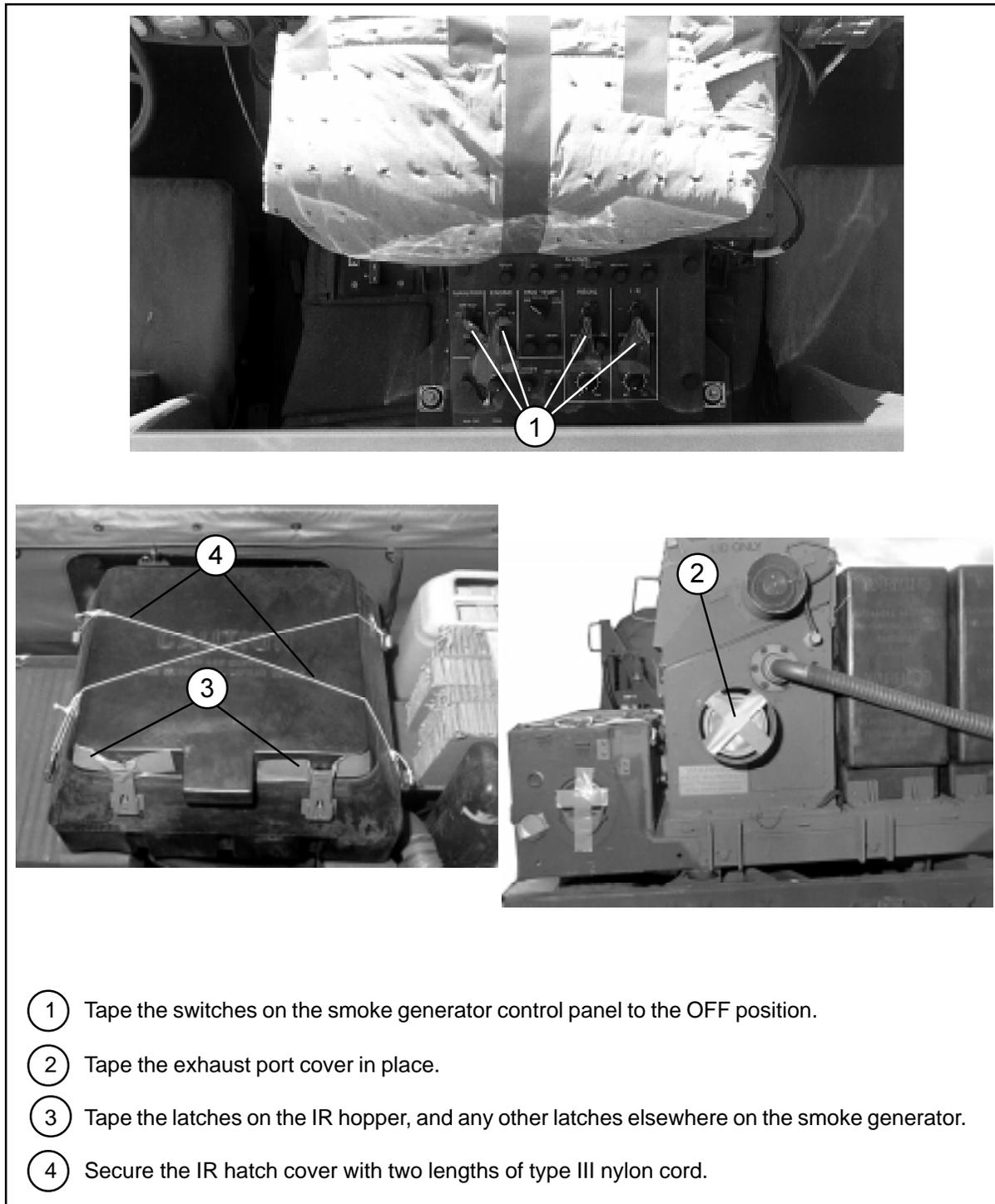


**Figure 4-7. Fording Kit Removed and Stowed**



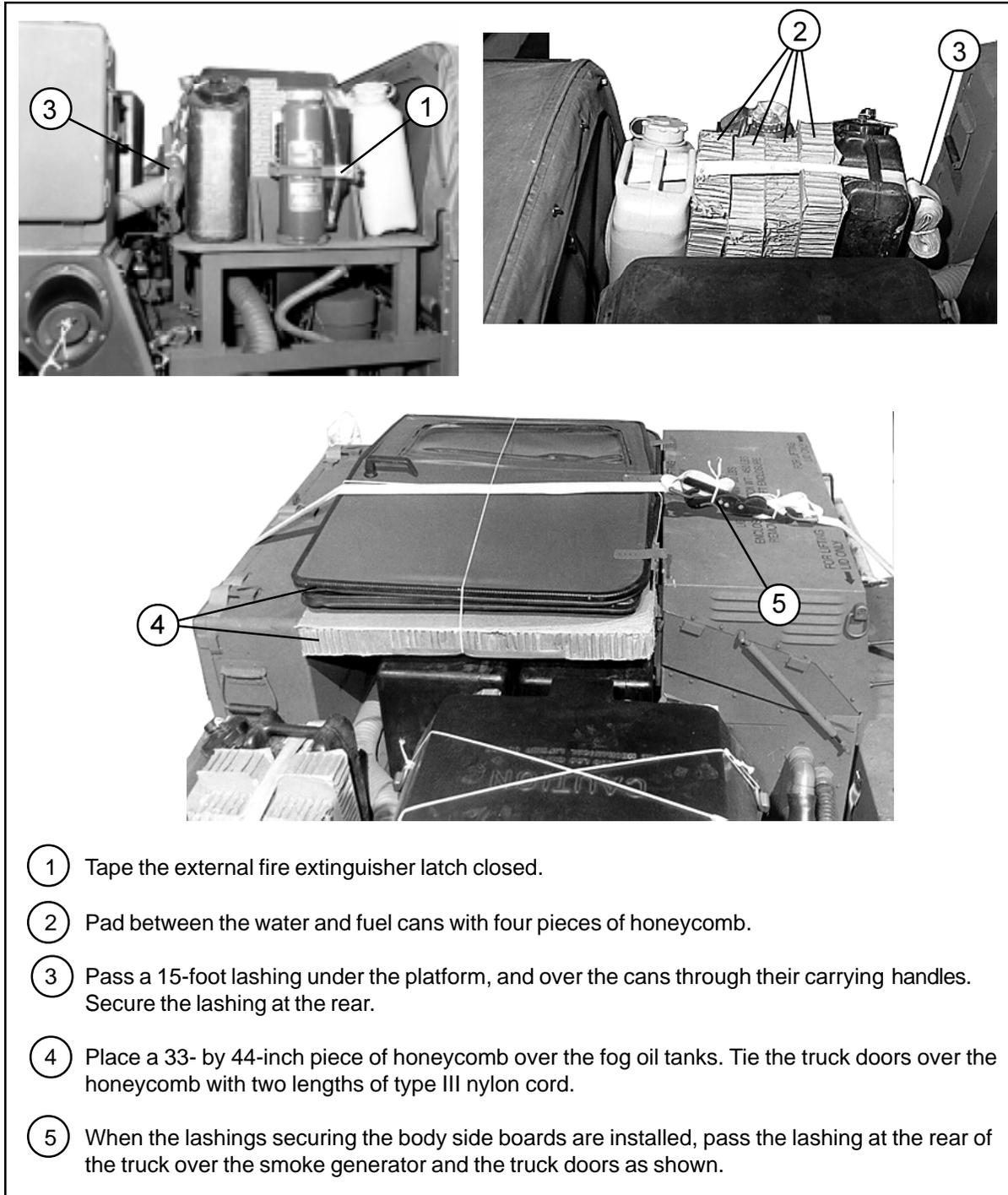
**Figure 4-8. Windshield Folded Over the Cab Cover**

*h.* Prepare the smoke generator as shown in Figure 4-9.



**Figure 4-9. Smoke Generator Prepared**

*i.* Stow and secure the smoke generator equipment and truck doors as shown in Figure 4-10.



- ① Tape the external fire extinguisher latch closed.
- ② Pad between the water and fuel cans with four pieces of honeycomb.
- ③ Pass a 15-foot lashing under the platform, and over the cans through their carrying handles. Secure the lashing at the rear.
- ④ Place a 33- by 44-inch piece of honeycomb over the fog oil tanks. Tie the truck doors over the honeycomb with two lengths of type III nylon cord.
- ⑤ When the lashings securing the body side boards are installed, pass the lashing at the rear of the truck over the smoke generator and the truck doors as shown.

**Figure 4-10. Fuel Cans, Water Cans, and Truck Doors Secured**

## LIFTING AND POSITIONING TRUCK, INSTALLING OPTIONAL DRIVE-OFF AIDS, AND STOWING SPREADER BAR

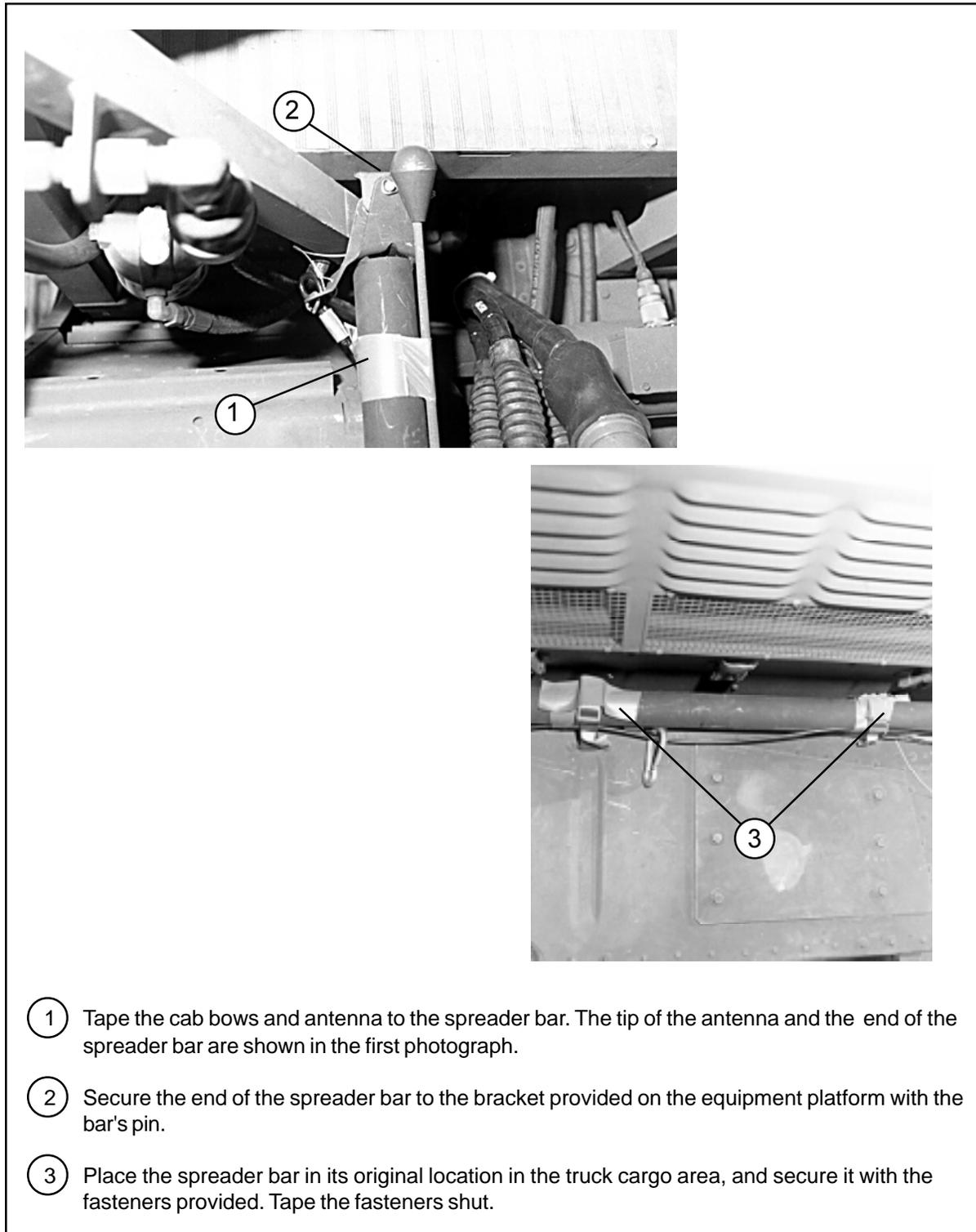
4-5. Install the optional drive-off aids on the platform as shown in Figure 2-15. Install lifting slings on the truck and position the truck on the honeycomb stacks as shown in Figure 2-16. Install the spreader bar assembly on the lifting slings to protect the smoke generator from damage.

**CAUTION**  
**USE OF THE SPREADER BAR IS ESSENTIAL.**  
**FAILURE TO COMPLY WILL RESULT**  
**IN DAMAGE TO THE EQUIPMENT.**

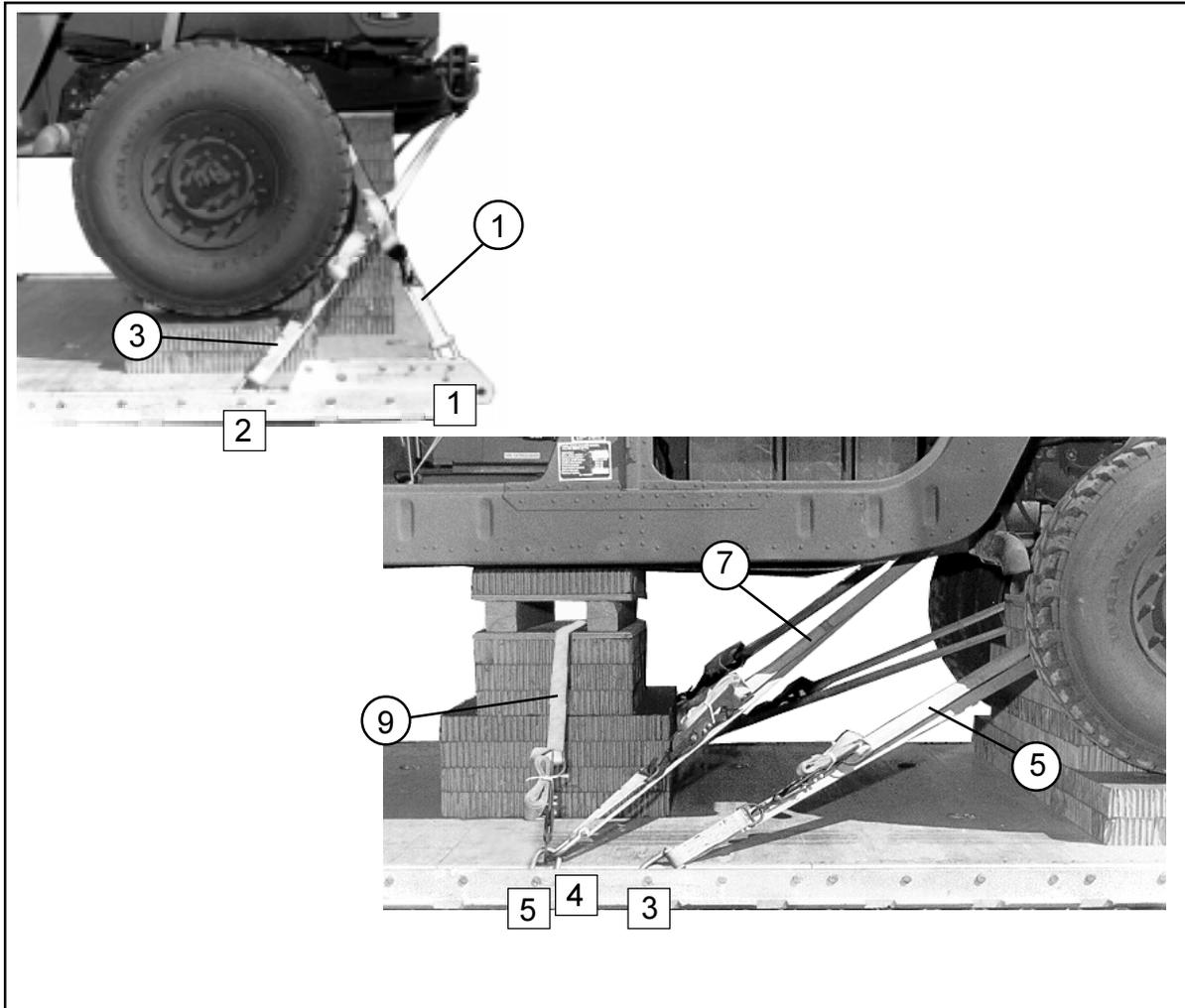
Install the drive-off aids, if used, to the rear wheels of the truck as shown in Figure 2-17. Stow the spreader bar, roof bows, and whip antenna as shown in Figure 4-11.

## LASHING TRUCK

4-6. Lash the truck to the platform with fifteen 15-foot tie-down assemblies as shown in Figures 4-12 and 4-13, and according to FM 4-20.102/TO 13C7-1-5.

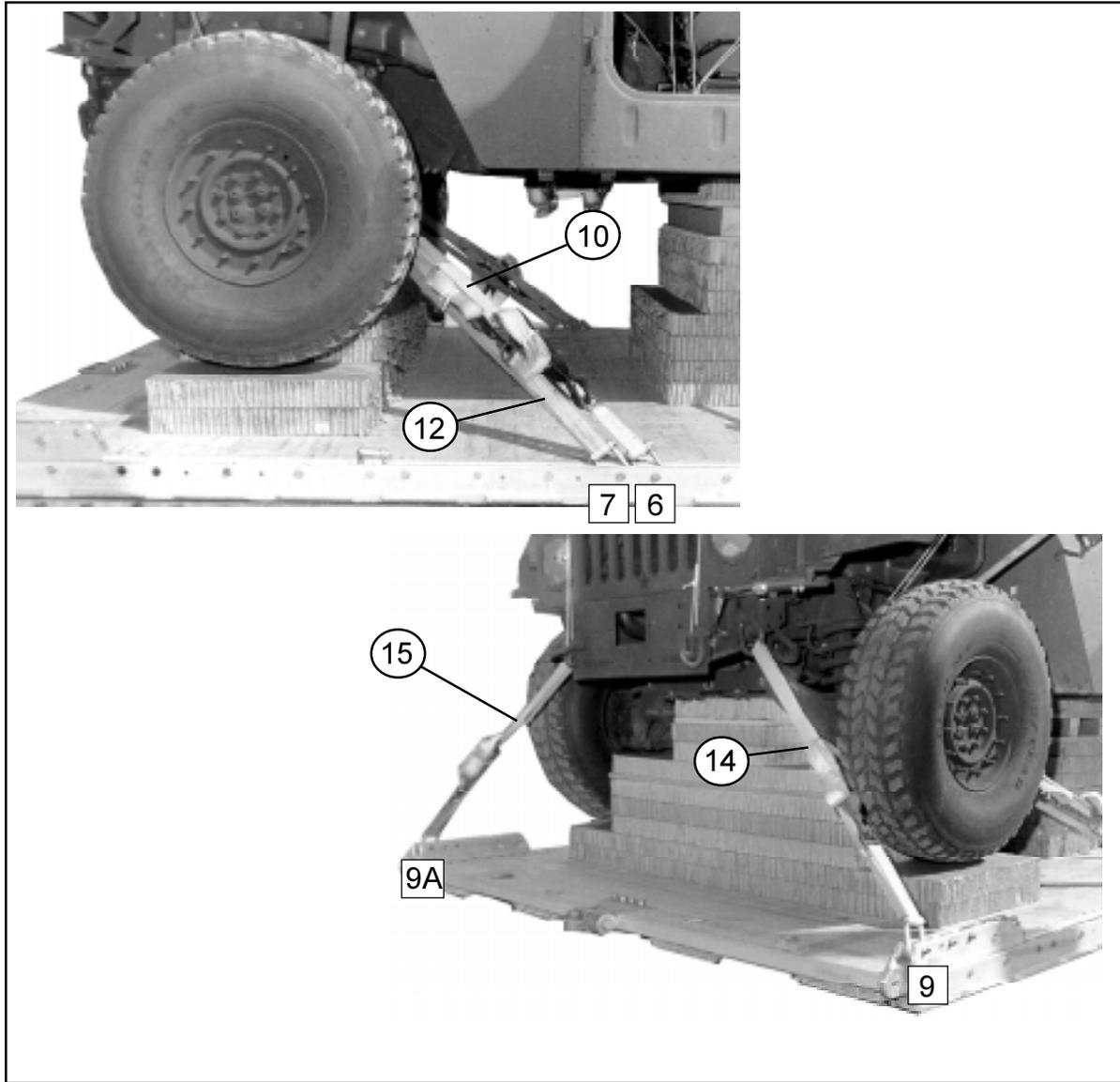


**Figure 4-11. Spreader Bar, Antenna, and Cab Bows Stowed**



Lashing Number	Tie-down Clevis Number	Instructions
1	1	Pass lashing: Through tie-down bracket behind left rear coil spring.
2	1A	Through tie-down bracket behind right rear coil spring.
3	2	Through left rear lifting shackle.
4	2A	Through right rear lifting shackle.
5	3	Around left rear lower control arm.
6	3A	Around right rear lower control arm.
7	4	Through tie-down bracket in front of left rear coil spring.
8	4A	Through tie-down bracket in front of right rear coil spring.
9	5 and 5A	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 4-12. Lashings 1 Through 9 Installed



Lashing Number	Tie-down Clevis Number	Instructions
10	6	Pass lashing: Through tie-down bracket behind left front coil spring.
11	6A	Through tie-down bracket behind right front coil spring.
12	7	Around left lower control arm.
13	7A	Around right lower control arm.
14	9	Through tie-down bracket on end of left frame rail.
15	9A	Through tie-down bracket on end of right frame rail.

Figure 4-13. Lashings 10 Through 15 Installed

## **INSTALLING AND SAFETY TYING SUSPENSION SLINGS**

4-7. Install and safety tie four 16-foot (2-loop), type XXVI nylon suspension slings as shown in Figure 2-20.

## **STOWING CARGO PARACHUTES**

4-8. Stow and restrain three G-11 cargo parachutes on the load according to FM 4-20.102/TO 13C7-1-5. Install two type VIII nylon webbing restraint straps. Tie the front restraint straps to clevises 8 and 8A. Tie the rear restraint straps to the 27th bushings on the platform side rails.

## **INSTALLING PARACHUTE RELEASE**

4-9. Prepare and install an M-1 cargo parachute release according to FM 4-20.102/TO 13C7-1-5, and as shown in Figure 2-22 .

## **INSTALLING EXTRACTION SYSTEM**

4-10. Install the EFTC extraction system according to FM 4-20.102/TO 13C7-1-5, and as shown in Figure 2-23.

## **INSTALLING PROVISIONS FOR EMERGENCY RESTRAINTS**

4-11. Install provisions for emergency restraints according to FM 4-20.102/TO 13C7-1-5.

## **PLACING EXTRACTION PARACHUTE**

4-12. Select the extraction parachute and extraction line needed, using the extraction line requirements table in FM 4-20.102/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 in the aircraft.

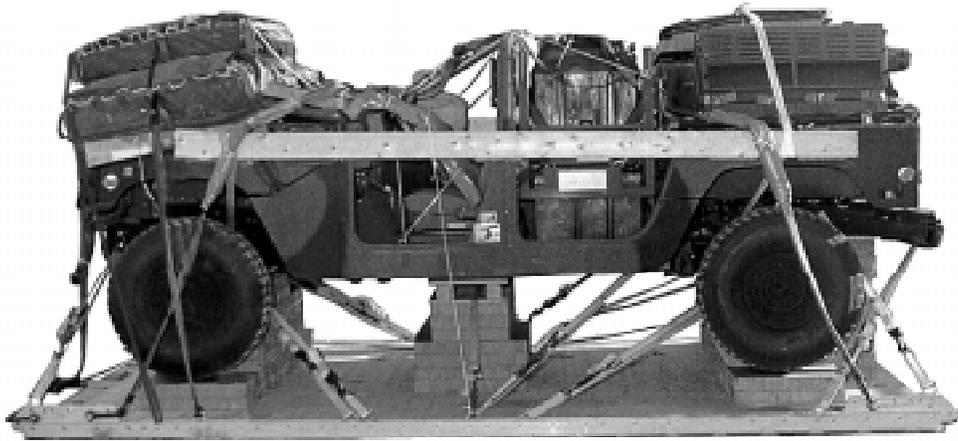
**MARKING RIGGED LOAD**

4-13. Mark the rigged load according to FM 4-20.102/TO 13C7-1-5, and as shown in Figure 4-14. Complete Shipper's Declaration for Dangerous Goods according to AFJMAN 24-204/TM 38-250. If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

**EQUIPMENT REQUIRED**

4-14. Use the equipment listed in Table 4-1 to rig this load.

**CAUTION**  
**Make the final rigger inspection required by FM 4-20.102/ TO 13C7-1-5 before the load leaves the rigging site.**





**RIGGED LOAD DATA**

Weight: Load shown .....	11,960 pounds
Maximum load allowed .....	12,710 pounds
Height (with three G-11B parachutes) .....	97 inches
Width .....	108 inches
Length (overall) .....	215 inches
Overhang: Front .....	8 inches
Rear (EFTC) .....	18 inches
CB (from front edge of platform) .....	91 inches

**Figure 4-14. M56 Smoke Generator Rigged in M1113 Truck for Low-Velocity Airdrop**

**Table 4-1. Equipment Required for Rigging the M1113 truck with M56 Smoke Generator for Low-Velocity Airdrop**

National Stock Number	Item	Quantity
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 assembly, 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 (3-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-141: 140-ft (3-loop), type XXVI	1
1670-01-062-6313	For C-5: 60-ft (3-loop), type XXVI and	1
1670-01-107-7651	140-ft (3-loop), type XXVI	1
1670-01-107-7651	For C-17: 140-ft (3-loop), type XXVI	1
5306-00-435-8994	Link assembly, Two-point: Bolt, 1-in diam, 4-in long	1 (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)
5510-00-220-6448	Lumber: 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

**Table 4-1. Equipment Required for Rigging the M1113 Truck with M56 Smoke Generator for Low-Velocity Airdrop (continued)**

National Stock Number	Item	Quantity
1670-00-753-3928	Pad, energy-dissipating (honeycomb) 3- by 36- by 96-in	13 sheets
1670-01-016-7841	Parachute: Cargo: G-11B	3
1670-01-063-3716	Cargo extraction: 22-foot ((for C-17, use H-block with this parachute)	1
1670-01-063-3715	Drogue (for C-17) 15-ft	1
1670-01-353-8425	Platform, airdrop, type V, 16-ft Bracket assembly, EFTC	(1)
1670-01-162-2372	Clevis assembly, type V	(20)
1670-01-353-8424	Bracket assembly, extraction	(1)
1670-01-162-2381	Tandem link assembly (Multipurpose link)	(4)
5530-00-128-4981	Plywood, 3/4-in	4 sheets
1670-01-097-8816	Release, cargo parachute, M-1	1
1670-01-063-7761	Sling, cargo, airdrop For suspension: 16-ft (2-loop), type XXVI nylon webbing	4
1670-01-062-6304	For lifting: 9-ft (2-loop), type XXVI nylon webbing	2
1670-01-062-6303	12-ft (2-loop), type XXVI nylon webbing	2
1670-01-062-6304	For deployment: 9-ft (2-loop), type XXVI nylon webbing	1
1670-01-062-6313	For riser extension: 60-ft (3-loop), type XXVI nylon webbing	3
4910-01-313-8839	Spreader bar assembly	1
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	20
1670-01-344-0825	Vehicle drive-off aid	1
8305-00-268-2411	Webbing: 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