

## CHAPTER 13

**RIGGING FAST EQUIPMENT ON A 12-FOOT, TYPE V  
PLATFORM FOR LOW-VELOCITY AIRDROP**

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**13-1. Description of Load**

The FAST equipment is rigged as a bulk supply load on a 12-foot, type V platform. The load rigged in this chapter requires three G-11A or G-11B cargo parachutes. These procedures may be used to rig other bulk supply loads consisting of rations, equipment, gasoline, ammunition, or other items of general supply. The parachute requirements must be computed for each load. All loads will be platform suspended. Each load must weigh at least 3,780 pounds but must not weigh more than 12,000 pounds not including the G-11A, G-11B, or G-11C cargo parachutes. Loads you are rigging may not be more than 140 inches long, 60 inches high (without parachutes), and 100 inches wide.

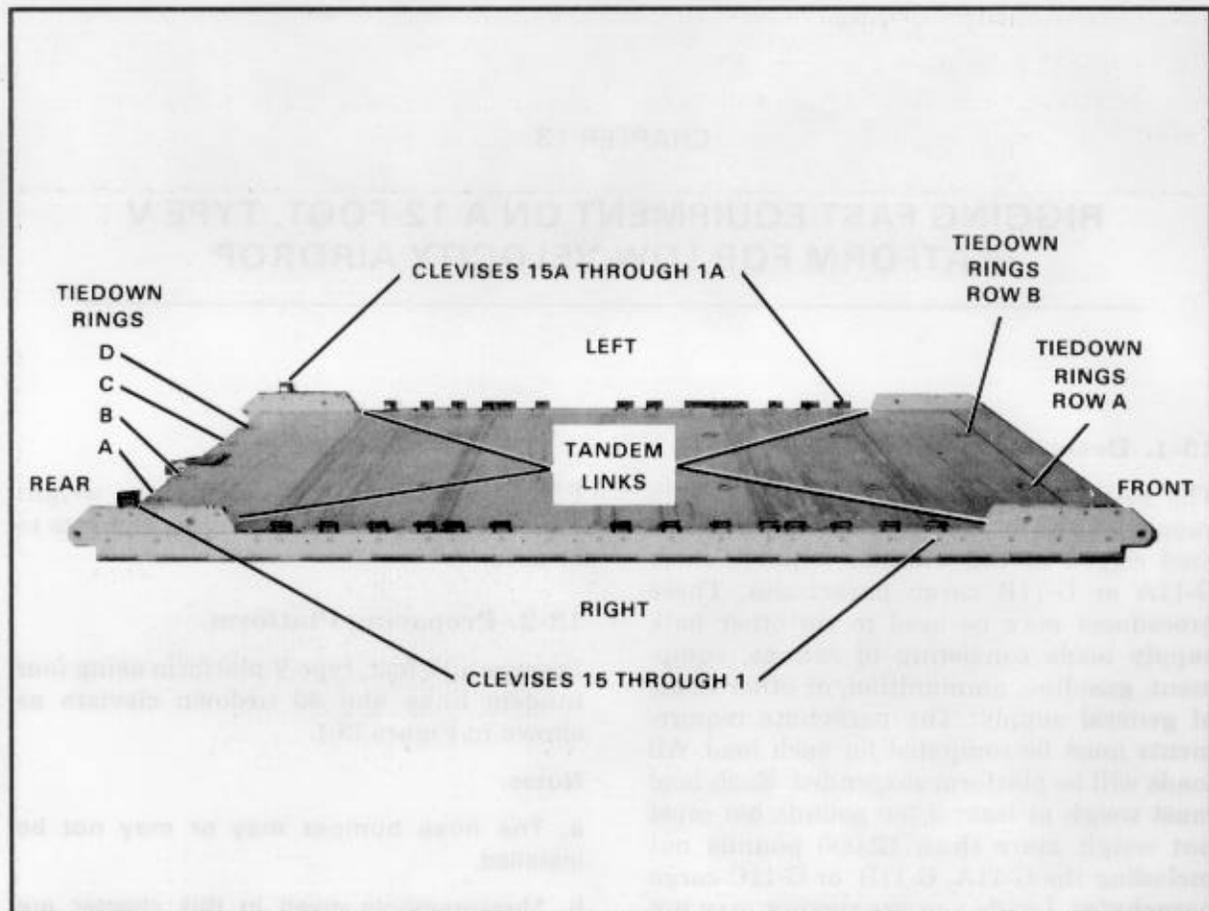
FM 10-500/TO 13C7-1-5 shows the weight limitations for the number of parachutes to be used.

**13-2. Preparing Platform**

Prepare a 12-foot, type V platform using four tandem links and 30 tiedown clevises as shown in Figure 13-1.

**Notes:**

- a. The nose bumper may or may not be installed.
- b. Measurements given in this chapter are from the front edge of the platform, NOT from the front edge of the nose bumper.



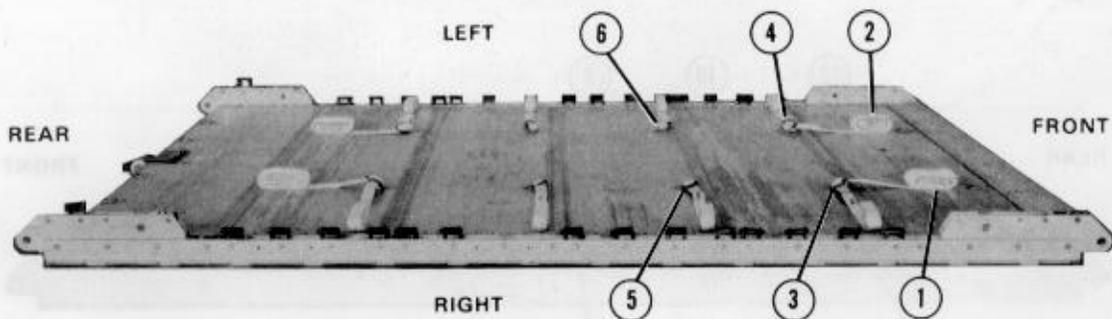
**Step:**

1. Inspect, or assemble and inspect, the platform as outlined in 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 a tandem link on the rear of each platform side rail using holes 21, 22, and 23.
4. Install a clevis to the third bushing of 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, 6, 7, 8, 9, 10, 11, 12, 15, 16, 17, 18, 19, and 20.
6. Starting at the front of the platform, number the clevises bolted to the right side from 1 through 15.
7. Starting at the front of the platform, number the clevises bolted to the left side from 1A through 15A.
8. Starting at the front of the platform, number the tiedown rings from 1 through 6.
9. Label the rows of tiedown rings on the first five panels A and B from right to left. Label the tiedown rings on the last panel A, B, C, and D from right to left.

*Figure 13-1. Platform prepared*

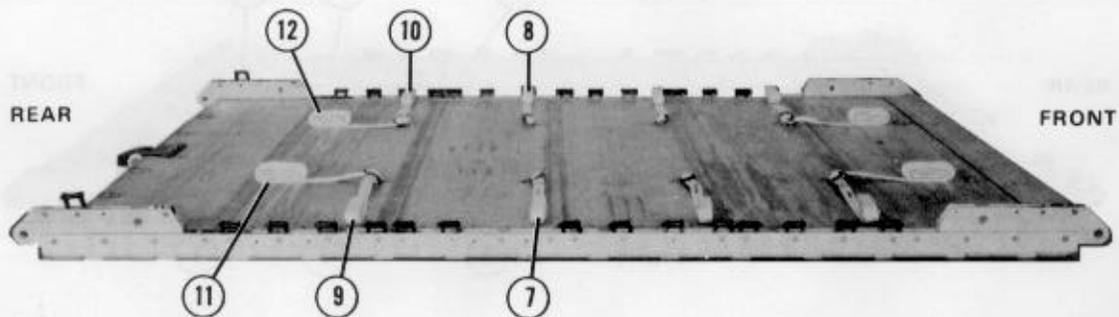
### 13-3. Positioning Lashings

Use twelve 15-foot tiedown straps, and position the straps on the platform as shown in Figure 13-2.



- ① Pass the free end of a 15-foot tiedown strap through tiedown ring A2 and through its own D-ring. Pull the free end of the strap toward the front of the platform.
- ② Pass the free end of a 15-foot tiedown strap through tiedown ring B2 and through its own D-ring. Pull the free end of the strap toward the front of the platform.
- ③ Pass the free end of a 15-foot tiedown strap through tiedown ring A2 and through its own D-ring. Pull the free end of the strap toward the right side of the platform.
- ④ Pass the free end of a 15-foot tiedown strap through tiedown ring B2 and through its own D-ring. Pull the free end of the strap toward the left side of the platform.
- ⑤ Pass the free end of a 15-foot tiedown strap through tiedown ring A3 and through its own D-ring. Pull the free end of the strap toward the right side of the platform.
- ⑥ Pass the free end of a 15-foot tiedown strap through tiedown ring B3 and through its own D-ring. Pull the free end of the strap toward the left side of the platform.

Figure 13-2. Lashings positioned



- ⑦ Pass the free end of a 15-foot tiedown strap through tiedown ring A4 and through its own D-ring. Pull the free end of the strap toward the right side of the platform.
- ⑧ Pass the free end of a 15-foot tiedown strap through tiedown ring B4 and through its own D-ring. Pull the free end of the strap toward the left side of the platform.
- ⑨ Pass the free end of a 15-foot tiedown strap through tiedown ring A5 and through its own D-ring. Pull the free end of the strap toward the right side of the platform.
- ⑩ Pass the free end of a 15-foot tiedown strap through tiedown ring B5 and through its own D-ring. Pull the free end of the strap toward the left side of the platform.
- ⑪ Pass the free end of a 15-foot tiedown strap through tiedown ring A5 and through its own D-ring. Pull the free end of the strap toward the rear of the platform.
- ⑫ Pass the free end of a 15-foot tiedown strap through tiedown ring B5 and through its own D-ring. Pull the free end of the strap toward the rear of the platform.

Figure 13-2. Lashings positioned (continued)

### 13-4. Constructing and Forming Storage Box Components

Construct the individual components of a storage box as shown in Figures 13-3 through 13-5. Assemble the individual components of the front and rear of the box and the sides of the box as shown in Figure 13-6 for later assembly on the platform.

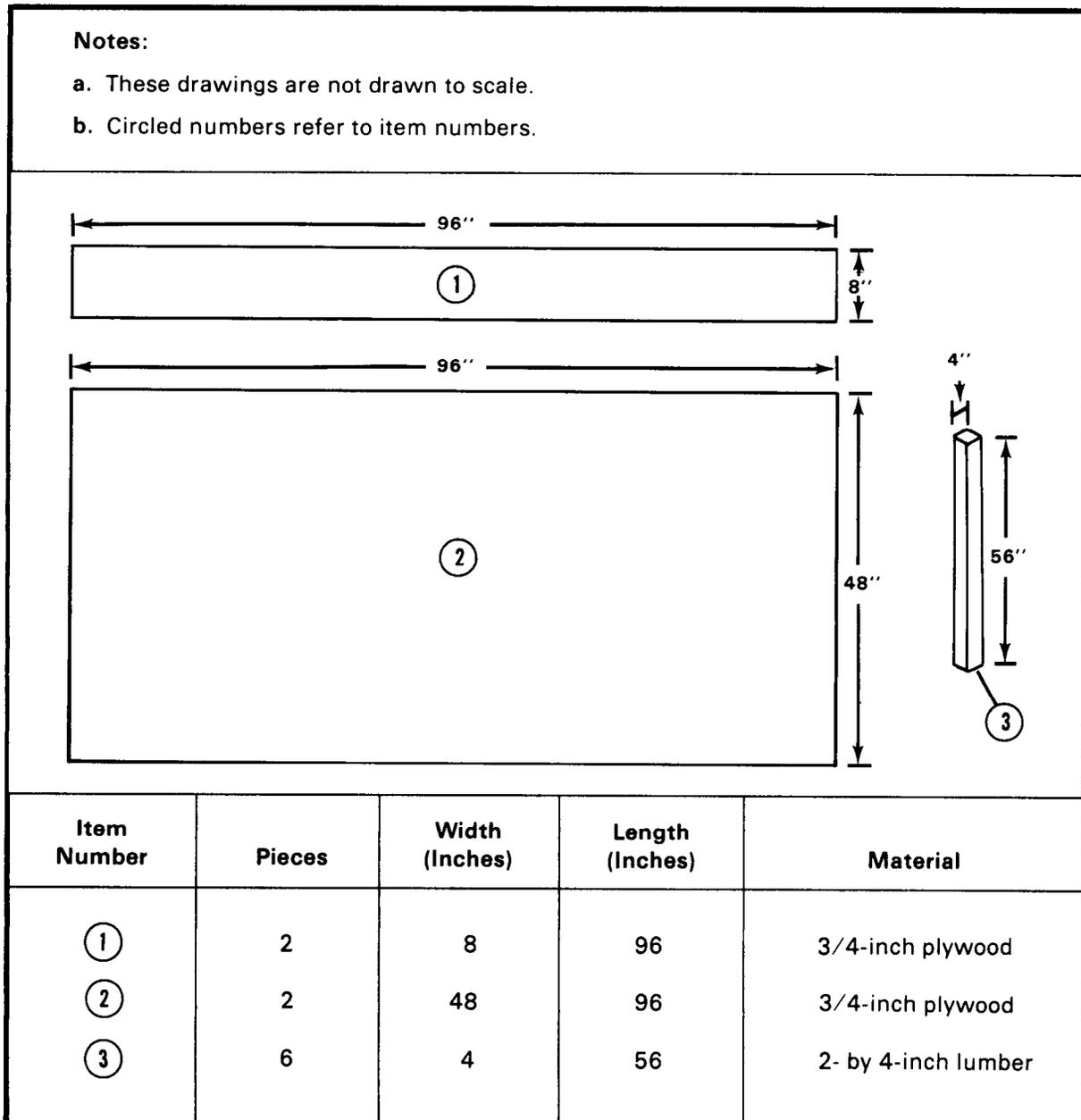
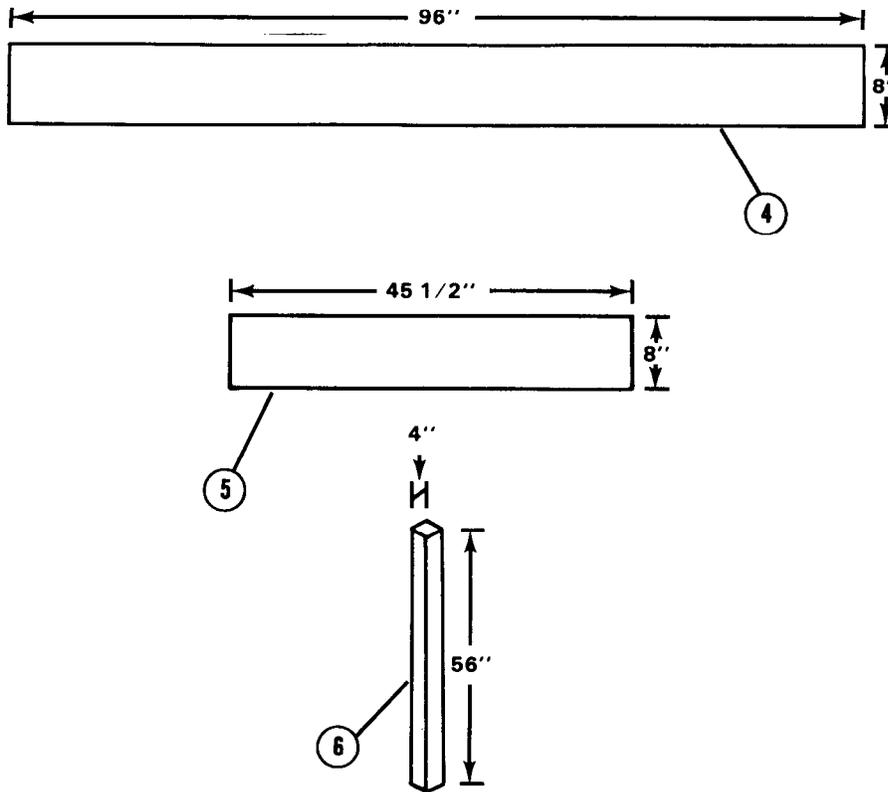


Figure 13-3. Front and rear components of storage box constructed

**Notes:**

- a. These drawings are not drawn to scale.
- b. Circled numbers refer to item numbers.

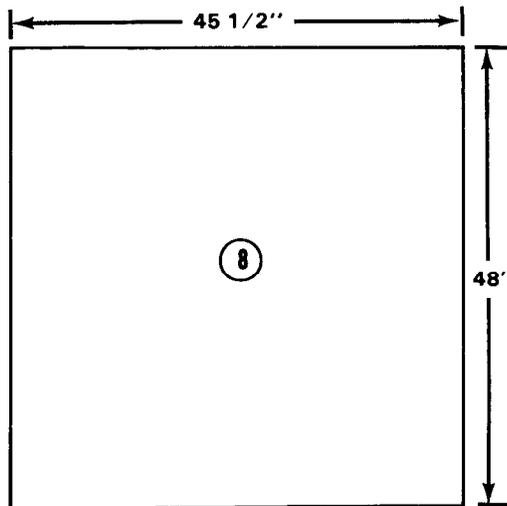
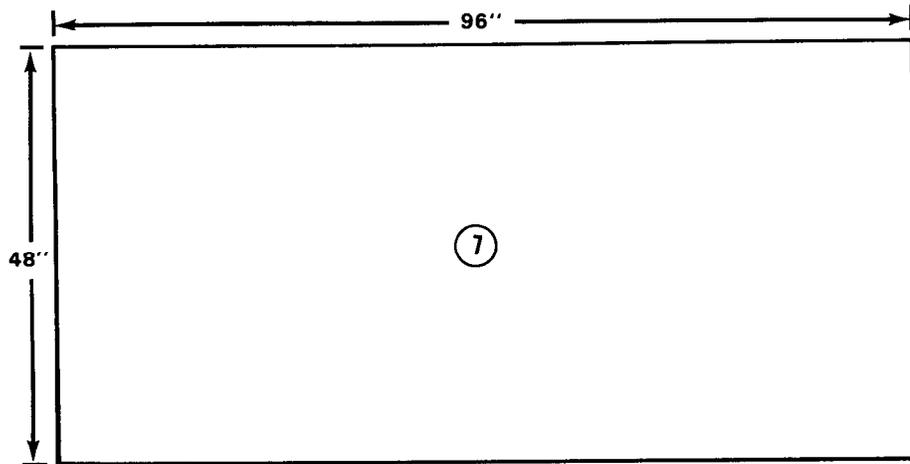


Item Number	Pieces	Width (Inches)	Length (Inches)	Material
④	2	8	96	3/4-inch plywood
⑤	2	8	45 1/2	3/4-inch plywood
⑥	8	4	56	2- by 4-inch lumber

Figure 13-4. Side components of storage box constructed

**Notes:**

- a. These drawings are not drawn to scale.
- b. Circled numbers refer to item numbers.

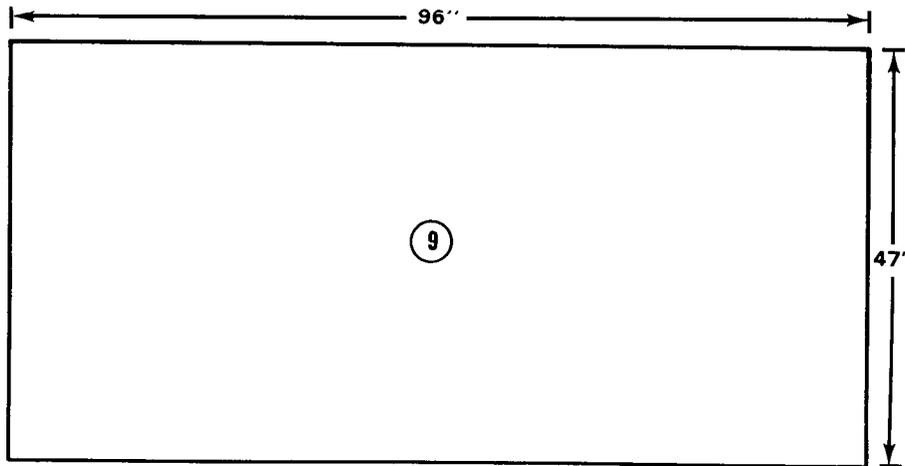


Item Number	Pieces	Width (Inches)	Length (Inches)	Material
⑦	2	48	96	3/4-inch plywood
⑧	2	48	45 1/2	3/4-inch plywood

Figure 13-4. Side components of storage box constructed (continued)

**Notes:**

- a. This drawing is not drawn to scale.
- b. Circled numbers refer to item numbers.

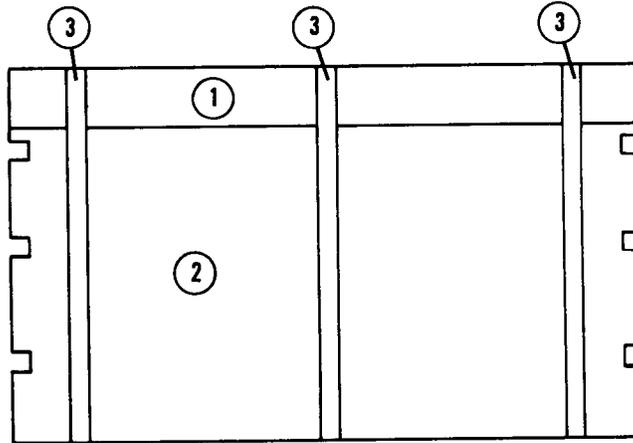


Item Number	Pieces	Width (Inches)	Length (Inches)	Material
⑨	3	47	96	3/4-inch plywood

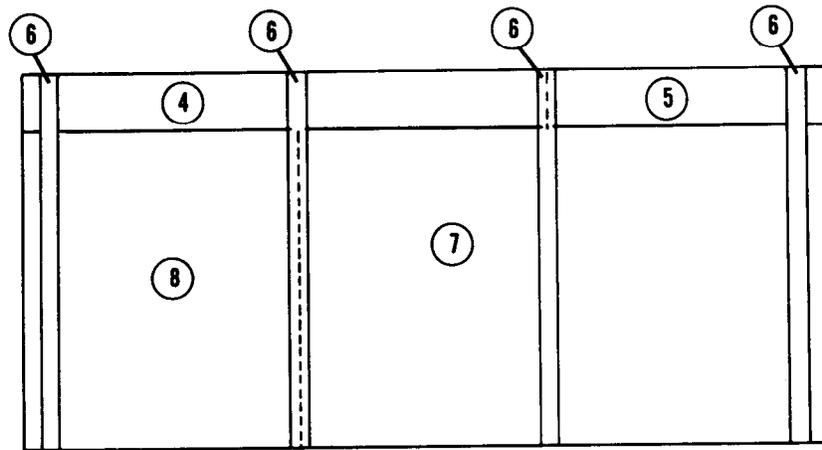
*Figure 13-5. Top components of storage box constructed*

**Notes:**

- a. These drawings are not drawn to scale.
- b. Make three evenly spaced 2-inch cutouts on each 48-inch side of the plywood used for the front and rear components before assembling the box.



FRONT AND REAR OF STORAGE BOX



SIDES OF STORAGE BOX

**Step:**

1. Nail the components of the storage box together with sixteen-penny nails to form the sides, front, and rear.
2. Bend the ends of the nails to hold the components in place securely.

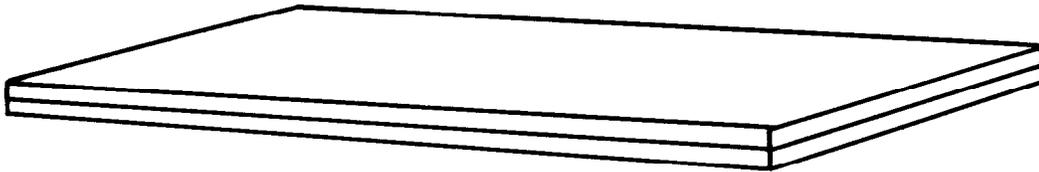
*Figure 13-6. Front, rear, and sides of storage box constructed*

**13-5. Preparing Honeycomb Stacks**

Prepare the honeycomb stacks as shown in Figure 13-7.

**Note:**

This drawing is not drawn to scale.

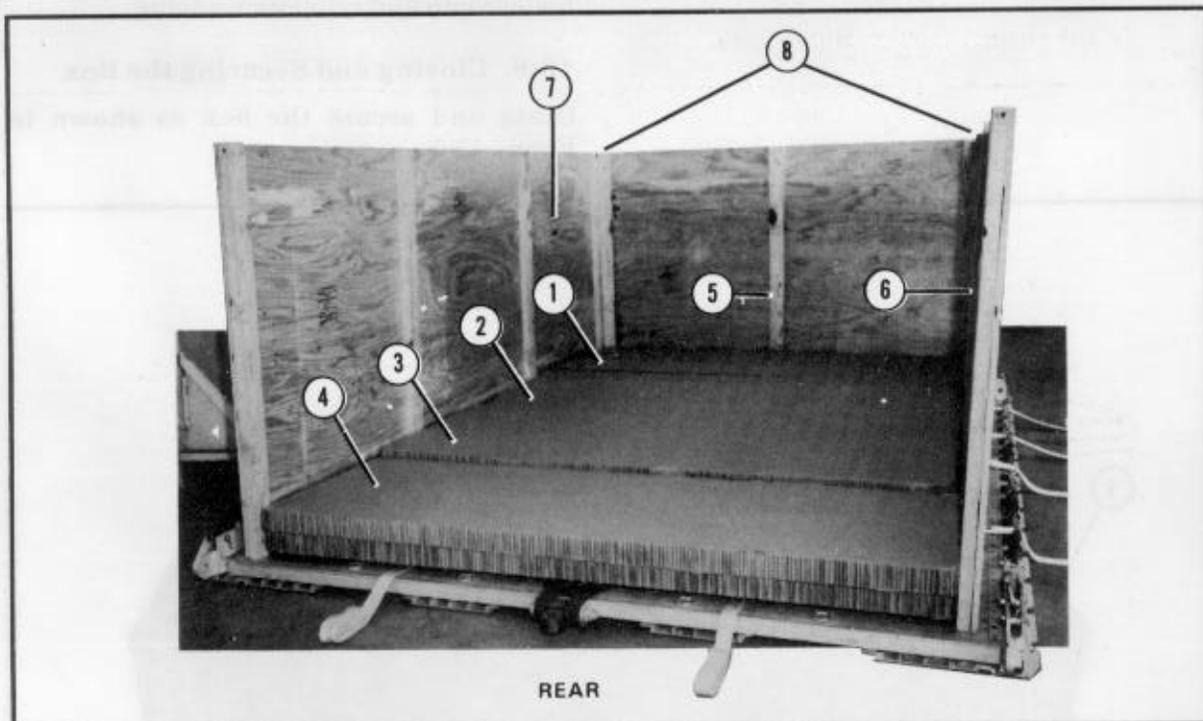


Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
1	2	96	36	Honeycomb	Place one piece on top of the other.
2	2	96	36	Honeycomb	Same as stack 1.
3	2	96	36	Honeycomb	Same as stack 1.
4	2	96	36	Honeycomb	Same as stack 1.

*Figure 13-7. Honeycomb stacks prepared*

### 13-6. Positioning Honeycomb Stacks and Assembling Sides of Storage Box

Position and assemble the front and sides of the storage box on the platform as shown in Figure 13-8.



- ① Center stack 1 on the platform with the 96-inch edge of the honeycomb 1 1/2 inches from the front edge of the platform.
- ② Center stack 2 on the platform with one 96-inch edge of the honeycomb against stack 1.
- ③ Center stack 3 on the platform with one 96-inch edge of the honeycomb against stack 2.
- ④ Center stack 4 on the platform with one 96-inch edge of the honeycomb against stack 3.
- ⑤ Center the front of the storage box on the platform against the front of stack 1.
- ⑥ Place the right side of the storage box on the platform even with the honeycomb stacks and the front of the storage box.
- ⑦ Place the left side of the storage box on the platform even with the honeycomb stacks and the front of the storage box.
- ⑧ Nail the sides of the storage box to the front of the storage box with sixteen-penny nails.

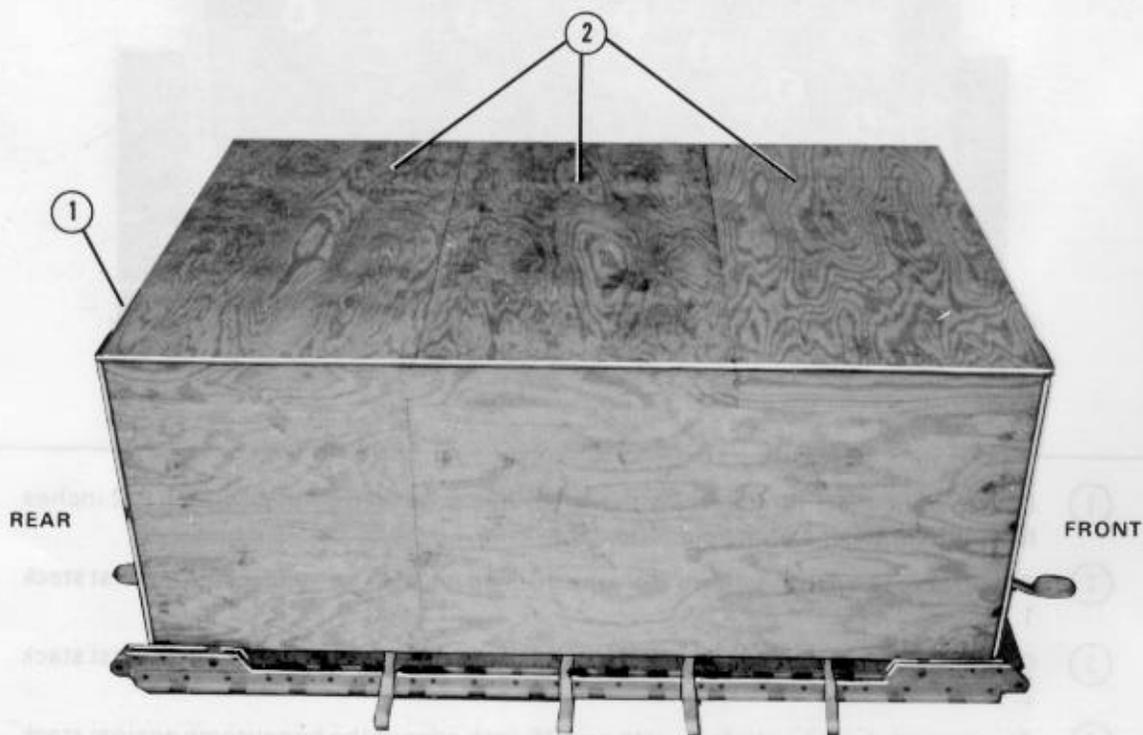
Figure 13-8. Honeycomb stacks positioned and front and sides of the storage box assembled

### 13-7. Positioning Drop Items

Position the drop items in the storage box on the honeycomb stacks. Distribute the weight of the drop items evenly on the honeycomb stacks. Pad the drop items as necessary, with honeycomb and cellulose wadding.

### 13-8. Closing and Securing the Box

Close and secure the box as shown in Figure 13-9.



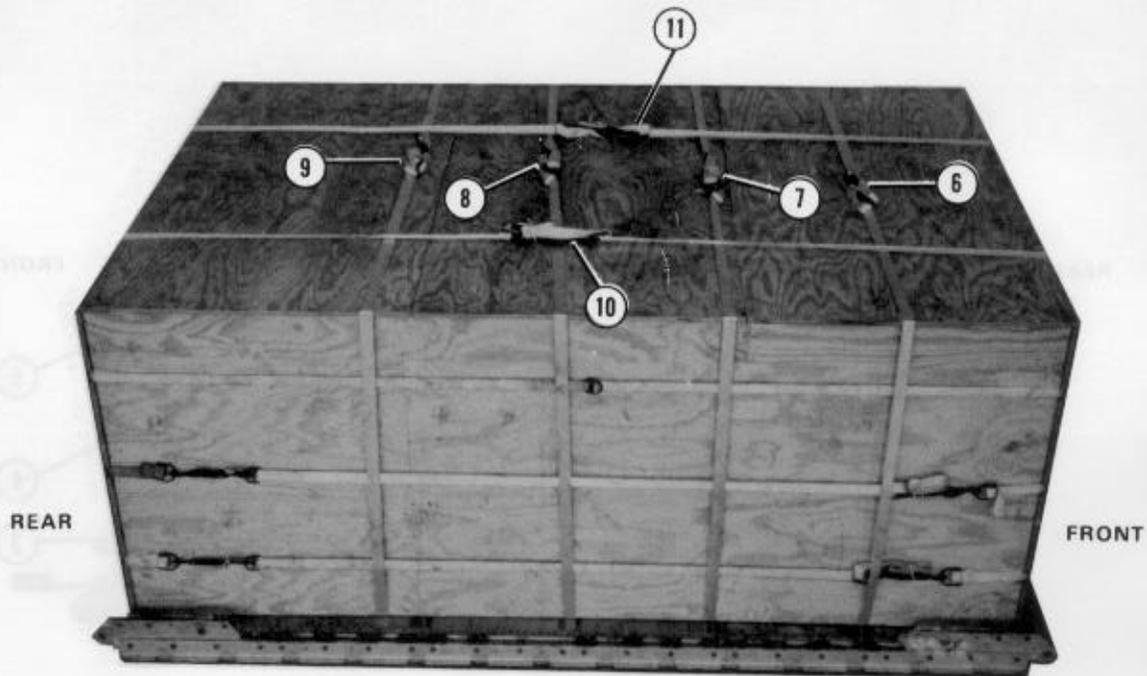
- ① Center the rear of the storage box on the platform against the rear of stack 4. Nail the sides of the box to the rear of the box with sixteen-penny nails.
- ② Place three 3/4- by 47- by 96-inch pieces of plywood side by side on top of the box. Nail each 47- by 96-inch piece of plywood to the sides of the box.

Figure 13-9. Box closed and secured



- ③ Form a 30-foot tiedown strap according to FM 10-500/TO 13C7-1-5. Fit a D-ring on each end of the strap. Pass the strap around the load and through the bottom cutouts. Fit a D-ring on the free end of a 15-foot tiedown strap. Place the 15-foot strap against the storage box between the ends of the 30-foot strap. Hook each end of the 15-foot tiedown strap to the 30-foot tiedown strap with a load binder.
- ④ Install a 30-foot tiedown strap and a 15-foot tiedown strap around the load and through the center cutouts as in step 3.
- ⑤ Install a 30-foot tiedown strap and a 15-foot tiedown strap around the load and through the top cutouts as in step 3.

Figure 13-9. Box closed and secured (continued)

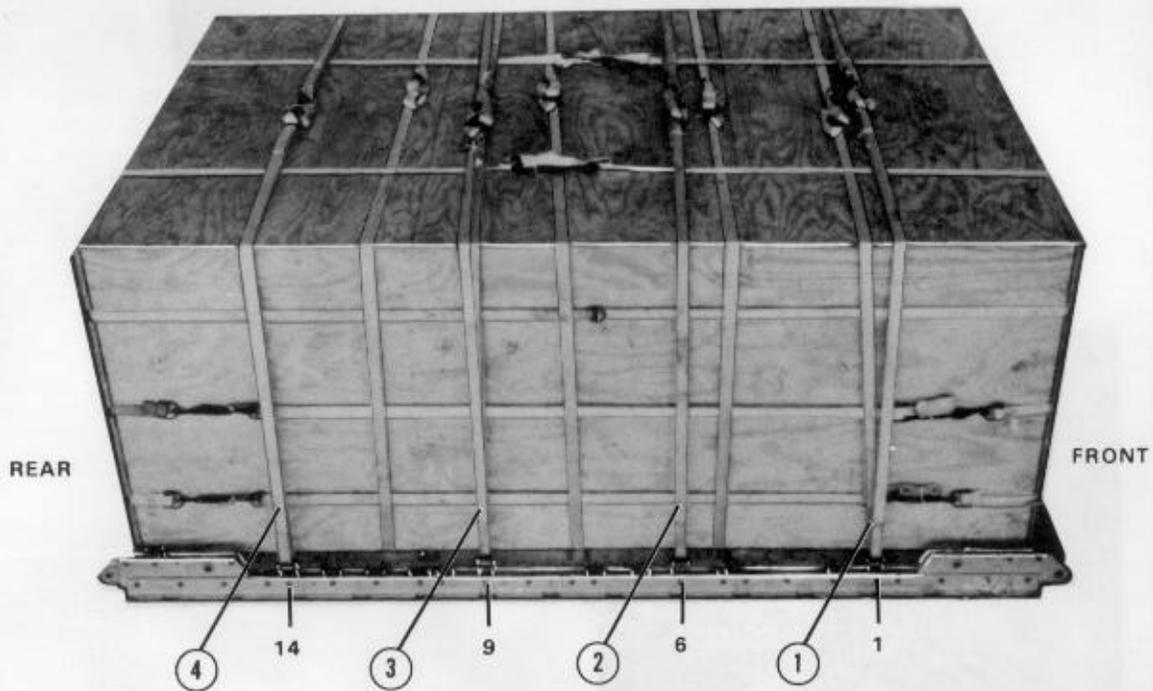


- ⑥ Pass the ends of the straps attached to tiedown rings A2 and B2 to the top of the load. Hook the ends of the straps together with two D-rings and a load binder.
- ⑦ Pass the ends of the straps attached to tiedown rings A3 and B3 to the top of the load. Hook the ends of the straps together with two D-rings and a load binder.
- ⑧ Pass the ends of the straps attached to tiedown rings A4 and B4 to the top of the load. Hook the ends of the straps together with two D-rings and a load binder.
- ⑨ Pass the ends of the straps attached to tiedown rings A5 and B5 to the top of the load. Hook the ends of the straps together with two D-rings and a load binder.
- ⑩ Pass the ends of the straps attached to tiedown rings A2 and A5 to the top of the load. Hook the ends of the straps together with two D-rings and a load binder.
- ⑪ Pass the ends of the straps attached to tiedown rings B2 and B5 to the top of the load. Hook the ends of the straps together with two D-rings and a load binder.

*Figure 13-9. Box closed and secured (continued)*

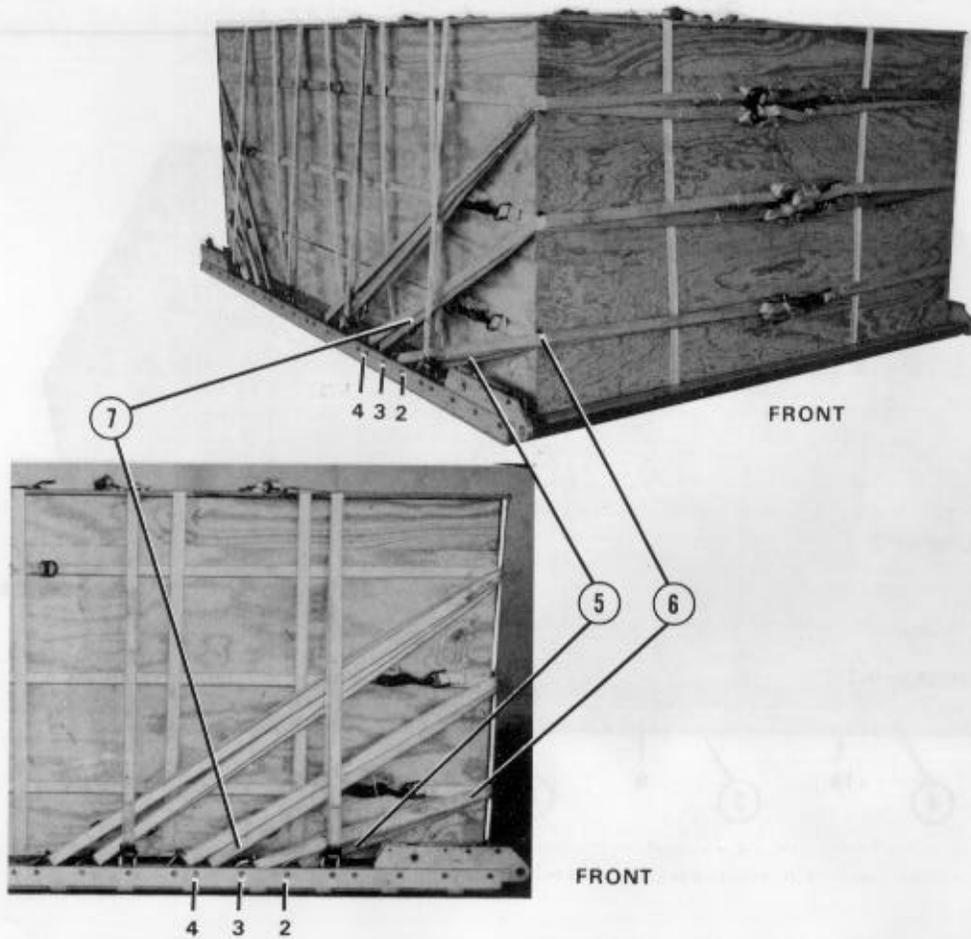
### 13-9. Installing Lashings

Install the lashings as shown in Figure 13-10.



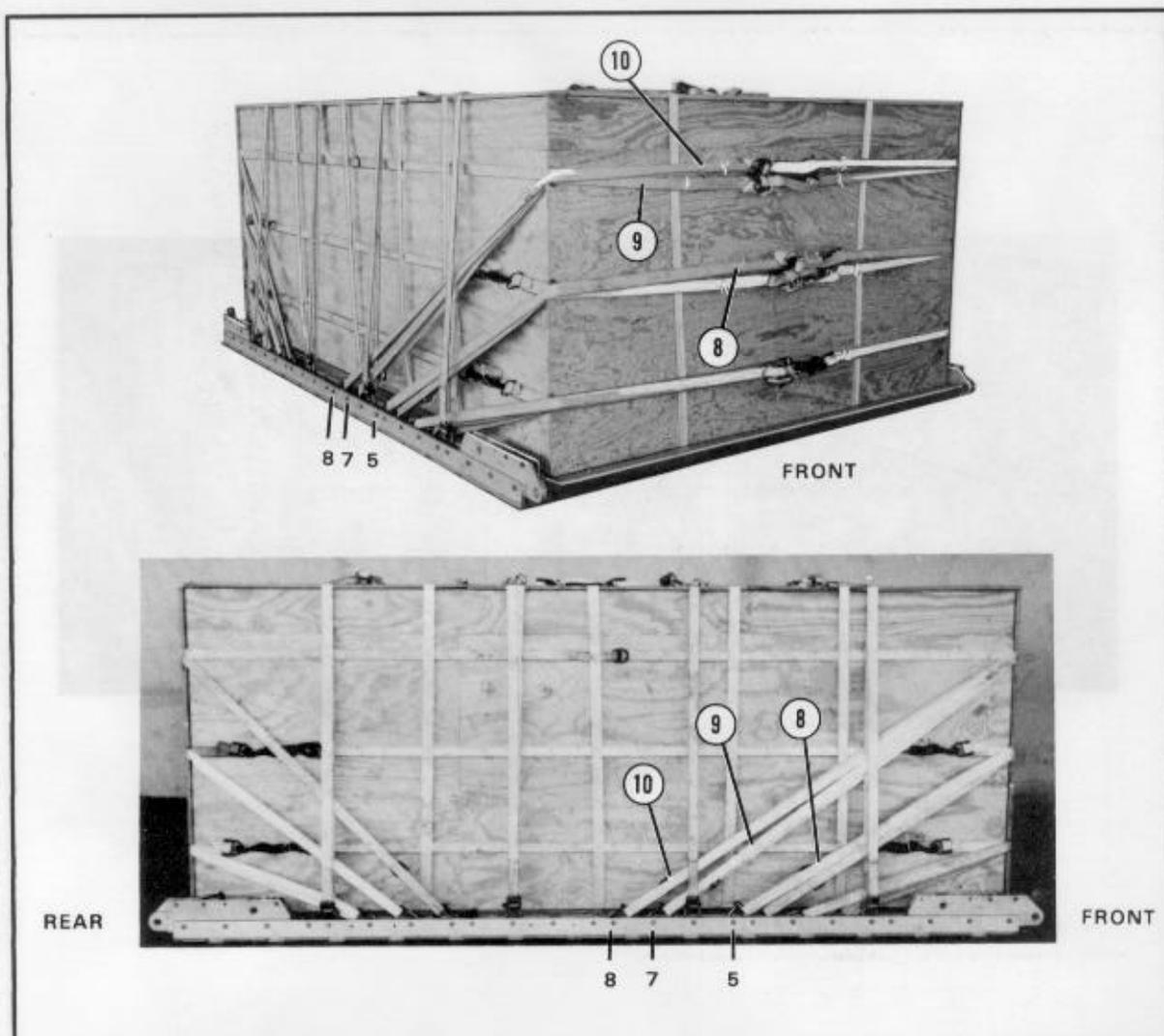
- ① Pass the free end of a 15-foot tiedown strap through clevis 1. Even the ends of the strap and place them on top of the load. Pass the free end of a 15-foot tiedown strap through clevis 1A. Even the ends of the strap and place them on top of the load. Secure the ends of the 15-foot tiedown straps with two D-rings and two load binders.
- ② Pass a 15-foot tiedown strap through clevises 6 and 6A and secure the straps as in step 1.
- ③ Pass a 15-foot tiedown strap through clevises 9 and 9A and secure the straps as in step 1.
- ④ Pass a 15-foot tiedown strap through clevises 14 and 14A and secure the straps as in step 1.

Figure 13-10. Lashings installed



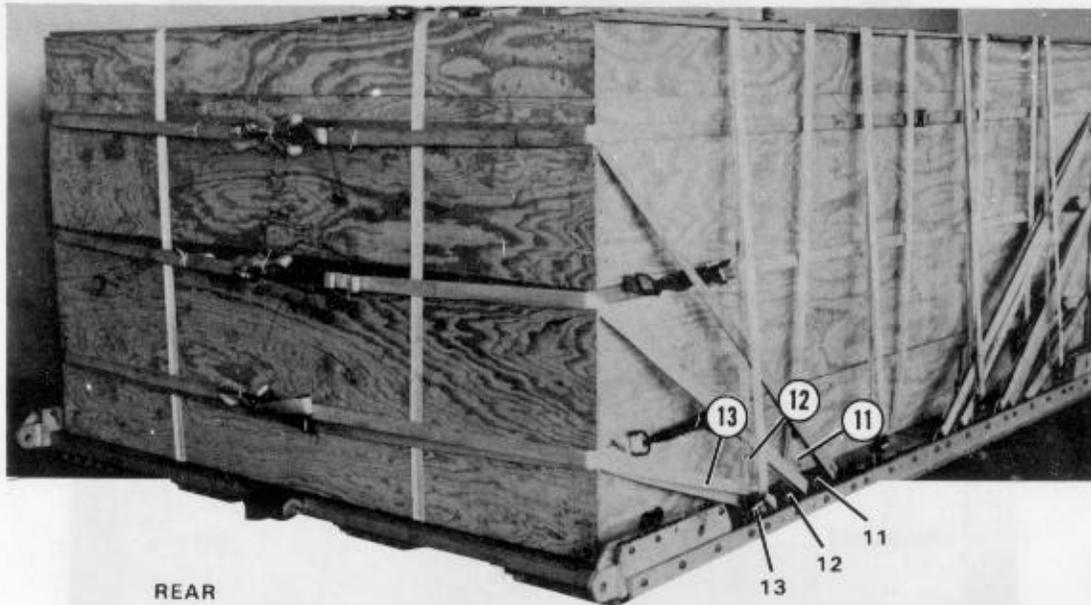
- 5 Form a 30-foot tiedown strap. Pass the free ends of the strap through the lower cutouts in the front of the storage box, through clevises 2 and 2A, and back through the lower cutouts to the front of the storage box. Secure the free ends of the strap with two D-rings and a load binder.
- 6 Form a 30-foot tiedown strap. Pass the free ends of the strap through the lower cutouts in the front of the storage box, through clevises 3 and 3A, and back through the lower cutouts to the front of the storage box. Secure the free ends of the strap with two D-rings and a load binder.
- 7 Form a 30-foot tiedown strap. Pass the free ends of the strap through the center cutouts in the front of the storage box, through clevises 4 and 4A, and back through the center cutouts to the front of the storage box. Secure the free ends of the strap with two D-rings and a load binder.

Figure 13-10. Lashings installed (continued)



- ⑧ Form a 30-foot tiedown strap. Pass the free ends of the strap through the center cutouts in the front of the storage box, through clevises 5 and 5A, and back through the center cutouts to the front of the storage box. Secure the free ends of the strap with two D-rings and a load binder.
- ⑨ Form a 30-foot tiedown strap. Pass the free ends of the strap through the top cutouts in the front of the storage box, through clevises 7 and 7A, and back through the top cutouts to the front of the storage box. Secure the free ends of the strap with two D-rings and a load binder.
- ⑩ Form a 30-foot tiedown strap. Pass the free ends of the strap through the top cutouts in the front of the storage box, through clevises 8 and 8A, and back through the top cutouts to the front of the storage box. Secure the free ends of the strap with two D-rings and a load binder.

Figure 13-10. Lashings installed (continued)

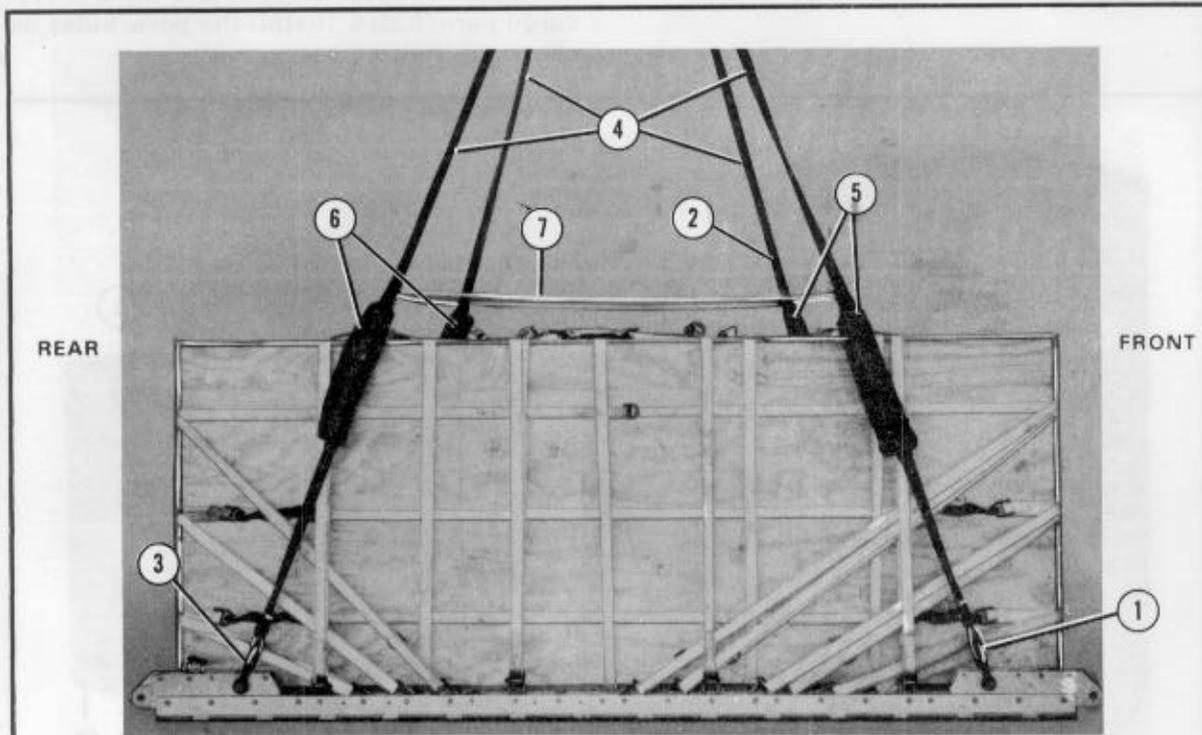


- ① Form a 30-foot tiedown strap. Pass the free ends of the strap through the top cutouts in the rear of the storage box, through clevises 11 and 11A, and back through the top cutouts to the rear of the storage box. Secure the free ends of the strap with two D-rings and a load binder.
- ② Form a 30-foot tiedown strap. Pass the free ends of the strap through the center cutouts in the rear of the storage box, through clevises 12 and 12A, and back through the center cutouts to the rear of the storage box. Secure the free ends of the strap with two D-rings and a load binder.
- ③ Form a 30-foot tiedown strap. Pass the free ends of the strap through the lower cutouts in the rear of the storage box, through clevises 13 and 13A, and back through the lower cutouts to the rear of the storage box. Secure the free ends of the strap with two D-rings and a load binder.

Figure 13-10. Lashings installed (continued)

### 13-10. Installing Suspension Slings and Deadman's Tie

Install the suspension slings and deadman's tie as shown in Figure 13-11.



- ① Attach one 16-foot (2-loop), type XXVI nylon sling to the bell portion of a large clevis. Bolt the clevis to the right front tandem link.
- ② Repeat step 1 for the left front tandem link.
- ③ Repeat steps 1 and 2 for the rear tandem links.
- ④ Pull the suspension slings tight above the load.
- ⑤ Wrap a 9- by 24-inch piece of felt around each front suspension sling 44 inches from the large clevis. Tape the felt in place.
- ⑥ Repeat step 5 for the rear suspension slings.
- ⑦ Install a deadman's tie according to FM 10-500/TO 13C7-1-5.

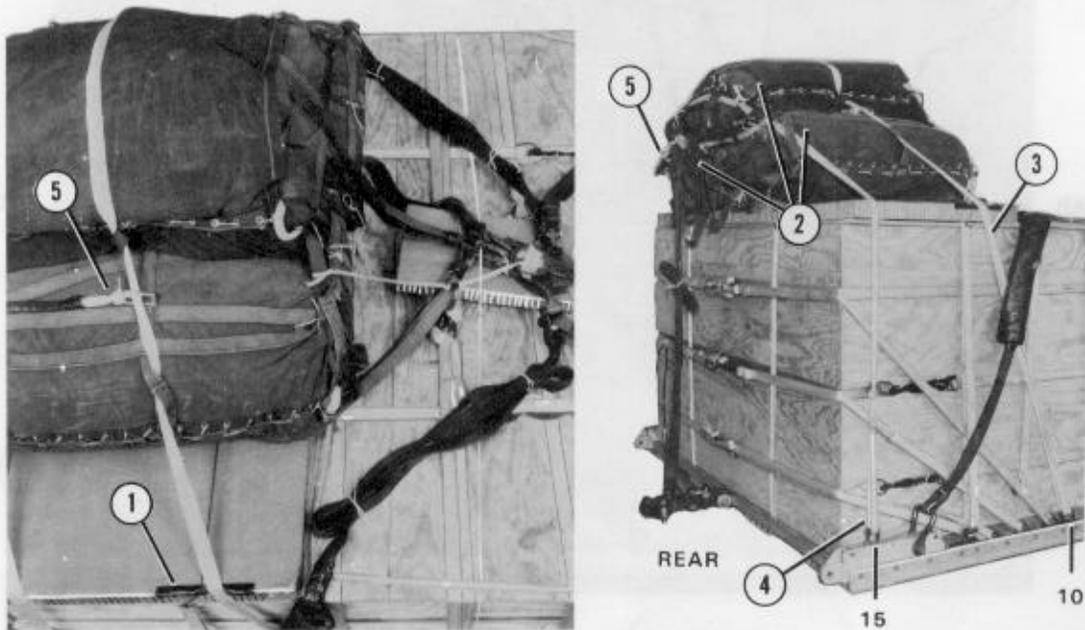
**Note:**

After installing the deadman's tie, lower the slings.

Figure 13-11. Suspension slings and deadman's tie installed

### 13-11. Installing Parachutes

Compute parachute requirements for the load being rigged. Select the correct number of G-11A, G-11B, or G-11C cargo parachutes. The load in Figure 13-12 shows three G-11B cargo parachutes. Install the parachutes as shown in Figure 13-12.

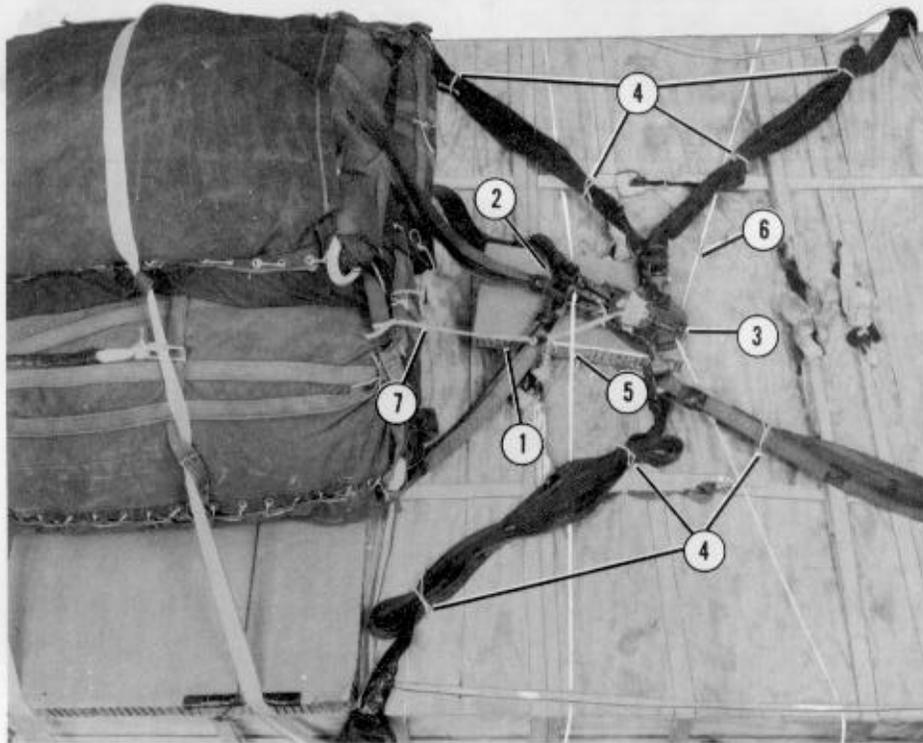


- ① Place a 36- by 96-inch piece of honeycomb at the top rear of the load. Secure the honeycomb in place with type III nylon cord. Tape the edges of the honeycomb where the cord crosses.
- ② Prepare three G-11B cargo parachutes and position them on the rear of the load as shown. Each parachute requires a 40-foot riser extension. The riser extensions must meet the requirements and restrictions in FM 10-500/TO 13C7-1-5.
- ③ Install a type VIII nylon webbing parachute restraint strap over the top of the cargo parachutes according to the procedures in FM 10-500/TO 13C7-1-5. Secure the ends of the strap to tiedown clevises 10 and 10A.
- ④ Install a type VIII nylon webbing parachute restraint strap on the rear of the parachutes according to the procedures in FM 10-500/TO 13C7-1-5. Secure the ends of the strap to tiedown clevises 15 and 15A.
- ⑤ Install two multicut parachute release straps according to FM 10-500/TO 13C7-1-5.

Figure 13-12. Parachutes installed

### 13-12. Installing Release System

Prepare and install the release system as shown in Figure 13-13.

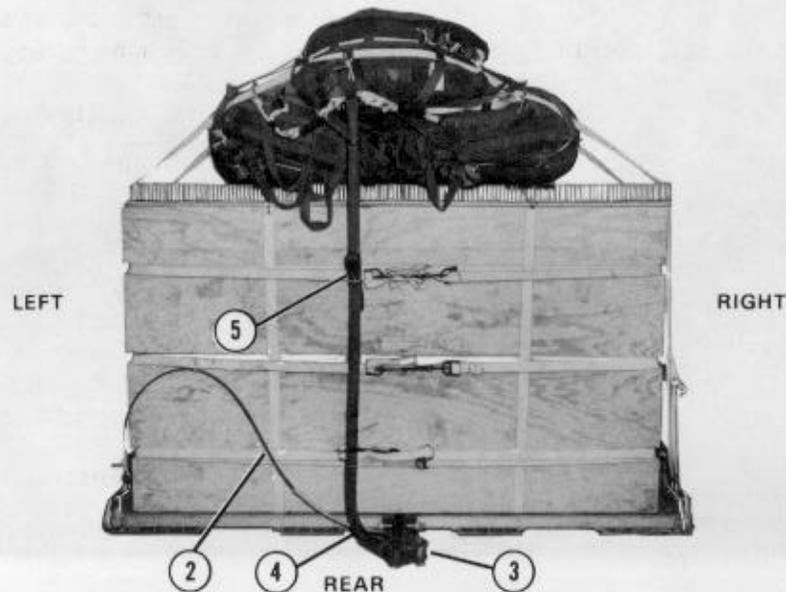
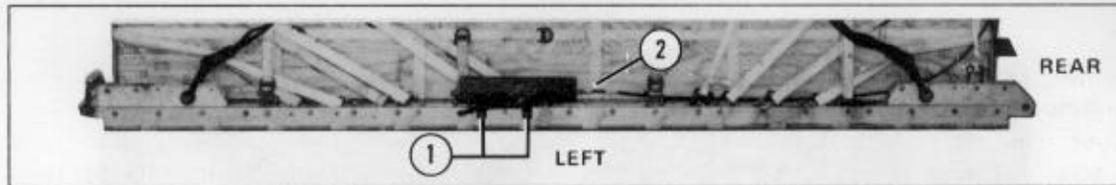


- ① Center a 12- by 24-inch piece of honeycomb on top of the load 12 inches in front of the parachutes.
- ② Tie the honeycomb in place with a length of type III nylon cord.
- ③ Prepare an M-1 cargo parachute release assembly according to FM 10-500/TO 13C7-1-5. Center the release assembly on the honeycomb positioned in step 1. Attach the release assembly to the suspension slings and the cargo parachutes according to FM 10-500/TO 13C7-1-5.
- ④ Fold the suspension slings, and secure the folds with lengths of 80-pound cotton webbing.
- ⑤ Secure the top of the release assembly according to FM 10-500/TO 13C7-1-5.
- ⑥ Secure the bottom of the release assembly according to FM 10-500/TO 13C7-1-5.
- ⑦ Install the arming lanyard according to FM 10-500/TO 13C7-1-5.

*Figure 13-13. Release system installed*

### 13-13. Installing Extraction System

Install the EFTC extraction system as shown in Figure 13-14.



- ① Attach the type V EFTA mounting brackets to the rear mounting holes in the left platform side rail.
- ② Install the actuator (with a 12-foot release cable) to the EFTA mounting brackets according to FM 10-500/TO 13C7-1-5.
- ③ Use a 5 1/2-inch latch assembly adapter, and attach latch assembly to the extraction bracket according to FM 10-500/TO 13C7-1-5 with the locking nut hole facing toward the left side of the platform.
- ④ Connect one end of a 9-foot (2-loop), type XXVI or a 9-foot (3-loop), type X nylon webbing sling (deployment line) to the left spacer of the link assembly. Connect the free end of the deployment line to the center large suspension clevis on the parachutes.
- ⑤ Fold the excess deployment line, and secure the folds in place with tape or 80-pound cotton webbing.

Figure 13-14. Extraction system installed

### 13-14. Installing Provisions for Emergency Restraints

Attach a medium (3/4-inch) suspension clevis to the front hole on the front tandem links.

**Note:**

The emergency restraints will be installed to the emergency restraint points in the aircraft. The clevises used as emergency restraint points may also be placed on the load and installed later in the aircraft.

### 13-15. Positioning Extraction Parachute

Position the extraction parachute as described below.

*a. C-130 Aircraft.* Place one 22-foot, heavy-duty cargo extraction parachute; a 60-foot (3-loop), type X or type XXVI nylon webbing extraction line; and a four-point link assembly on the load for installation in the aircraft.

**Note:**

When the rigged load weighs more than 8,001 pounds, a 60-foot (3-loop), type X or type XXVI nylon extraction line; a 22-foot cargo extraction parachute; and a 3 3/4-inch, two-point link assembly are required.

*b. C-141 Aircraft.* Place one 22-foot, heavy-duty cargo extraction parachute and a continuous 140-foot (3-loop), type XXVI nylon webbing extraction line on the load for installation in the aircraft.

**Note:**

When the rigged load weighs more than 8,001 pounds, a continuous 140-foot (3-loop), type XXVI nylon extraction line; a 22-foot cargo extraction parachute; and a 3 3/4-inch, two-point link assembly are required.

### 13-16. Marking Rigged Load

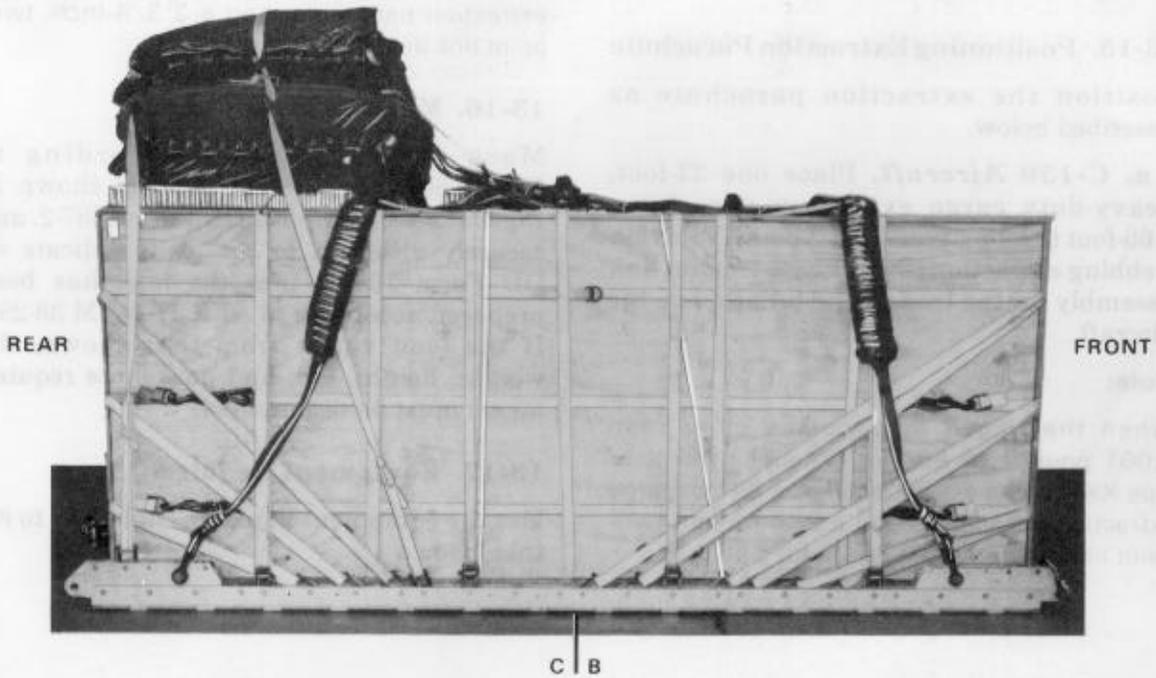
Mark the rigged load according to FM 10-500/TO 13C7-1-5 and as shown in Figure 13-15. Complete DD Form 1387-2, and securely attach it to the load. Indicate on DD Form 1387-2 that the load has been prepared according to AFR 71-4/TM 38-250. If the load varies from that shown, the weight, height, CB, and parachute requirements must be recomputed.

### 13-17. Equipment Required

Use the equipment listed in Table 13-1 to rig this load.

**CAUTION**

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



**RIGGED LOAD DATA**

Weight:	Load shown .....	12,000 pounds
	Maximum allowable .....	12,000 pounds
Height.....		92 inches
Width .....		108 inches
Length .....		168 inches
Overhang: Front.....		4 1/2 inches
	Rear .....	19 1/2 inches
CB (from front edge of platform) .....		84 inches
Extraction system (shown) .....		EFTC

*Figure 13-15. FAST equipment rigged on a type V platform for low-velocity airdrop*

Table 13-1. Equipment required for rigging FAST equipment on a type V platform for low-velocity airdrop

National Stock Number	Item	Quantity
1670-01-062-6312	Adapter, web, 36-in	1
8040-00-273-8713	Adhesive, paste, 1-gal	As required
4030-00-678-8562	Clevis, suspension, 3/4-in (medium)	1
4020-00-240-2146	Cord, nylon, type III, 550-lb	As required
1670-00-434-5783	Coupling, airdrop, extraction force transfer, w 12-ft cable	1
5365-00-937-0147	D-ring, heavy-duty, 10,000-lb	As required
	Line, extraction:	
1670-01-064-4452	60-ft (1-loop), type XXVI nylon webbing (for C-130) <u>or</u>	1
1670-00-856-0266	60-ft (3-loop), type X nylon webbing <u>or</u>	1
1670-01-062-6313	60-ft (3-loop), type XXVI nylon webbing	1
1670-01-107-7651	140-ft (3-loop), type XXVI nylon webbing (for C-141) <u>or</u>	1
1670-01-107-7652	160-ft (1-loop), type XXVI nylon webbing	1
	Link assembly:	
1670-00-003-1953	Two-point, plate side, 3 3/4-inch (for extraction line)	3
1670-00-783-5988	Type IV (for extraction line)	1
5510-00-220-6146	Lumber, 2- by 4- by 60-in	14
1670-00-753-3928	Pad, energy-dissipating, honeycomb, 3- by 36- by 96-in:	8 sheets
	12- by 24-in	(1)
	36- by 96-in	(6)
1670-01-183-2678	Leaf, extraction line (line bag)	2
	Parachute, cargo:	
1670-00-269-1107	G-11A <u>or</u>	3
1670-01-016-7841	G-11B <u>or</u>	3
1670-01-016-7841	G-11C	3
	Parachute, cargo extraction:	
1670-00-052-1548	15-ft <u>or</u>	1
1670-01-063-3715	15-ft (new)	1
1670-00-687-5458	22-ft <u>or</u>	1
1670-01-063-3716	22-ft (new)	1
	Platform, AD, type V, 12-ft:	
	Bracket:	
1670-01-162-2375	Inside EFTA	1
1670-01-162-2374	Outside EFTA	1
1670-01-162-2385	Bumper, nose	1
1670-01-162-2372	Clevis, load tiedown	30
1670-01-162-2381	Tandem link	4
5530-00-128-4981	Plywood, 3/4-in	8 sheets
1670-01-097-8816	Release, cargo parachute, M-1	1

Table 13-1. Equipment required for rigging FAST equipment on a type V platform for low-velocity airdrop (continued)

National Stock Number	Item	Quantity
	Sling, cargo airdrop:	
1670-01-062-6304	9-ft (2-loop), type XXVI nylon webbing <u>or</u>	1
1670-00-753-3631	9-ft (3-loop), type X nylon webbing	
	(deployment line)	1
1670-00-753-3793	16-ft (2-loop), type X nylon webbing <u>or</u>	4
1670-01-063-7761	16-ft (2-loop), type XXVI nylon webbing	4
1670-00-753-3794	20-ft (2-loop), type X nylon webbing	6
	(riser extensions) <u>or</u>	
1670-01-062-6302	20-ft (2-loop), type XXVI nylon webbing	6
7510-00-266-5016	Tape, adhesive, 2-in	As required
1670-00-937-0271	Tiedown assembly, 15-ft	69
	Webbing:	
8305-00-268-2411	Cotton, 80-lb	As required
8305-00-082-5752	Nylon, tubular, 1/2-in, 1,000-lb, natural	As required
8305-00-263-3591	Nylon, type VIII, 3,600-lb	As required