

SECTION II- RIGGING MISSILES ON A TYPE V PLATFORM FOR LOW-VELOCITY AIRDROP

DESCRIPTION OF LOAD

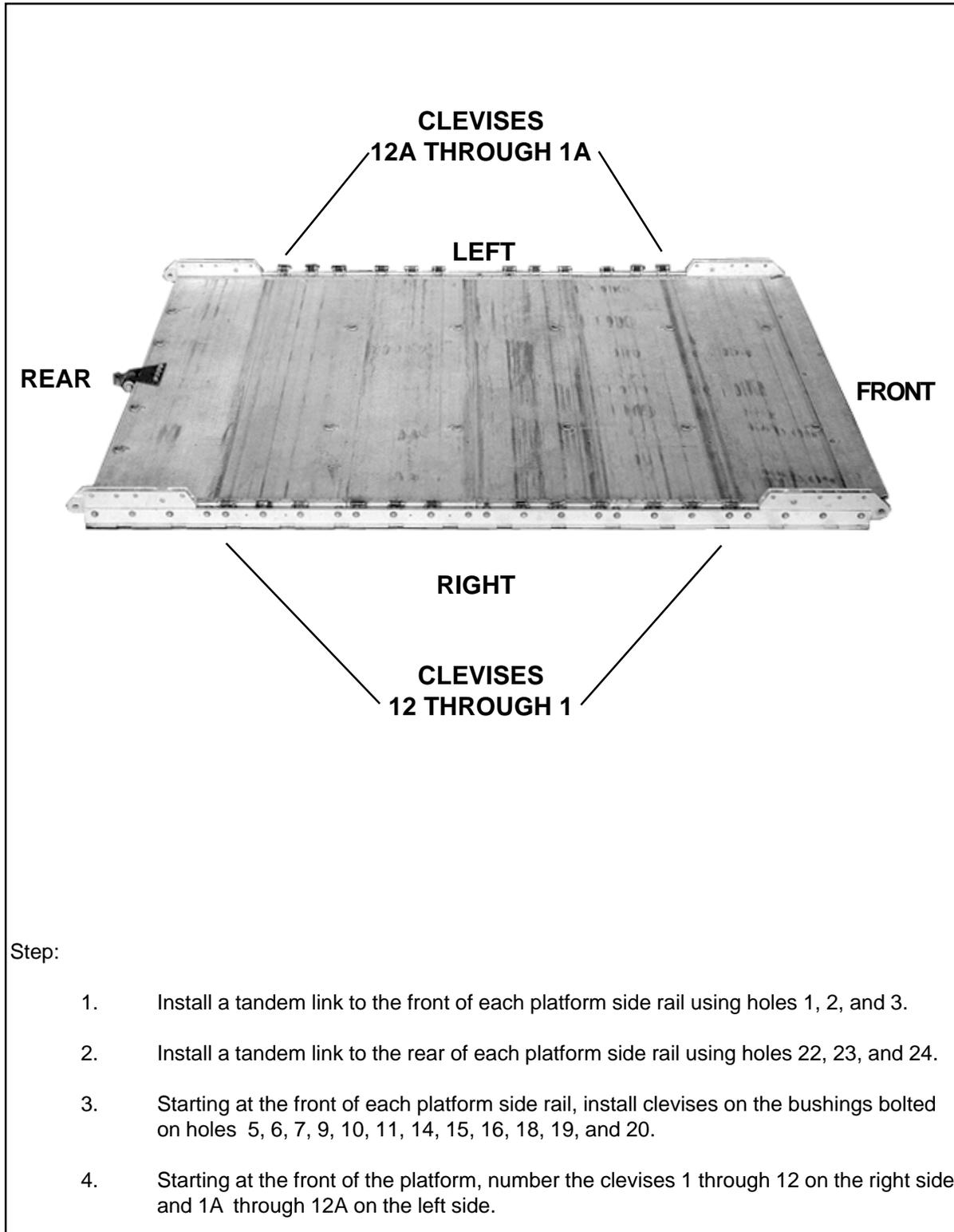
4-15. Forty-eight boxed missiles are rigged on a 12-foot, type V airdrop platform. Each boxed missile weighs 87 pounds and is 57 1/2 inches long, 12 inches high, and 12 inches wide. This load requires two G-11 cargo parachutes.

PREPARING PLATFORM

- 4-16. Prepare a 12-foot, type V airdrop platform as described below.
- a. Inspecting Platform. Inspect, or, assemble and inspect, the platform according to TM 10-1670-268-20&P/TO 13C7-52-22.
 - b. Installing Tandem Links. Install tandem links as shown in Figure 4-13.
 - c. Attaching and Numbering Clevises. Attach and number 24 clevis assemblies as shown in Figure 4-13.

NOTES:

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



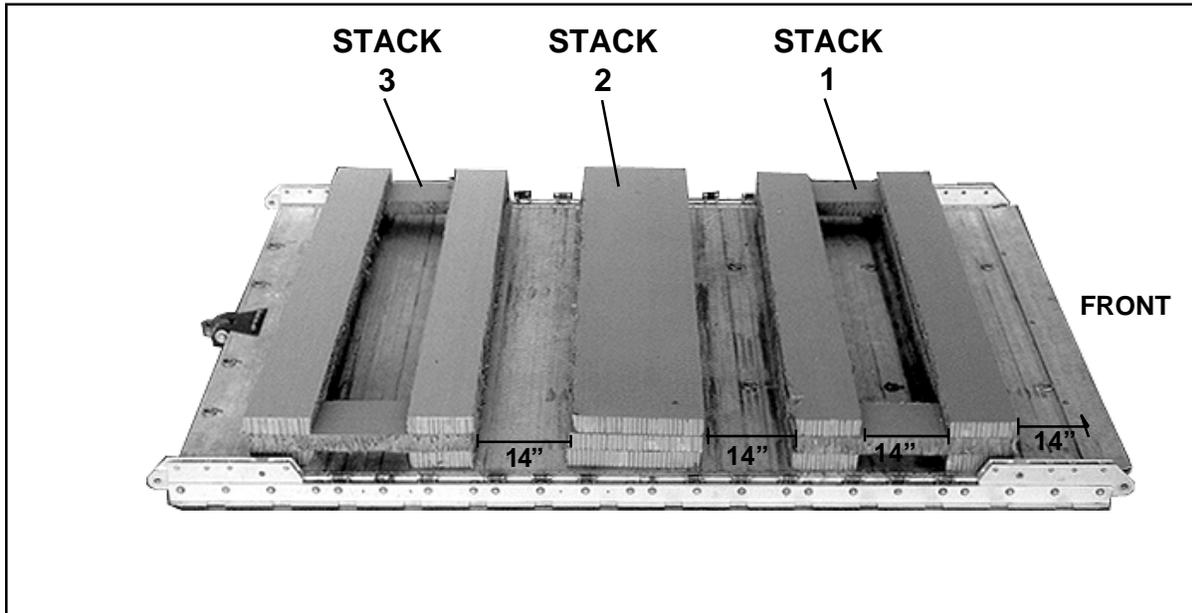
Step:

1. Install a tandem link to the front of each platform side rail using holes 1, 2, and 3.
2. Install a tandem link to the rear of each platform side rail using holes 22, 23, and 24.
3. Starting at the front of each platform side rail, install clevises on the bushings bolted on holes 5, 6, 7, 9, 10, 11, 14, 15, 16, 18, 19, and 20.
4. Starting at the front of the platform, number the clevises 1 through 12 on the right side and 1A through 12A on the left side.

Figure 4-13. Platform Prepared

BUILDING AND PLACING HONEYCOMB STACKS

4-17. Build the honeycomb stacks and place them on the platform as shown in Figure 4-14.



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
1	2	96	10	Honeycomb	Place one piece 14 inches from the front edge of the platform. Place another piece 14 inches from the first piece.
	2	10	34	Honeycomb	Place one piece over each end of the two base pieces as a bridge.
	2	76	10	Honeycomb	Place flush over each base piece, filling the space between the two bridge pieces.
2	3	96	20	Honeycomb	Place flush over each end of the stack.
3	3	96	20	Honeycomb	Glue layers flush together and center 14 inches from stack 1.
	2	96	10	Honeycomb	Place one piece 14 inches from stack 2. Place another piece 14 inches from the first piece.
	2	10	34	Honeycomb	Place one piece over each end of the two base pieces as a bridge.
	2	76	10	Honeycomb	Place flush over each base piece, filling the space between the two bridge pieces.
	2	96	10	Honeycomb	Place flush over each end of the stack.

Figure 4-14. Honeycomb Stacks Prepared and Positioned

PLACING MISSILE BOXES ON PLATFORM

4-18. Place the missiles on the honeycomb stacks as shown in Figure 4-15. Place six 15-foot lashings over the stacks of boxes as shown in Figure 4-16.

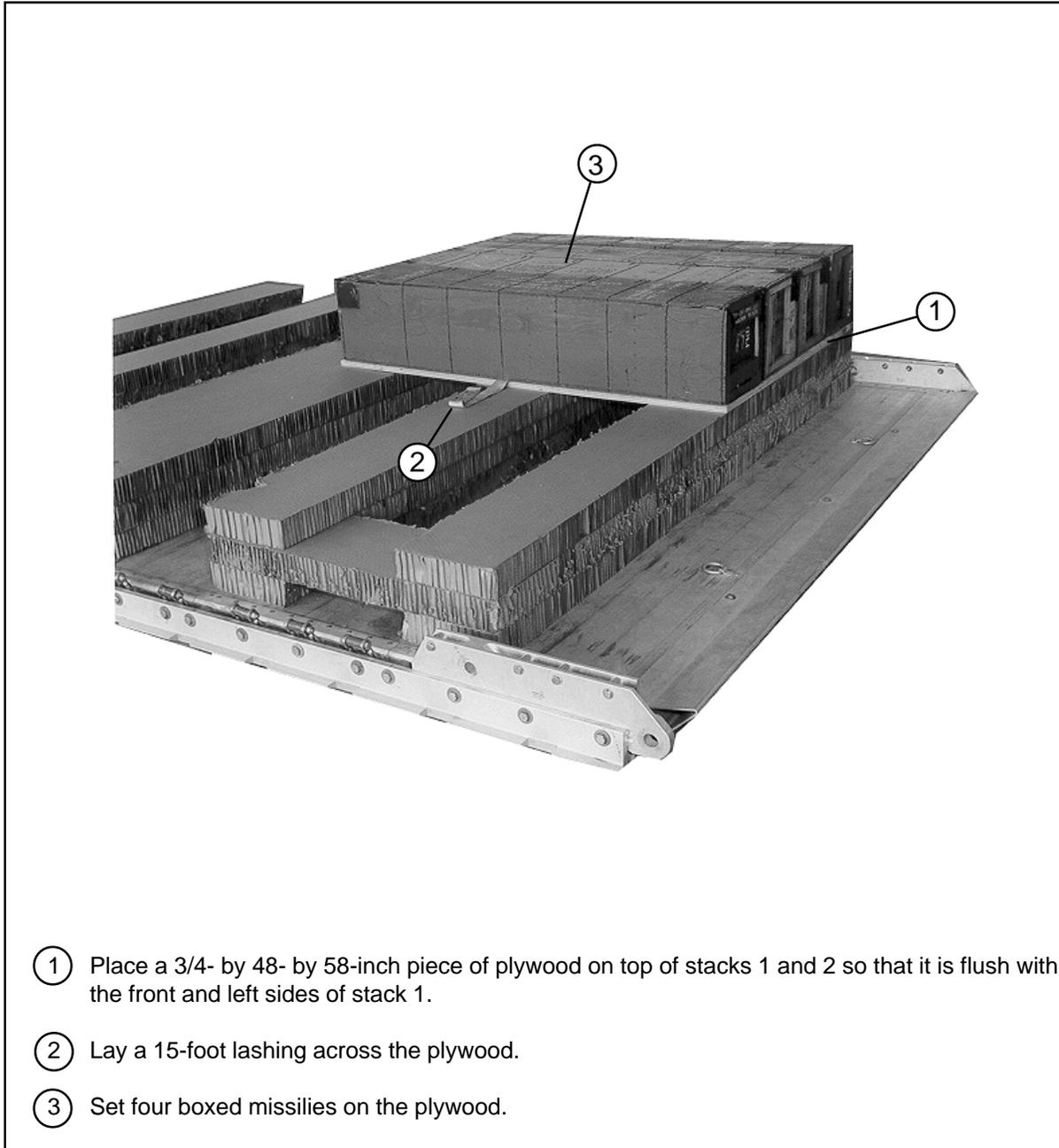
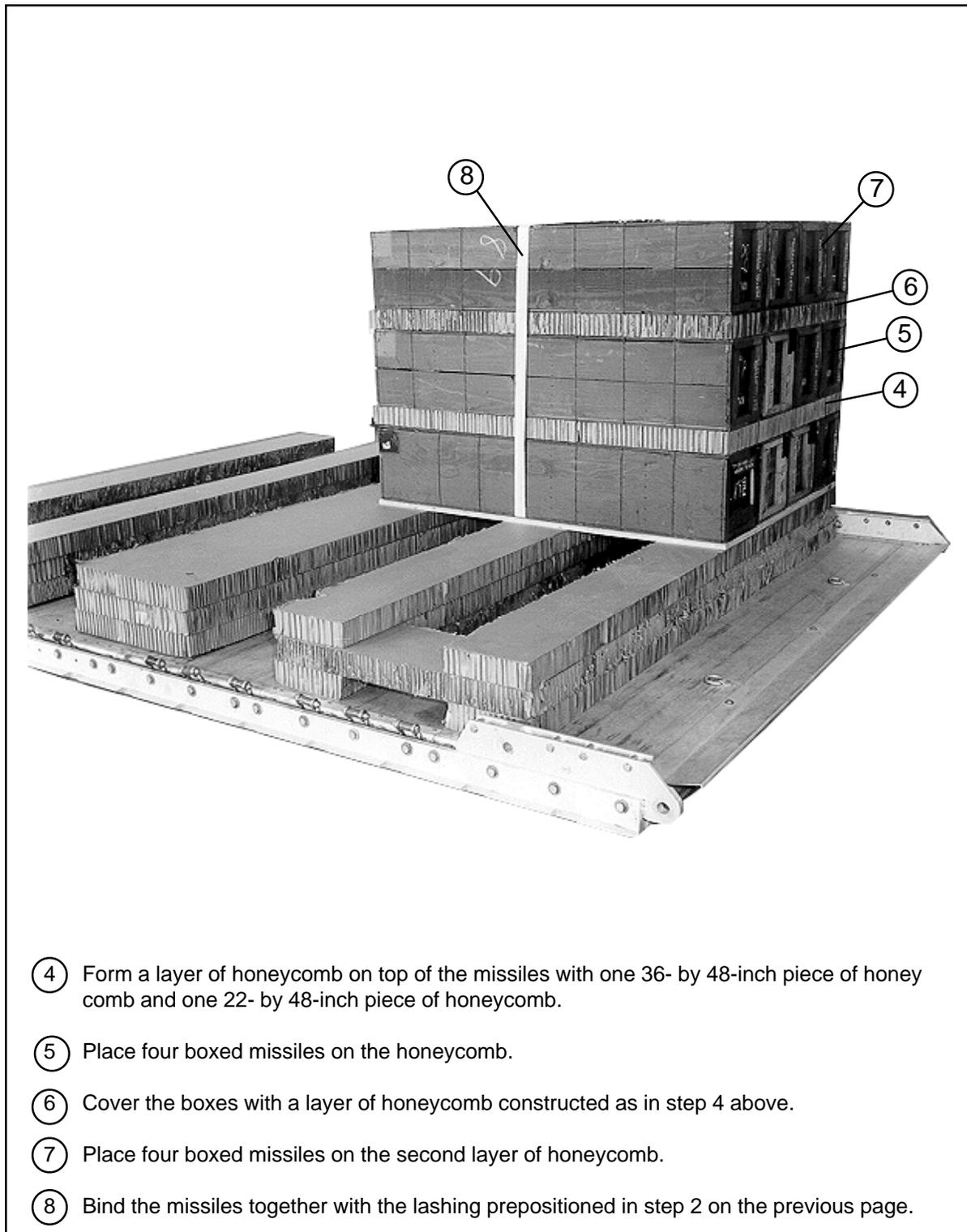
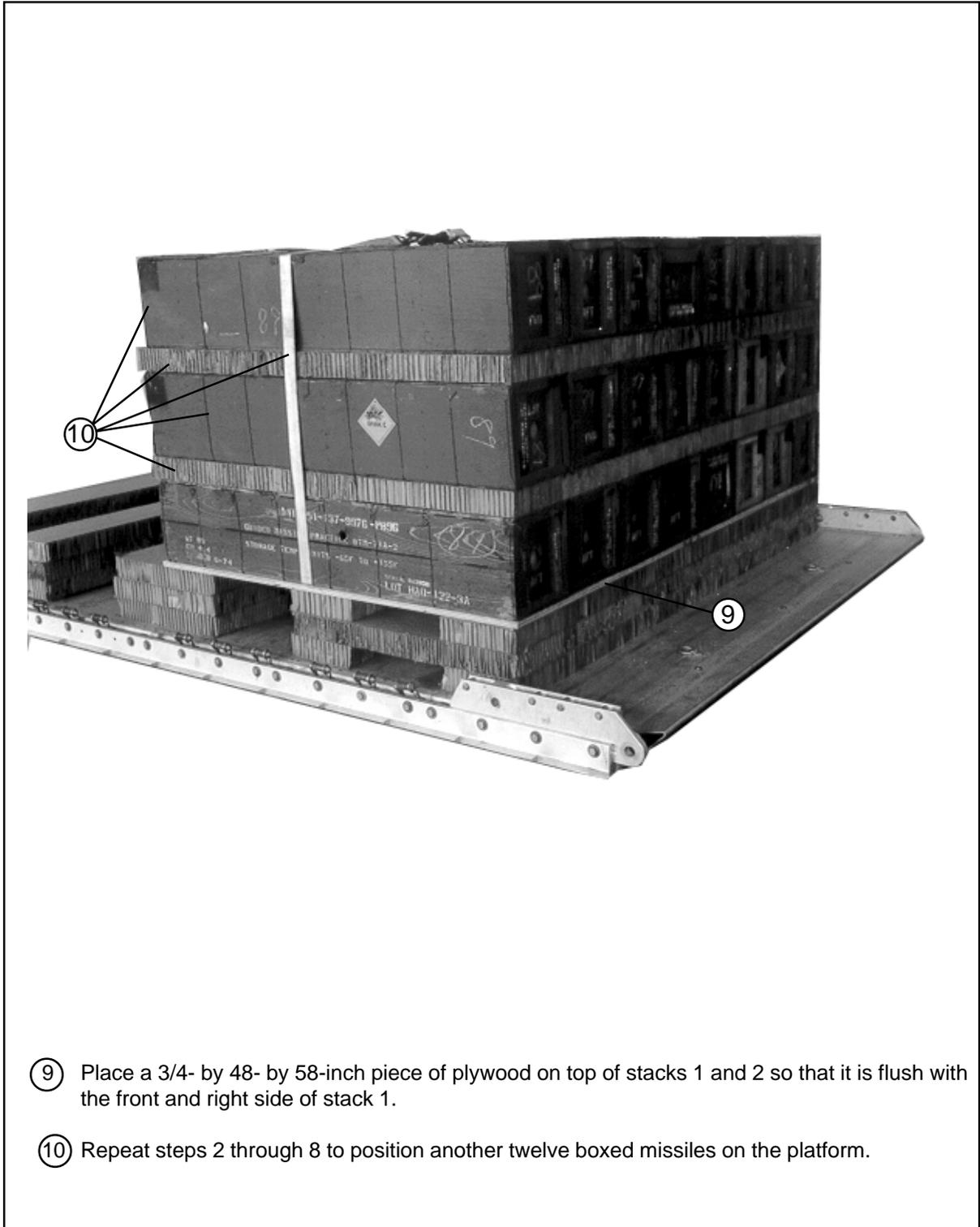


Figure 4-15. Missile Boxes Placed on Honeycomb



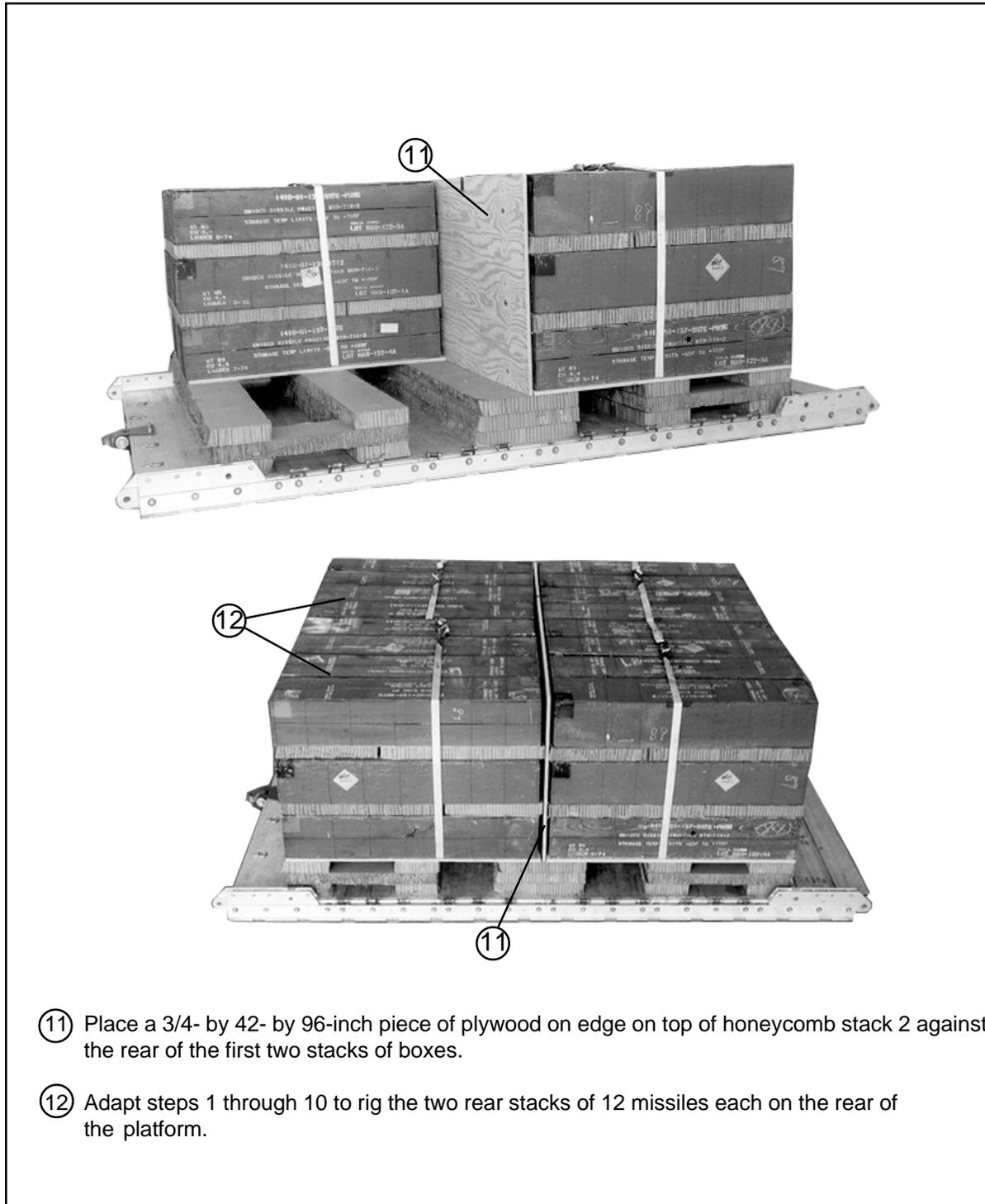
- ④ Form a layer of honeycomb on top of the missiles with one 36- by 48-inch piece of honeycomb and one 22- by 48-inch piece of honeycomb.
- ⑤ Place four boxed missiles on the honeycomb.
- ⑥ Cover the boxes with a layer of honeycomb constructed as in step 4 above.
- ⑦ Place four boxed missiles on the second layer of honeycomb.
- ⑧ Bind the missiles together with the lashing prepositioned in step 2 on the previous page.

Figure 4-15. Missile Boxes Placed on Honeycomb (continued)



- ⑨ Place a 3/4- by 48- by 58-inch piece of plywood on top of stacks 1 and 2 so that it is flush with the front and right side of stack 1.
- ⑩ Repeat steps 2 through 8 to position another twelve boxed missiles on the platform.

Figure 4-15. Missile Boxes Placed on Honeycomb (continued)



- ① Place a 3/4- by 42- by 96-inch piece of plywood on edge on top of honeycomb stack 2 against the rear of the first two stacks of boxes.
- ② Adapt steps 1 through 10 to rig the two rear stacks of 12 missiles each on the rear of the platform.

Figure 4-15. Missile Boxes Placed on Honeycomb (continued)

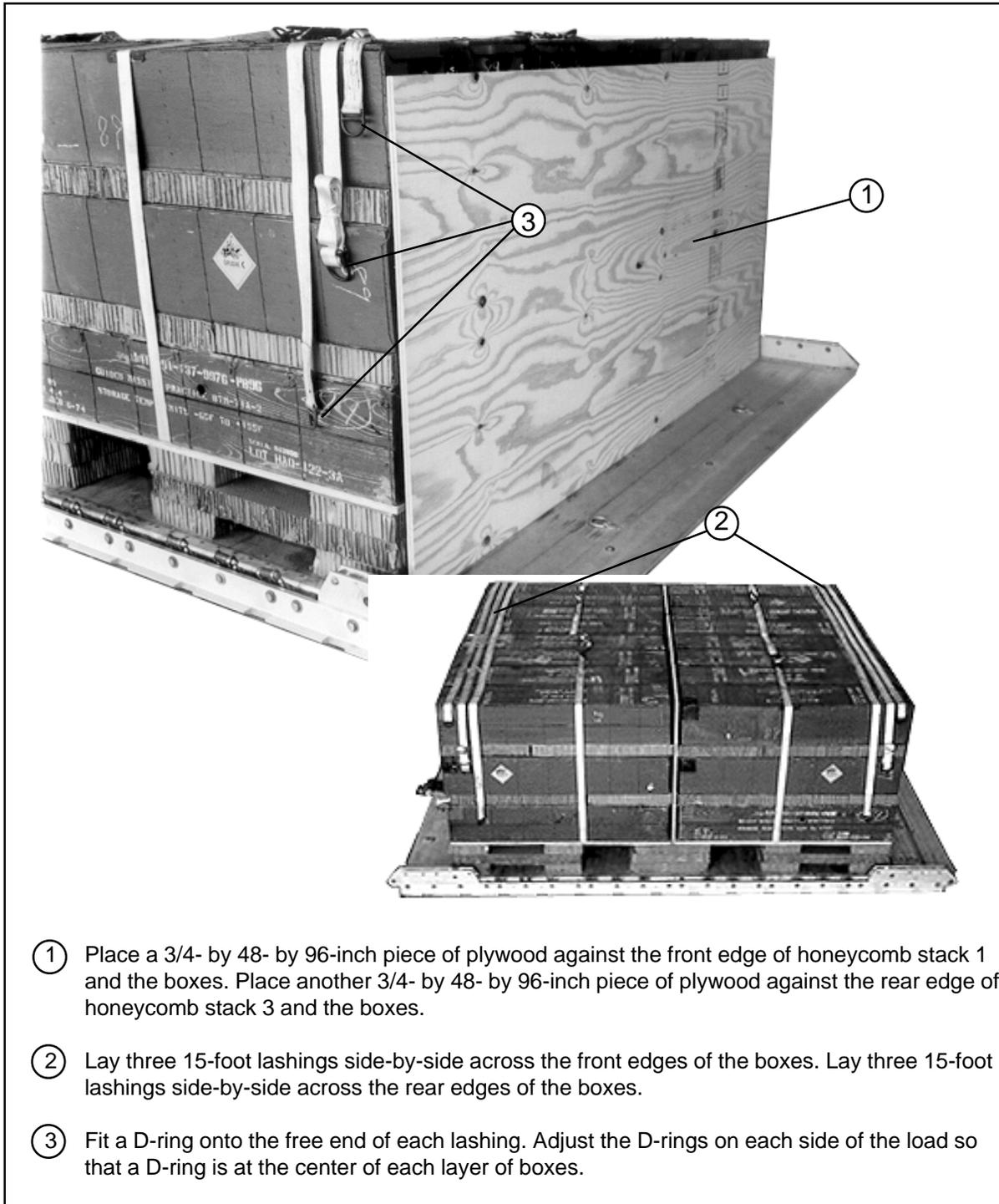
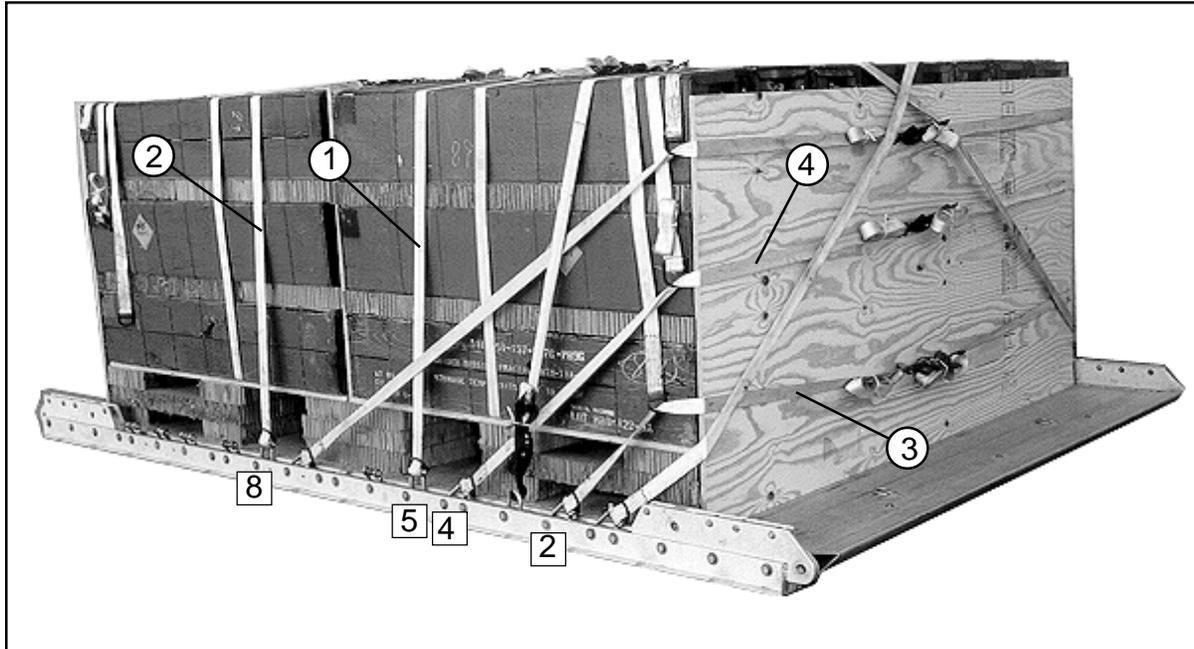


Figure 4-16. Lashings Placed on Missile Boxes

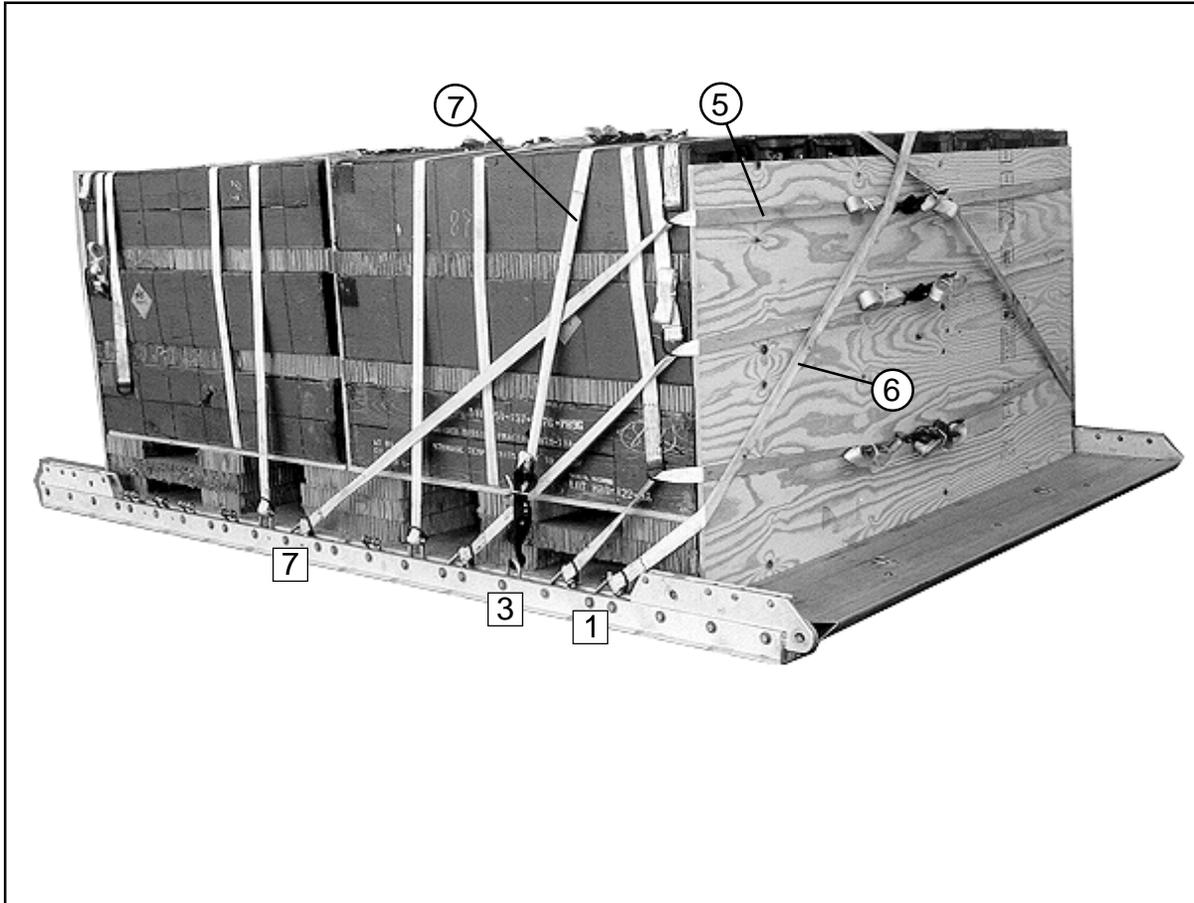
LASHING LOAD

4-19. Lash the A-22 cargo bags to the platform as shown in Figures 4-17 through 4-19. Secure the corner lashings as shown in Figure 4-20.



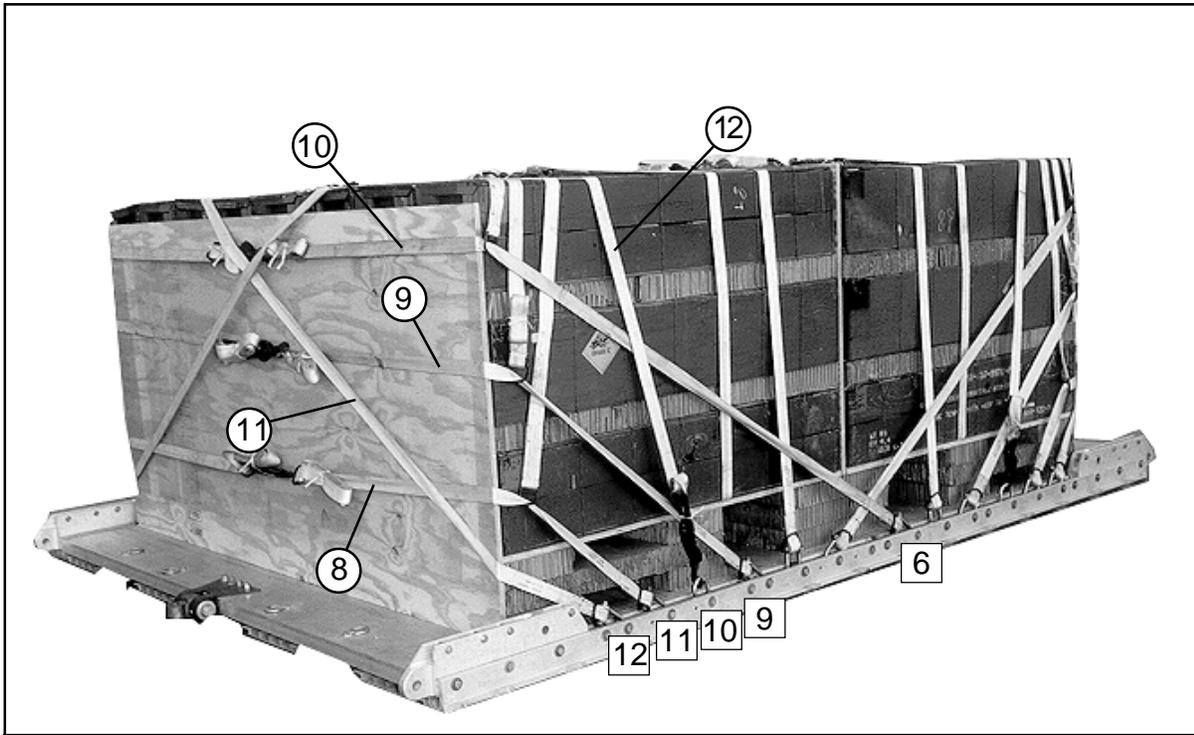
Lashing Number	Tie-down Clevis Numbers	Instructions
1	5 and 5A	Pass lashing: Through clevis 5 and its own D-ring. Pass a second lashing through clevis 5A and its own D-ring. Pass the lashings over the top of the load. Secure the lashings with two D-rings and a load binder on top of the load.
2	8 and 8A	Through clevis 8 and its own D-ring. Pass a second lashing through clevis 8A and its own D-ring. Pass the lashings over the top of the load. Secure the lashings with two D-rings and a load binder on top of the load.
3	2 and 2A	Through clevis 2 and its own D-ring. Pass a second lashing through clevis 2A and its own D-ring. Run each lashing through the D-ring at the bottom layer of boxes. Run each lashing to the front of the plywood. Secure the lashings in front with two D-rings and a load binder.
4	4 and 4A	Through clevis 4 and its own D-ring. Pass a second lashing through clevis 4A and its own D-ring. Run each lashing through the D-ring at the middle layer of boxes. Run each lashing to the front of the plywood. Secure the lashings in front with two D-rings and a load binder.

Figure 4-17. Lashings 1 Through 4 Installed



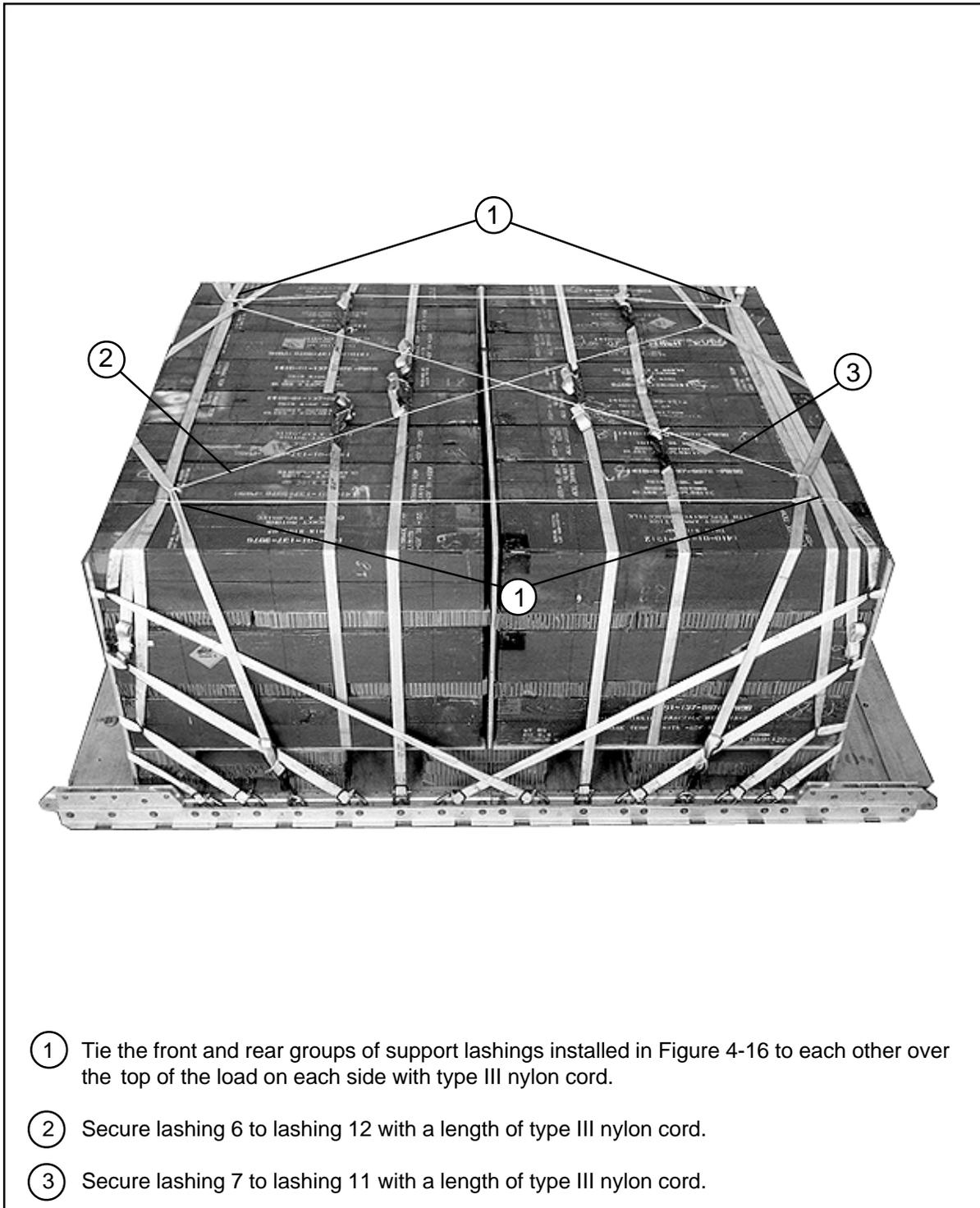
Lashing Number	Tie-down Clevis Numbers	Instructions
5	7 and 7A	Pass lashing: Through clevis 7 and its own D-ring. Pass a second lashing through clevis 7A and its own D-ring. Run each lashing through the D-ring at the top layer of boxes. Run each lashing to the front of the plywood. Secure the lashings in front with two D-rings and a load binder.
6	1 and 3A	Through clevis 1 and through its own D-ring. Run the lashing around the front of the plywood and over the top of the boxes. Attach a D-ring to the free end of the lashing and secure it to clevis 3A with a load binder.
7	1A and 3	Through clevis 1A and through its own D-ring. Run the lashing around the front of the plywood and over the top of the boxes. Attach a D-ring to the free end of the lashing and secure it to clevis 3 with a load binder.

Figure 4-18. Lashings 5 Through 7 Installed



Lashing Number	Tie-down Clevis Numbers	Instructions
8	11 and 11A	Pass lashing: Through clevis 11 and its own D-ring. Pass a second lashing through clevis 11A and its own D-ring. Run each lashing through the D-ring at the bottom layer of boxes. Run each lashing to the rear of the plywood. Secure the lashings in the rear with two D-rings and a load binder.
9	9 and 9A	Through clevis 9 and its own D-ring. Pass a second lashing through clevis 9A and its own D-ring. Run each lashing through the D-ring at the middle layer of boxes. Run each lashing to the rear of the plywood. Secure the lashings in the rear with two D-rings and a load binder.
10	6 and 6A	Through clevis 6 and its own D-ring. Pass a second lashing through clevis 6A and its own D-ring. Run each lashing through the D-ring at the top layer of boxes. Run each lashing to the rear of the plywood. Secure the lashings in the rear with two D-rings and a load binder.
11	12 and 10A	Through clevis 12 and through its own D-ring. Run the lashing around the rear of the plywood and over the top of the boxes. Attach a D-ring to the free end of the lashing and secure it to clevis 10A with a load binder.
12	10 and 12A	Through clevis 12A and through its own D-ring. Run the lashing around the rear of the plywood and over the top of the boxes. Attach a D-ring to the free end of the lashing and secure it to clevis 10 with a load binder.

Figure 4-19. Lashings 8 Through 12 Installed



- ① Tie the front and rear groups of support lashings installed in Figure 4-16 to each other over the top of the load on each side with type III nylon cord.
- ② Secure lashing 6 to lashing 12 with a length of type III nylon cord.
- ③ Secure lashing 7 to lashing 11 with a length of type III nylon cord.

Figure 4-20. Lashings Secured

INSTALLING SUSPENSION SLINGS

4-20. Install four 12-foot (2-loop), type XXVI nylon webbing slings as suspension slings. Install and safety the slings according to FM 10-500-2/TO 13C7-1-5, and as shown in Figure 4-21.

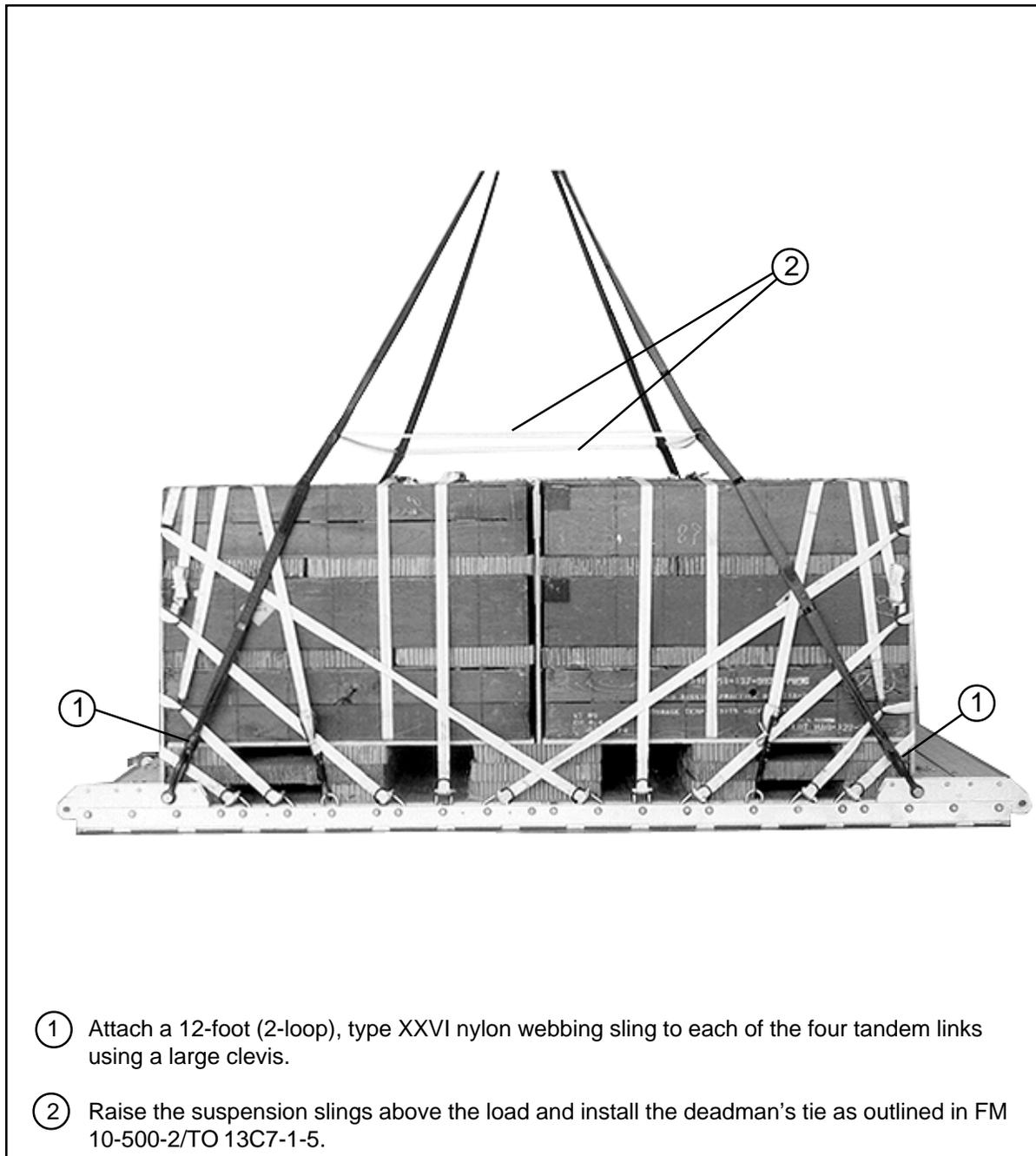


Figure 4-21. Suspension Slings Installed

INSTALLING CARGO PARACHUTES

4-21. Install two G-11 cargo parachutes according to FM 10-500-2/TO 13C7-1-5, and as shown in Figure 4-22.

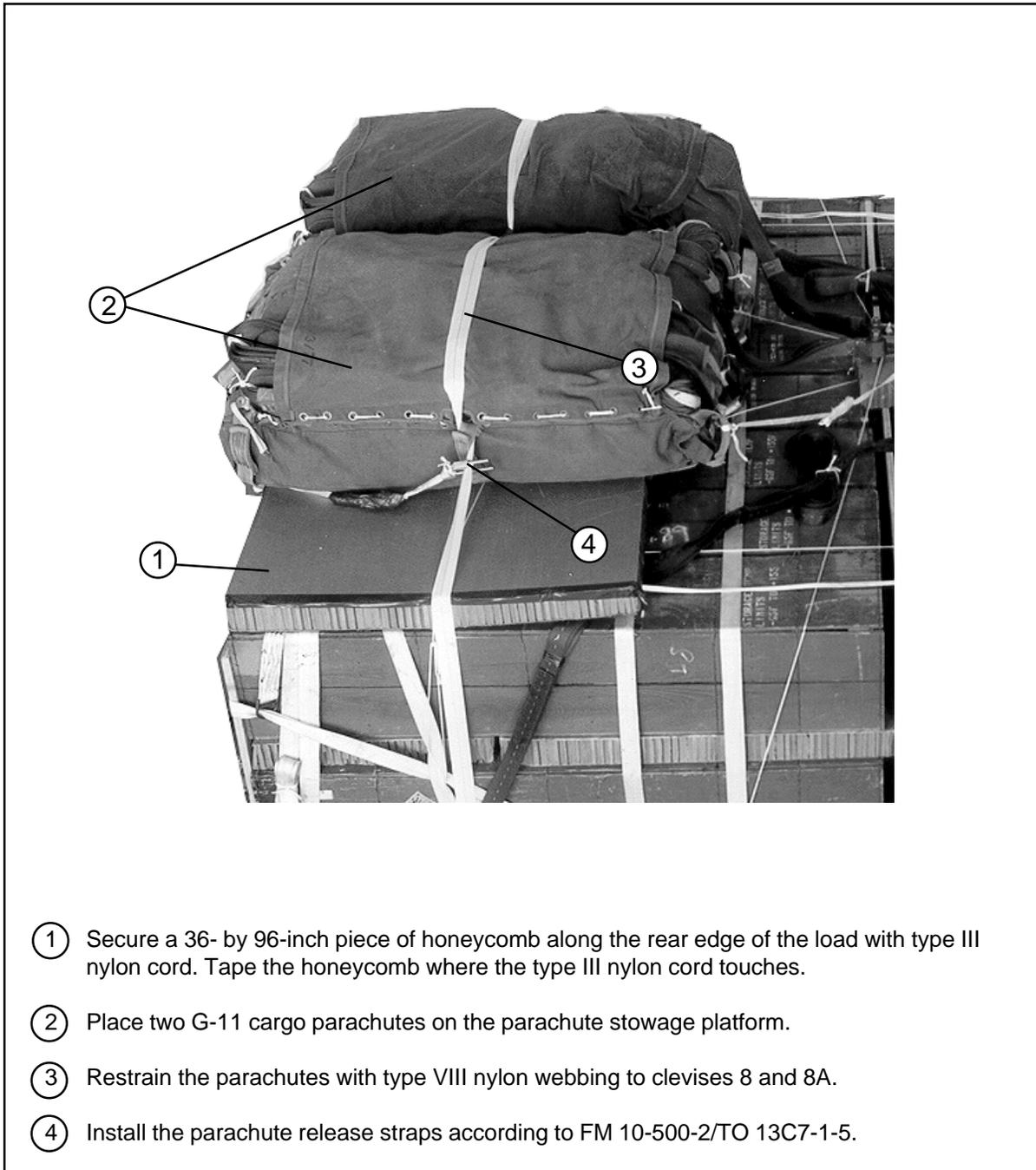


Figure 4-22. G-11 Cargo Parachutes Installed

Installing Release System

4-22. Install the M-1 cargo parachute release assembly according to FM 10-500-2/TO 13C7-1-5, and as shown in Figure 4-23.

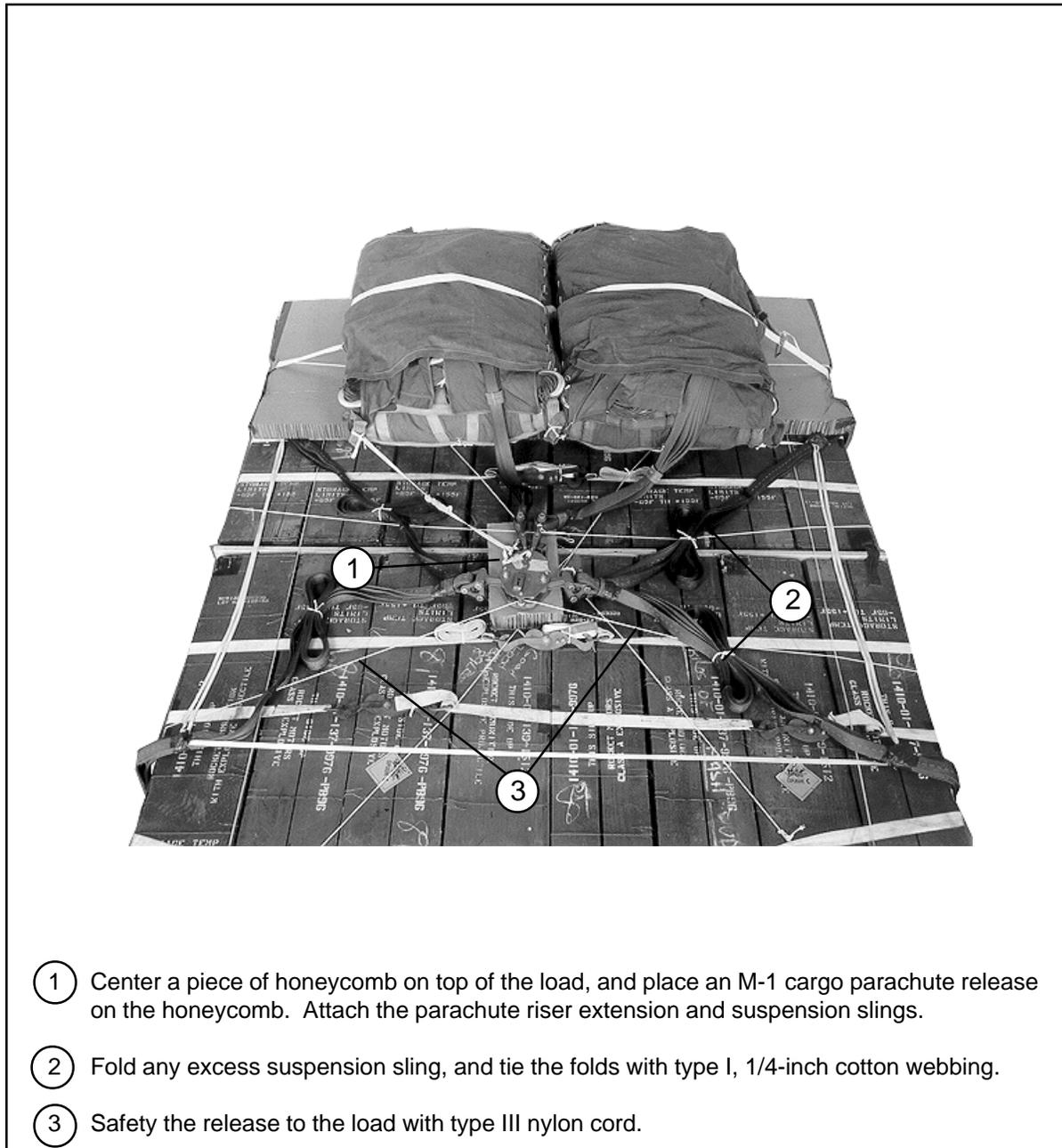


Figure 4-23. M-1 Cargo Parachute Release Installed

Installing Extraction System

4-23. Install the EFTC extraction system according to FM 10-500-2/TO 13C7-1-5, and as shown in Figure 4-11. Use the front mounting holes in the left platform side rail to install the EFTC actuator mounting brackets. Install a 12-foot cable, and a 9-foot, (2-loop), type XXVI sling as a deployment line.

Installing Extraction Parachute

4-24. Select the extraction line and extraction parachute needed using the extraction line requirements table in FM 10-500-2/TO 13C7-1-5. Place the extraction parachute and extraction line on the load for installation in the aircraft.

Installing Provisions for Emergency Restraints

4-25. Select and install provisions for emergency restraints according to the emergency aft restraints requirements table in FM 10-500-2/TO 13C7-1-5.

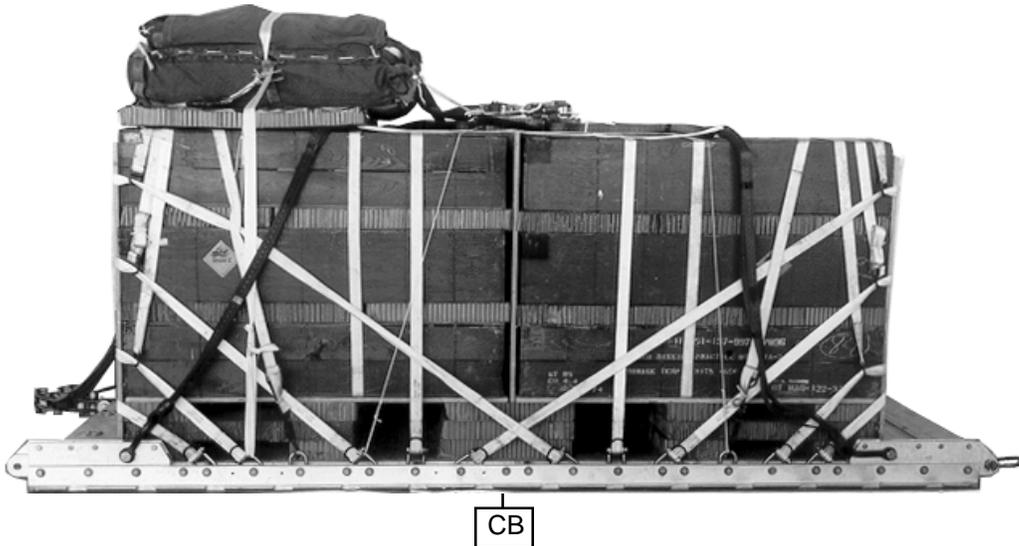
Marking Rigged Load

4-26. Mark the rigged load according to FM 10-500-2/TO 13C7-1-5, and as shown in Figure 4-24. Complete the Shipper's Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, tip-off curve, CB, and parachute requirements must be recomputed.

Equipment Required

4-27. Use the equipment listed in Table 4-2 to rig this load.

**Make the final rigger inspection required by FM 10-500-2/
TO 13C7-1-5 before the load leaves the rigging site.**



Rigged Load Data

Weight: Load shown	6,650 pounds
Maximum	7,100 pounds
Height	75 inches
Width	108 inches
Length	165 inches
Overhang: Front	0 inches
Rear	18 inches
CB (from front edge of platform)	77 inches
Extraction System (adds 18 inches to length of platform)	EFTC

Figure 4-24. TOW Missiles Rigged on a 12-foot Type V Platform for Low-velocity Airdrop

Table 4-2. Equipment Required for Rigging TOW Missiles on a 12-foot Type V Platform for Low-velocity Airdrop

National Stock Number	Item	Quantity
8040-00-273-8713	Adhesive paste, 1-gal	As required
	Clevis, suspension,	
4030-00-090-5354	1-in (large)	7
4030-00-678-8562	3/4-in, medium	2
4020-00-240-2146	Cord, nylon, type III, 550-lb	As required
1670-00-434-5783	Coupling, airdrop, extraction force transfer with cable, 12-ft	1
	Cover:	
1670-00-360-0328	Clevis, large	3
1670-00-360-0329	Link, type IV	3
1670-01-183-2678	Leaf, extraction line (line bag)	3
	Line, drogue (for C-17)	
1670-01-064-4452	60-ft (1-loop), type XXVI	1
	Line, extraction	
1670-01-064-4452	For C-130: 60-ft (1-loop), type XXVI	1
1670-01-107-7652	For C-141: 160-ft (1-loop), type XXVI	1
	For C-5:	
1670-01-107-7652	160-ft (1-loop), type XXVI	1
1670-01-107-7652	For C-17: 160-ft (1-loop), type XXVI	1
	Link assembly:	
1670-00-783-5988	Type IV	3
	Two-point, 3 3/4-in (for C-17)	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)

Table 4-2. Equipment Required for Rigging TOW Missiles on a 12-foot Type V Platform for Low-velocity Airdrop (continued)

National Stock Number	Item	Quantity
1670-00-753-3928	Pad, energy-dissipating, honeycomb, 3- by 36- by 96-in	18 sheets
1670-01-016-7841	Parachute: Cargo, G-11B	2
1670-01-063-3715	Cargo extraction, 15-ft	1
1670-01-063-3715	Drogue, 15-ft (for C-17)	1
1670-01-353-8425	Platform, airdrop, type V, 12-ft Bracket assembly, coupling	(1)
1670-01-162-2372	Clevis assembly, type V	(24)
1670-01-354-8424	Extraction bracket assembly	(1)
1670-01-162-2381	Link, tandem, suspension link assembly	(4)
5530-00-128-4981	Plywood, 3/4- by 48- by 96-in	7 sheets
1670-01-097-8816	Release, cargo parachute, M-1	1
1670-01-062-6303	Sling, cargo airdrop For suspension: 12-ft (2-loop), type XXVI nylon webbing	4
1670-01-062-6304	For deployment: 9-ft (2-loop), type XXVI nylon webbing	1
1670-01-062-6302	For riser extension: 20-ft (2-loop), type XXVI nylon webbing	2
1670-00-998-0116	Strap, parachute release, single or	1
5340-00-040-8219	Strap, parachute release, multicut	2
7510-00-266-5016	Tape, adhesive, 2-in	As required
1670-00-937-0271	Tie-down assembly, 15-ft	30
8305-00-268-2411	Webbing: Cotton, 1/4-in, type I	As required
8305-00-082-5752	Nylon, tubular, 1/2-in	As required
8305-00-261-8585	Type VIII	As required